



Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619  
813-744-6100

Virginia B. Wetherell  
Secretary

## NOTICE OF PERMIT AMENDMENT ISSUANCE

### CERTIFIED MAIL

Mr. W. J. Pardue, Manager  
Environmental Programs  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733 /

DER File No.: A052-216420  
County: Pinellas

Enclosed is Amended Permit Number A053-216420 to operate Higgins Peaking Unit No. 1, issued pursuant to Section 403.087, Florida Statutes and Florida Administrative Code Rules 17-200 through 297 & 17-4.

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 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 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 proposed action;

(f) A statement of which rules or statutes petitioner contends required 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 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.

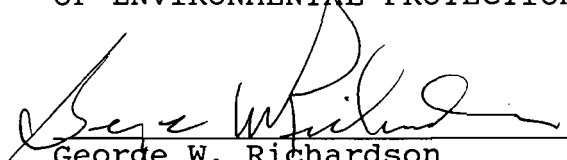
When the Order (Permit Amendment) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the 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. W. J. Pardue  
St. Petersburg, FL 33733

Page Three

Executed in Tampa, Florida

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



George W. Richardson  
Air Permitting Engineer  
Southwest District

3804 Coconut Palm Drive  
Tampa, FL 33619-8318  
(813)744-6100, Ext. 420

cc: Pinellas County Department of Environmental Management  
Albert W. Morneault, P.E., Florida Power Corporation

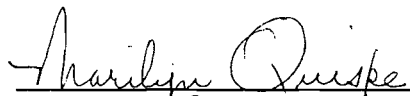
Attachment:

CERTIFICATE OF SERVICE

The undersigned duly designated Deputy Department Clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT ISSUANCE and all copies were mailed before the close of business on OCT 27 1993 to the listed persons.

FILING AND ACKNOWLEDGEMENT

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

  
Clerk

OCT 27 1993  
Date

P 648 752 008



**Certified Mail Receipt**

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

MR ALBERT W MORNEAULT  
FLORIDA POWER CORP  
PO BOX 14042  
ST PETERSBURG FL 33733

PS Form 3800, June 1990

|   |             |
|---|-------------|
| Postage   | \$          |
| Certified Fee   |             |
| Special Delivery Fee  |             |
| Restricted Delivery Fee                                     |             |
| Return Receipt Showing to Whom & Date Delivered             |             |
| Return Receipt Showing to Whom, Date, & Address of Delivery |             |
| TOTAL Postage & Fees  | \$          |
| Postmark or Date  | OCT 27 1993 |
| A052-216420, 421,<br>422, 423                               |             |

P 648 752 007



**Certified Mail Receipt**

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

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

PS Form 3800, June 1990

|   |             |
|---|-------------|
| Postage   | \$          |
| Certified Fee   |             |
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| Restricted Delivery Fee                                     |             |
| Return Receipt Showing to Whom & Date Delivered             |             |
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| TOTAL Postage & Fees  | \$          |
| Postmark or Date  | OCT 27 1993 |
| A053-216420, 421,<br>422, 423                               |             |



Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619  
813-744-6100

Virginia B. Wetherell  
Secretary

PERMITTEE:

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

PERMIT/CERTIFICATION

Permit No: A052-216420  
County: Pinellas  
Expiration Date: 11-10-97  
Project: Higgins Peaking  
Unit No. 1

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 Higgins Peaking Unit No. 1. This unit is fired with natural gas or new No. 2 fuel oil. The maximum sulfur content of the new No. 2 fuel oil shall not exceed 0.5% by weight. This unit is a gas turbine unit consisting of two Pratt & Whitney jet engines. This unit is rated at 37.0 MW/hour having a maximum heat input rate of 566 MMBTU/hour. The maximum fuel usage rate is 0.57 MMCF/hour of natural gas or 96.0 BBL/hour of new No. 2 fuel oil. 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: Booth Road, Oldsmar, Pinellas County

UTM: 17-336.5 E 3098.3 N NEDS NO: 0012 Point ID: 04

Replaces Permit No.: A052-137555

PERMITTEE:  
Florida Power Corporation

Permit No.: AO52-216420  
Project: Higgins Peaking  
Unit No. 1

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Visible emissions from Higgins Peaking Unit No. 1 shall not be equal to or greater than 20% opacity (Rule 17-296.310(2)(a), F.A.C.).
3. Test Higgins Peaking Unit No. 1 for visible emissions annually within 60 days prior to January 7. 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 under the conditions as outlined by Florida Power Corporation in the letter submitted to the Department dated March 29, 1993. The submitted graph for Peaking Unit No. 1 is made a part of this permit. A copy of the submitted 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.).

PERMITTEE:  
Florida Power Corporation

Permit No.: AO52-216420  
Project: Higgins Peaking  
Unit No. 1

7. Higgins Peaking Unit No. 1 is permitted to operate at the following parameters:

A. Process Parameters:

1. Maximum Load Rate 37.0 MW/hour
2. Maximum Heat Input Rate: 566.0 MMBTU/hour
3. Maximum Fuel Usage: 0.57 MMCF/hour natural gas,  
96.0 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, dated 9/8/77, 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     | 34.53              | 151.22           |
| Carbon Monoxide | 62.26              | 272.70           |
| Sulfur Dioxide  | 2.82               | 12.36            |
| Nitrogen Oxides | 395.07             | 1,730.40         |
| VOC             | 23.94              | 104.86           |

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.).

PERMITTEE:  
Florida Power Corporation

Permit No.: AO52-216420  
Project: Higgins Peaking  
Unit No. 1

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 emission factors:

|                 | <u>No. 2 Fuel Oil</u><br><u>Pounds/MMBTU.</u> | <u>Natural Gas</u><br><u>Pounds/MMBTU</u> |
|-----------------|---|---|
| Particulate     | 0.061   | 0.0419                                    |
| Carbon Monoxide | 0.048   | 0.11                                      |
| Nitrogen Oxides | 0.698   | 0.44                                      |

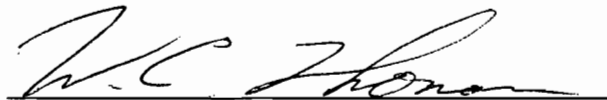
|                | <u>No. 2 Fuel Oil</u><br><u>Pounds/10<sup>3</sup> Gallons</u> | <u>Natural Gas</u><br><u>Pounds/10<sup>6</sup> ft<sup>3</sup></u> |
|----------------|---|---|
| Sulfur Dioxide | 140s  | 940s  |
| VOC            | 5.57  | 42  |

s denotes sulfur content, % by weight

Emission factors for PM, CO, & NOx from AP 42, Table 3.1-1 (10/92). Emission factors for SO2 & VOC from AP 42 tables prior to 10/92.

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



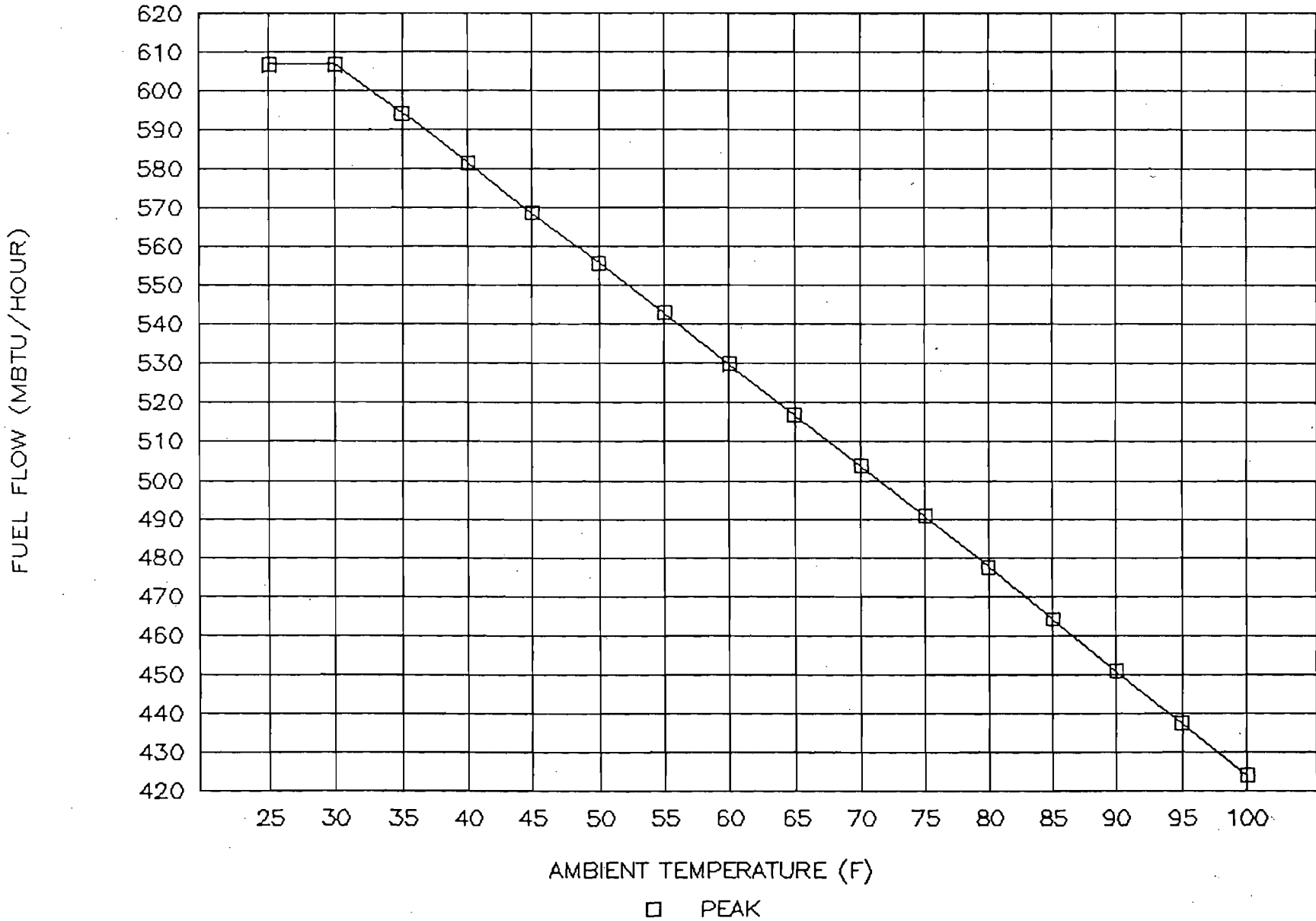
*For* Dr. Richard D. Garrity, Ph.D.  
Director of District Management  
Southwest District

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



# HIGGINS P1 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)

**"OR"**

14. OR 13. 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. OR 14. 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

Southwest District

3804 Coconut Palm

Tampa, Florida 33619

Lawton Chiles, Governor

813-744-6100

Carol M. Browner, Secretary

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL

In the Matter of an Application  
for Permit by:

A052-216420

Mr. W. J. Pardue, Manager  
Environmental Programs  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

DER File No.: A052-216420  
County: Pinellas

Enclosed is Permit Number A052-216420 to operate Higgins Peaking Unit No. 1, issued pursuant to Section 403.087, Florida Statutes and Florida Administrative Code Rules 17-2 & 17-4.

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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;

(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.

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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.

P 079 942 811

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  
ST PETERSBURG FL 33733

PS Form 3800, June 1985

|   |             |
|---|-------------|
|   |             |
| Certified Fee   |             |
| Special Delivery Fee  |             |
| Restricted Delivery Fee                                       |             |
| Return Receipt showing to whom and Date Delivered             |             |
| Return Receipt showing to whom, Date, and Address of Delivery |             |
| TOTAL Postage and Fees  | \$          |
| Postmark or Date  | NOV 13 1992 |
| A052 - 216420   |             |
| " " - 216421  |             |
| " " - 216422  |             |
| " " - 216423  |             |

**SENDER:**

- 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 Fee will provide you the signature of the person delivered to and the date of delivery.

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

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to: A052-216420, GR  
421, 422 + 423

4a. Article Number

P 079 942 811

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

4b. Service Type

- Registered  Insured
- Certified  COD
- Express Mail  Return Receipt for Merchandise

7. Date of Delivery

NOV 16 1992

5. Signature (Addressee)

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

6. Signature (Agent)

UNITED STATES POSTAL SERVICE

Official Business



PENALTY FOR PRIVATE  
USE, \$300

Print your name, address and ZIP Code here

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
3804 COCONUT PALM  
TAMPA, FLORIDA 33619



P 079 942 812

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

MR ALBERT W MORNEAULT  
FLORIDA POWER CORP  
3201 34TH ST SOUTH  
ST PETERSBURG FL 33733

PS Form 3800, June 1985

|   |             |
|---|-------------|
| message   |             |
| Certified Fee   |             |
| Special Delivery Fee  |             |
| Restricted Delivery Fee                                       |             |
| Return Receipt showing to whom and Date Delivered             |             |
| Return Receipt showing to whom, Date, and Address of Delivery |             |
| TOTAL Postage and Fees  | \$          |
| Postmark or Date  | NOV 13 1992 |
| A052-216420   |             |
| " " - 216421  |             |
| " " - 216422  |             |
| " " - 216423  |             |

SENDER:

- Complete items 1 and/or 2 for additional services.
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- Print your name and address on the reverse of this form so that we can return this card to you.
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I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to: A052-216420, GR  
421, 422 + 423

4a. Article Number

P 079 942 812

MR ALBERT W MORNEAULT  
FLORIDA POWER CORP  
3201 34TH ST SOUTH  
ST PETERSBURG FL 33733

4b. Service Type

- Registered  Insured  
 Certified  COD  
 Express Mail  Return Receipt for Merchandise

7. Date of Delivery

NOV 16 1992

5. Signature (Addressee)

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

6. Signature (Agent)

UNITED STATES POSTAL SERVICE

Official Business



PENALTY FOR PRIVATE  
USE, \$300

Print your name, address and ZIP Code here


STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
3804 COCONUT PALM  
TAMPA, FLORIDA 33619

Mr. W. J. Pardue  
St. Petersburg, FL 33733

Page Three

Executed in Tampa, Florida

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



George W. Richardson  
Air Permitting Engineer  
Southwest District

3804 Coconut Palm Drive  
Tampa, FL 33619-8318  
(813)744-6100, Ext. 420

cc: Pinellas County Department of Environmental Management  
Albert W. Morneault, P.E., Florida Power Corporation

Attachment:

CERTIFICATE OF SERVICE

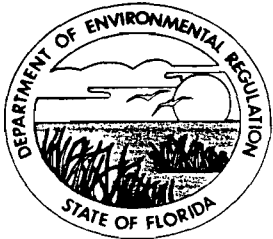
The undersigned duly designated Deputy Agency Clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on NOV 13 1992 to the listed persons.

FILING AND ACKNOWLEDGEMENT

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

Marilyn Quispe  
Clerk

NOV 13 1992  
Date



# Florida Department of Environmental Regulation

Southwest District

3804 Coconut Palm

Tampa, Florida 33619

Lawton Chiles, Governor

813-744-6100

Carol M. Browner, Secretary

## PERMITTEE:

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

## PERMIT/CERTIFICATION:

Permit No.: A052-216420  
County: Pinellas  
Expiration Date: 11-10-97  
Project: Higgins Peaking  
Unit No. 1

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 Higgins Peaking Unit No. 1. This unit is fired with natural gas or new No. 2 fuel oil. This unit is a gas turbine unit consisting of two Pratt & Whitney jet engines. This unit is rated at 33.8 MW/hour having a maximum heat input rate of 566 MMBTU/hour. The maximum fuel usage rate is 0.57 MMCF/hour of natural gas or 96 BBL/hour of new No. 2 fuel oil.

Location: Booth Road, Oldsmar, Pinellas County

UTM: 17-336.5 E 3098.3 N NEDS NO: 0012 Point ID: 04

Replaces Permit No.: A052-137555

PERMITTEE:  
Florida Power Corporation.

Permit No.: A052-216420  
Project: Higgins Peaking  
Unit No. 1

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Visible emissions from Higgins Peaking Unit No. 1 shall not be equal to or greater than 20% opacity (Rule 17-2.610(2)(a), F.A.C.).
3. Test Higgins Peaking Unit No. 1 for visible emissions\* at intervals of 12 months from the date of January 7, 1992 if the unit operated more than 5 days (120 hours) on fuel oil the proceeding 12 months. Submit a copy of the test data to the Air Section of the Southwest District Office of the Department of Environmental Regulation and the Pinellas County Department of Environmental Management, Air Quality Division within 45 days of such testing. Testing shall be consistant with the requirements of Rule 17-2.700, F.A.C.
- \* Visible emissions compliance tests must be conducted while the unit is being fired on new No. 2 fuel oil.
4. Compliance with the visible emissions limitation of Specific Condition No. 2 shall be determined using DER Method No. 9 contained in Rule 17-2.700, F.A.C. Pursuant to Rule 17-2.700(1)(d)1.b., F.A.C., the visible emissions compliance test shall be conducted by a certified observer and be a minimum of 30 minutes in duration. The minimum requirements for source sampling and reporting, shall be in accordance with the requirements of Rule 17-2.700, F.A.C.
5. Testing of emissions must be accomplished within 90-100% of the maximum permitted rate of 33.8 MW/hour. A compliance test submitted at operating rates less than 90% of the permitted rate will automatically constitute an amended permit at the lesser rate. Failure to submit the input rates and actual operating conditions may invalidate the test (Rule 17-4.070, 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 each compliance test is to begin (Rule 17-2.700(2)(a)9., F.A.C.).
7. Higgins Peaking Unit No. 1 is permitted to operate at the following parameters:

A. Process Parameters:

1. Maximum Load Rate: 33.8 MW/hour
2. Maximum Heat Input Rate: 566 MMBTU/hour
3. Maximum Fuel Usage Rate: 0.57 MMCF/hour of natural gas,  
96 BBL/hour of new No. 2 fuel oil

PERMITTEE:  
Florida Power Corporation

Permit No.: A052-216420  
Project: Higgins Peaking  
Unit No. 1

8. The new No. 2 fuel oil is to be monitored prior to delivery and a daily sample taken for a monthly composite sample. The fuel oil is to be analyzed for the following:

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

This data is to be used to calculate the SO<sub>2</sub> emissions for the Annual Operating Report submittal. Records must be kept for a minimum of two years.


9. 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 403.080, F.S.:

- 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.

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

10. Two applications to renew this operating permit shall be submitted to the Air Section of the Southwest District of the Department of Environmental Regulation 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 operating permit (Rule 17-4.090, F.A.C.).

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

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

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, 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

3. As provided in subsections 403.087(6) and 403.722(5), 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 this 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 and used by the permittee to achieve compliance with the conditions of this permit, are 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 reasonable times, access to the premises where the permitted activity is located or conducted to:

- (a) Have access to and copy any records that must be kept under 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 noncompliance; and
- (b) The period of noncompliance, including 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 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 403.111 and 403.73, 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 Rule 17-4.120 and 17-730.300, Florida Administrative Code, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

- ( ) 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 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:
  - 1. the date, exact place, and time of sampling or measurements;
  - 2. the person responsible for performing the sampling or measurements;
  - 3. the dates analyses were performed;
  - 4. the person responsible for performing the analyses;
  - 5. the analytical techniques or methods used;
  - 6. 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 the 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. \_\_\_\_\_

A052-216420

D.E.R.

AUG 24 1992

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

SOUTHWEST DISTRICT TAMPA

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

Source Type: Higgins Peaking Unit 1 Renewal of DER Permit No. A052-137555
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):

Gas Turbine Peaking Unit 1

Source Location: Street: Booth Road City: Oldsmar
UTM: East 17-336.54 North 3098.325
Latitude: 28° 00' 08" N. Longitude: 82° 39' 49" W.
NEDS No. 0012 Point ID: 04

- 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 7, 1992
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 [x] No
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [x] Yes [ ] No
7. Has the annual operating report for the last calendar year been submitted? [x] Yes [ ] No

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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<br>(Be Specific) | Consumption* |          | Maximum Heat<br>Input (MMBTU/hr) |
|-----------------------|--------------|----------|----------------------------------|
|                       | Avg/hr*      | Max/hr** |                                  |
| Number 2 fuel oil     | 96           | 96       | 566                              |
| Natural gas           | 0.57         | 0.57     | 566                              |
|                       |              |          |                                  |
|                       |              |          |                                  |

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

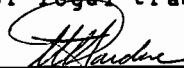
A052-216420

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)  
 W.J. Pardue, Manager - Environmental Programs  
 Typed Name and Title  
 P.O. Box 14042  
 Address  
 St. Petersburg, FL 33733  
 City State Zip  
 7-15-92 (813) 866-4387  
 Date Telephone No.

OFFICIAL NOTARY SEAL  
 MARYJANE R BLAIN  
 NOTARY PUBLIC STATE OF FLORIDA  
 COMMISSION NO. CC184189  
 MY COMMISSION EXP. JUNE 3, 1994

*W.J. Pardue personally appeared before me  
 this 15th day of July, 1992.*

*M-J-R. Blain*

**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

**Source Name:** HIGGINS PEAKING UNIT 1

**Source Permit No.:** AO 52-137555

**Source ID:** NEDS NO. 0012 POINT ID: 04

**County:** PINELLAS

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

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 applicable Statutes of the State of Florida.

Albert W. Morneault  
Name

Affix Seal

Florida Power Corporation  
Company Name

3201 - 34th Street South  
Street Address

St. Petersburg, FL 33733  
City, State, and Zip Code

Signed: Albert W. Morneault  
Florida Registration No. 14054  
Date: 8/17/92

Telephone No. 813/866-5162

Taken From DER Form 17-1.202(1)

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

4520 OAK FAIR BLVD.  
TAMPA, FLORIDA 33610-7347  
813-623-5561  
Suncom—552-7612



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY  
DR. RICHARD D. GARRITY  
DISTRICT MANAGER

NOTICE OF PERMIT

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

A052-137555

Dear Mr. Hancock:

Re: Pinellas County - AP  
Higgins Peaking Unit No. 1

Enclosed is Permit Number A052-137555 to operate a peaking unit (designated as Unit No. 1), 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 Florida 32301, 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, FL 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 32301; 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,



James Wm. Estler  
Air Permitting Engineer

JWE/dtw

Attachment: as stated

cc: PCDEM

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 10-13-87 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.

Doris J. Wright 10-13-87  
Clerk Date

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



SOUTHWEST DISTRICT

4520 OAK FAIR BLVD.  
TAMPA, FLORIDA 33610-7347

813-623-5561  
Suncom—552-7612

BOB MARTINEZ  
GOVERNOR

DALE TWACHTMANN  
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.: AO52-137555  
County: Pinellas  
Expiration Date: 9-16-92  
Project: Higgins Peaking  
Unit No. 1

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 Higgins Peaking Unit No. 1 using natural gas or #2 fuel oil. Peaking Unit #1 consists of two Pratt & Whitney jet engines. The unit is rated at 33.8 MW/hour with a maximum heat input of 566 MMBTU/hour. Maximum fuel usage is .57 MMCF/hour for natural gas and 96 BBL/hour for #2 fuel oil.

Location: Shore Drive, Oldsmar, Pinellas County, FL

UTM: 17-336.54E 3098.25N NEDS NO: 0012 Point ID: 04

Replaces Permit No.: AO52-58633

PERMITTEE:  
Florida Power Corporation

Permit No.: AO52-137555  
Project: Higgins Peaking  
Unit No. 1

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 agent, 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 Corporation

Permit No.: AO52-137555  
Project: Higgins Peaking  
Unit No. 1

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:  
Florida Power Corporation

Permit No.: AO52-137555  
Project: Higgins Peaking  
Unit No. 1

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:  
Florida Power Corporation

Permit No.: AO52-137555  
Project: Higgins Peaking  
Unit No. 1

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. Test the emissions for the following pollutant(s) within 30 days of start up and at intervals of 12 months from that date if the unit operates more than 5 days (120 hours) on fuel oil the preceding 12 months. Submit a copy of test data to the Air sections of the Southwest District of the Department of Environmental Regulation and Pinellas County Environmental Management within 45 days of such testing, Chapter 17-2.700 (2), Florida Administrative Code (F.A.C.).

- |                  |                     |
|------------------|---------------------|
| ( ) Particulates | ( ) Sulfur Oxides   |
| ( ) Fluorides    | ( ) Nitrogen Oxides |
| (X) Opacity*     | ( ) Hydrocarbons    |

\*Visible emissions test must be conducted while unit is fired on #2 fuel oil

PERMITTEE:  
Florida Power Corporation

Permit No.: AO52-137555  
Project: Higgins Peaking  
Unit No. 1

2. The visible emissions for this peaking unit shall not equal to or exceed 20% opacity as set forth in Subsection 17-2.610(2)(a), F.A.C..
3. Compliance with the emission limitations of Specific Conditions Nos. 1 and 2 shall be determined as follows:

| <u>Pollutant</u>   | <u>Test Method</u> |
|--------------------|--------------------|
| Visible Emissions: | DER Method 9       |

The test methods are 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.

4. Testing of emissions must be conducted within  $\pm 10\%$  of the permitted rate 33.8 MW/hour. A compliance test submitted at operating levels less than 90% of permitted capacities will automatically constitute an amended permit at the lesser rate until another test (showing compliance) at the permitted rate, as stated above, is submitted. Failure to submit the input rates or operation at conditions during testing which do not reflect actual operating conditions may invalidate the data [Section 403.161(1)(c), Florida Statutes].
5. Peaking Unit No. 1 is permitted to operate at the following parameters:

A. Process Parameters:

1. Heat Input: 566 MMBTU/hour
2. Fuel Consumption: 96 BBL/hour of #2 fuel oil  
0.57 MMCF/hour of natural gas
3. Stack Height: 50 feet
4. Peaker Make: Two Pratt & Witney jet engines

PERMITTEE:  
Florida Power Corporation

Permit No.: AO52-137555  
Project: Higgins Peaking  
Unit No. 1

6. Fuel oil quality is to be monitored prior to delivery and a daily sample taken for a monthly composite analysis. Fuel oil is analyzed for the following:
- a. BTU
  - b. API Gravity
  - c. Density
  - d. Sulfur Content

This data is to be used to calculate the SO<sub>2</sub> emissions for the Annual Operating Report submittal. Records must be kept for a minimum of two years.

7. The Pinellas County Department of Environmental Management shall be notified in writing 15 days prior to compliance testing.
8. 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 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.

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.

9. 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 12<sup>th</sup> day of October  
1987

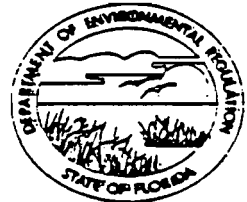
STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Richard D. Garrity, Ph.D.  
District Manager

A052-137555

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

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: Higgins Peaking Unit 1 Renewal of DER Permit No. A052-58633  
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):

Gas Turbine Peaking Unit 1

Source Location: Street: Booth Road City: Oldsmar  
UTM: East 17-336.5 North 3098.3  
Latitude: 2 8° 0 0' 0 8"N. Longitude: 8 2° 3 9' 4 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.  
See attached letter.
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.  
See attached letter.

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

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

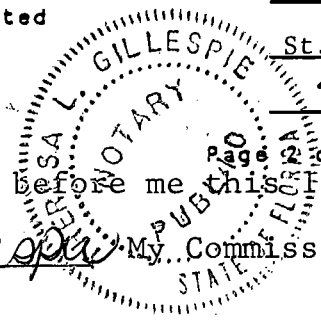
| Type<br>(Be Specific) | Consumption* |          | Maximum Heat<br>Input (MMBTU/hr) |
|-----------------------|--------------|----------|----------------------------------|
|                       | Avg/hr*      | Max/hr** |                                  |
| Number 2 fuel oil     | 96           | 96       | 566                              |
| Natural gas           | 0.57         | 0.57     | 566                              |
|                       |              |          |                                  |
|                       |              |          |                                  |

D. Normal Equipment Operating Time: hrs/day \_\_\_\_\_; days/wk \_\_\_\_\_; wks/yr \_\_\_\_\_;  
 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.

*J.A. Hancock*  
 Signature, Owner or Authorized Representative  
 (Notarization is mandatory)  
 J.A. Hancock, Vice President, Fossil Operations  
 Typed Name and Title  
 P.O. Box 14042  
 Address

St. Petersburg FL 33733  
 State Zip  
 7/17/87  
 Date  
 813/866-4524  
 Telephone No.

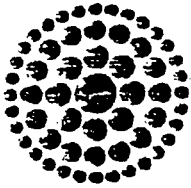


\*During actual time of operation.  
 \*\*Units: Natural Gas-MMCF/hr;  
 Fuel Oils-barrels/hr; Coal-lbs/hr.  
 \*\*\*Attach letter of authorization if not previously submitted

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

Sworn to and subscribed before me this 17th day of July, 1987.

*Theresa L. Gillespie*  
 My Commission Expires: October 21, 1990



**Florida  
Power**  
CORPORATION

March 3, 1987

Dr. R. D. Garrity  
Manager, Southwest District  
Florida Department of Environmental Regulation  
7601 Highway 301 North  
Tampa, FL 33637

Dear Dr. Garrity:

Subject: Florida Power Corporation  
1986 Annual Operations Report

The 1986 Annual Operation Reports are enclosed for the following units:

|  |   |
|--|---|
| Anclote Unit 1 (AO51-106660)                   | Crystal River Unit 1 (AO09-89919)         |
| Anclote Unit 2 (AO51-94924)                    | Crystal River Unit 2 (AO09-115452)        |
| Bartow Unit 1 (AO52-63210)                     | Crystal River Unit 4 (Site Certification) |
| Bartow Unit 2 (AO52-56650)                     | Crystal River Unit 5 (Site Certification) |
| Bartow Unit 3 (AO52-56651)                     | Crystal River Fly Ash System              |
| Bartow Fly Ash System<br>(AO52-71879)          | Source No. 1 (AO09-117845)                |
| Bartow Anclote Pipeline<br>Heater (AO52-80149) | Source No. 2 (AO09-117846)                |
| Bayboro P-1 (AO52-89916)                       | Source No. 3 (AO09-117847)                |
| Bayboro P-2 (AO52-89915)                       | Source No. 4 (AO09-114093)                |
| Bayboro P-3 (AO52-89914)                       | Source No. 5 (AO09-114094))               |
| Bayboro P-4 (AO52-89911)                       | Higgins Unit 1 (AO52-56652)               |
|  | Higgins Unit 2 (AO52-56653)               |
|  | Higgins Unit 3 (AO52-56654)               |

The 1987 Annual Operations Reports are not being submitted for those combustion turbines which have been in extended cold shutdown and did not



operate during 1986. The following units did not operate in 1986:

Bartow P-1 (AO52-89907)  
Bartow P-2 (AO52-89904)  
Bartow P-3 (AO52-89903)  
Bartow P-4 (AO52-89902)  
Higgins P-1 (AO52-58633)  
Higgins P-2 (AO52-58634)  
Higgins P-3 (AO52-58635)  
Higgins P-4 (AO52-58636)

Should you have any questions concerning this information, please call me at (813) 866-4481.

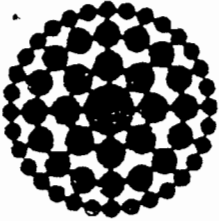
Sincerely,



Elaine R. Macinski  
Environmental & Licensing Affairs

ERM:dr

cc: Mr. Peter Hessling  
Pinellas County Department of Environmental Management  
Division of Air Quality  
w/attachments, Bartow, Bayboro and Higgins)



**Florida  
Power**  
CORPORATION

April 4, 1985

Dr. R. D. Garrity  
District Manager  
Department of Environmental Regulation  
7601 Highway 301 North  
Tampa, FL 33610

Subject: Higgins Peaker #1 A052-58633  
          Higgins Peaker #2 A052-58634  
          Higgins Peaker #3 A052-58635  
          Higgins Peaker #4 A052-58636

Dear Dr. Garrity:

Please be advised that the subject units have been placed in long term standby and are not scheduled to operate in the foreseeable future. When these units are placed back into operation, your office will be notified and the units tested within 30 days of startup.

Should you have any questions, please advise.

*M J Hancock / JAH*

J. A. Hancock  
Vice President, Fossil Operations

Hancock(M02)C3-1

JAH:ey

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 63820

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Florida Power Date July 29, 1982  
Address P.O. Box 14042 Dollars \$ 100.00  
Applicant Name & Address same as above  
Source of Revenue same as above  
Revenue Code 0101 Application Number A052-58633

532067

By Norothy Pelham

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 113805

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Fla. Power Corp. Date 7/31/87  
Address P.O. Box 14042, St Pete, Fla. Dollars \$ 100.00  
33733  
Applicant Name & Address same  
Source of Revenue Higgins Peaking Unit 1  
Revenue Code 001032 Application Number A052-137555  
ck 935906 By Donna Harris  
09

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 113805

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Fla. Power Corp. Date 7/31/87  
Address P.O. Box 14042, St Pete, Fla. Dollars \$ 100.00  
33733  
Applicant Name & Address same  
Source of Revenue Higgins Peaking Unit 1  
Revenue Code 001032 Application Number A052-137555  
ck 935906 By Donna Harris  
09

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

October 22, 1982

Mr. G. C. Moore  
Vice President-Power Production  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

Dear Mr. Moore:

Re: Pinellas County - AP  
Higgins Peaking Unit #1

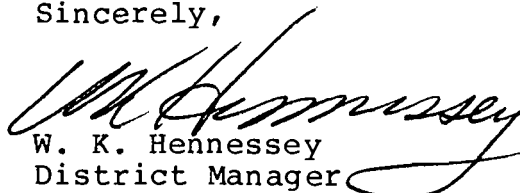
Enclosed is Permit Number A052-58633 dated 10/22/82, to operate the subject pollution source, issued pursuant to Section 403.061(14), Florida Statutes.

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 28-5.201, Florida Administrative Code, (copy enclosed). 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 may periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement action for violation of the conditions and requirements thereof.

Sincerely,

  
W. K. Hennessey  
District Manager

WKH/scm

Enclosures  
cc: PCDEM

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

PART II  
FORMAL PROCEEDINGS

28-5.201 Initiation of Formal Proceedings.

- (1) Initiation of formal proceedings shall be made by petition to the agency responsible for rendering final agency action. The term petition as used herein includes any application or other document which expresses a request for formal proceedings. Each petition should 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, and an explanation of how his/her substantial interests will be affected by the agency determination;
  - (c) A statement of when and how petitioner received notice of the agency decision or intent to render a decision;
  - (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
  - (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief;
  - (f) A demand for relief to which the petitioner deems himself entitled; and
  - (g) Other information which the petitioner contends is material.

\*\*\*\*\*

A petition may be denied if the petitioner does not state adequately a material factual allegation, such as a substantial interest in the agency determination, or if the petition is untimely. (Section 28-5.201 (3) (a), FAC)

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

APPLICANT:

Mr. G. C. Moore  
Vice President-Power Production  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

PERMIT/CERTIFICATION

No.: A053-58633  
County: Pinellas  
Project: Higgins Peaking Unit #1

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 the Higgins Peaking Unit #1 using #2 fuel oil or natural gas. Maximum heat input is 566 MMBTU/hr.

Located at Booth Road, Oldsmar, Pinellas County

UTM: 17-336.5 E 3098.3 N

Replaces Permit No.: A052-5702 NEDS No.: 0012 Point ID: 04

Expiration Date: October 12, 1987

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 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.

Appl. Name: Florida Power Corporation  
Project: Higgins Peaking Unit #1  
Page 2 of 4 of Permit No.: A052-58633

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 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 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 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

1. Test the emissions for the following pollutant(s) at intervals of 12 months from the date September 29, 1982 and submit a copy of test data to the Air Section of the Southwest District Office within forty five days of such testing (Section 17-2.700 (2), Florida Administrative Code (F.A.C.)).

- |                  |                          |
|------------------|--------------------------|
| ( ) Particulates | ( ) Sulfur Oxides        |
| ( ) Fluorides    | ( ) Nitrogen Oxides      |
| (X) Opacity      | ( ) Hydrocarbons         |
|                  | ( ) Total Reduced Sulfur |

\*Fuel analysis may be submitted for required sulfur dioxide emission test.

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 (Section 403.161(1)(c), Florida Statutes).

Appl. Name: Florida Power Corporation  
Project: Higgins Peaking Unit #1  
Page 4 of 4 of Permit No.: A052-58633

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 Section 17-4.14, F.A.C.

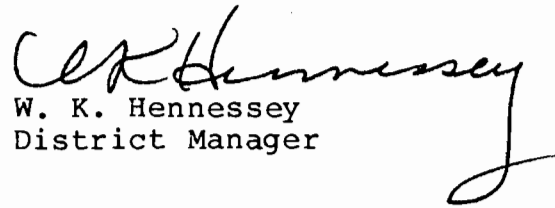
- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions (note calculation basis).
- (C) Any changes in the information contained in the permit application.

4. Visible emissions from this source shall not equal or exceed 20% opacity. Test must be conducted using DER Method #9.

5. Visible emission test shall be conducted when unit is being fired with No. 2 fuel oil.

Issued this 22<sup>ND</sup> day of October,  
1982

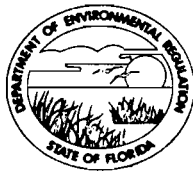
STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
W. K. Hennessey  
District Manager

EXPIRATION DATE

October 12, 1987

A052-5863-3  
PAID JUL 29 1982



D.E.R.

JUL 29 1982

SOUTHWEST DISTRICT  
TAMPA

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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: Peaking Unit Renewal of DER Permit No.: A052-5702

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):

Higgins #1 Peaking Unit

Source Location: Street: Booth Road City: Oldsmar

UTM: East 336540 North 3098250

Latitude: 2 8 0 0 0 . 0 8 "N. Longitude: 8 2 0 3 9 . 4 9 "

1. Attach herewith a twenty dollar (\$20) check made payable to the "Department of Environmental Regulation."
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 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: N/A

A. Raw Materials and Chemical Used in Your Process:

| Description | Type | Contaminant | % Wt | Rate | Utilization | lbs/hr |
|-------------|------|-------------|------|------|-------------|--------|
|             |      |             |      |      |             |        |
|             |      |             |      |      |             |        |
|             |      |             |      |      |             |        |

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

C. Fuels

| Type<br>(Be Specific) | Consumption* |          | Maximum Heat<br>Input (MMBTU/hr) |
|-----------------------|--------------|----------|----------------------------------|
|                       | Avg/hr*      | Max/hr** |                                  |
| No. 2 Fuel Oil        | 96           | 96       | 566                              |
| Natural Gas           | 0.57         | 0.57     | 566                              |
|                       |              |          |                                  |
|                       |              |          |                                  |

D. Normal Equipment Operating Time: hrs/day \_\_\_\_\_ ; days/wk \_\_\_\_\_ ; wks/yr \_\_\_\_\_ ; 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.

*G. C. Moore*

Signature, Owner or Authorized Representative  
 (Notarization is mandatory)

*for* G. C. Moore, Vice President, Power Production  
 Typed Name and Title

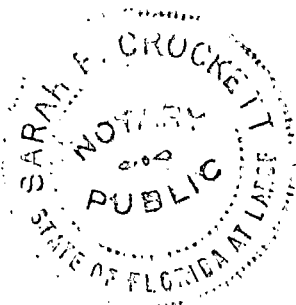
Florida Power Corporation, PO Box 14042  
 Address

St. Petersburg, Florida 33733  
 City State Zip

7/26/82 (813) 866-4140  
 Date Telephone No.

*Sarah F. Crockett*

Notary Public, State of Florida at Large  
 My Commission Expires Aug. 24, 1983  
 Bonded By American Fire & Casualty Company



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



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT  
7601 HIGHWAY 301 NORTH  
TAMPA, FLORIDA 33610

REUBIN O'D. ASKEW  
GOVERNOR

October 10, 1977  
Pinellas County - AP  
Florida Power Corporation

JOSEPH W. LANDERS, JR.  
SECRETARY

Mr. W.P. Stewart, Director  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

RE: A052-5702

Dear Mr. Stewart:

Pursuant to your recent application, please find enclosed a permit (No. A052-5702 ) dated October 10, 1977 to operate the subject pollution source.

This permit will expire on Sept. 21, 1982 , and will be subject to the conditions, requirements, and restrictions checked or indicated otherwise in the attached sheet "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,

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

P. David Puchaty  
District Manager  
Southwest District

cc: Central Files

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

PINELLAS COUNTY

## OPERATION PERMIT

FOR Florida Power Corporation

Post Office Box 14042

St. Petersburg, FL 33733

PERMIT NO. A052-5702

DATE OF ISSUE October 10, 1977

PURSUANT TO THE PROVISIONS OF SECTIONS 403.061 (16) AND 403.707 OF CHAPTER 403, FLORIDA STATUTES AND CHAPTERS 17-4 AND 17-7, FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:

Mr. W. P. Stewart, Director, Power Production

FOR THE OPERATION OF THE FOLLOWING:

The No. 1 Higgins Peaking Unit, fired by Natural Gas or #2 oil. Subject to provisos 1, 2, 3, 5, 6 & 9.

LOCATED AT Oldsmar, Pinellas County

UTM 336540 E 3098250 N

IN ACCORDANCE WITH THE APPLICATION DATED September 8, 1977

ANY CONDITIONS OR PROVISOS WHICH ARE ATTACHED HERETO ARE INCORPORATED INTO AND MADE A PART OF THIS PERMIT AS THOUGH FULLY SET FORTH HEREIN. FAILURE TO COMPLY WITH SAID CONDITIONS OR PROVISOS SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND SHALL SUBJECT THE APPLICANT TO SUCH CIVIL AND CRIMINAL PENALTIES AS PROVIDED BY LAW.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ISSUE UNTIL September 21, 1982

OR UNLESS REVOKED OR SURRENDERED AND SHALL BE SUBJECT TO ALL LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

*J. H. Lewis*  
DISTRICT ENGINEER

*J. W. Landers, Jr.*  
JOSEPH W. LANDERS, JR.  
SECRETARY

*F. M. Crick*  
DISTRICT MANAGER

GWR

State of Florida  
Department of Environmental Regulation

OPERATION PERMIT CONDITIONS  
FOR AIR POLLUTION SOURCES

Permit No.: A052-5702

Date: October 10, 1977

An (X) indicates applicable conditions

- (X) 1. The permit holder must comply with Florida Statute, Chapter 403 and the applicable Chapters of the Department of Environmental Regulation in addition to the conditions of this permit (Chapter 403.161(1)(b), Florida Statutes).
- (X) 2. Test the emissions for the following pollutant(s) at intervals of Twelve months from the date 9/21/77 and submit a copy of test data to the District Engineer of this agency within fifteen days of such testing (Chapter 17-2.07(1), Florida Administrative Code (F.A.C.)).
- |                   |                          |
|-------------------|--------------------------|
| ( ) Particulates  | ( ) Sulfur Oxides        |
| ( ) Fluorides     | ( ) Nitrogen Oxides      |
| (X) Plume Density | ( ) Hydrocarbons         |
|                   | ( ) Total Reduced Sulfur |
- (X) 3. 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).
- ( ) 4. Submit for this source quarterly reports showing the type and monthly quantities of fuels used in the operation of this source. Also state the sulfur content of each fuel (Chapter 17-4.14, F.A.C.).
- (X) 5. 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.

- (X) 6. In the event the permittee is temporarily unable to comply with any of the conditions of the permit, the permittee shall immediately notify the District Office of the D.E.R. as per Chapter 17-4.13, F.A.C. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement actions by the Department.
- ( ) 7. According to the Process Weight Table within Chapter 17-2.04(2), F.A.C., the maximum allowable emission rate of particulate matter for a process rate of \_\_\_\_\_ tons/hour is \_\_\_\_\_ pound/hour. At lesser process rates, the allowable emission rates can be determined from the graph.
- ( ) 8. This permit is associated with a Development of Regional Impact (D.R.I.). It does not waive any other permits that may be required from this or any other state, federal, or local agency.
- (X) 9. Issuance of this permit does not indicate an endorsement or approval of any other required permits by this Department.
- ( ) 10. Incinerators shall comply with the provision of Chapter 17-2.04(6)(a), Florida Administrative Code, and Chapter 1-3.03 VI, A of the Hillsborough County Environmental Protection Commission Rules and Regulations.
- ( ) 11. Incinerators shall not incinerate radioactive materials.



Department of Environmental Regulation

Application for Operation

Permit Renewal

SOUTHWEST DISTRICT  
TAMPA

9-12-77 Rm  
A052-5702

(Information contained in this application should reflect the most current data available.)

A. Business Name Florida Power Corporation

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

Current Permit Number A0 52-3120 P-1

B. Raw Material Usage

| Type | Amount Consumed |
|------|-----------------|
|      |                 |
|      |                 |
|      |                 |
|      |                 |

C. Fuel Usage \*

| Type        | Amount Consumed | % Sulfur |
|-------------|-----------------|----------|
| Natural Gas | 73743 MCF       | ---      |
| #2 Fuel Oil | 4714 bbl        | 0.07     |
|             |                 |          |

D. Production Rates

| Type        | Amount Produced |
|-------------|-----------------|
| Electricity | 6450 MWH        |
|             |                 |
|             |                 |

\*January thru July, 1977

E. Normal Operating Time

- 1. Hours per ~~day~~ Month 34
- 2. Days per week \_\_\_\_\_
- 3. Weeks per year \_\_\_\_\_

F. Emission Quantities (pounds/hour) N/A for gas turbine

- 1. Particulates \_\_\_\_\_
- 2. SO<sub>2</sub> \_\_\_\_\_
- 3. NO<sub>2</sub> \_\_\_\_\_
- 4. CO \_\_\_\_\_
- 5. Hydrocarbons \_\_\_\_\_

G. Any changes in control equipment N/A

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The undersigned owner or authorized representative of \*Florida Power Corporation is fully aware that the statements made in this application for an operation 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.

W.P. Stewart

Signature of the Owner or Authorized Representative

W.P. Stewart, Director, Power Production

Name and Title (Please Type)

Date: 9/8/77

Telephone No: (813) 866-4159



\*Attach a letter of authorization

9-12-77 PM  
A052-5703

Department of Environmental Regulation

Application for Operation

Permit Renewal

(Information contained in this application should reflect the most current data available.)

A. Business Name Florida Power Corporation

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

Current Permit Number A052-3118 P-2

B. Raw Material Usage

| Type | Amount Consumed |
|------|-----------------|
|      |                 |
|      |                 |
|      |                 |
|      |                 |

C. Fuel Usage \*

| Type               | Amount Consumed  | % Sulfur    |
|--------------------|------------------|-------------|
| <u>Natural Gas</u> | <u>24139 MCF</u> | <u>--</u>   |
| <u>#2 Fuel Oil</u> | <u>14789 bbl</u> | <u>0.07</u> |
|                    |                  |             |

D. Production Rates

| Type               | Amount Produced |
|--------------------|-----------------|
| <u>Electricity</u> | <u>6862 MWH</u> |
|                    |                 |
|                    |                 |

\*January thru July, 1977

E. Normal Operating Time

1. Hours per ~~day~~ month

35

2. Days per week

3. Weeks per year

F. Emission Quantities (pounds/hour) N/A for gas turbine

1. Particulates

2. SO<sub>2</sub>

3. NO<sub>2</sub>

4. CO

5. Hydrocarbons

G. Any changes in control equipment N/A

The undersigned owner or authorized representative of \* Florida Power Corporation is fully aware that the statements made in this application for an operation 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.

*W. P. Stewart*

Signature of the Owner or Authorized Representative

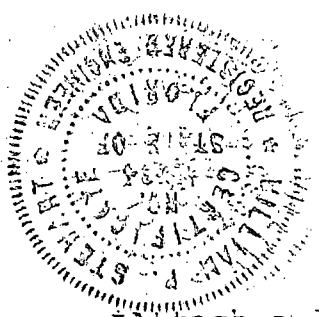
W. P. Stewart Director, Power Production

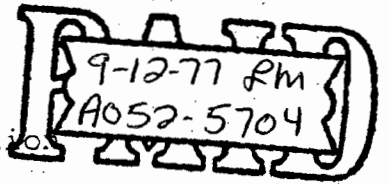
Name and Title (Please Type)

Date: 9/8/77

Telephone No: (813) 866-4159

\*Attach a letter of authorization





Department of Environmental Regulation

Application for Operation

Permit Renewal

(Information contained in this application should reflect the most current data available.)

A. Business Name Florida Power Corporation

Mailing Address P.O. Box 14042

St. Petersburg, FL 33733

Current Permit Number A052-3119 P-3

B. Raw Material Usage

| Type | Amount Consumed |
|------|-----------------|
|      |                 |
|      |                 |
|      |                 |
|      |                 |

C. Fuel Usage \*

| Type        | Amount Consumed | % Sulfur |
|-------------|-----------------|----------|
| Natural gas | 121099 MCF      | ---      |
| #2 Fuel Oil | 2637 bbl        | 0.07     |
|             |                 |          |

D. Production Rates

| Type        | Amount Produced |
|-------------|-----------------|
| Electricity | 9153 MWH        |
|             |                 |
|             |                 |

\*January thru July, 1977

E. Normal Operating Time

BEST AVAILABLE COPY

- 1. Hours per ~~xxx~~ month
- 2. Days per week
- 3. Weeks per year

42

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F. Emission Quantities (pounds/hour) N/A for gas turbine

- 1. Particulates
- 2. SO<sub>2</sub>
- 3. NO<sub>2</sub>
- 4. CO
- 5. Hydrocarbons

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G. Any changes in control equipment

N/A

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The undersigned owner or authorized representative of \*Florida Power Corporation is fully aware that the statements made in this application for an operation 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.

*W.P. Stewart*

Signature of the Owner or Authorized Representative

W.P. Stewart, Director, Power Production

Name and Title (Please Type)

Date: 9/8/77

Telephone No: (813) 866-4159



\* Attach a letter of authorization

Department of Environmental Regulation

Application for Operation

Permit Renewal

9-12-77 PM  
A052-5705

(Information contained in this application should reflect the most current data available.)

A. Business Name Florida Power Corporation

Mailing Address P.O. Box 14042

St. Petersburg, FL 33733

Current Permit Number A052-2036 P-4

B. Raw Material Usage

| Type | Amount Consumed |
|------|-----------------|
|      |                 |
|      |                 |
|      |                 |
|      |                 |

C. Fuel Usage \*

| Type               | Amount Consumed  | % Sulfur    |
|--------------------|------------------|-------------|
| <u>Natural Gas</u> | <u>66888 MCF</u> | <u>--</u>   |
| <u>#2 Fuel Oil</u> | <u>12411 bbl</u> | <u>0.07</u> |
|                    |                  |             |

D. Production Rates

| Type               | Amount Produced |
|--------------------|-----------------|
| <u>Electricity</u> | <u>9080 MWH</u> |
|                    |                 |
|                    |                 |

\*January thru July, 1977

E. Normal Operating Time

1. Hours per ~~day~~ month

39

2. Days per week

3. Weeks per year

F. Emission Quantities (pounds/hour) N/A for gas turbine

1. Particulates

2. SO<sub>2</sub>

3. NO<sub>2</sub>

4. CO

5. Hydrocarbons

G. Any changes in control equipment N/A

The undersigned owner or authorized representative of \* Florida Power Corporation is fully aware that the statements made in this application for an operation 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.

*W. P. Stewart*

Signature of the Owner or Authorized Representative

W.P. Stewart, Director, Power Production

Name and Title (Please Type)

Date: 9/8/77

Telephone No: (813) 866-4159

\* Attach a letter of authorization







52-1030 (5)  
**D.P.C.**  
 JUN 30 1975  
 WEST CENTRAL REGION  
 WINTER HAVEN

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: Higgins Peaking Unit P-1                    County: Pinellas

Source Location: Street: P. O. Box J                    City: Oldsmar, FL 33557  
 (Water Source Only) Lat: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "    Long: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 (Air Source Only) UTM: East 336540                    North 3098250

Appl. Name and Title: W. P. Stewart, Director, Power Production  
 Appl. Address: P. O. Box 14042, C-4, 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 \_\_\_\_\_    M-BTU/hr. In Put \_\_\_\_\_  
 Incinerator: Capacity, tons/day \_\_\_\_\_    Type Waste \_\_\_\_\_  
                   Mfg. & Model \_\_\_\_\_

| Pollutant Emissions, lbs/day | Actual | Design | Allowable |
|------------------------------|--------|--------|-----------|
| Particulate                  | _____  | _____  | _____     |
| Sulfur Oxides                | _____  | _____  | _____     |
| Other: _____                 | _____  | _____  | _____     |

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



## 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)      N/A**

| Description | Utilization<br>Tons/day,<br>lbs./day, etc. | Approximate<br>Contaminant<br>Content |      | Relate to<br>Flow Diagram |
|-------------|--|---------------------------------------|------|---------------------------|
|             |  | Type                                  | %Wt. |                           |
|             |  |                                       |      |                           |
|             |  |                                       |      |                           |
|             |  |                                       |      |                           |
|             |  |                                       |      |                           |
|             |  |                                       |      |                           |

**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: This unit will  
operate during peak periods of system demand.

**D. Airborne Contaminants Discharged:**

| Name of Contaminant | Actual<br>Discharge Calc. | Discharge<br>Criteria* | Allowable<br>Discharge* | Relate Location<br>to Flow Diagram |
|---------------------|---------------------------|------------------------|-------------------------|------------------------------------|
| Particulates        | 16 lb/day                 |                        |                         |                                    |
| SO <sub>2</sub>     | 46 lb/day                 |                        |                         |                                    |
|                     |                           |                        |                         |                                    |
|                     |                           |                        |                         |                                    |

\* 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: N/A

| Name | Eff. | Conditions of Operation,<br>Particle Size Range, etc. | Relate to Flow Diagram |
|------|------|---|------------------------|
|      |      |   |                        |
|      |      |   |                        |
|      |      |   |                        |

F. Fuels:

| Type (Be specific) | Daily Consumption | Heat Input<br>BTU/hr. | Relate to Flow<br>Diagram |
|--------------------|-------------------|-----------------------|---------------------------|
| Jet A , or         | 2539 gal.         | $14 \times 10^6$      |                           |
| Gas                | 1817 mcf.         | $77 \times 10^6$      |                           |

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

Fuel is burned in the combustion section to produce hot gases. These gases are used to drive the turbine which drives the generator.

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

N/A

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 renewal Operation 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.

W.P. Stewart  
Signature of the Owner or Authorized Representative

W. P. Stewart, Director, Power Production  
Name and Title (Please Type)

Date: June 27, 1975 Telephone No.: (813) 866-4159

\* 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.

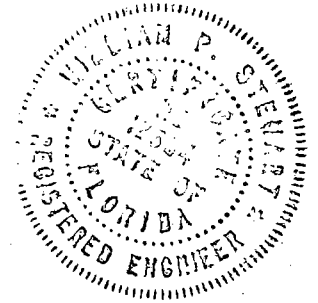
Signature W.P. Stewart

Mailing Address: Florida Power Corporation  
P. O. Box 14042 C-4  
St. Petersburg, FL 33733  
Telephone No.: (813) 866-4159

Name: W. P. Stewart  
(please type)

Florida Registration Number 12594  
(Please affix seal)

Date: June 27, 1975



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.



**Florida  
Power**  
CORPORATION

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

Gentlemen:

Subject: Letter of Authorization

Please be advised that Mr. W. P. Stewart, Director, Power Production, 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,

A handwritten signature in cursive script, appearing to read 'B. L. Griffin'.

B. L. Griffin  
Vice President

BLG:cb

STATE OF FLORIDA

OFFICE OF SECRETARY OF STATE

I, Bruce A. Smathers, 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;
- (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;
- (g) On December 11, 1973, a certified copy of a Resolution duly adopted by its Board of Directors on December 4, 1973, creating and establishing a 7.76% Series of Cumulative Preferred Stock;
- (h) On April 1, 1974, a Certificate of Amendment of the Composite Certificate of Reincorporation of the Company; and
- (i) On June 18, 1974, a certified copy of a Resolution duly adopted by its Board of Directors on June 10, 1974, creating and establishing a 10% 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 12th day of March,  
A.D., 1975.



*Bruce A. Smathers*  
SECRETARY OF STATE



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL SUBDISTRICT  
P.O. BOX 9205  
500 E. CENTRAL AVENUE  
WINTER HAVEN, FLORIDA 33880  
October 31, 1975  
Pinellas AP  
Florida Power Corp.

REUBEN O'D. ASKEW  
GOVERNOR

JOSEPH W. LANDERS JR.  
SECRETARY

W.P. Stewart,  
Florida Power Corp.,  
P.O. Box 14042,  
St. Petersburg, Fla. 33733

Dear Sir:

Pursuant to your recent application, please find enclosed a permit (No. 4052-3120) dated 10/31/75 to ~~construct~~ operate the subject pollution source.

This permit will expire on 10-31-77, 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.  
District Engineer

JHK/JLT/bbe  
cc: W.P. Stewart, Engineer

8/75

PS 3



# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

## OPERATION PERMIT

FOR Florida Power Corp.  
P. O. Box 14042-C-4  
St. Petersburg, Fla. 33733

PERMIT NO. A052-3120 DATE OF ISSUE 10-31-75

PURSUANT TO THE PROVISIONS OF SECTIONS 403.061(16) AND 403.707 OF CHAPTER 403, FLORIDA STATUTES, AND CHAPTERS 17-4 AND 17-7, FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:

W.P. Stewart, Director, Power Production

FOR THE OPERATION OF THE FOLLOWING:  
Higgins Peaking Unit P-1

(Heat input  $14 \times 10^6$  BTU/hr)

Subject to attached conditions of approval numbers

1, 2, 3, 4, 5, 6, 9 and 10

LOCATED AT UTM East 336540 North 3098250

St. Petersburg, Fla. 33733

IN ACCORDANCE WITH THE APPLICATION DATED June 27, 1975

ANY CONDITIONS OR PROVISOS WHICH ARE ATTACHED HERETO ARE INCORPORATED INTO AND MADE A PART OF THIS PERMIT AS THOUGH FULLY SET FORTH HEREIN. FAILURE TO COMPLY WITH SAID CONDITIONS OR PROVISOS SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND SHALL SUBJECT THE APPLICANT TO SUCH CIVIL AND CRIMINAL PENALTIES AS PROVIDED BY LAW.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ISSUE UNTIL 10-31-77

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. Lewis  
DISTRICT ENGINEER

Joseph W. Landers Jr.  
JOSEPH W. LANDERS, JR.  
SECRETARY  
Thomas J. ...  
DISTRICT MANAGER

JLT

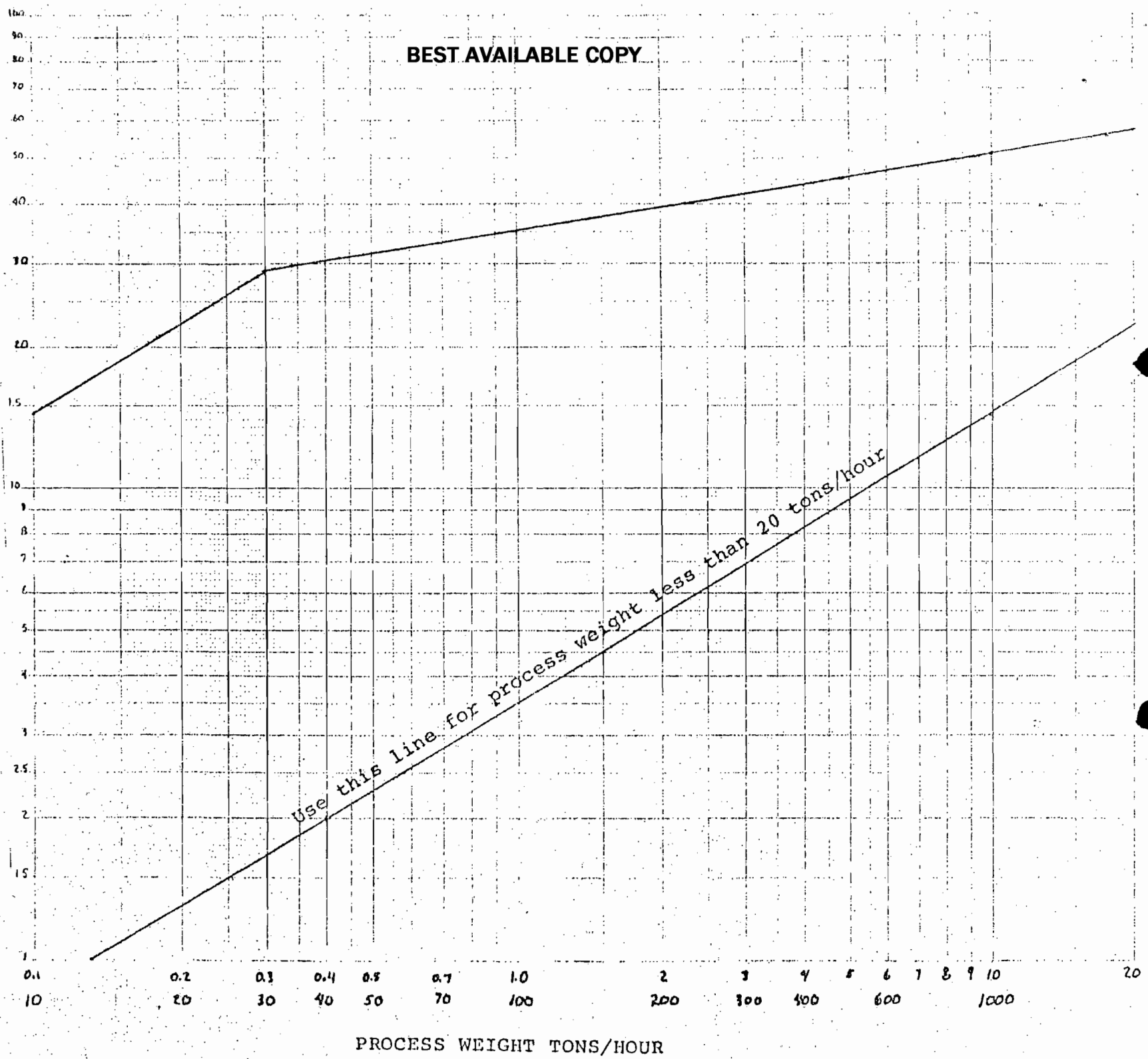
OPERATION PERMIT CONDITIONS  
FOR AIR POLLUTION SOURCES

Permit No.: A052-3120

Date: Oct.31,1975

- (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 DER. A log of maintenance activities shall be kept and available for DER 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 DER 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 DER 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)
- (x) 6. Test the emissions for the following pollutant(s) at intervals of One Year from the date of this permit and submit two copies of test results to the District engineer of this agency within fifteen days of such testing. (Chapter 17-2.07 (1) )
- |                   |                     |
|-------------------|---------------------|
| ( ) Particulates  | ( ) Sulfur Oxides   |
| ( ) Fluorides     | ( ) Nitrogen Oxides |
| (x) 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
- (X) 9. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceeding calendar year containing the following information:
- a) Annual amount of materials and/or fuel utilized.
  - b) Annual emissions.
  - c) Any changes in the information contained in the permit application.
- (x) 10. Submit visible emission results within 30 days of permit.

POUNDS OF PARTICULATES



PROCESS WEIGHT TABLE

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 Williams *DW*

FROM: George Richardson *GR*

SUBJECT: Florida Power Corporation  
Higgins Peaking Units #1,2,3,4

DATE: October 3, 1977

Florida Power Corporation has applied for a renewal of permit to operate their peaking units #1,2,3,4 located at their Higgins Plant in Oldsmar.

This source is used during peak periods when more electricity is needed, these units have no control equipment, they are fired with either natural gas or #2 fuel oil.

This source has passed the test requirement of 20% opacity. I, therefore, recommend a permit to operate be issued for a period of five years, with testing done annually.

MEMORANDUM

TO: FILE

THROUGH: BILL THOMAS, P.E. *WBT 10/26/93*

THROUGH: HARRY KERNS, P.E. *HK*

FROM: GEORGE RICHARDSON *GR*

DATE: October 20, 1993

SUBJECT: Pinellas County - AP  
Florida Power Corporation  
Higgins Peaking Units 1, 2, 3 & 4  
Permit Amendments  
AO52-216420, 216421, 216422 & 216423

These permit amendments are for the four peaking units at the Higgins Plant located at Booth Road, Oldsmar, Pinellas County.

The first amendment is to Specific Condition No. 3, change test this unit for VE if it operated on oil for more than 120 hours to test for VE if this unit operated on oil for more than 400 hours.

The second amendment is to Specific Condition No. 5, change testing must be accomplished within 90-100% of the maximum permitted rate, to testing shall be conducted in accordance with the submitted graph for each unit of maximum heat input versus ambient temperature. This testing procedure was blessed by Preston Lewis as representative of the true operation of the peakers.

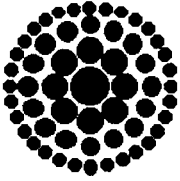
The third amendment is to Specific Condition No. 8 which changes the way the fuel oil is monitored.

The fourth amendment is to add Specific Condition No. 10 which sets the maximum potential emission rate for each unit.

The fifth amendment is to add Specific Condition No. 11.

The sixth amendment is to add Specific Condition No. 12 which gives the emission factors to calculate annual emissions for the AOR.

The PCDEM, FPC and I are in agreement on the amendments at this time.



**Florida  
Power**  
CORPORATION

October 5, 1993

Mr. George Richardson  
Southwest District  
Florida Department of Environmental Regulation  
3804 Coconut Palm  
Tampa, FL 33619

**D.E.P.**

**OCT 06 1993**

**SOUTHWEST DISTRICT  
TAMPA**

Dear Mr. Richardson:

Re: Higgins Peaking Unit 1 (Permit No. A052-216420) Revised Operation Permit

As we discussed recently over the telephone, Florida Power Corporation (FPC) requests a change in the maximum load rating which is given in the draft permit referenced above. The maximum load given is 33.8 MW, corresponding to the maximum allowable heat input of 566 MMBtu/hour. According to the heat input vs. ambient temperature curve which FPC submitted for this unit, a heat input of 566 MMBtu/hour occurs at peak load at approximately 46 °F. I have attached a graph which describes the unit's load vs. ambient temperature. At 46 °F the corresponding maximum load is approximately 37 MW.

FPC requests that the maximum load given in the source description in the revised operation permit be changed to 37 MW. Since Peaking Units 1 and 2 are identical, FPC also requests this change for Unit 2. This change does not affect air pollutant emissions from these units, because emissions are determined by fuel use/heat input. It is only a clarification of the electric generating capability of the units. It is FPC's understanding that compliance will be based on the heat input vs. ambient temperature curves, as stated in Specific Condition 5.

Thank you for your consideration of this request. Please feel free to contact me at (813) 866-4344 if you have any questions.

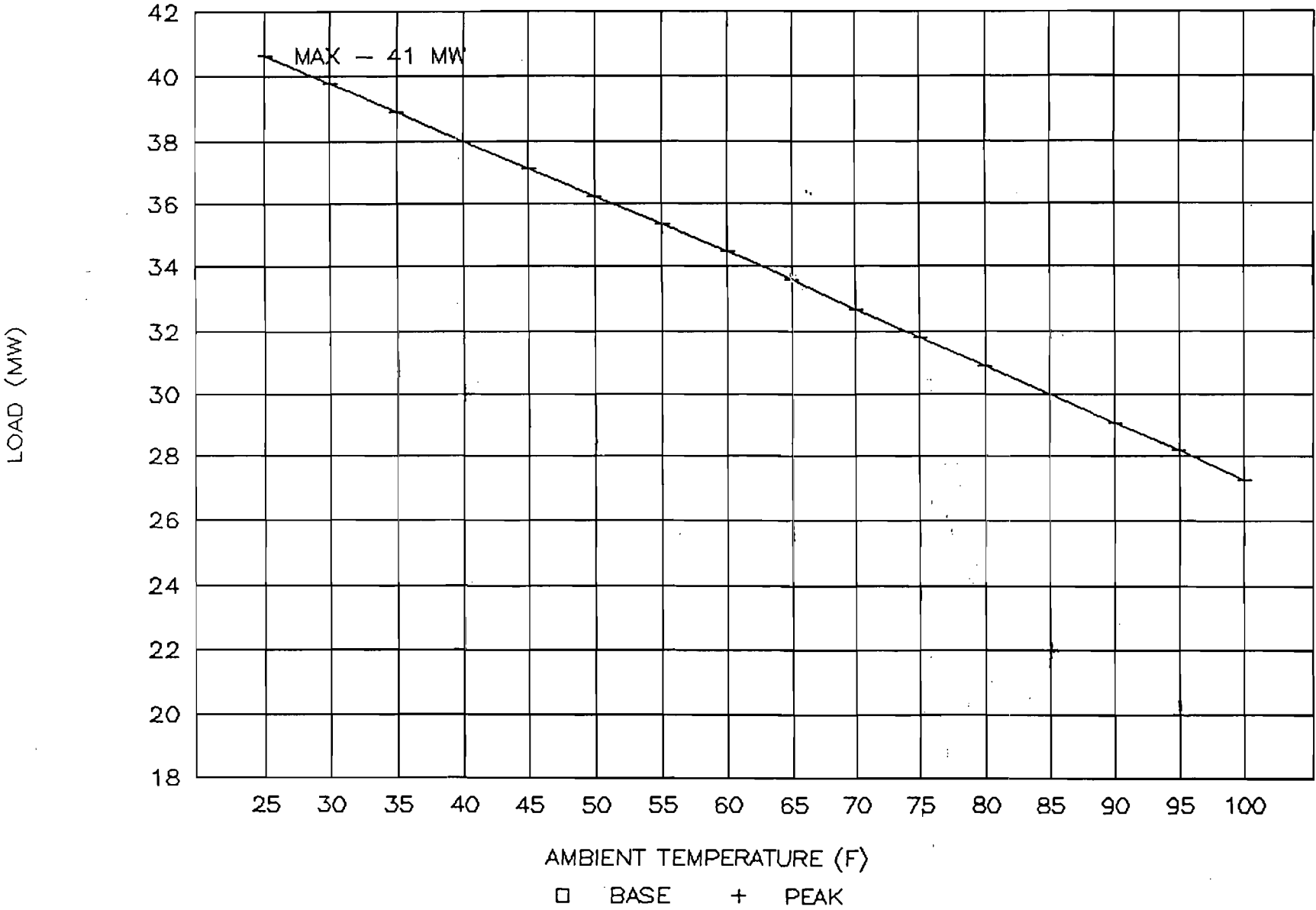
Sincerely,

J. Michael Kennedy  
Senior Environmental Specialist

cc: Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.

# HIGGINS 1&2 COMBUSTION TURBINES

LOAD vs AMBIENT TEMPERATURE



State of Florida  
Department of Environmental Regulation

# District Routing Slip

To: George Richardson Date: 8-18-93

C.C. To:

|   |   |                                     |                                    |
|---|---|-------------------------------------|------------------------------------|
|   | <b>Pensacola</b>                        | <b>Northwest District</b>           |                                    |
|   | Panama City                             | Northwest District Branch Office    |                                    |
|   | Tallahassee                             | Northwest District Branch Office    |                                    |
|   | Apalachicola                            | Northwest District Satellite Office |                                    |
| ✓                                       | <b>Tampa</b>                            | <b>Southwest District</b>           |                                    |
|   | Punta Gorda                             | Southwest District Branch Office    |                                    |
|   | Bartow                                  | Southwest District Satellite Office |                                    |
|   | <b>Orlando</b>                          | <b>Central District</b>             |                                    |
|   | Melbourne                               | Central District Satellite Office   |                                    |
|   | <b>Jacksonville</b>                     | <b>Northeast District</b>           |                                    |
|   | Gainesville                             | Northeast District Branch Office    |                                    |
|   | <b>Fort Myers</b>                       | <b>South District</b>               |                                    |
|   | Marathon                                | South District Branch Office        |                                    |
|   | <b>West Palm Beach</b>                  | <b>Southeast District</b>           |                                    |
|   | Port St. Lucie                          | Southeast District Branch Office    |                                    |
| Reply Optional <input type="checkbox"/> | Reply Required <input type="checkbox"/> |                                     | Info Only <input type="checkbox"/> |
| Date Due _____                          | Date Due _____                          |                                     |                                    |

Comments:

**D.E.R.**

**AUG 20 1993**

**SOUTHWEST DISTRICT  
TAMPA**

From:

Doug Beasm

Tel.:

278-9730



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FLORIDA POWER CORP. (HIGGINS  
PEAKING UNITS 1, 2, 3 & 4)

Petitioner,

vs.

OGC CASE NOS. 92-2276  
92-2277  
92-2278  
92-2279

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION,

Respondent.

---

**ORDER GRANTING SIXTH REQUEST FOR EXTENSION  
OF TIME TO FILE PETITION FOR HEARING**

This cause has come before the Florida Department of Environmental Protection (Department) on receipt of a request made by Petitioner Florida Power Corp., under Florida Administrative Code rule 17-103.070, to grant an extension of time to file a petition for an administrative hearing on Application Nos. A052-216420, A052-216421, A052-215422 and A052-216423. See Exhibit 1 attached.

Counsel for Petitioner has discussed this request with counsel for Respondent State of Florida Department of Environmental Protection, which has no objection to it. Therefore,

IT IS ORDERED:

The request for an extension of time to file a petition for administrative proceeding is granted. Petitioner shall have until October 29, 1993, to file a petition in this matter. Filing shall be complete upon receipt by the Office of General Counsel, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DONE AND ORDERED on this 15<sup>th</sup> day of August 1993 in  
Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*Kenneth J. Plante*  
KENNETH J. PLANTE  
General Counsel

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730

CERTIFICATE OF SERVICE

I CERTIFY that a true copy of the foregoing was mailed to:

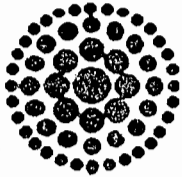
W. Jeffery Pardue, Manager  
Environmental Programs  
Florida Power Corp.  
3201 Thirty-fourth Street South  
P.O. Box 14042  
St. Petersburg, FL 33733

on this 15<sup>th</sup> day of August 1993.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*W. Douglas Beason*  
W. DOUGLAS BEASON  
Assistant General Counsel

2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730



**Florida  
Power**  
CORPORATION

RECEIVED

AUG 2 1993

By Facsimile

July 30, 1993

Dept. of Environmental Reg.  
Office of General Counsel

Mr. Doug Beason, Esq.  
Office of General Counsel  
Florida Department of Environmental Protection  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

Dear Mr. Beason:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216420, -216421, -216422, -216423)

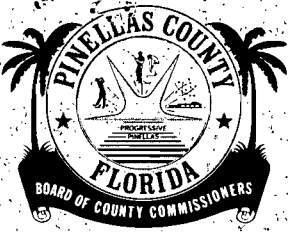
On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. Subsequently, in accordance with Rule 17-103.070, FPC has obtained extensions of the time in which to file a petition for an administrative hearing which expire on July 30, 1993. FDEP and FPC are continuing discussions regarding proposed changes to the permits. Because additional time is needed to complete the revisions, FPC respectfully requests an additional extension of the time in which to file for an administrative hearing, up to and including October 29, 1993. Mr. George Richardson of FDEP has given his concurrence with this request.

Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. George Richardson, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.



BOARD OF COUNTY COMMISSIONERS  
PINELLAS COUNTY, FLORIDA

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

COMMISSIONERS

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BRUCE TYNDALL - VICE CHAIRMAN  
SALLIE PARKS  
STEVE SEIBERT  
BARBARA SHEEN TODD

D.E.R.

JUL 27 1993

SOUTHWEST DISTRICT  
TAMPA

July 23, 1993

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

RE: Florida Power, Higgins Peaking Unit No. 1,  
Permit No. AO52-216420

Mr. Richardson:

This office has reviewed Florida Power's letter, dated 7/20/93, requesting that the draft permit be amended. The issue relates to the facility's contention that the power curve, included as part of the permit, represents the actual operation of the unit. This curve shows the peaking unit is capable of approximately 0.607 MMBtu/hour at 250 F. Specific Condition No. 7 limits the peaking unit to 0.57 MMBtu/hour and 96 BBL/hour of No. 2 fuel oil. These limits were contained in Florida Power's original permit application and have been included in past permits.

The emission factors for these units are based on the amount of fuel burned. If the peaking unit operates at 0.607 MMBtu/hour, more than the 96 BBL/hour of fuel oil would be burned. The burning of additional fuel will result in increased emissions.

Florida Power cites 17-212.400 to support its contention that this change is not a significant one under the regulation. This rule deals with PSD, and there has been no contention on DEP's part that this would be a modification under PSD rules. Under 17-210.300, **Permits Required**, the increase in fuel oil, resulting in increased emissions, would be considered a modification, and therefore, would require modification permit.



If Florida Power is able to demonstrate that operating the peaking unit at a higher Btu output, will not increase emissions, then a modification would not be necessary.

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

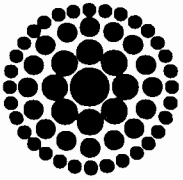
Sincerely,

A handwritten signature in cursive script, appearing to read "Gary Robbins".

Gary Robbins, Environmental Program Manager  
Air Quality Division

cc: RF, PF

AQC.FP\_P6420



**Florida  
Power**  
CORPORATION

D.E.R.

JUL 22 1993

SOUTHWEST DISTRICT  
TAMPA

July 20, 1993

Mr. George Richardson  
Southwest District  
Florida Department of Environmental Regulation  
3804 Coconut Palm  
Tampa, FL 33619

Dear Mr. Richardson:

Re: Higgins Peaking Unit 1 - Permit No. A052-216420  
Revised Operation Permit - Second Draft

On June 14, 1993 Florida Power Corporation (FPC) received the above-referenced draft revised operating permit renewal by fax. As we discussed over the telephone, there is one remaining issue regarding the permit. Although the submitted heat input vs. ambient temperature curves were incorporated into the permit as requested, the maximum process parameters were listed as they are in the existing operation permit. As discussed in my May 24, 1993 comment letter, FPC requests that this portion of the permit be changed. The following paragraphs provide further discussion of this request.

As previously discussed, the performance of combustion turbines (CTs) changes with ambient temperature. By convention, CT capacities are given in terms of a unit's capability at a temperature of 59°F for convenience. The unit's overall performance is much more accurately described by its heat input vs. temperature curve, however. The highest performance occurs at the lowest ambient temperatures.

In the specific case of the Higgins peaking units, 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 in 1977; only the capability at the reference temperature was provided at that time.

Regarding the issue of whether the incorporation of the entire curve necessitates a permit review, DEP Regulation 17-212.400 requires review if the change results in a significant net emissions increase. A significant net emissions increase is defined to occur when "the sum of all the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero." Since no physical changes or changes in the method of operation of the units have occurred, the actual emissions will also be unchanged. Therefore, it is FPC's opinion that no permit review is necessary.

Mr. George Richardson

July 20, 1993

Page Two

FPC requests that the language changes suggested in the May 24, 1993 letter regarding the facility description, Specific Condition 7, and Specific Condition 10 be incorporated into the revised operation permits for the Higgins peaking units. The permit will reflect the actual operation of the units more accurately, and the DEP, by using the curves throughout the ambient temperature range, will possess an effective enforcement method.

Please feel free to contact J. Michael Kennedy at (813) 866-4344 if you have any questions.

Sincerely,



Patricia A. Blizzard, Director  
Environmental Services Department

cc: Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.

/mrb

BEST AVAILABLE COPY



Florida Department

Jason L. Givens, Governor

Post-It™ brand fax transmittal memo 7671 # of pages = 4

|                              |                           |
|------------------------------|---------------------------|
| To: <i>George Richardson</i> | From: <i>Mike Kennedy</i> |
| Co: <i>DEP</i>               | Co: <i>Florida Power</i>  |
| Dept.                        | Phone #                   |
| Fax # <i>(813) 744-6093</i>  | Fax #                     |

**PERMITTEE:**

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

**PERMIT/CERTIFICATION**

Permit No: A052-216420  
 County: Pinellas  
 Expiration Date: 11-10-97  
 Project: Higgins Peaking  
 Unit No. 1

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 Higgins Peaking Unit No. 1. This unit is fired with natural gas or new No. 2 fuel oil. This unit is a gas turbine unit consisting of two Pratt & Whitney jet engines. This unit is rated at 33.8 MW/hour having a maximum heat input rate of 566 MMBTU/hour. The maximum fuel usage rate is 0.57 MMCF/hour of natural gas or 96.0 BBL/hour of new No. 2 fuel oil. 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: Booth Road, Oldsmar, Pinellas County.

UTM: 17-336.5 E 3098.3 N NEDS NO: 0012 Point ID: 04

Replaces Permit No.: A052-137555



**PERMITTEE:**  
Florida Power Corporation

**Permit No.:** A052-216420  
**Project:** Higgins Peaking  
**Unit No. 1**

**SPECIFIC CONDITIONS:**

1. A part of this permit is the attached 15 General Conditions.
2. Visible emissions from Higgins Peaking Unit No. 1 shall not be equal to or greater than 20% opacity (Rule 17-296.310(2)(a), F.A.C.).
3. Test Higgins Peaking Unit No. 1 for visible emissions annually within 60 days prior to January 7. 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 under the conditions as outlined by Florida Power Corporation in the letter submitted to the Department dated March 29, 1993. The submitted graph for Peaking Unit No. 1 is made a part of this permit. A copy of the submitted 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.).

**PERMITTEE:**  
**Florida Power Corporation**

**Permit No.:** AO52-216420  
**Project:** Higgins Peaking  
**Unit No.** 1

7. Higgins Peaking Unit No. 1 is permitted to operate at the following parameters:

**A. Process Parameters:**

1. Maximum Load Rate: 33.8 MW/hour
2. Maximum Heat Input Rate: 566 MMBTU/hour
3. Maximum Fuel Usage: 0.57 MMCF/hour of natural gas,  
 96 BBL/hour of 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, dated 9/8/77, and AP 42 emission factors, the following are the maximum potential emission rates from this peaking unit, upon which this permit is issued:

|                 | <u>pounds/hour</u> | <u>tons/year</u> |
|-----------------|--------------------|------------------|
| Particulate     | 34.53              | 151.22           |
| Carbon Monoxide | 62.26              | 272.70           |
| Sulfur Dioxide  | 2.82               | 12.36            |
| Nitrogen Oxides | 395.07             | 1,730.40         |
| VOC             | 23.94              | 104.86           |

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.).

**PERMITTEE:**  
**Florida Power Corporation**

**Permit No.:** AO52-216420  
**Project:** Higgins Peaking  
**Unit No. 1**

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 emission factors:

|                 | <u>No. 2 Fuel Oil</u><br><u>Pounds/MMBTU</u> | <u>Natural Gas</u><br><u>Pounds/MMBTU</u> |
|-----------------|--|---|
| Particulate     | 0.061  | 0.0419                                    |
| Carbon Monoxide | 0.048  | 0.11                                      |
| Nitrogen Oxides | 0.698  | 0.44                                      |

|                | <u>No. 2 Fuel Oil</u><br><u>Pounds/10<sup>3</sup> Gallons</u> | <u>Natural Gas</u><br><u>Pounds/10<sup>6</sup> ft<sup>3</sup></u> |
|----------------|---|---|
| Sulfur Dioxide | 140s  | 940s  |
| VOC            | 5.57  | 42  |

s denotes sulfur content, % by weight

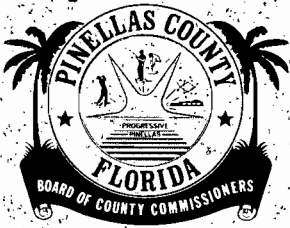
Emission factors for PM, CO, & NOx from AP 42, Table 3.1-1 (10/92). Emission factors for SO2 & VOC from AP 42 tables prior to 10/92.

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



BOARD OF COUNTY COMMISSIONERS  
PINELLAS COUNTY, FLORIDA

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

D.E.R.

JUN 07 1993

SOUTHWEST DISTRICT  
TAMPA

COMMISSIONERS:

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

June 3, 1993

Mr. George Richardson  
Department of Environmental Regulation  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8318

RE: Florida Power, Higgins Peaking Unit Nos. 1 - 4

Mr. Richardson:

This office has reviewed Florida Power's request to change the conditions of the recently issued renewal permit. Pinellas County recommends the following:

Process Description:

Change to - For the operation of Higgins Peaking Unit No. 1. This unit is fired with natural gas or new No. 2 fuel oil. This unit is a gas turbine unit consisting of two Pratt & Whitney jet engines. This unit is rated at a maximum of 33.8 MW/hour having a maximum heat input rate of 566 MMBtu/hour. The maximum fuel usage rate is 0.57 MMCF/hour of natural gas or 96.0 BBL/hour of new No. 2 fuel oil. The unit's daily maximum performance is a function of ambient temperature, as shown in the attached graph of heat input vs. ambient temperature.

Specific Condition No. 7:

Leave as is, except modify A.3. to read:

3. Maximum Fuel Usage: 0.57MMCF/hour of Natural Gas  
96 BBL/hour of new No. 2 fuel oil  
with a maximum sulfur content of  
0.5% by weight

Specific Condition No. 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) 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. Records must be kept for a minimum of two years.

Specific Condition No. 10:

Based on the original permit application, dated 9/8/77, and AP 42 emission factors, the following are the maximum potential emission rates from this peaking unit, upon which this permit is issued:

|                 | <u>Pounds/hour</u> | <u>Tons/year</u> |
|-----------------|--------------------|------------------|
| Particulate     | 34.53              | 151.2            |
| Carbon Monoxide | 62.26              | 272.7            |
| Sulfur Dioxide  | 2.82               | 12.4             |
| Nitrogen Oxides | 395.07             | 1,730.4          |
| VOC             | 23.94              | 104.9            |

Specific Condition No. 12:

Until further notice by the Pinellas County Department of Environmental Management, Air Quality Division, Florida Power Corporation shall calculate annual emission, for the Annual Operating Report, by multiplying the MMBtu generated from fuel use by the following emission factors:

|                 | <u>No. 2 Fuel Oil<br/>Pounds/MMBtu</u> | <u>Natural Gas<br/>Pounds/MMBtu</u> |
|-----------------|--|-------------------------------------|
| Particulate     | 0.061                                  | 0.0419                              |
| Carbon Monoxide | 0.048                                  | 0.11                                |
| Nitrogen Oxides | 0.698                                  | 0.44                                |

|                | <u>No. 2 Fuel Oil<br/>Pounds/10<sup>3</sup> Gallons</u> | <u>Natural Gas<br/>Pounds/10<sup>6</sup> ft<sup>3</sup></u> |
|----------------|---|---|
| Sulfur Dioxide | 140s  | 940s  |
| VOC            | 5.57  | 42  |

s denotes sulfur content, % by weight

The permits for Peakers Nos. 2-4 should be modified similarly. Copies of emissions tables for each peaker are attached. If you have any questions, please call me at (813) 464-4422 (Suncom 570-4422).

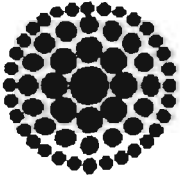
Sincerely,



Gary Robbins, Environmental Program Manager  
Air Quality Division

cc: RF

AQC.316



**Florida  
Power**  
CORPORATION

D.E.R.

JUN 01 1993

SOUTHWEST DISTRICT  
TAMPA

By Facsimile

May 28, 1993

Mr. Doug Beason, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

Dear Mr. Beason:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216420, -216421, -216422, -216423)

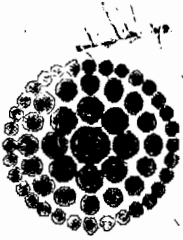
On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. Subsequently, in accordance with Rule 17-103.070, FPC has obtained extensions of the time in which to file a petition for an administrative hearing which expire on May 31, 1993. FDER is currently preparing revised permits based on changes to which FPC and FDER have mutually agreed. Because additional time is needed to complete the revisions, FPC respectfully requests an additional extension of the time in which to file for an administrative hearing, up to and including July 30, 1993. Mr. George Richardson of FDER has given his concurrence with this request.

Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. George Richardson, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.



**Florida  
Power  
CORPORATION**

3201 Thirty-Fourth Street South • P. O. Box 14042 • St. Petersburg, Florida 33733

**ENVIRONMENTAL SERVICES DEPARTMENT**

**TELECOPIER NUMBER (813) 866-4926**

TO: George Richardson

FROM: Mike Kennedy

DATE: 5/25/93

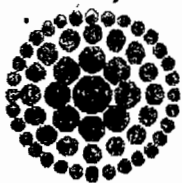
TELECOPIER NUMBER: (813) 744-6083

CONFIRMATION NUMBER: \_\_\_\_\_

NUMBER OF PAGES TO FOLLOW: 7

**PLEASE NOTIFY (813) 866-4940 FOR ANY PROBLEMS CONCERNING THE RECEIPT OF THIS FAX.**

REMARKS: *Feel free to call me at (813) 866-4344 if you have any questions. Please let me know if you think we will need another extension.*



**Florida  
Power**  
CORPORATION

BEST AVAILABLE COPY

May 24, 1993

Mr. George Richardson  
Southwest District  
Florida Department of Environmental Regulation  
3804 Coconut Palm  
Tampa, FL 33619

Dear Mr. Richardson:

Re: Higgins Peaking Unit 1 (Permit No. A052-216420) Draft Revised Operation Permit

On May 18, 1993 Florida Power Corporation (FPC) received the above-referenced draft revised operating permit renewal. FPC has reviewed the permit, and offers the following comments for your consideration.

Facility Description

*... This unit is rated as 33.8 MW/hour having a maximum heat input rate of 566 MMBTU/hour. The maximum fuel usage rate is 0.57 MMCF/hour of natural gas or 96.0 BBL/hour of new No. 2 fuel oil.*

Since the heat input vs. ambient temperature curve which FPC submitted for this unit has been incorporated into the permit in Specific Condition 5, this description of the unit should be updated. The MW output of a combustion turbine is a poor indicator of its emissions and should not be used to indicate operating limits. This is the reason FPC submitted the heat input curve. This curve describes the unit's performance over a wide range of ambient temperatures. FPC recommends that the following language could be used to describe the unit's capability:

*The attached graph of heat input vs. ambient temperature describes the unit's maximum performance capability. A representative points on the curve is [531 MMBtu/hour for Units 1 and 2, 575 MMBtu/hour for Units 3 and 4] at a reference temperature of 59° F.*

Specific Condition 7.

*Higgins Peaking Unit No. 1 is permitted to operate at the following parameters:*



Mr. George Richardson  
May 24, 1993  
Page Two

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A. Process Parameters:

1. *Maximum Load Rate: 33.8 MW/hour*
2. *Maximum Heat Input Rate: 566 MMBTU/hour*
3. *Maximum Fuel Usage: 0.57 MMCF/hour of natural gas,  
96 BBL/hour of new No. 2 fuel oil*

As with the facility description discussed on the previous page, the incorporation of the heat input curve necessitates a language change for this condition. The process parameters listed in the current condition are representative of only one ambient temperature. Since the curve describes the unit's maximum capability over a range of temperatures, it is a more accurate representation of its limits. FPC suggests that the condition's language be changed to the following:

*For a given ambient temperature, Higgins Peaking Unit No. 1 is limited to the corresponding heat input given by the attached graph of heat input vs. ambient temperature.*

If a listing of representative operating parameters is desired, then the 59° F. (a common reference temperature) case discussed above could be given as an example.

Specific Condition 8.

This condition requires that a single fuel sample be taken in order to ensure that the fuel vendors are supplying accurate information and for use in the annual operating report. FPC periodically takes such samples as a check on the vendor's analysis, so more than one FPC fuel analysis will be available for the annual operating report. Records of these analyses will be kept as specified in the permit.

Specific Conditions 10 and 12

Specific Condition 12 gives the AP-42 emission factors which are to be used for the calculation of air pollutant emissions. FPC has received a copy (please see attached), from DER's Central District, of updated AP-42 emission factors which were published in October 1992. These factors are given in terms of lbs./MMBtu rather than lbs./10<sup>3</sup> gallons of fuel burned. FPC requests that these revised factors be used in the permit.

Specific condition 10 utilizes the emission factors to calculate the maximum potential emission rates in lbs./hour and tons/year. Again, the graph of heat input vs. ambient temperature incorporated into the permit changes this condition somewhat. FPC suggests that the 59° F case be used as a representative example of the maximum potential emission rates. The capacity of 531 MMBtu/hour at this temperature would be used with the revised emission factors discussed above. The language in Specific Condition 10 would then be changed to the following:

Mr. George Richardson

May 24, 1993

Page Three

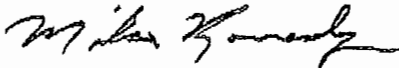
*At an ambient temperature of 59° F, the representative potential emission rates are as follows:*

|                            | <u>pounds/hour</u>   | <u>tons/year</u>     |
|----------------------------|----------------------|----------------------|
| <i>Particulate (total)</i> | 22.25                | 97.46                |
| <i>Carbon Monoxide</i>     | 58.41                | 255.84               |
| <i>Sulfur Dioxide</i>      | <i>fuel analysis</i> | <i>fuel analysis</i> |
| <i>Nitrogen Oxides</i>     | 233.64               | 1023.34              |
| <i>Organic Compounds</i>   | 12.74                | 55.80                |

The permits for Units 2, 3, and 4 would be identical except for appropriate differences in capacity and corresponding emissions.

FPC appreciates your willingness to work on making these important changes to the Higgins peaker permits. With the changes, the permits will much more accurately reflect the way in which these units operate. Please contact me at (813) 866-4344 if you have any questions.

Sincerely,



J. Michael Kennedy  
Senior Environmental Specialist

cc: Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.

### 3.1 STATIONARY GAS TURBINES FOR ELECTRICITY GENERATION

#### 3.1.1 General

Stationary gas turbines are applied in electric power generators, in gas pipeline pump and compressor drives, and in various process industries. Gas turbines (greater than 3 MW(e)) are used in electrical generation for continuous, peaking, or standby power. The primary fuels used are natural gas and distillate (No. 2) fuel oil, although residual fuel oil is used in a few applications.

#### 3.1.2 Emissions

Emission control technologies for gas turbines have advanced to a point where all new and most existing units are complying with various levels of specified emission limits. For these sources, the emission factors become an operational specification rather than a parameter to be quantified by testing. This section treats uncontrolled (i.e., baseline) emissions and controlled emissions with specific control technologies.

The emission factors presented are for simple cycle gas turbines. These factors also apply to cogeneration/combined cycle gas turbines. In general, if the heat recovery steam generator (HRSG) is not supplementary fired, the simple cycle input specific emission factors (lbm/MMBtu) will apply to cogeneration/combined cycle systems. The output specific emissions (g/hp-hr) will decrease according to the ratio of simple cycle to combined cycle power output. If the HRSG is supplementary fired, the emissions and fuel usage must be considered to estimate stack emissions. Nitrogen Oxide ( $\text{NO}_x$ ) emissions from regenerative cycle turbines (which account for only a small percentage of turbines in use) are greater than emissions from simple cycle turbines because of the increased combustion air temperature entering the turbine. The carbon monoxide (CO) and hydrocarbon (HC) emissions may be lower with the regenerative system for a comparable design. More power is produced from the same energy input, so the input specific emissions factor will be affected by changes in emissions, while output specific emissions will reflect the increased power output.

Water/steam injection is the most prevalent  $\text{NO}_x$  control for cogeneration/combined cycle gas turbines. The water or steam is injected with the air and fuel into the turbine combustion can in order to lower the peak temperatures which, in turn, decreases the thermal  $\text{NO}_x$  produced. The lower average temperature within the combustor can may produce higher levels of CO and HC as a result of incomplete combustion.

Selective catalytic reduction (SCR) is a post-combustion control which selectively reduces  $\text{NO}_x$  by reaction of ammonia and NO on a catalytic surface to form  $\text{N}_2$  and  $\text{H}_2\text{O}$ . Although SCR systems can be used alone, all existing applications of SCR have been used in conjunction with water/steam injection controls. For optimum SCR operation, the flue gas must be within a temperature range of 600-800°F with the precise limits dependant on the catalyst. Some SCR systems also utilize a CO catalyst to give simultaneous catalytic CO/ $\text{NO}_x$  control.

Advanced combustor can designs are currently being phased into production turbines. These dry techniques decrease turbine emissions by modifying the combustion mixing, air staging, and flame stabilization to allow operation at a much leaner air/fuel ratio relative to normal operation. Operating at leaner conditions will lower peak temperatures within the primary flame zone of the combustor. The lower temperatures may also increase CO and HC emissions.

With the proliferation and advancement of NO<sub>x</sub> control technologies for gas turbines during the past 15 years, the emission factors for the installed gas turbine population are quite different than uncontrolled turbines. However, uncontrolled turbine emissions have not changed significantly. Therefore a careful review of specific turbine details should be performed before applying uncontrolled emission factors. Today most gas turbines are controlled to meet local, state, and/or federal regulations.

The average gaseous emission factors for uncontrolled gas turbines (firing natural gas and fuel oil) are presented in Tables 3.1-1 and 3.1-2. There is some variation in emissions over the population of large uncontrolled gas turbines because of the diversity of engine designs and models. Tables 3.1-3 and 3.1-4 present emission factors for gas turbines controlled for NO<sub>x</sub> using water injection, steam injection or SCR. Tables 3.1-5 and 3.1-6 present emission factors for large distillate oil-fired turbines controlled for NO<sub>x</sub> using water injection.

Gas turbines firing distillate or residual oil may emit trace metals carried over from the metals content of the fuel. If the fuel analysis is known, the metals content of the fuel should be used for flue gas emission factors assuming all metals pass through the turbine. If the fuel analysis is not known, Table 3.1-7 provides order of magnitude levels for turbines fired with distillate oil.

TABLE 3.1-1. (ENGLISH UNITS)  
 EMISSION FACTORS FOR LARGE UNCONTROLLED GAS TURBINES<sup>1,2</sup>

| Pollutant                             | Emission Factor Rating <sup>a</sup> | Natural Gas (SCC-2-01-002-01)                |                            | Fuel Oil (i.e. Distillate) (SCC-2-01-001-01) |                            |
|---------------------------------------|-------------------------------------|--|----------------------------|--|----------------------------|
|                                       |                                     | [grams/hr-hp] <sup>b</sup><br>(power output) | [lb/MMBtu]<br>(fuel input) | [grams/hr-hp] <sup>b</sup><br>(power output) | [lb/MMBtu]<br>(fuel input) |
| NO <sub>x</sub>                       | C                                   | 1.6  | .44                        | 2.54   | .698                       |
| CO                                    | D                                   | .39  | .11                        | .174   | .048                       |
| CO <sub>2</sub> <sup>c</sup>          | B                                   | 407  | 112                        | 596  | 164                        |
| TOC (as methane)                      | D                                   | .087   | .024                       | .062   | .017                       |
| SO <sub>x</sub> (as SO <sub>2</sub> ) | B                                   | d  | d                          | d  | 0                          |
| PM (solids)                           | E                                   | .070   | .0193                      | .138   | .038                       |
| PM (condensables)                     | E                                   | .082   | .0226                      | .084   | .023                       |
| PM Sizing %                           |                                     |  |                            |  |                            |
| < .05 microns                         | D                                   |  | 15%                        |  | 16%                        |
| < .10 microns                         | D                                   |  | 40%                        |  | 48%                        |
| < .15 microns                         | D                                   |  | 63%                        |  | 72%                        |
| < .20 microns                         | D                                   |  | 78%                        |  | 85%                        |
| < .25 microns                         | D                                   |  | 89%                        |  | 93%                        |
| < 1 micron                            | D                                   |  | 100%                       |  | 100%                       |

- a. "D" and "E" rated emission factors are due to limited data and/or a lack of documentation of test results. "D" and "E" rated emission factors may not be suitable for specific facilities or populations and should be used with care.
- b. Calculated from lb/MMBtu assuming an average heat rate of 8,000 Btu/hp-hr (x 3.632).
- c. Based on 100 percent conversion of the fuel carbon to CO<sub>2</sub>. CO<sub>2</sub>[lb/MMBtu] = 3.67°C/E, where C = carbon content of fuel by weight, .7, and E = energy content of fuel, .0023 MMBtu/lb. The uncontrolled CO<sub>2</sub> emission factors are also applicable to controlled gas turbines.
- d. All sulfur in the fuel is converted to SO<sub>2</sub>.

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TABLE 3.1-2. (METRIC UNITS)  
EMISSION FACTORS FOR LARGE UNCONTROLLED GAS TURBINES<sup>1,a</sup>

| Uncontrolled Emission Factors         | Emission factor Rating <sup>a</sup> | Natural Gas (SCC-2-01-(K)2-01)            |                     | Fuel Oil (i.e. Distillate) (SCC-2-01-(K)4-01) |                     |
|---------------------------------------|-------------------------------------|---|---------------------|---|---------------------|
|                                       |                                     | [grams/kW-hr <sup>b</sup> (power output)] | (ng/l) (fuel input) | [grams/kW-hr <sup>b</sup> (power output)]     | (ng/l) (fuel input) |
| NO <sub>x</sub>                       | C                                   | 2.15                                      | 190                 | 3.41  | 300                 |
| CO                                    | D                                   | .52                                       | 46                  | .233  | 20.6                |
| CO <sub>2</sub> <sup>c</sup>          | B                                   | 546                                       | 48160               | 799   | 70520               |
| TOC (as methane)                      | D                                   | .117                                      | 10.32               | .083  | 7.31                |
| SO <sub>x</sub> (as SO <sub>2</sub> ) | B                                   |   |                     |   |                     |
| PM (solids)                           | E                                   | .094                                      | 8.30                | .185  | 16.3                |
| PM (consumables)                      | E                                   | .11                                       | 9.72                | .113  | 9.89                |
| PM Sizing %                           |                                     |   |                     |   |                     |
| < .05 microns                         | D                                   |   | 15%                 |   | 16%                 |
| < .10 microns                         | D                                   |   | 40%                 |   | 48%                 |
| < .15 microns                         | D                                   |   | 63%                 |   | 72%                 |
| < .20 microns                         | D                                   |   | 78%                 |   | 85%                 |
| < .25 microns                         | D                                   |   | 89%                 |   | 93%                 |
| < 1 micron                            | D                                   |   | 100%                |   | 100%                |

- a. "D" and "E" rated emission factors are due to limited data and/or a lack of documentation of test results. "D" and "E" rated emission factors may not be suitable for specific facilities or populations and should be used with care.
- b. Calculated from ng/l assuming an average heat rate of 11,318 KJ/KW-hr.
- c. Based on 100 percent conversion of the fuel carbon to CO<sub>2</sub>. CO<sub>2</sub>(lb/MMBtu) = 3.67 \* C/E, where C = ratio of carbon in the fuel by weight, and E = energy content of fuel, MMBtu/lb. The uncontrolled CO<sub>2</sub> emission factors are also applicable to controlled gas turbines.
- d. All sulfur in the fuel is assumed to be converted to SO<sub>2</sub>.

State of Florida  
Department of Environmental Regulation

# District Routing Slip

To: George Richardson Date: 5-7-93

C.C. To:

|   |                        |                                     |  |
|---|------------------------|-------------------------------------|--|
|   | <b>Pensacola</b>       | <b>Northwest District</b>           |  |
|   | Panama City            | Northwest District Branch Office    |  |
|   | Tallahassee            | Northwest District Branch Office    |  |
|   | Apalachicola           | Northwest District Satellite Office |  |
| ✓ | <b>Tampa</b>           | <b>Southwest District</b>           |  |
|   | Punta Gorda            | Southwest District Branch Office    |  |
|   | Bartow                 | Southwest District Satellite Office |  |
|   | <b>Orlando</b>         | <b>Central District</b>             |  |
|   | Melbourne              | Central District Satellite Office   |  |
|   | <b>Jacksonville</b>    | <b>Northeast District</b>           |  |
|   | Gainesville            | Northeast District Branch Office    |  |
|   | <b>Fort Myers</b>      | <b>South District</b>               |  |
|   | Marathon               | South District Branch Office        |  |
|   | <b>West Palm Beach</b> | <b>Southeast District</b>           |  |
|   | Port St. Lucie         | Southeast District Branch Office    |  |

Reply Optional

Reply Required

Info Only

Date Due \_\_\_\_\_

Date Due \_\_\_\_\_

Comments:

D.E.R.  
MAY 10 1993  
SOUTHWEST DISTRICT  
TAMPA

From: Doug Beason

Tel.: 278-9730

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

FLORIDA POWER CORP. (HIGGINS  
PEAKING UNITS 1, 2, 3 & 4)

Petitioner,

vs.

OGC CASE NOS. 92-2276  
92-2277  
92-2278  
92-2279

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION,

Respondent.

---

**ORDER GRANTING FOURTH REQUEST FOR EXTENSION  
OF TIME TO FILE PETITION FOR HEARING**

This cause has come before the Florida Department of Environmental Regulation (Department) on receipt of a request made by Petitioner Florida Power Corp., under Florida Administrative Code rule 17-103.070, to grant an extension of time to file a petition for an administrative hearing on Application Nos. A052-216420, A052-216421, A052-215422 and A052-216423. See Exhibit 1 attached.

Counsel for Petitioner has discussed this request with counsel for Respondent State of Florida Department of Environmental Regulation, which has no objection to it. Therefore,

IT IS ORDERED:

The request for an extension of time to file a petition for administrative proceeding is granted. Petitioner shall have until May 31, 1993, to file a petition in this matter. Filing shall be complete upon receipt by the Office of General Counsel, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.



DONE AND ORDERED on this 12<sup>th</sup> day of May 1993 in Tallahassee,  
Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

Daniel H. Thompson  
DANIEL H. THOMPSON  
General Counsel

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730

CERTIFICATE OF SERVICE

I CERTIFY that a true copy of the foregoing was mailed to:

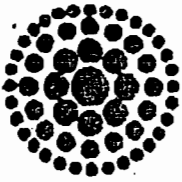
W. Jeffery Pardue, Manager  
Environmental Programs  
Florida Power Corp.  
3201 Thirty-fourth Street South  
P.O. Box 14042  
St. Petersburg, FL 33733

on this 12<sup>th</sup> day of May 1993.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

W. Douglas Beason  
W. DOUGLAS BEASON  
Assistant General Counsel

2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730



**Florida  
Power**  
CORPORATION

**RECEIVED**  
APR 29 1993

By Facsimile

April 29, 1993

Dept. of Environmental Reg.  
Office of General Counsel

Mr. Doug Beason, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blainstone Road  
Tallahassee, FL 32399-2400

Dear Mr. Beason:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216420, -216421, -216422, -216423)

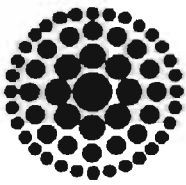
On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. Subsequently, in accordance with Rule 17-103.070, FPC has obtained extensions of the time in which to file a petition for an administrative hearing which expire on April 29, 1993. FDER is currently preparing revised permits based on changes to which FPC and FDER have mutually agreed. Because additional time is needed to complete the revisions, FPC respectfully requests an additional extension of the time in which to file for an administrative hearing, up to and including May 31, 1993. Mr. George Richardson of FDER has been contacted regarding this request and has given his concurrence.

Thank you for your consideration of this request. Please contact Mr. Mike Keenan, Attorney at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. George Richardson, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.



**Florida  
Power**  
CORPORATION

By Facsimile

April 29, 1993

Mr. Doug Beason, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

D.E.R.

MAY 03 1993

SOUTHWEST DISTRICT  
TAMPA

Dear Mr. Beason:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216420, -216421, -216422, -216423)

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Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. George Richardson, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.



David L. Miller  
Senior Vice President  
Corporate Services

February 9, 1993

TO WHOM IT MAY CONCERN

Subject: Letter of Authorization

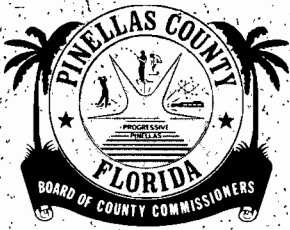
Please be advised that Patricia K. Blizzard, Director, Environmental Services Department, Mr. W. W. Vierday, Manager of Environmental Programs, and Mr. W. Jeffrey Pardue, Manager of Environmental Programs, are authorized to represent Florida Power Corporation in matters relating to necessary permits and reporting documentation required from regulatory authorities in the areas of air, water, power plant site certifications and transmission line certifications, or hazardous and solid materials issues.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Miller", written over a large, stylized circular flourish.

David L. Miller

DLM:mlp



BOARD OF COUNTY COMMISSIONERS  
PINELLAS COUNTY, FLORIDA

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

COMMISSIONERS

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

D.E.R.

APR 28 1993

SOUTHWEST DISTRICT  
TAMPA

April 23, 1993

Mr. George Richardson  
Department of Environmental Regulation  
3804 Coconut Palm Drive  
Tampa, Fla. 33619-8318

RE: Florida Power Corporation; Higgins Peaking Units

Mr. Richardson:

This office has reviewed the request to modify the three conditions of Higgins Peaking Unit Nos. 1 -4, permit nos. A052-216420, 216421, 216422, and 216423, respectively. Our comments are as follows:

Specific Condition No. 3

Florida Power is correct, Rule 17-297.340(1)(h) does exempt combustion turbines from VE tests, if operated less than 400 hours/year. This source would be required to test at a minimum of 5 years for the renewal of the permit.

Specific Condition No. 5

I contacted Preston Lewis of DARM concerning this issue for state-wide consistency. He stated that he felt this was an acceptable request and that testing under the conditions outlined by Florida Power should be representative of the peakers true operation.



Specific Condition No. 8

I also spoke to Preston Lewis regarding the fuel oil sampling. He was involved in the DeBary turbine permit. He recommends that we grant this request with an addition. To ensure that the vendors are properly analyzing the fuel oil, the condition should read:

The BTU heating value, sulfur content (% by weight), API gravity, and density of the fuel, being fired in the combustion turbine, shall be based on a weighted 12 month rolling average from fuel delivery receipts. To ensure the vendors are supplying accurate information, Florida Power shall perform a separate annual fuel analysis. A sample from the fuel tank shall be taken on the same day as the visible emissions test, or if waived, between the dates of December 1, and February 28, and be analyzed. This data is to be used to calculate the SO<sub>2</sub> emissions for the Annual Operating Report. Records must be kept for a minimum of two years.

If you have any questions contact this office at Suncom 570-4422.

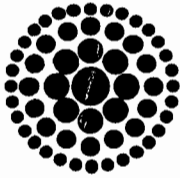
Sincerely,



Gary Robbins, Environmental Program Manager  
Air Quality Division

cc: PF, RF

AQC.303



**Florida  
Power**  
CORPORATION

March 29, 1993

Mr. George Richardson  
Southwest District  
Florida Department of Environmental Regulation  
3804 Coconut Palm  
Tampa, FL 33619

**D.E.R.**

**MAR 31 1993**

**SOUTHWEST DISTRICT  
TAMPA**

Dear Mr. Richardson:

Re: Higgins Peaking Units 1, 2, 3, 4 (Permit Nos. A052-216420, -216421, -216422, -216423)  
Permit Renewals

On November 17, 1992 Florida Power Corporation (FPC) received the above-referenced operating permit renewals. FPC obtained an extension of the time in which to file for an administrative hearing, up to and including April 30, 1993. FPC has reviewed the permits, and offers the following comments for your consideration. The comments are given by condition number and apply to all four permits.

Specific Condition 3.

*Test Higgins Peaking Unit No. [ ] for visible emissions at intervals of 12 months from the date of January 12, 1992 if the unit is operated more than 5 days (120 hours) on fuel oil the preceding 12 months.*

Florida DER Rule 17-2.700, Sections (2)(a)3. and (2)(a)5., contain exemptions from emission testing for fuel burning sources which operate less than 400 hours in a year. In addition, other FPC peaking unit permits use 400 hours as the emission testing exemption threshold. FPC requests that the language in the Higgins peaking units permits be changed from a threshold of 120 hours to 400 hours of operation in a year.

Specific Condition 5.

*Testing of emissions must be accomplished within 90-100% of the maximum permitted rate of 33.8 MW/hour for Units 1 and 2 and 42.9 MW/hour for Units 3 and 4.*

Unlike steam units, combustion turbine performance is directly affected by ambient temperature conditions. As ambient temperature decreases, the increased density of the air increases the MW output of the turbine.

Mr. George Richardson  
March 29, 1993  
Page Two

Depending on the temperature during a given visible emissions test, it is possible to test at less than 90% or greater than 100% of the maximum permitted rate currently stated in the permit. In addition, the MW output of a combustion turbine is a poor indicator of its air pollutant emissions. The heat input is more directly related to emissions, making it a more appropriate surrogate measure. I have attached a graph of maximum heat input versus ambient temperature for each of the Higgins peaking units. These curves were derived from performance data obtained for the units while operating at peak load. FPC requests that the curve for each peaking unit be incorporated into its operation permit.

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.

Specific Condition 8.

*The new No. 2 fuel oil is to be monitored prior to delivery and a daily sample taken for a monthly composite sample.*

Because of the limited operation of the peaking units, fuel oil deliveries occur approximately on a quarterly basis. Since fuel is received infrequently and changes little from one delivery to another, a daily sample is not necessary to effectively track the quality of the fuel. The construction permit for FPC's new DeBary combustion turbine units, issued October 21, 1991, contains the following language in Specific Condition 16:

*Sulfur, nitrogen content and lower heating value of the fuel being fired in the combustion turbines shall be based on a weighted 12 month rolling average from fuel delivery receipts.*

FPC requests that Specific Condition 8 be changed to allow fuel analysis based on fuel delivery receipts. FPC suggests the following language for the first sentence of the condition:

*The new No. 2 fuel oil is to be monitored based on a weighted annual average of fuel delivery receipts.*

The remainder of the condition would be unchanged. This will ensure effective tracking of the sulfur content and heating value of the fuel without being unnecessarily burdensome.

Thank you for your consideration of FPC's comments. Please contact me at (813) 866-4344 if you have any questions.

(813) 866-4926



Mr. George Richardson  
March 29, 1993  
Page Three

Sincerely,

A handwritten signature in cursive script, appearing to read "Mike Kennedy".

J. Michael Kennedy  
Senior Environmental Specialist

cc: Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.

State of Florida  
Department of Environmental Regulation

# District Routing Slip

To: George Richardson Date: 3-11-93

C.C. To:

|   |                        |   |                                    |
|---|------------------------|---|------------------------------------|
|   | <b>Pensacola</b>       | <b>Northwest District</b>               |                                    |
|   | Panama City            | Northwest District Branch Office        |                                    |
|   | Tallahassee            | Northwest District Branch Office        |                                    |
|   | Apalachicola           | Northwest District Satellite Office     |                                    |
| ✓                                       | <b>Tampa</b>           | <b>Southwest District</b>               |                                    |
|   | Punta Gorda            | Southwest District Branch Office        |                                    |
|   | Bartow                 | Southwest District Satellite Office     |                                    |
|   | <b>Orlando</b>         | <b>Central District</b>                 |                                    |
|   | Melbourne              | Central District Satellite Office       |                                    |
|   | <b>Jacksonville</b>    | <b>Northeast District</b>               |                                    |
|   | Gainesville            | Northeast District Branch Office        |                                    |
|   | <b>Fort Myers</b>      | <b>South District</b>                   |                                    |
|   | Marathon               | South District Branch Office            |                                    |
|   | <b>West Palm Beach</b> | <b>Southeast District</b>               |                                    |
|   | Port St. Lucie         | Southeast District Branch Office        |                                    |
| Reply Optional <input type="checkbox"/> |                        | Reply Required <input type="checkbox"/> | Info Only <input type="checkbox"/> |
| Date Due _____                          |                        | Date Due _____                          |                                    |

Comments:

RECEIVED  
MAR 12 1993

Department of Environmental Regulation  
SOUTH WEST DISTRICT

From: Doug Beason Tel.: 278-9730

RECEIVED

MAR 12 1993

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Department of Environmental Regulation  
SOUTH WEST DISTRICT

FLORIDA POWER CORP. (HIGGINS  
PEAKING UNITS 1, 2, 3 & 4)

Petitioner,

vs.

OGC CASE NOS. 92-2276  
92-2277  
92-2278  
92-2279

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION,

Respondent.

\_\_\_\_\_ /

ORDER GRANTING REQUEST FOR EXTENSION  
OF TIME TO FILE PETITION FOR HEARING

This cause has come before the Florida Department of Environmental Regulation (Department) on receipt of a request made by Petitioner Florida Power Corp., under Florida Administrative Code rule 17-103.070, to grant an extension of time to file a petition for an administrative hearing on Application Nos. A052-216420, A052-216421, A052-215422 and A052-216423. See Exhibit 1 attached.

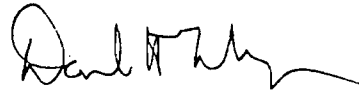
Counsel for Petitioner has discussed this request with counsel for Respondent State of Florida Department of Environmental Regulation, which has no objection to it. Therefore,

IT IS ORDERED:

The request for an extension of time to file a petition for administrative proceeding is granted. Petitioner shall have until April 30, 1993, to file a petition in this matter. Filing shall be complete upon receipt by the Office of General Counsel, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DONE AND ORDERED on this 9<sup>th</sup> day of March 1993 in  
Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



DANIEL H. THOMPSON  
General Counsel

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730

CERTIFICATE OF SERVICE

I CERTIFY that a true copy of the foregoing was mailed to:

W. Jeffery Pardue, Manager  
Environmental Programs  
Florida Power Corp.  
3201 Thirty-fourth Street South  
P.O. Box 14042  
St. Petersburg, FL 33733

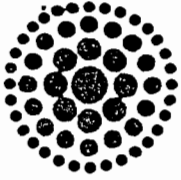
on this 11<sup>th</sup> day of March 1993.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



W. DOUGLAS BEASON  
Assistant General Counsel

2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730



**Florida  
Power**  
CORPORATION

February 22, 1993

Mr. Doug Beason, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blirstone Road  
Tallahassee, FL 32399-2400

**RECEIVED**  
FEB 24 1993

Dept. of Environmental Reg  
Office of General Counsel

Dear Mr. Beason:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216420, -216421, -216422, -216423)

On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. Subsequently, in accordance with Rule 17-103.070, FPC has obtained two extensions of the time in which to file a petition for an administrative hearing, the second of which expires on March 1, 1993. FPC is preparing documentation to support information which FPC will request be incorporated into the permit conditions. Because this submittal is not yet complete, FPC respectfully requests an additional extension of the time in which to file for an administrative hearing, up to and including April 30, 1993. Mr. George Richardson of FDER has been contacted regarding this request and has given his concurrence.

Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. George Richardson, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.

State of Florida  
Department of Environmental Regulation

*Dave*  
*George*

# District Routing Slip

To:

*J. Harry Keens*

Date:

*2-9-93*

C.C. To:

|   |                        |   |                                    |
|---|------------------------|---|------------------------------------|
| <input type="checkbox"/>                | <b>Pensacola</b>       | <b>Northwest District</b>               |                                    |
|   | Panama City            | Northwest District Branch Office        |                                    |
|   | Tallahassee            | Northwest District Branch Office        |                                    |
|   | Apalachicola           | Northwest District Satellite Office     |                                    |
| <input checked="" type="checkbox"/>     | <b>Tampa</b>           | <b>Southwest District</b>               |                                    |
|   | Punta Gorda            | Southwest District Branch Office        |                                    |
|   | Bartow                 | Southwest District Satellite Office     |                                    |
|   | <b>Orlando</b>         | <b>Central District</b>                 |                                    |
|   | Melbourne              | Central District Satellite Office       |                                    |
|   | <b>Jacksonville</b>    | <b>Northeast District</b>               |                                    |
|   | Gainesville            | Northeast District Branch Office        |                                    |
|   | <b>Fort Myers</b>      | <b>South District</b>                   |                                    |
|   | Marathon               | South District Branch Office            |                                    |
|   | <b>West Palm Beach</b> | <b>Southeast District</b>               |                                    |
|   | Port St. Lucie         | Southeast District Branch Office        |                                    |
| Reply Optional <input type="checkbox"/> |                        | Reply Required <input type="checkbox"/> | Info Only <input type="checkbox"/> |
| Date Due _____                          |                        | Date Due: _____                         |                                    |

Comments:

D.E.R.

FEB 10 1993

SOUTHWEST DISTRICT TAMPA

From:

*Doug Beason*

Tel.:

*278 9130*

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

D.E.R.

FLORIDA POWER CORP. (HIGGINS  
PEAKING UNITS 1, 2, 3 & 4)

FEB 10 1993

Petitioner,

SOUTHWEST DISTRICT TAMPA

vs.

OGC CASE NOS. 92-2276  
92-2277  
92-2278  
92-2279

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION,

Respondent.

\_\_\_\_\_ /

ORDER GRANTING REQUEST FOR EXTENSION  
OF TIME TO FILE PETITION FOR HEARING

This cause has come before the Florida Department of Environmental Regulation (Department) on receipt of a request made by Petitioner Florida Power Corp., under Florida Administrative Code rule 17-103.070, to grant an extension of time to file a petition for an administrative hearing on Application Nos. A052-216420, A052-216421, A052-215422 and A052-216423. See Exhibit 1 attached.

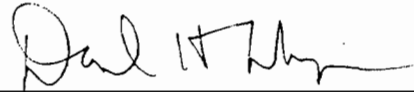
Counsel for Petitioner has discussed this request with counsel for Respondent State of Florida Department of Environmental Regulation, which has no objection to it. Therefore,

IT IS ORDERED:

The request for an extension of time to file a petition for administrative proceeding is granted. Petitioner shall have until **March 1, 1993, to** file a petition in this matter. Filing shall be complete upon receipt by the Office of General Counsel, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DONE AND ORDERED on this 9<sup>th</sup> day of February 1993 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



DANIEL H. THOMPSON  
General Counsel

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730

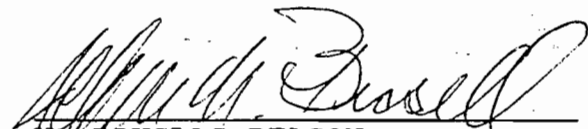
CERTIFICATE OF SERVICE

I CERTIFY that a true copy of the foregoing was mailed to:

W. Jeffery Pardue, Manager  
Environmental Programs  
Florida Power Corp.  
3201 Thirty-fourth Street South  
P.O. Box 14042  
St. Petersburg, FL 33733

on this 9<sup>th</sup> day of February 1993.

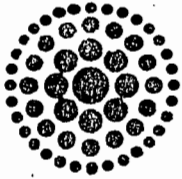
STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



FOR W. DOUGLAS BEASON  
Assistant General Counsel

2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730





**Florida  
Power**  
CORPORATION

BEST AVAILABLE COPY

RECEIVED

FEB 1 1993

January 26, 1993

Mr. Jeff Braswell, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

Dept. of Environmental Reg  
Office of General Counsel

Dear Mr. Braswell:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216420, -216421, -216422, -216423)

On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. On November 30, 1992, in accordance with Rule 17-103.070, FPC requested an extension of the time in which to file a petition for an administrative hearing, up to and including January 29, 1993. FPC is preparing documentation to support information which FPC will request be incorporated into the permit conditions. Because this submittal is not yet complete, FPC respectfully requests an additional extension of the time in which to file for an administrative hearing, up to and including March 1, 1993. Mr. George Richardson of FDER has been contacted regarding this request and has given his concurrence.

Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. George Richardson, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.

State of Florida  
 Department of Environmental Regulation

# District Routing Slip

To: George Richardson Date: 1-20-93

C.C. To:

|   |                        |                                     |  |
|---|------------------------|-------------------------------------|--|
|   | <b>Pensacola</b>       | <b>Northwest District</b>           |  |
|   | Panama City            | Northwest District Branch Office    |  |
|   | Tallahassee            | Northwest District Branch Office    |  |
|   | Apalachicola           | Northwest District Satellite Office |  |
| ✓ | <b>Tampa</b>           | <b>Southwest District</b>           |  |
|   | Punta Gorda            | Southwest District Branch Office    |  |
|   | Bartow                 | Southwest District Satellite Office |  |
|   | <b>Orlando</b>         | <b>Central District</b>             |  |
|   | Melbourne              | Central District Satellite Office   |  |
|   | <b>Jacksonville</b>    | <b>Northeast District</b>           |  |
|   | Gainesville            | Northeast District Branch Office    |  |
|   | <b>Fort Myers</b>      | <b>South District</b>               |  |
|   | Marathon               | South District Branch Office        |  |
|   | <b>West Palm Beach</b> | <b>Southeast District</b>           |  |
|   | Port St. Lucie         | Southeast District Branch Office    |  |

Reply Optional

Reply Required

Info Only

Date Due \_\_\_\_\_

Date Due: D.E.R.

Comments:

JAN 25 1993

SOUTHWEST DISTRICT TAMPA

From: Doug Beason

Tel.: 278-9730

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

FLORIDA POWER CORP. (HIGGINS  
PEAKING UNITS 1, 2, 3 & 4)

Petitioner,

vs.

OGC CASE NOS. 92-2276  
92-2277  
92-2278  
92-2279

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION,

Respondent.

---

ORDER GRANTING REQUEST FOR EXTENSION  
OF TIME TO FILE PETITION FOR HEARING

This cause has come before the Florida Department of Environmental Regulation (Department) on receipt of a request made by Petitioner Florida Power Corp., under Florida Administrative Code rule 17-103.070, to grant an extension of time to file a petition for an administrative hearing on Application Nos. A052-216420, A052-216421, A052-215422 and A052-216423. See Exhibit 1 attached.


Counsel for Petitioner has discussed this request with counsel for Respondent State of Florida Department of Environmental Regulation, which has no objection to it. Therefore,

IT IS ORDERED:

The request for an extension of time to file a petition for administrative proceeding is granted. Petitioner shall have until January 29, 1993, to file a petition in this matter. Filing shall be complete upon receipt by the Office of General Counsel, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DONE AND ORDERED on this 19<sup>th</sup> day of ~~December~~ January 1993 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



DANIEL H. THOMPSON  
General Counsel

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730


CERTIFICATE OF SERVICE

I CERTIFY that a true copy of the foregoing was mailed to:

W. Jeffery Pardue, Manager  
Environmental Programs  
Florida Power Corp.  
3201 Thirty-fourth Street South  
P.O. Box 14042  
St. Petersburg, FL 33733

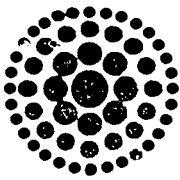
on this 20<sup>th</sup> day of ~~December~~ January 1993.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



W. DOUGLAS BEASON  
Assistant General Counsel

2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
Telephone: (904) 488-9730



**Florida  
Power**  
CORPORATION

BEST AVAILABLE COPY

November 30, 1992

Mr. Jeff Braswell, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

RECEIVED

DEC 1 1992

Florida Department of Environmental Reg.  
Office of General Counsel

Dear Mr. Braswell:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216421, -216422, -216423, -216424)

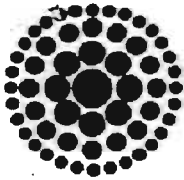
On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. Because of the Thanksgiving holiday, not all affected parties at FPC have had sufficient time to fully review the permits. Therefore, in accordance with Rule 17-103.070, FPC respectfully requests an extension of the time in which to file for a petition for an administrative hearing, up to and including January 29, 1993. Mr. Harry Kerns of FDER has been contacted regarding this request and has given his concurrence.

Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. Harry Kerns, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.



**Florida  
Power**  
CORPORATION

January 26, 1993

Mr. Jeff Braswell, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

D.E.R.

JAN 28 1993

SOUTHWEST DISTRICT TAMPA

Dear Mr. Braswell:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216420, -216421, -216422, -216423)

On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. On November 30, 1992, in accordance with Rule 17-103.070, FPC requested an extension of the time in which to file a petition for an administrative hearing, up to and including January 29, 1993. FPC is preparing documentation to support information which FPC will request be incorporated into the permit conditions. Because this submittal is not yet complete, FPC respectfully requests an additional extension of the time in which to file for an administrative hearing, up to and including March 1, 1993. Mr. George Richardson of FDER has been contacted regarding this request and has given his concurrence.

Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. George Richardson, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.



David L. Miller  
Senior Vice President  
Administrative Services

January 4, 1993

TO WHOM IT MAY CONCERN

Subject: Letter of Authorization

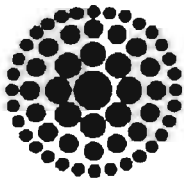
Please be advised that Patricia K. Blizzard, Director, Environmental Services Department, and Mr. W. Jeffrey Pardue, Manager of Environmental Programs, are authorized to represent Florida Power Corporation in matters relating to necessary permits and reporting documentation required from regulatory authorities in the areas of air, water, power plant site certifications and transmission line certifications, or hazardous and solid materials issues.

Sincerely,

A handwritten signature in black ink, appearing to read "David L. Miller". The signature is stylized with large loops and a cursive-like flow.

David L. Miller

DLM:mlp



**Florida  
Power**  
CORPORATION

*file  
no files*

November 30, 1992

D.E.R.

Mr. Jeff Braswell, Esq.  
Office of General Counsel  
Florida Department of Environmental Regulation  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

DEC 02 1992

SOUTHWEST DISTRICT TAMPA

Dear Mr. Braswell:

Re: Higgins Peaking Units Renewal Permits  
(Permit Nos. A052-216421, -216422, -216423, -216424)

On November 17, 1992 Florida Power Corporation (FPC) received the referenced permits. Because of the Thanksgiving holiday, not all affected parties at FPC have had sufficient time to fully review the permits. Therefore, in accordance with Rule 17-103.070, FPC respectfully requests an extension of the time in which to file for a petition for an administrative hearing, up to and including January 29, 1993. Mr. Harry Kerns of FDER has been contacted regarding this request and has given his concurrence.

Thank you for your consideration of this request. Please contact Mr. Mike Kennedy of my staff at (813) 866-4344 if you have any questions.

Sincerely,

*Pat Glyzaid, for/*

W. Jeffrey Pardue, Manager  
Environmental Programs

cc: Mr. Harry Kerns, FDER  
Mr. Gary Robbins, Pinellas County  
Mr. Albert W. Morneault, P.E.



Air Quality Division

P C · E M

Pineellas County Environmental Management

300 South Garden Avenue  
Clearwater, Florida 34616

FAX: (813) 462-4420

Phone: (813) 462-4422

Suncom: 570-4422

Date: 11/17/92

To: George Richardson

Subject: Florida Power Hogen Packer  
Included Emission Tables and AOR Factors

From: [Signature]

Pages: 7

Fax #: \_\_\_\_\_

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BOARD OF COUNTY COMMISSIONERS  
PINELLAS COUNTY, FLORIDA

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

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GEORGE GREER - CHAIRMAN  
JOHN CHESNUT, JR. - VICE CHAIRMAN  
CHARLES E. RAINEY  
BARBARA SHEEN TODD  
BRUCE TYNDALL

November 16, 1992

Mr. George Richardson  
Department of Environmental Regulation  
3804 Coconut Palm Drive  
Tampa, Fla. 33619 8318

RE: Florida Power Corporation; Permit No. A052-216420; Peaker Unit No. 1

Mr. Richardson:

This office has reviewed the APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S), for the above mentioned facility. The application is deemed complete. A model draft permit has been attached for your review with recommended minimum conditions if DER determines a permit should be issued. Emission tables for Peakers 2-4 are also attached for inclusion in their permits.

If you have any questions contact this office at Suncom 570-4422.

Sincerely,

Gary Robbins, Environmental Program Manager  
Air Quality Division

cc: PF, RF

AQC.233

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less than the permitted capacities will automatically constitute an amended permit at the lesser rate until another test (showing compliance) at the permitted rate, as stated above, is submitted. Failure to submit the input rates or operation at conditions during testing which do not reflect actual operating conditions may invalidate the data [Section 403.161(1)(c), Florida Statutes].

7. Fuel oil quality is to be monitored prior to delivery and a daily sample taken for a monthly composite analysis. Fuel oil is analyzed for the following:

- a. BTU
- b. API Gravity
- c. Density
- d. Sulfur Content (% by weight)

This data is to be used to calculate the SO<sub>2</sub> emissions for the Annual Operating Report submittal. Records must be kept for a minimum of two years.

PERMITTEE:  
Florida Power Corporation

Permit/Certificate No: AO52-216420  
Project: Higgins Peaking Unit No. 1

8. The Pinellas County Department of Environmental Management, Air Quality Division shall be notified in writing 15 days prior to any compliance testing. [Rule 17-297.340(1)(i), F.A.C.]

9. 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.

10. Based on the original permit application, dated 9/8/77, the following are the maximum potential emission rates from this source upon which this permit is issued:

|                 | <u>lb./hour</u> | <u>Tons/year</u> |
|-----------------|-----------------|------------------|
| Particulates    | 20.16           | 88.3             |
| CO              | 69.55           | 287.1            |
| SO <sub>2</sub> | 14.11           | 61.81            |
| NO <sub>x</sub> | 273.37          | 1197.36          |
| Hydrocarbons    | 23.94           | 104.86           |

11. 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 particulates, CO, SO<sub>2</sub>, NO<sub>x</sub>, and hydrocarbons based on fuel use, operating hours, and fuel analysis. Until further notice by the Department of Environmental Management, the facility shall calculate annual emissions by multiplying the fuel use times the following emissions factors:

|                 | <u>No. 2 Fuel Oil</u><br><u>lb./10<sup>2</sup> gallons</u> | <u>Natural Gas</u><br><u>lb./10<sup>6</sup> ft<sup>3</sup></u> |
|-----------------|--|--|
| Particulates    | 5.0  | 14   |
| CO              | 15.4   | 115  |
| SO <sub>2</sub> | 140S   | 940S   |
| NO <sub>x</sub> | 67.8   | 415  |
| Hydrocarbons    | 5.57   | 42   |

S denotes sulfur content % by weight  
(Provide calculation sheet(s) to document calculations)

- C. Any changes in the information contained in the permit application.

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

PERMITTEE:  
AO52-216420  
Florida Power Corporation

Permit/Cerification No:  
Project: Higgins Peaking Unit No. 1

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 60 days prior to the expiration date of this permit pursuant [Rule 17-4.090, F.A.C. and Pinellas County Ordinance 89-70, as amended, Subpart 2.210]

Issued this \_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

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

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Florida Power - Higgins Peaking Unit No. 1  
 Permit: AO52-216420

**Electric Utility Turbines**

**Fuel Usage**

|              | No. 2 Fuel Oil | Natural Gas |
|--------------|----------------|-------------|
| BBL/hour     | 96             |             |
| Gallons/hour | 4032           |             |
| MMcf/hour    |                | 0.57        |
| SO2 %        | 1              |             |
| Hours/year   | 8760           | 8760        |

**Emissions Table Fuel Oil**

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 20.16   | 88.30     |
| CO           | 62.09   | 271.97    |
| SO2          | 14.11   | 61.81     |
| NOx          | 37      | 1197.36   |
| Hydrocarbons | 3       | 98.37     |

**Emissions Table Natural Gas**

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 7.98    | 34.95     |
| CO           | 65.55   | 287.11    |
| SO2          |         | 0.00      |
| NOx          | 235.41  | 1031.10   |
| Hydrocarbons | 23.94   | 104.86    |

Florida Power - Higgins Peaking Unit No. 2  
 Permt: A052-216421

## Electric Utility Turbines

Fuel Usage

|                   | No. 2 Fuel Oil | Natural Gas |
|-------------------|----------------|-------------|
| BBL/hour          | 96             |             |
| Gallons/hour      | 4032           |             |
| MMcf/hour         |                | 0.57        |
| SO <sub>2</sub> % | 1              |             |
| Hours/year        | 8760           | 8760        |

Emissions Table Fuel Oil

|                 | lb/hour | Tons/year |
|-----------------|---------|-----------|
| Particulate     | 20.16   | 88.30     |
| CO              | 62.09   | 271.97    |
| SO <sub>2</sub> | 14.11   | 61.81     |
| NO <sub>x</sub> | 273.37  | 1197.36   |
| Hydrocarbons    | 22.46   | 98.37     |

Emissions Table Natural Gas

|                 | lb/hour | Tons/year |
|-----------------|---------|-----------|
| Particulate     | 7.98    | 34.95     |
| CO              | 65.55   | 287.11    |
| SO <sub>2</sub> |         | 0.00      |
| NO <sub>x</sub> | 235.41  | 1031.10   |
| Hydrocarbons    | 23.94   | 104.86    |

**Best Available Copy**

Florida Power - Higgins Peaking Unit No. 3  
 Permit: AO52-216422

**Electric Utility Turbines**

**Fuel Usage**

|              | No. 2 Fuel Oil | Natural Gas |
|--------------|----------------|-------------|
| BL/hour      | 107            |             |
| Gallons/hour | 4494           |             |
| MMcf/hour    |                | 0.63        |
| SO2 %        | 1              |             |
| Hours/year   | 8760           | 8760        |

**Emissions Table Fuel Oil**

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 22.47   | 98.42     |
| CO           | 69.21   | 303.13    |
| SO2          | 15.73   | 68.90     |
| NOx          | 304.60  | 133.0     |
| Hydrocarbons | 25.03   | 109.64    |

**Emissions Table Natural Gas**

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 8.82    | 38.63     |
| CO           | 72.45   | 317.33    |
| SO2          |         | 0.00      |
| NOx          | 260.19  | 1139.63   |
| Hydrocarbons | 26.46   | 115.89    |

Florida Power - Higgins Peaking Unit No. 4  
Permit: AO52-216423

## Electric Utility Turbines

Fuel Usage

|              | No. 2 Fuel Oil | Natural Gas |
|--------------|----------------|-------------|
| BBL/hour     | 107            |             |
| Gallons/hour | 4494           |             |
| MMcf/hour    |                | 0.63        |
| SO2 %        | 1              |             |
| Hours/year   | 8760           | 8760        |

Emissions Table Fuel Oil

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 22.47   | 98.42     |
| CO           | 69.21   | 303.13    |
| SO2          | 15.73   | 68.89     |
| NOx          | 304.69  | 1334.56   |
| Hydrocarbons | 25.03   | 109.64    |

Emissions Table Natural Gas

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 8.82    | 38.63     |
| CO           | 72.45   | 317.33    |
| SO2          |         | 0.00      |
| NOx          | 260.19  | 1139.63   |
| Hydrocarbons | 26.46   | 115.89    |





BOARD OF COUNTY COMMISSIONERS  
PINELLAS COUNTY, FLORIDA

DEPT. OF ENVIRONMENTAL MGMT.  
AIR QUALITY DIVISION  
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CHARLES E. RAINEY  
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BRUCE TYNDALL

D.E.R.

NOV 24 1992

SOUTHWEST DISTRICT TAMPA

November 16, 1992

Mr. George Richardson  
Department of Environmental Regulation  
3804 Coconut Palm Drive  
Tampa, Fla. 33619-8318

RE: Florida Power Corporation; Permit No. AO52-216420; Peaker Unit No. 1

Mr. Richardson:

This office has reviewed the APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S), for the above mentioned facility. The application is deemed complete. A model draft permit has been attached for your review with recommended minimum conditions if DER determines a permit should be issued. Emission tables for Peakers 2-4 are also attached for inclusion in their permits.

If you have any questions contact this office at Suncom 570-4422.

Sincerely,

Gary Robbins, Environmental Program Manager  
Air Quality Division

cc: PF, RF

AQC.233



APPLICANT:

Florida Power Corporation  
P.O. Box 14040  
St. Petersburg, Fla. 33733

PERMIT/CERTIFICATION

No. AO52-216420  
County: Pinellas  
Expiration date: Sept. 16, 1997  
Project: Higgins Peaking  
Unit No. 1

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:

For the operation of Higgins Peaking Unit No. 1 using natural gas or No. 2 fuel oil. Peaking Unit No. 1 consists of two Pratt & Whitney jet engines. The unit is rated at 33.8 MW/hour with a maximum heat input of 566 MMBTU/hour. Maximum fuel usage is 0.57 MMBTU/hour for natural gas and 96 BBL/hour for No. 2 fuel oil, with a maximum sulfur content of 1.0 % by weight.

Location: Shore Drive, Oldsmar

UTM 17-336.5 E 3098.3 N NEDS No.: 0012 Point ID: 04

Replaces: AO52-137555

PERMITTEE:  
Florida Power Corporation

Permit/Certification No: AO52-216420  
Project: Higgins Peaking Unit No.1

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 [Rule 17-296.310, F.A.C.]
3. Test Peaking Unit No. 1, for visible emissions annually, between the dates of December 1, and February 28, if the peaking unit operated more than 400 hours during the preceeding 12 month period. Submit a copy of test data to the Air sections of the Southwest District of the Department of Environmental Regulation and Pinellas County Environmental Management within 45 days of such testing. [Rule 17-297.340 and 17-297.340(1)(h), F.A.C.]
4. 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 Rule 17-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling, and reporting, shall be in accordance with Section 17-297, 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 minutes in duration.
5. Peaking Unit No. 1 is permitted to operate within the following parameters:
  1. Heat Input 566 MMBtu/hour
  2. Fuel Consumption 96 BBL/hour of No. 2 Fuel Oil, 1% Sulfur by weight  
0.57 MMCF/hour of natural gas
6. Testing of emissions must be conducted within 90 - 100% of the permitted rates as stated in Specific Condition No. 5. The peaker shall be tested when being fired on No. 2 fuel. A compliance test submitted at operating levels less than 90% of permitted capacities will automatically constitute an amended permit at the lesser rate until another test (showing compliance) at the permitted rate, as stated above, is submitted. Failure to submit the input rates or operation at conditions during testing which do not reflect actual operating conditions may invalidate the data [Section 403.161(1)(c), Florida Statutes].
7. Fuel oil quality is to be monitored prior to delivery and a daily sample taken for a monthly composite analysis. Fuel oil is analyzed for the following:
  - a. BTU
  - b. API Gravity
  - c. Density
  - d. Sulfur Content (% by weight)

This data is to be used to calculate the SO<sub>2</sub> emissions for the Annual Operating Report submittal. Records must be kept for a minimum of two years.

8. The Pinellas County Department of Environmental Management, Air Quality Division shall be notified in writing 15 days prior to any compliance testing. [Rule 17-297.340(1)(i), F.A.C.]

9. 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.

10. Based on the original permit applicaiton, dated 9/8/77, the following are the maximum potential emission rates from this source upon which this permit is issued:

|                 | <u>lb./hour</u> | <u>Tons/year</u> |
|-----------------|-----------------|------------------|
| Particualtes    | 20.16           | 88.3             |
| CO              | 65.55           | 287.1            |
| SO <sub>2</sub> | 14.11           | 61.81            |
| NO <sub>x</sub> | 273.37          | 1197.36          |
| Hydrocarbons    | 23.94           | 104.86           |

11. 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 particulates, CO, SO<sub>2</sub>, NO<sub>x</sub>, and hydrocarbons based on fuel use, operating hours, and fuel analysis. Until further notice by the Department of Environmental Management, the facility shall calculate annual emissions by multiplying the fuel use times the following emissions factors:

|                 | <u>No. 2 Fuel Oil</u><br><u>lb./10<sup>3</sup> gallons</u> | <u>Natural Gas</u><br><u>lb./10<sup>6</sup> ft<sup>3</sup></u> |
|-----------------|--|--|
| Particualtes    | 5.0  | 14   |
| CO              | 15.4   | 115  |
| SO <sub>2</sub> | 140S   | 940S   |
| NO <sub>x</sub> | 67.8   | 413  |
| Hydrocarbons    | 5.57   | 42   |

S denotes sulfur content, % by weight  
 (Provide calculation sheet(s) to document 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 Pinellas County Department of Environmental Management, Air Quality Division.

PERMITTEE:  
AO52-216420  
Florida Power Corporation

Permit/Certification No:  
Project: Higgins Peaking Unit No. 1

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 60 days prior to the expiration date of this permit pursuant [Rule 17-4.090, F.A.C. and Pinellas County Ordinance 89-70, as amended, Subpart 2.210]

Issued this \_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

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

Florida Power - Higgins Peaking Unit No. 1  
Permit: AO52-216420

## Electric Utility Turbines

### Fuel Usage

|              | No. 2 Fuel Oil | Natural Gas |
|--------------|----------------|-------------|
| BBL/hour     | 96             |             |
| Gallons/hour | 4032           |             |
| MMcf/hour    |                | 0.57        |
| SO2 %        | 1              |             |
| Hours/year   | 8760           | 8760        |

### Emissions Table Fuel Oil

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 20.16   | 88.30     |
| CO           | 62.09   | 271.97    |
| SO2          | 14.11   | 61.81     |
| NOx          | 273.37  | 1197.36   |
| Hydrocarbons | 22.46   | 98.37     |

### Emissions Table Natural Gas

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 7.98    | 34.95     |
| CO           | 65.55   | 287.11    |
| SO2          |         | 0.00      |
| NOx          | 235.41  | 1031.10   |
| Hydrocarbons | 23.94   | 104.86    |

Florida Power - Higgins Peaking Unit No. 2  
Permit: AO52-216421

## Electric Utility Turbines

### Fuel Usage

|              | No. 2 Fuel Oil | Natural Gas |
|--------------|----------------|-------------|
| BBL/hour     | 96             |             |
| Gallons/hour | 4032           |             |
| MMcf/hour    |                | 0.57        |
| SO2 %        | 1              |             |
| Hours/year   | 8760           | 8760        |

### Emissions Table Fuel Oil

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 20.16   | 88.30     |
| CO           | 62.09   | 271.97    |
| SO2          | 14.11   | 61.81     |
| NOx          | 273.37  | 1197.36   |
| Hydrocarbons | 22.46   | 98.37     |

### Emissions Table Natural Gas

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 7.98    | 34.95     |
| CO           | 65.55   | 287.11    |
| SO2          |         | 0.00      |
| NOx          | 235.41  | 1031.10   |
| Hydrocarbons | 23.94   | 104.86    |

## Electric Utility Turbines

### Fuel Usage

|              | No. 2 Fuel Oil | Natural Gas |
|--------------|----------------|-------------|
| BBL/hour     | 107            |             |
| Gallons/hour | 4494           |             |
| MMcf/hour    |                | 0.63        |
| SO2 %        | 1              |             |
| Hours/year   | 8760           | 8760        |

### Emissions Table Fuel Oil

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 22.47   | 98.42     |
| CO           | 69.21   | 303.13    |
| SO2          | 15.73   | 68.89     |
| NOx          | 304.69  | 1334.56   |
| Hydrocarbons | 25.03   | 109.64    |

### Emissions Table Natural Gas

|              | lb/hour | Tons/year |
|--------------|---------|-----------|
| Particulate  | 8.82    | 38.63     |
| CO           | 72.45   | 317.33    |
| SO2          |         | 0.00      |
| NOx          | 260.19  | 1139.63   |
| Hydrocarbons | 26.46   | 115.89    |



Florida Power - Higgins Peaking Unit No. 4  
Permit: AO52-216423

## Electric Utility Turbines

### Fuel Usage

|                   | No. 2 Fuel Oil | Natural Gas |
|-------------------|----------------|-------------|
| BBL/hour          | 107            |             |
| Gallons/hour      | 4494           |             |
| MMcf/hour         |                | 0.63        |
| SO <sub>2</sub> % | 1              |             |
| Hours/year        | 8760           | 8760        |

### Emissions Table Fuel Oil

|                 | lb/hour | Tons/year |
|-----------------|---------|-----------|
| Particulate     | 22.47   | 98.42     |
| CO              | 69.21   | 303.13    |
| SO <sub>2</sub> | 15.73   | 68.89     |
| NO <sub>x</sub> | 304.69  | 1334.56   |
| Hydrocarbons    | 25.03   | 109.64    |

### Emissions Table Natural Gas

|                 | lb/hour | Tons/year |
|-----------------|---------|-----------|
| Particulate     | 8.82    | 38.63     |
| CO              | 72.45   | 317.33    |
| SO <sub>2</sub> |         | 0.00      |
| NO <sub>x</sub> | 260.19  | 1139.63   |
| Hydrocarbons    | 26.46   | 115.89    |

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## APPLICANT:

Florida Power Corporation  
P.O. Box 14040  
St. Petersburg, FL 33733

## PERMIT/CERTIFICATION

No. AO52-216420  
County: Pinellas  
Expiration date: Sept. 16, 1992  
Project: Higgins Peaking Unit No. 1

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:

For the operation of Higgins Peaking Unit No. 1 using natural gas or No. 2 fuel oil. Peaking Unit No. 1 consists of two Pratt & Whitney jet engines. The unit is rated at 33.8 MW/hour with a maximum heat input of 566 MMBTU/hour. Maximum fuel usage is 0.57 MMCF/hour for natural gas and 96 BBL/hour for No. 2 fuel oil, with a maximum sulfur content of 1.0 % by weight.

Location: Sacre Drive, Oldsmar

UTM 17-336.5 E 3098.3 N NEDS No : 0012 Point ID: 04

Replaces: AO52-21655

## BEST AVAILABLE COPY

PERMITTEE:  
Florida Power Corporation

Permit/Certification No: A052-216420  
Project: Higgins Peaking Unit No.1

## 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 [Rule 17-296.310, F.A.C.]
3. Test Peaking Unit No. 1, 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. Submit a copy of test results to the Air sections of the Southwest District of the Department of Environmental Regulation and Pinellas County Environmental Management within 45 days of such testing. [Rule 17-297.340 and 17-297.340(1)(h), F.A.C.]
4. 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 Rule 17-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling, and reporting, shall be in accordance with Section 17-297, 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 minutes in duration.
5. Peaking Unit No. 1 is permitted to operate within the following parameters:
  1. Heat Input 566 MMBtu/hour
  2. Fuel Consumption 96 BBL/hour of No. 2 Fuel Oil, 1% Sulfur by weight  
0.57 MMCF/hour of natural gas
6. Testing of emissions must be conducted within 90 - 100% of the permitted rates as stated in Specific Condition No. 5. The peaker shall be tested when being fired on No. 2 fuel. A compliance test submitted at operating levels less than 90% of permitted capacities will automatically constitute an amended permit at the lesser rate until another test (showing compliance) at the permitted rate, as stated above, is submitted. Failure to submit the input rates or operation at conditions during testing which do not reflect actual operating conditions may invalidate the data [Section 403.161(1)(c), Florida Statutes].
7. Fuel oil quality is to be monitored prior to delivery and a daily sample taken for a monthly composite analysis. Fuel oil is analyzed for the following:
  - a. BTU
  - b. API Gravity
  - c. Density
  - d. Sulfur Content (% by weight)

This data is to be used to calculate the SO<sub>2</sub> emissions for the Annual Operating Report submittal. Records must be kept for a minimum of two years.

PERMITTEE:  
Florida Power Corporation

Permit/Certificate No: AO52-216420  
Project: Higgins Peaking Unit No. 1

8. The Pinellas County Department of Environmental Management, Air Quality Division shall be notified in writing 15 days prior to any compliance testing. [Rule 17-297.340(1)(1), F.A.C.]

9. 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.

10. Based on the original permit application, dated 9/8/77, the following are the maximum potential emission rates from this source upon which this permit is issued:

|                 | <u>lb./hour</u> | <u>Tons/year</u> |
|-----------------|-----------------|------------------|
| Particulates    | 20.16           | 88.3             |
| CO              | 65.55           | 287.1            |
| SO <sub>2</sub> | 14.11           | 61.81            |
| NO <sub>x</sub> | 273.37          | 1197.36          |
| Hydrocarbons    | 23.94           | 104.86           |

11. 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 particulates, CO, SO<sub>2</sub>, NO<sub>x</sub>, and hydrocarbons based on fuel use, operating hours, and fuel analysis. Until further notice by the Department of Environmental Management, the facility shall calculate annual emissions by multiplying the fuel use times the following emissions factors:

|                 | No. 2 Fuel Oil<br><u>lb./10<sup>3</sup> gallons</u> | Natural Gas<br><u>lb./10<sup>6</sup> ft<sup>3</sup></u> |
|-----------------|---|---|
| Particulates    | 5.0   | 14  |
| CO              | 35.4  | 115   |
| SO <sub>2</sub> | 140S  | 240S  |
| NO <sub>x</sub> | 67.8  | 413   |
| Hydrocarbons    | 5.57  | 42  |

S denotes sulfur content, % by weight  
(Provide calculation sheet(s) to document 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 Pinellas County Department of Environmental Management, Air Quality Division.

## BEST AVAILABLE COPY

PERMITTEE:  
A052-216420  
Florida Power Corporation

Permit/Certification No:

Project: Higgins Peaking Unit No. 1

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 60 days prior to the expiration date of this permit pursuant [Rule 17-4.090, F.A.C. and Pinellas County Ordinance 89-70, as amended, Subpart 2.210]

Issued this \_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION


\_\_\_\_\_  
Richard D. Garrity, Ph.D.  
Director of District Management

MEMORANDUM

TO: File

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

THRU: J. Harry Kerns, P.E.

FROM: George W. Richardson 

DATE: November 10, 1992

SUBJECT: Pinellas County - AP  
Florida Power Corporation  
Higgins Peaking Unit No. 1  
A052-216420

This permit is for the operation of Higgins Peaking Unit No. 1 located at Booth Road, Oldsmar, Pinellas County.

This unit consists of two Pratt & Whitney jet engines. This unit is fired on natural gas or new No. 2 fuel oil.

This unit was tested for visible emissions while firing natural gas on January 7, 1992 and it was in compliance.

Received verbal OK from the PCDEM to issue permits.

I recommend this permit be issued as conditioned.

PERMIT APPLICATION FEE/ASSIGNMENT SHEET

APPLICATION TYPE AO (Renewal) FILE/PROCESSING NO. A052-216420  
 COMPANY Florida Power Corp. COUNTY Pinellas  
 SOURCE DESCRIPTION/COMMENTS Higgins Peaking Unit 1 (Gas turbine)  
 DATE APPL. REC'D (Day 1): 7/16/92  
 CHECK ATTACHED:  Y  N APPLICATION SUB TYPE CODE 1B  
 Not Required ( )  
 FEE SUBMITTED: (  ) correct ( ) incorrect - Should Be \$ 2000.00  
 Submitted \$ 2000.00  
 Needed/Refund \$  /  
 FEE CHECKED BY: DLJ DATE 7/17/92  
 APPLICATION ASSIGNED TO: \_\_\_\_\_ DATE \_\_\_\_\_

10 Days to 90 00 11/10 PERMIT APPLICATION PROCESSING STATUS

|  | <u>Completed</u>   | <u>Initials</u> |
|--|--------------------|-----------------|
| <u>1550E B7 11/20/92</u><br>Date PATS Updated With Processor Name:                               | _____              | _____           |
| Date AC Logged By Section Secretary:   | _____              | _____           |
| Permit Engineer Submit Finished<br>Permit Package & Recommendations to<br>District Air Engineer: | <u>11-10-92</u>    | <u>Car</u>      |
| Permit Package to District Air<br>Administrator:   | _____              | _____           |
| Permit Package to Director of<br>District Management:  | <u>11/10/92</u>    | <u>MS</u>       |
| Permit Package Mailed Out:   | <u>NOV 13 1992</u> | <u>MQ</u>       |

DATA FOLLOW UP

Issue Date Updated on PATS: NOV 13 1992 MQ  
 Updated on Wang: \_\_\_\_\_

Need 4  
PATS No's  
(See attached  
assignment sheets)

216420  
 421  
 422  
 423

APPLICATION TRACKING SYSTEM

NOV 13 1992

07/20/92

APPL NO:216420

APPL RECVD:07/16/92 TYPE CDDE:AC SUBCODE:1B

LAST UPDATE:07/20/92

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

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

DER PROCESSOR: AIR *Richardson*

APPL STATUS:AC DATE:07/16/92 (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:28.00.08/82.39.49

(Y/N) N PUBLIC NOTICE REQD?

BASIN-SEGMENT:\_\_\_\_\_

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

CDE #:\_\_\_\_\_

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

ALT#:\_\_\_\_\_

PROJECT SOURCE NAME:HIGGINS PEAKING UNIT I

STREET:BOOTH ROAD

CITY:OLDSMAR

STATE:FL

ZIP:\_\_\_\_\_

PHONE:\_\_\_\_\_

APPLICATION NAME:FLORIDA POWER CORP

STREET:P O BOX 14042

CITY:ST PETERSBU

STATE:FL

ZIP:33733

PHONE:813-866-5151

AGENT NAME:\_\_\_\_\_

STREET:\_\_\_\_\_

CITY:\_\_\_\_\_

STATE:\_\_\_\_\_

ZIP:\_\_\_\_\_

PHONE:\_\_\_\_\_

FEE #1 DATE PAID:07/16/92

AMOUNT PAID:02000

RECEIPT NUMBER:00197831

|   |  |       |                   |
|---|--|-------|-------------------|
| 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      | - - - | 8/12/92 - 8/24/92 |
| 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                        | - - - | 8/24/92           |
| 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 | DATE WAIVER DATE BEGIN--END (DAY 90)                 | - - - | ---/---/---       |

COMMENTS:



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

197831

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Floude Powell Date 7-16-92

Address \_\_\_\_\_ Dollars \$ 2000.00

Applicant Name & Address Same

Source of Revenue \_\_\_\_\_

Revenue Code 1032 Application Number A052-21620

CE 1434650

By Christine King



# Florida Department of Environmental Regulation

Southwest District

4520 Oak Fair Boulevard

Tampa, Florida 33610-7347

Lawton Chiles, Governor

813-620-6100

Carol M. Browner, Secretary

August 13, 1992

Mr. W.J. Pardue  
Manager-Environmental Programs  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

Re: Pinellas County - AP  
Higgins Peaking Units 1 thru 4  
Permit Renewal  
A052-216420, A052-216421, A052-216422 &  
A052-216423

Dear Mr. Pardue:

On July 16, 1992 the Department received applications to renew the operating permits for Gas Turbine Peaking Units 1 thru 4 at the Higgins Plant located on Booth Road, Oldsmar, Pinellas County. Pursuant to Rules 17-4.055(1), 17-4.070(2), F.A.C., the Department requests submittal of the following additional information:

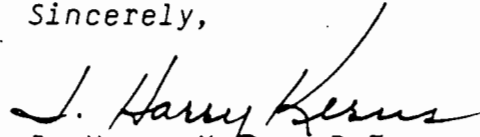
1. The renewal applications for Higgins Peaking Units 1 thru 4 were not submitted under the signature and seal of a professional engineer registered in the State of Florida. In accordance with Rule 17-4.050(3), All applications for a Department permit shall be certified by a professional engineer registered in the State of Florida except when the application is for renewal of an air pollution operation permit at a minor facility as defined in Rule 17-2.100(133), F.A.C., as amended and renumbered on 12-31-91. Enclosed is a memo from Mr. Clair Fancy, Bureau Chief of the Department's Bureau of Air Regulation, Tallahassee, stating that the Department should require the seal and signature of a professional engineer on air pollution applications for construction permits, operating permits, and renewals submitted by public utilities.

"NOTICE: Pursuant to the provisions of Section 120.600, F.S. and Rule 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 will issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 90 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration.

Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order for Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

Please resubmit the renewal applications for Peaking Units 1 thru 4 at the Higgins Plant with the professional engineer certifications. Please note on the resubmitted applications "No Fee Required". Your applications to renew the operating permits are being held as incomplete until the professional engineer certified renewal applications are received. If you have any questions, please call George Richardson of my staff at (813)620-6100, extension 420.

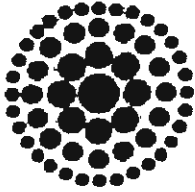
Sincerely,



J. Harry Kerns, P.E.  
District Air Engineer  
Southwest District

4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347  
(813)620-6100, ext. 419

cc: Pinellas County Department of Environmental Management



BEST AVAILABLE COPY

*Handwritten signature*

**Florida  
Power**  
CORPORATION

D.E.R.

JUL 16 1992

SOUTHWEST DISTRICT TAMPA

July 14, 1992

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

Dear Dr. Garrity:

Re: Renewal of Air Operating Permits For Higgins Plant Steam and Peaking Units  
Permit Nos. AO52-137124, -137125, -137126, -137554, **-137555**, -137556, & -137557

Florida Power Corporation (FPC) is in receipt of a letter from the Pinellas County Air Quality Division, dated May 27, 1992, providing notification that the above-referenced permits are due to expire on September 16, 1992. The renewals requested include all permitted sources at the Higgins Plant site-- three steam units and four peaking units.

Enclosed are permit renewal applications (three copies of each) for peaking units P1 through P4 and steam units 1 through 3. As reflected in the attached applications, FPC requests the following changes:

- o Correct the Unit 1 heat input rate. The value should be changed from 544 MMBTU/hr to 548 MMBTU/hr.
- o Correct the Unit 2 heat input rate. The value should be changed from 500 MMBTU/hr to 523 MMBTU/hr.
- o Correct the Unit 3 heat input rate. The value should be changed from 512 MMBTU/hr to 548 MMBTU/hr.
- o The Unit 2 annual test date should be changed from July 21, 1986 to May 5, 1992.

*over*

Dr. Garrity  
July 14, 1992  
Page 2

- o The Unit 3 annual test date should be changed from July 30, 1986 to May 7, 1992.

The corrected heat input rates are simply a product of the maximum allowable fuel usage rates (87 bbl/hr, 83 bbl/hr and 87 bbl/hr for units 1, 2 and 3, respectively) and the heating value of the fuel (150,000 BTU/gal or 6.3 MMBTU/bbl). FPC has not modified the units and is not requesting a change in the fuel feed rate; the intent is to correct an error in calculation. The reason for the change in the annual test dates is to allow a more even distribution of testing the units within our system. Since peaking units P1 through P4 are substantially similar, FPC requests that the peaking unit air permits be combined and issued as one. Similarly, FPC requests that the steam unit permits also be combined. Accordingly, two checks for \$2,000 each are enclosed to cover the respective processing fees.

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  
Sr. Environmental Engineer

Enclosure

cc: Gary Robbins, Pinellas County

TO: File  
THRU: W.C. Thomas *WCT 10/2/87*  
FROM: J.W. Estler *JWE 9/25/87*  
DATE: September 24, 1987

---

SUBJECT: Pinellas County - AP  
Florida Power Corporation  
AO52-137554, 55, 56 and 57.

Attached are the operating permit renewals for Florida Power Corporation's Higgins Plants Peaking Units 1, 2, 3, and 4. These power plants are in compliance with the emission limitations contained in Chapter 17-2 based on the results of the latest stack test. The units are currently on cold standby.

PCDEM has provided us with their recommendation and draft permit on August 28, 1987. According to my telephone conversation with Gary Robbins on Sept. 14, 1987, the county will complete APIS for this facility.

Based on my review of the file and the comments from PCDEM, I recommend this permit be issued as conditioned.

JWE/dtw

PERMIT APPLICATION STATUS SHEET

COMPANY: Florida Power Corp.

PROCESSOR: Ettler

PERMIT NO. A052-137555

DATE RECEIVED: 7/30/87

P.E. SEAL & SIGN: Y/N Y

CHECK: Y/N Y

Day 90 10/28/87

|  | DATE TASK COMPLETED              | INITIALS                |
|--|----------------------------------|-------------------------|
| DATE REC'D BY SECTION:   | <u>8/3/87</u>                    | <u>WJW</u>              |
| LOGGING BY SEC'Y   | <u>8/5/87</u>                    | <u>WJW</u>              |
| Permitting Eng'r submit finished permit package & recommendations to supervisor. | _____                            | _____                   |
| Permit Package to Dist. Engr.  | <u>9/25/87</u>                   | <u>WJW</u>              |
| Permit Package to Dist. Mgr.   | <u>10/2/87</u><br><u>10/5/87</u> | <u>WJW</u><br><u>HK</u> |
| Permit Package Mailed out:   | _____                            | _____                   |

DATA FOLLOW-UP

Issue Date Updated on PATS: \_\_\_\_\_

Updated on WANG: \_\_\_\_\_

BEST AVAILABLE COPY



BOARD OF COUNTY COMMISSIONERS

PINELLAS COUNTY, FLORIDA

315 COURT STREET  
CLEARWATER, FLORIDA 33516

COMMISSIONERS

GEORGE GREER, CHAIRMAN  
JOHN CHESNUT, JR. VICE-CHAIRMAN  
CHARLES E. RAINEY  
BARBARA SHEEN TODD  
BRUCE TYNDALL

August 31, 1987

Mr. Jim Estler  
Department of Environmental Regulation  
4520 Oak Fair Blvd.  
Tampa, Fla. 33610-7347

RE: Florida Power Corporation, Permit# AO52-137555 (Replaces  
Permit# AO52-58633); Higgins Gas Turbine Peaking Unit# 1

Mr. Estler:

This office has reviewed the APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S) and the permit files for the above mentioned facility. Since this peaking unit is in cold shut and is not expected to be used until 1991, there is no current compliance test. The renewal application is deemed complete. Fuel analysis for sulfur has been added as a permit condition. Sulfur content of the fuel is necessary for proper calculations for the AOR report, so this is not a additional burden for the source. Pinellas County recommends that an operating permit for the gas turbine peaking unit be issued. The recommended permit conditions are attached.

Sincerely,

Gary Robbins, Environmental Engineer  
Air Quality Division

GR/0309E

D. E. R.

SEP 04 1987

SOUTH WEST DISTRICT



**APPLICANT:**

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

**PERMIT/CERTIFICATION**

No. AO52-137555  
County: Pinellas  
Project: Higgins Peaking  
Unit# 1

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 Higgins Peaking Unit# 1 using natural gas or #2 Fuel Oil. Peaking Unit# 1 consists of two Pratt & Whitney jet engines. Unit is rated at 33.8 MW/hour with a maximum heat input of 566 MMBTU/hour. Maximum fuel usage is  $.57(10^6)$  ft<sup>3</sup>/hour for natural gas and 96 BBL/hour for #2 Fuel Oil.

Located at Shore Drive, Oldsmar, Pinellas County: Florida

UTM 17-336.54 E 3098.25 N

Replaces Permit No.: AO52-58633 NEDS No.: 0012 Point ID: 04

Expiration Date: Five years from issue date

PERMITTEE:  
Florida Power Corporation

Permit/Certification No: A052-137555  
Project: Higgins Peaking Unit# 1

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, 403.727, or 403.859 through 403.861, Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate 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 subsection 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 acknowledgment 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 department.
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.

PERMITTEE:  
Florida Power Corporation

Permit/Certification No. A052-137555  
Project: Higgins Peaking Unit# 1

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.

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 Statues 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.

PERMITTEE:  
Florida Power Corporation

Permit/Certification No. A052-137555  
Project: Higgins Peaking Unit# 1

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.
  - 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 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.

PERMITTEE:  
Florida Power Corporation

Permit/Certification No: A052-137555  
Project: Higgins Peaking Unit# 1

SPECIFIC CONDITIONS: Higgins Peaking Unit# 1, Permit# A052-137555:

1. Test the emissions for the following pollutant(s) within 30 days of start up and than at intervals of 12 months from that date if the unit operates more than 5 days (120 hours) on fuel oil the preceding 12 months. Submit a copy of test data to the Air sections of the Southwest District of the Department of Environmental Regulation and Pinellas County Environmental Management within 45 days of such testing, Chapter 17-2.700 (2), Florida Administrative Code (F.A.C.).

|  |   |
|--|---|
| <input type="checkbox"/> Particulates        | <input type="checkbox"/> Sulfur Oxides        |
| <input type="checkbox"/> Fluorides           | <input type="checkbox"/> Nitrogen Oxides      |
| <input checked="" type="checkbox"/> Opacity* | <input type="checkbox"/> Hydrocarbons         |
|  | <input type="checkbox"/> Total Reduces Sulfur |

\* Visible emissions test must be conducted while unit is fired on #2 Fuel Oil

2. The visible emissions for this peaking unit shall not equal to or exceed 20% opacity as set forth in Subsection 17-2.610 (2)(a), F.A.C..
3. Compliance with the emission limitations of Specific Conditions# 1, and 2 shall be determined as follows:

| <u>Pollutant</u>   | <u>Test Method</u> |
|--------------------|--------------------|
| Visible Emissions: | DER Method 9       |

as 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.

4. Testing of emissions must be conducted within +10% of the permitted rates as stated in Condition# 5 (Process Parameters). A compliance test submitted at operating levels less than 90% of permitted capacities will automatically constitute an amended permit at the lesser rate until another test (showing compliance) at the permitted rate, as stated above, is submitted. Failure to submit the input rates or operation at conditions during testing which do not reflect actual operating conditions may invalidate the data [Section 403.161(1)(c), Florida Statutes].
5. Peaking Unit# 1 is permitted to operate at the following parameters:

A. Process Parameters:

|                      |   |
|----------------------|---|
| 1. Heat Input:       | 566 MMBTU/hour  |
| 2. Fuel Consumption: | 96 BBL/hour of #2 fuel oil<br>0.57(10 <sup>6</sup> ) ft <sup>3</sup> of natural gas |
| 3. Stack Height:     | 50 feet   |
| 4. Peaker Make:      | Two Pratt & Witney jet engines  |

PERMITTEE:  
Florida Power Corporation

Permit/Certification No: A052-137555  
Project: Higgins Peaking Unit# 1

6. Fuel oil quality is to be monitored prior to delivery and a daily sample taken for a monthly composite analysis. Fuel oil is analyzed for the following:
- a. BTU
  - b. API Gravity
  - c. Density
  - d. Sulfur Content

This data is to be used to calculate the SO<sub>2</sub> emissions for the Annual Operating Report submittal. Records must be kept for a minimum of two years.

7. The Pinellas County Department of Environmental Management shall be notified in writing 10 days prior to compliance testing.
8. 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 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.

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.

9. 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 \_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

---

Richar D. Garrity, Ph.D.  
District Manager

APPLICATION TRACKING SYSTEM

08/03/87

APPL NO:137555

APPL RECVD:07/31/87 TYPE CODE:A0 SUBCODE:09 LAST UPDATE:08/03/87

DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:\_\_\_ APPLICATION COMPLETE:\_\_\_/\_\_\_/\_\_\_

DER PROCESSOR:RICHARDSON *ESTER*

APPL STATUS:AC DATE:07/31/87 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

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

(Y/N) N MANUAL TRACKING DISTRICT:40 COUNTY:52
(Y/N) N DNR REVIEW REQD? LAT/LONG:28.00.08/82.39.49
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:\_\_\_
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:\_\_\_
(Y/N) Y LETTER OF INTENT REQD? (I/ISSUE D/DENY) ALT#:\_\_\_

PROJECT SOURCE NAME:HIGGINS PEAKING UNIT I

STREET:BOOTH ROAD

CITY:OLDSMAR

STATE:FL

ZIP:\_\_\_

PHONE:\_\_\_

APPLICATION NAME:FLORIDA POWER CORP

STREET:P O BOX 14042

CITY:ST PETERSBU

STATE:FL

ZIP:33733

PHONE:813-866-5151

AGENT NAME:\_\_\_

STREET:\_\_\_

CITY:\_\_\_

STATE:\_\_\_

ZIP:\_\_\_

PHONE:\_\_\_

FEE #1 DATE PAID:07/31/87 AMOUNT PAID:00100 RECEIPT NUMBER:00113805

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 - - - - - / /
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:

Copy to PCDEM 8/5/87

FACILITY SOURCE ID: 40PNL52001204

SOURCE INFORMATION RECORD

\*\*\*\*\* CONSTRUCTION PERMIT/PPS INFORMATION \*\*\*\*\*

PERMIT #: ..... - ..... PPS #: ..... FEE PAID: ..... (PERMIT ONLY)  
DATE ISSUED: .. / .. / .. DATE EXPIRES: .. / .. / ..  
APP COMPLETE: .. / .. / ..

\*\*\*\*\* OPERATION PERMIT INFORMATION \*\*\*\*\*

PERMIT #: A052 - -58633 FEE PAID: ..... AOR REQUIRED: . (Y OR N)  
DATE ISSUED: 10 / 22 / 82 DATE EXPIRES: 10 / 12 / 87

\*\*\*\*\* SOURCE DESCRIPTION/TRACKING INFORMATION \*\*\*\*\*

DESCRIPTION: PEAKING UNIT #1 GASTURBINE GENERATOR  
STATUS: A = ACTIVE # OF SCC: 003 # OF POLLUTANT: 007 MAJOR SRC: Y (Y OR N)  
INITIAL CONSTRUCTION DATE: .. / .. / .. TYPE: .. = .....  
SIC: 4911 = ELECTRIC GENERATION/DISTRIBUTION  
NSPS: ... NESHAP: ... 111D: ... PSD: ... NAA/NSR: ... RACT: ...  
COMMENT: ALSO 953 GALLONS/HOUR OF DISTILLATE #2 OIL BURNED  
.....  
START UP DATE: .. / .. / .. SHUT DOWN DATE: .. / .. / ..

SOURCE SCHEDULE/RATE RECORD

\*\*\*\*\* OPERATING SCHEDULE INFORMATION \*\*\*\*\*

TYPICAL OPERATING SCHEDULE: 02 (HR/DAY) 7 (DAY/WK) 52 (WK/YR)  
TYPICAL % OPERATING BY SEASON: 25 (DJF) 25 (MAM) 25 (JJA) 25 (SON)  
PERMITTED OPERATING SCHEDULE: .. (HR/DAY) . (DAY/WK) .. (WK/YR) ..... (HR/YR)  
AOR YR: 86 OPERATING SCHEDULE: .. (HR/DAY) . (DAY/WK) .. (WK/YR) ..... (HR/YR)

\*\*\*\*\* OPERATING RATE INFORMATION \*\*\*\*\*

MAX PROCESS RATE: ..... UNITS: OTHER  
MAX PRODUCTION RATE: ..... UNITS: OTHER

SOURCE EMISSION POINT RECORD

\*\*\*\*\* EMISSION POINT INFORMATION \*\*\*\*\*

EMISSION POINT TYPE: . = .....  
STACK HEIGHT: 055 (FT) EXIT DIA: 15 . 1 (FT) EXIT TEMP: 0850 (F)  
ACTUAL VOLUME FLOW RATE: 4000000 (ACFM) DRY STANDARD FLOW RATE: ..... (DSCFM)  
EXIT VEL: 0372 (FT/SEC) NONSTK EMIS HT: 0000 (FT) BLDG HT: ... WD: ... (FT)  
POINT UTM: EAST: ... . .. (KM) NORTH: ... . .. (KM) GEP STK HT: ... (FT)  
COMMENT: .....

\*\*\*\*\* CONTROL EQUIPMENT INFORMATION \*\*\*\*\*

CONTROL A: .....  
CONTROL B: .....  
CAPITAL COST: A \$ ..... B \$ ..... TOTAL OPER COST \$ ..... AOR YR: 86



FACILITY SOURCE ID: 40PNL52001204

SOURCE SCC RECORD

SCC #: 2-01-002-01 = ENGINE ELE GEN NAT GAS TURBINE  
UNITS: MCFB = MIL CUFT BURN MAX HOURLY RATE: \*\*\*\* . \*\*\* ANNUAL LIMIT: .....  
ESTIMATE ANNUAL RATE: ..... %S: . . . . %ASH: . . . . MMBTU: 01026  
ACTUAL AOR YR: 86 ANNUAL RATE: \*\*\*\*\* %S: . . . . %ASH: . . . . MMBTU: 01026  
COMMENTS: NATURAL GAS FIRED IN GAS TURBINE

SOURCE SCC RECORD

SCC #: 2-01-001-01 = ENGINE ELE GEN DIESEL TURBINE  
UNITS: KGALB = 1000 GAL BR MAX HOURLY RATE: \*\*\*\* . \*\*\* ANNUAL LIMIT: .....  
ESTIMATE ANNUAL RATE: \*\*\*\*\* %S: . . . . %ASH: . . . . MMBTU: 00130  
ACTUAL AOR YR: 86 ANNUAL RATE: \*\*\*\*\* %S: . . . . %ASH: . . . . MMBTU: 00130  
COMMENTS: .....

SOURCE POLLUTANT RECORD

\*\*\*\*\* POLLUTANT/CONTROL INFORMATION \*\*\*\*\*  
POLLUTANT ID: VOC = NONMETHANE VOLATILE ORGANIC COMPOUNDS % EFF: . . . .  
PRI: . . . = ..... SEC: . . . = .....

\*\*\*\*\* EMISSION INFORMATION \*\*\*\*\*  
POTENTIAL EMISSION: 99999 . 9900 (LB/HR) ..... (TON/YR)  
ESTIMATED EMISSION: ..... (TON/YR) EST CODE: \*  
ACTUAL EMISSION: ..... (TON/YR) AOR CODE: . AOR YR: 86  
ALLOWABLE EMISSION: ..... (LB/HR) 999999 . 0000 (TON/YR)  
ALLOWABLE EMISSION: ..... ( ..... ) OTHER UNIT  
REGULATION CODE: ..... = ..... CEM?: . (Y OR N)  
TEST FREQUENCY: 0 = NONE REQUIRED FREQUENCY BASE DATE: . / . / .  
COMMENT: .....

FACILITY SOURCE ID: 40PNL52001204

SOURCE POLLUTANT RECORD

\*\*\*\*\* POLLUTANT/CONTROL INFORMATION \*\*\*\*\*

POLLUTANT ID: SO2 = SULFUR DIOXIDE % EFF: . . . .  
PRI: . . . = . . . . . SEC: . . . = . . . . .

\*\*\*\*\* EMISSION INFORMATION \*\*\*\*\*

POTENTIAL EMISSION: 00033 . 3700 (LB/HR) . . . . . (TON/YR)  
ESTIMATED EMISSION: . . . . . (TON/YR) EST CODE: \*  
ACTUAL EMISSION: . . . . . (TON/YR) AOR CODE: . AOR YR: 86  
ALLOWABLE EMISSION: . . . . . (LB/HR) . . . . . (TON/YR)  
ALLOWABLE EMISSION: . . . . . ( . . . . . ) OTHER UNIT  
REGULATION CODE: . . . . . = . . . . . CEM?: . (Y OR N)  
TEST FREQUENCY: 0 = NONE REQUIRED FREQUENCY BASE DATE: .. / .. / ..  
COMMENT: 000000000000

SOURCE POLLUTANT RECORD

\*\*\*\*\* POLLUTANT/CONTROL INFORMATION \*\*\*\*\*

POLLUTANT ID: PM = PARTICULATE MATTER % EFF: . . . .  
PRI: . . . = . . . . . SEC: . . . = . . . . .

\*\*\*\*\* EMISSION INFORMATION \*\*\*\*\*

POTENTIAL EMISSION: 00009 . 2600 (LB/HR) . . . . . (TON/YR)  
ESTIMATED EMISSION: . . . . . (TON/YR) EST CODE: \*  
ACTUAL EMISSION: . . . . . (TON/YR) AOR CODE: . AOR YR: 86  
ALLOWABLE EMISSION: . . . . . (LB/HR) 000012 . 0000 (TON/YR)  
ALLOWABLE EMISSION: . . . . . (LB/HR) . . . . . ) OTHER UNIT  
REGULATION CODE: . . . . . = . . . . . CEM?: . (Y OR N)  
TEST FREQUENCY: 0 = NONE REQUIRED FREQUENCY BASE DATE: .. / .. / ..  
COMMENT: GGIN'S PEAKIN

SOURCE TEST RECORD

CURRENT TEST DATE: 00 / 00 / 73 NEXT TEST DATE: .. / .. / ..  
TEAM NAME: . . . . .  
MAX PROCESS RATE: . . . . . ACTUAL: . . . . . UNITS: . . . . .  
MAX PRODUCTION RATE: . . . . . ACTUAL: . . . . . UNITS: OTHER  
POLLUTANT ID: PM = PARTICULATE MATTER TEST PASS? . (Y OR N)  
PERMIT ALLOWABLE EMIS: . . . . . UNITS: . . . . .  
TEST ALLOW EMIS: . . . . . TEST ACT EMIS: 00002 . 670000  
UNITS: LB/HR  
% TEST ACTUAL BELOW (-) OR ABOVE (+) TEST ALLOWABLE: . . . . . SIGN: .  
COMMENTS: . . . . .  
. . . . .  
. . . . .

FACILITY SOURCE ID: 40PNL52001204

SOURCE POLLUTANT RECORD

\*\*\*\*\* POLLUTANT/CONTROL INFORMATION \*\*\*\*\*  
POLLUTANT ID: NOX = NITROGEN OXIDES % EFF: . . . .  
PRI: . . . = . . . . . SEC: . . . = . . . . .

\*\*\*\*\* EMISSION INFORMATION \*\*\*\*\*  
POTENTIAL EMISSION: 00197 . 9500 (LB/HR) . . . . . (TON/YR)  
ESTIMATED EMISSION: . . . . . (TON/YR) EST CODE: \*  
ACTUAL EMISSION: . . . . . (TON/YR) AOR CODE: . AOR YR: 86  
ALLOWABLE EMISSION: . . . . . (LB/HR) . . . . . (TON/YR)  
ALLOWABLE EMISSION: . . . . . ( . . . . . ) OTHER UNIT  
REGULATION CODE: . . . . . = . . . . . CEM?: . (Y OR N)  
TEST FREQUENCY: 0 = NONE REQUIRED FREQUENCY BASE DATE: . . / . . / . .  
COMMENT: 000000000000

SOURCE POLLUTANT RECORD

\*\*\*\*\* POLLUTANT/CONTROL INFORMATION \*\*\*\*\*  
POLLUTANT ID: CO = CARBON MONOXIDE % EFF: . . . .  
PRI: . . . = . . . . . SEC: . . . = . . . . .

\*\*\*\*\* EMISSION INFORMATION \*\*\*\*\*  
POTENTIAL EMISSION: 99999 . 9900 (LB/HR) . . . . . (TON/YR)  
ESTIMATED EMISSION: . . . . . (TON/YR) EST CODE: \*  
ACTUAL EMISSION: . . . . . (TON/YR) AOR CODE: . AOR YR: 86  
ALLOWABLE EMISSION: . . . . . (LB/HR) 99999 . 0000 (TON/YR)  
ALLOWABLE EMISSION: . . . . . ( . . . . . ) OTHER UNIT  
REGULATION CODE: . . . . . = . . . . . CEM?: . (Y OR N)  
TEST FREQUENCY: 0 = NONE REQUIRED FREQUENCY BASE DATE: . . / . . / . .  
COMMENT: . . . . .

SOURCE POLLUTANT RECORD

\*\*\*\*\* POLLUTANT/CONTROL INFORMATION \*\*\*\*\*  
POLLUTANT ID: BNZ = BENZENE % EFF: . . . .  
PRI: . . . = . . . . . SEC: . . . = . . . . .

\*\*\*\*\* EMISSION INFORMATION \*\*\*\*\*  
POTENTIAL EMISSION: . . . . . (LB/HR) . . . . . (TON/YR)  
ESTIMATED EMISSION: . . . . . (TON/YR) EST CODE: .  
ACTUAL EMISSION: . . . . . (TON/YR) AOR CODE: . AOR YR: 86  
ALLOWABLE EMISSION: . . . . . (LB/HR) . . . . . (TON/YR)  
ALLOWABLE EMISSION: . . . . . ( LB/HR ) OTHER UNIT  
REGULATION CODE: . . . . . = . . . . . CEM?: . (Y OR N)  
TEST FREQUENCY: 0 = NONE REQUIRED FREQUENCY BASE DATE: . . / . . / . .  
COMMENT: . . . . .

FACILITY SOURCE ID: 40PNL52001204

SOURCE TEST RECORD

CURRENT TEST DATE: 00 / 00 / 75      NEXT TEST DATE: .. / .. / ..  
TEAM NAME: .....  
MAX PROCESS RATE: ..... ACTUAL: ..... UNITS: .....  
MAX PRODUCTION RATE: ..... ACTUAL: ..... UNITS: OTHER  
POLLUTANT ID: BNZ = BENZENE      TEST PASS? . (Y OR N)  
PERMIT ALLOWABLE EMIS: ..... UNITS: .....  
TEST ALLOW EMIS: ..... TEST ACT EMIS: .....  
UNITS: LB/HR  
% TEST ACTUAL BELOW (-) OR ABOVE (+) TEST ALLOWABLE: ... . . . SIGN: .  
COMMENTS: .....  
.....  
.....

SOURCE VE/TEST RECORDS

\*\*\*\*\* VE INFORMATION \*\*\*\*\*  
POLLUTANT ID: VE = VISIBLE EMISSIONS  
ALLOW % OPACITY: NORMAL: ... EXCEPT: ... TIME: ... (MIN)  
REG CODE: ..... = ..... CEM ? . (Y OR N)  
TEST FREQ: 1 = ANNUALLY      FREQ BASE DATE: 02 / 11 / 84

\*\*\*\*\* TEST INFORMATION \*\*\*\*\*  
CURRENT TEST DATE: 02 / 11 / 83      NEXT TEST DATE: 02 / 11 / 84  
OBSERVER NAME: 3  
TEST LENGTH: 060 (MIN)      TEST PASS ? . (Y OR N)  
TEST % OPACITY: NORMAL: 016      EXCEPT: ...      TIME: ... (MIN)  
COMMENTS: 600  
.....  
.....

\*\*\*\*\* TEST INFORMATION \*\*\*\*\*  
CURRENT TEST DATE: 10 / 06 / 82      NEXT TEST DATE: 02 / 11 / 84  
OBSERVER NAME: 3  
TEST LENGTH: 060 (MIN)      TEST PASS ? . (Y OR N)  
TEST % OPACITY: NORMAL: 010      EXCEPT: ...      TIME: ... (MIN)  
COMMENTS: 600  
.....  
.....

\*\*\*\*\* TEST INFORMATION \*\*\*\*\*  
CURRENT TEST DATE: 03 / 08 / 78      NEXT TEST DATE: 02 / 11 / 84  
OBSERVER NAME: .....  
TEST LENGTH: ... (MIN)      TEST PASS ? . (Y OR N)  
TEST % OPACITY: NORMAL: ...      EXCEPT: ...      TIME: ... (MIN)  
COMMENTS: .....  
.....  
.....

10/25/82

DEF AIR PERMIT INVENTORY SYSTEM  
SOUTHWEST DISTRICT PINELLAS COUNTY

40/52/0012/04

PAGE 1

PLANT 0042 FLA POWER SHORE DR OLDSMAR 33557

UTILITY FILE STATUS SENT  
POWER PLANT

SAINT PETERSBURG  
R C MOORE  
BOX 14042 C 4  
ST PETE

FLA  
ADDR=052 STD=4944  
LAT=28:20:30N LON=82:18:47W  
UTM ZONE 17 336.5KM E. 3098.2KM N.

POINT 04 CONST PATS# OPFR PATS# A052-58633  
TSS= / / FXP= / / TSS=10/22/82 EXP=10/12/87  
PEAKING UNIT #1 GASTURBINE GENERATOR  
SOURCE= TPP= FCAP=2 COMM.PNTS. -  
STACK HT= 53FT DIAM=15.1FT TEMP= 650F FLOW=480000CFM PLUME= REF  
ROTHER CAP= 0MBTU/HR FUEL FOR SPACE HEAT= 0%  
OPERATING PROCESS RATES YOR=78 RAW MATERIAL= 0 OTHER  
PRODUCT 0 OTHER FUEL 77 OTHER  
NORMAL COND. DEC-FEB=25% MAR-MAY=25% JUN-AUG=25% SEP-NOV=25%  
PERMIT SCHEDULE 02HRS/DAY 7DAYS/WK 52WKS/YR  
ADR FOR 03/15/82 02HRS/DAY 7DAYS/WK 52WKS/YR  
COMPLIANCE NEEDS=4 SRC=4 UPDATE 10/82 SCHED. / UPDATED 11/15/81  
PERMIT=1 YOR=82 INSPECTED 10/04/82 NEXT DUE 10/06/83

SOCS

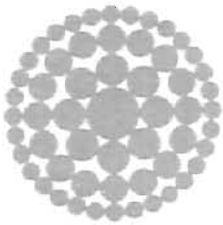
2-01-001-01 YOR= SOURCE=C RATE= 924 MAX= 0.000  
FUEL CONT SO2= .00% ASH= 0.0% 133MBTU FYOR= CONFID=2  
2-01-002-01 YOR= SOURCE=C RATE= 661 MAX= 0.000  
FUEL CONT SO2= .00% ASH= 0.0% 1026MBTU FYOR= CONFID=2

POLLUTANTS MONITORED

TSP 11101 NORM= 1.00 EST/METH= 16/2 MAX.ALW= 12 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 00/00/73 TEST/FREQ=  
TESTED 00/00/73 AGENCY= REG= COMPLIANCE=  
EMITTED= 2.67 ALLOWED= 0.00LBS/HR OP-RATE= 0 OTHER  
BNZ 11111 NORM= 0.00 EST/METH= 0/ MAX.ALW= 0 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE / / TEST/FREQ=  
TESTED 00/00/75 AGENCY= REG= COMPLIANCE=  
EMITTED= 0.00 ALLOWED= 0.00LBS/HR OP-RATE= 0 OTHER  
UF 11204 NORM= / EST/METH= / MAX.ALW= TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE // TEST/FREQ=1  
TESTED 10/06/82 AGENCY=3 REG=600 COMPLIANCE=1  
EMITTED= 600.10 ALLOWED= 600.20LBS/HR OP-RATE= 30 MBTU/0

INSPECTION REPORT FOR  
AIR POLLUTANT EMISSION SOURCES

|   |                                  |   |                    |
|---|----------------------------------|---|--------------------|
| FACILITY HIGGINS PLANT<br>FLORIDA POWER CORPORATION   |                                  | DISTRICT<br>SOUTHWEST   | COUNTY<br>PINELLAS |
| ADDRESS<br>BOOTH POINT, OLDSMAR FL.   |                                  | CONTACT<br>MR. JERRY CAMPBELL, MANAGER                            |                    |
| APIS #<br>40TPA52001204   | PERMIT #<br>A052-58633           | EXPIRATION DATE<br>10/12/87                                       |                    |
| SOURCE DESCRIPTION<br>GAS TURBINE PEAKING UNIT NO. 1  |                                  |   |                    |
| INSPECTION DATE<br>8/13/85  | AUDIT TYPE<br>MAJOR<br>2 - MINOR | COMPLIANCE STATUS<br>IN COMPLIANCE FOR EXTENDED<br>COLD SHUT DOWN |                    |
| INSPECTION COMMENTS/RECOMMENDATIONS   |                                  |   |                    |
| <p>A052-58633 - GAS TURBINE PEAKING UNIT WITH MAXIMUM HEAT INPUT OF 566 MM BTU/HR</p> <p>THE PRATT &amp; WHITNEY JET ENGINES OF THE PEAKER UNIT NO. 1 ARE CURRENTLY STORED IN CAPSULES FILLED WITH NITROGEN GAS DUE TO EXTENDED COLD SHUT DOWN.</p> <p>THE TOTAL NUMBER OF HOURS OF OPERATION DURING THE LAST 12 MONTHS TO THE END OF JULY, 1985 WERE 48.7</p> <p align="right">D. E. R.</p> <p align="right">'SEP 11 1985'</p> |                                  |   |                    |
| INSPECTOR(S) NAME(S)<br>RAMON SOLIS   |                                  | SOUTH DISTRICT<br>TAMPA   |                    |
| SIGNATURE(S)<br>Ramon Solis   |                                  | DATE<br>8/15/85   |                    |



*file*

**Florida  
Power**  
CORPORATION

April 4, 1985

Dr. R. D. Garrity  
District Manager  
Department of Environmental Regulation  
7601 Highway 301 North  
Tampa, FL 33610

Subject: Higgins Peaker #1 A052-58633 ✓  
Higgins Peaker #2 A052-58634  
Higgins Peaker #3 A052-58635  
Higgins Peaker #4 A052-58636

Dear Dr. Garrity:

Please be advised that the subject units have been placed in long term standby and are not scheduled to operate in the foreseeable future. When these units are placed back into operation, your office will be notified and the units tested within 30 days of startup.

Should you have any questions, please advise.

*M. Y. Keble / JAH*

J. A. Hancock  
Vice President, Fossil Operations

Hancock(M02)C3-1

JAH:ey

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. (Higgins Peaker #1)  
 2. Permit Number: A052-58633  
 3. Source Address: P.O. Box 3, Oldsmar, FL 33557  
 4. Description of Source: Gas Turbine

II. OPERATING SCHEDULE: 24 hrs/day 7 day/wk 52 wks/yr  
 Operated 65.2 hours in 1984

III. RAW MATERIAL INPUT PROCESS WEIGHT:

| Raw Material                             | Input Process Weight | tons/yr |
|--|----------------------|---------|
| <u>N/A</u>                               |                      |         |
|  |                      |         |
|  |                      |         |
|  |                      |         |
|  |                      |         |
| Product Output (tons/yr - cubic feet/yr) |                      |         |

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>21.045</u> $10^6$ Cu. Ft. Natural Gas       | <u>62.16</u> $10^3$ gallons No. 2 Oil, <u>0.25</u> %S |
| <u>        </u> $10^3$ gallons Propane         | <u>        </u> $10^3$ gallons Kerosene               |
| <u>        </u> tons Coal                      | <u>        </u> $10^6$ lb Black Liquor Solids         |
| <u>        </u> tons Carbonaceous              | <u>        </u> tons Refuse                           |
| Other (Specify type and units) <u>        </u> |   |

V. EMISSION LEVEL (tons/yr):

|  |                                      |
|--|--------------------------------------|
| A. <u>0.302</u> Particulates                   | <u>        </u> Carbon Monoxide      |
| <u>6.453</u> Nitrogen Oxide                    | <u>        </u> Total Reduced Sulfur |
| <u>        </u> Hydrocarbon                    | <u>        </u> Fluoride             |
| <u>1.088</u> Sulfur Dioxide                    |                                      |
| Other (Specify type and units) <u>        </u> |                                      |

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.

*J. A. Hancock*  
Signature of Owner or Authorized Representative

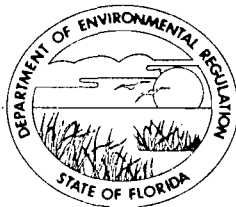
J. A. Hancock  
Vice President, Fossil Operations



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 - Higgins Peaking Unit 1  
A052-58633

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 September 29, 1982 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.

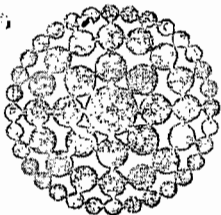
Sincerely,

Dan A. Williams, P.E.  
District Engineer  
Air, IW & HW Programs

JE/scm

cc: PCDEM

*Air*  
*Does Pinella*  
*County agr.*  
*EV*  
*Esther*  
*WCO*



**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 18 1983

SOUTHWEST DISTRICT  
TAMPA

**BEST AVAILABLE COPY  
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 & RETURN

REVIEW & FILE

INITIAL & FORWARD

**DISPOSITION**

REVIEW & RESPOND

PREPARE RESPONSE

FOR MY SIGNATURE

FOR YOUR SIGNATURE

LET'S DISCUSS

SET UP MEETING

INVESTIGATE & REPT

INITIAL & FORWARD

DISTRIBUTE

CONCURRENCE

FOR PROCESSING

INITIAL & RETURN

FROM:

*Tim Estler*

DATE

*4-15-83*

PHONE

COMPLIANCE VERIFICATION INSPECTION

FLORIDA POWER CORPORATION  
HIGGINS PLANT - PEAKER UNITS  
PINELLAS COUNTY  
NEDS NUMBERS: 052-0012-04, 05, 06 and 07  
PERMIT NUMBERS: A052-58633, 58634, 58635, 58636  
DATE OF INSPECTION: FEBRUARY 11, 1983

---

The Higgins Combustion Turbine Plant is located in Booth Point, Oldsmar, FL.

Plant contact person was Mr. Thomas M. Pryslak, Senior Engineer and Plant Superintendent. Ramon Solis of Pinellas County Division of Air Quality, D.E.M., performed the inspection.

At the time of the inspection the peaker unit number 1 was being tested. Units 2, 3 and 4 were not in operation. The two Pratt & Whitney jet engines of unit No. 1 are fired by fuel oil No. 2, but they also have the capability to operate with natural gas.

During 1982, Unit No. 1 operated only 14 hours, while units 2 through 4 operated 22, 16 and 16 hours respectively during the year.

On November 24, 1982, The Florida Power Corporation petitioned the Florida Department of Environmental Regulation to eliminate the annual requirement of visible emissions testing for the four gas turbine generators at the Higgins Plant. No response has been received from DER as of this date.

A visible emissions test was performed during the test run (unfavorable conditions). Average opacity during the worst six minutes of operation was 15.6%.

The peaker units of the Higgins Plant of F.P.C. are considered to be in compliance with Chapters 17-2 and 17-4, Florida Administrative Code.

RS/jh

D.E.R.

MAR 25 1983

SOUTHWEST DISTRICT  
TAMPA

EPA 418 101

VISIBILITY EMISSION OBSERVATION FORM

SOURCE NAME HIGGINS PLANT  
FLORIDA POWER CORP. PEAKER UNIT #1  
ADDRESS BOOTH POINT, SHORE DRIVE  
OLDSMAR, FLORIDA

SOURCE ID NUMBER A052-58633

OBSERVATION DATE 2/11/83

STATE FLORIDA ZIP PHONE 866-4509

OBSERVER'S NAME (PRINT) RAMON SOLIS

ORGANIZATION PINELLAS COUNTY DIVISION OF AIR QUALITY

CERTIFIED BY ETA/DER

DATE 9/16/82



PROCESS GAS TURBINE OPERATING MODE  
POWER GENERATOR TEST RUN

START TIME 13:15 STOP TIME 13:39  
0 15 30 45 0 15 30 45

CONTROL EQUIPMENT OPERATING MODE  
NONE N/A

Table with 4 columns for time intervals (0-15, 15-30, 30-45, 45-60) and 4 rows for readings (1-4).

DESCRIBE EMISSION POINT RECTANGULAR STACK

Table with 4 columns for time intervals and 4 rows for readings (5-8).

EMISSION POINT HEIGHT ABOVE GROUND LEVEL 53  
EMISSION POINT HEIGHT RELATIVE TO OBSERVER 53

Table with 4 columns for time intervals and 4 rows for readings (9-12).

DISTANCE TO EMISSION POINT 200'  
DIRECTION TO EMISSION POINT 340°

Table with 4 columns for time intervals and 4 rows for readings (13-16).

DESCRIBE EMISSIONS SMOKE

Table with 4 columns for time intervals and 4 rows for readings (17-20).

COLOR OF EMISSIONS BLACK  
CONTINUOUS  FUGITIVE   
INTERMITTENT

Table with 4 columns for time intervals and 4 rows for readings (21-24).

WATER VAPOR PRESENT NO  YES   
IF YES, IS PLUME ATTACHED  N/A  DETACHED

Table with 4 columns for time intervals and 4 rows for readings (25-28).

AT WHAT POINT WAS OPACITY DETERMINED 10 FT ABOVE  
RECTANGULAR STACK

Table with 4 columns for time intervals and 4 rows for readings (29-32).

DESCRIBE BACKGROUND SKY

Table with 4 columns for time intervals and 4 rows for readings (33-36).

COLOR OF BACKGROUND BLUE/WHITE  
SKY CONDITIONS 60% CC

Table with 4 columns for time intervals and 4 rows for readings (37-40).

WIND SPEED 10 MPH  
WIND DIRECTION NW

Table with 4 columns for time intervals and 4 rows for readings (41-44).

AMBIENT TEMPERATURE 70  
RELATIVE HUMIDITY 65

Table with 4 columns for time intervals and 4 rows for readings (45-48).

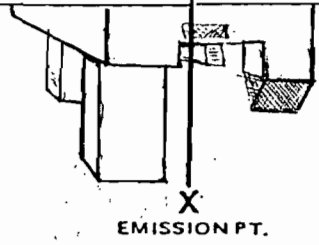
COMMENTS USING #2 OIL  
TESTING TURBINE

Table with 4 columns for time intervals and 4 rows for readings (49-52).

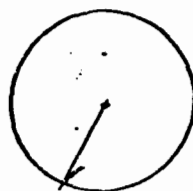
AVERAGE OPACITY WORST SIX MIN 15.6  
NUMBER OF READINGS ABOVE 20 % WERE 0

RANGE OF OPACITY READINGS FROM 5 TO 20

SOURCE LAYOUT SKETCH



DRAW NORTH ARROW

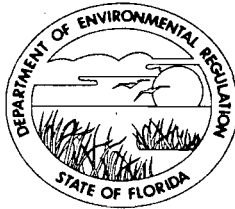


OBSERVER'S SIGNATURE Ramon Solis

DATE 5/1/83

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS.

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

January 21, 1983

Mr. Dennis A. Shantz, Supervisor  
Environmental Services  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

Re: Pinellas County - AP  
Higgins Peaking Units 1 thru 4  
A052-58633, 58634, 58635, 58636

Dear Mr. Shantz:

In response to your November 24, 1982 letter requesting relief from the annual visible emission testing requirements for Peaking Units 1 thru 4 at the Higgins Plant, the Department offers the following comments:

1. We agree with you that all four units have operated for only a brief period during the first nine months of 1982 and that bringing the units on line just to conduct a compliance test could be considered unreasonable due to the expense involved.
2. The Department proposes that:
  - a. An annual compliance test be required only if a unit operates more than 5 days (120 hours) on fuel oil per year.
  - b. Test be conducted while burning fuel oil.
  - c. Florida Power tries to coordinate testing with PCDEM when possible.

Please advise if Florida Power agrees with our proposal or if further discussion is needed.

Sincerely,

Dan A. Williams, P.E.  
District Engineer  
Air, IW & HW Programs

DAW/llg  
cc: PCDEM

*copy to PCDEEM 12/15/82*



November 24, 1982

Mr. W. K. Hennessey  
District Manager  
Department of Environmental Regulation  
7601 Highway 301 North  
Tampa, FL 33610-0544

Subject: Opacity Testing Higgins P-1 - ~~A052-58633~~  
Higgins P-2 - A052-58634  
Higgins P-3 - A052-58635  
Higgins P-4 - A052-58636

Dear Mr. Hennessey:

Florida Power requests that the requirement to conduct annual visible emission tests on the subject units be eliminated. Through September of this year, the total operating time for each unit is as follows:

Higgins P-1 - 14.4 hours  
Higgins P-2 - 21.5 hours  
Higgins P-3 - 16.4 hours  
Higgins P-4 - 15.8 hours

These units operate only during unplanned emergency situations and a significant portion of that operation is on natural gas. It involves considerable cost for our customers to bring them on-line just to conduct a visible emission test. We are unable to determine any corresponding benefit to the environment.

These units have always been in compliance with visible emission standards and will continue in compliance for the useful life of the gas turbines. Your timely consideration of this request would be greatly appreciated.

**D.E.R.**

**DEC 10 1982**

**SOUTHWEST DISTRICT  
TAMPA**

Mr. W. K. Hennessey  
November 24, 1982  
Page 2

Should you have any questions concerning this matter, please advise.

Very truly yours,

  
Dennis A. Shantz, Supervisor  
Environmental Services

Shantz(T05)C1-2

cc: R. E. Parnelle  
J. Alberdi  
F. Denby  
T. L. Brouette  
Reader's File



DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000000058633 COE# DER PROCESSOR:RICHARDSON DER OFFICE:TPA  
 FILE NAME:FLORIDA POWER CORP DATE FIRST REC: 07/29/82 APPLICATION TYPE:AQ  
 APPL NAME:FLORIDA POWER CORP APPL PHONE:(813)866-5151 PROJECT COUNTY:52  
 ADDR:P O BOX 14042 CITY:ST PETERSBURG ST:FLZIP:33733  
 AGENT NAME: AGNT PHONE:( ) CITY: ST: ZIP:  
 ADDR: CITY: ST: ZIP:

ADDITIONAL INFO REQ: / / / / / / REC: / / / / / /  
 APPL COMPLETE DATE: 07/29/82 COMMENTS NEC:N DATE REQ: / / DATE REC: / /  
 CHECK 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 \*\*\* 10/22/82 15:44:09

FEE PD DATE#1:07/29/82 \$0100 RECEIPT#00063820 REFUND DATE: / / REFUND \$  
 FEE PD DATE#2: / / \$ RECEIPT# REFUND DATE: / / REFUND \$

APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:IS DATE:10/22/82

REMARKS:HIGGINS #1 PEAKING UNIT

COMPANY NAME

Florida Power Corp

Processor

Cemb

File Number A052-58633

PERMIT APPLICATION STATUS SHEET

Type of permit applied for OPERATION

County PIVILLAS

Date Recieved 7-29-82

P.E. seal & signature   
Check   
No check   
Letter of corp. standing

| CLOCK DAYS | DATE TASK COMPLETED | INITIALS    |
|------------|---------------------|-------------|
| 3          | <u>8-2-82</u>       | <u>Cemb</u> |
| 15         |                     |             |
| 28         |                     |             |
|            |                     |             |
|            |                     |             |
|            |                     |             |
| 55         |                     |             |
| 60         |                     |             |
| 75         |                     |             |
| 80         |                     |             |
| 83         |                     |             |
| 85         | <u>10-22-82</u>     | <u>TL</u>   |
| 90         |                     |             |

\*If needed, If not indicate by N/A

Copy to PC 8-2-82

TO: The File  
THROUGH: Bill Thomas *WGT*  
FROM: George Richardson *GWR*  
DATE: October 21, 1982  
SUBJECT: Florida Power Corporation  
A052-58633

This permit is for the operation of the Higgins Peaking Unit #1 located at Booth Road, Oldsmar, Pinellas County.

This is one of four units that is used during peak load demand. The main fuel is natural gas with #2 oil as standby.

This source is in compliance. PCDEM and I recommend this permit be issued.

GWR/scm

COMPLIANCE VERIFICATION INSPECTION

FLORIDA POWER CORPORATION  
HIGGINS PLANT - PEAKER UNITS  
PINELLAS COUNTY  
NEDS NUMBERS: 052-0012-04, 05, 06 and 07  
PERMIT NUMBERS: A052-~~58633~~, 58634, 58635 and 58636  
DATES OF INSPECTION: SEPTEMBER 29 and 30, 1982

---

The Higgins Combustion Turbine Plant is located in Booth Point, Oldsmar, Florida.

Plant contact person was Mr. Thomas M. Pryslak, Senior Engineer and Plant Superintendent. Mr. Kenneth E. Roy, Mr. Philip M. Watkins and Mr. Stephen Stanbrough performed visible emissions tests. Ramon Solis of Pinellas County Division of Air Quality, D.E.M., performed the inspection.

The peaker units were last inspected on September 8, 1982, but since they were not in operation during the inspection, it was not possible to test them for visible emissions at the time.

Purpose of the inspection of September 29 and 30, 1982 was to perform visible emissions tests on the four peaker units to ascertain their status of compliance with Chapters 17-2 and 17-4, Florida Administrative Code.

The jet engines are normally started with natural gas and then a gradual change is made to fuel oil No. 2. Average fuel consumption for both engines in each one of the peaking units is 96 barrels per hour. Maximum heat input is 566 million BTU/hr.

The old permits to operate these sources, numbers A052-5702, A052-5703, A052-5704 and A052-5705 expired in September 21, 1982. The application for renewal of the permits to operate were received at the DER Southwest District Office on July 29, 1982.

Visible emission tests were performed for all the peaker units. The production rate (output) was 34 MW in unit 1, 25.5 MW in unit 2, 35 MW in unit 3 and 34 MW in unit 4.

Average opacity during the worst six minutes of operation was 10% for unit 1, 14% for unit 2, 8% for unit 3 and 12% for unit 4.

The Higgins Combustion Turbine Plant is considered to be in compliance with Chapters 17-2 and 17-4, Florida Administrative Code.

RS/jh

PATR -101, BEST AVAILABLE COPY VISIBLE EMISSION OBSERVATION FORM

SOURCE NAME FLORIDA POWER CORP  
HIGGINS PLANT PEAKER UNIT NO. 1

SOURCE ID NUMBER  
A05258633

OBSERVATION DATE  
9/30/82

ADDRESS  
BOOTH POINT  
OLDSMAR

OBSERVER'S NAME (PRINT)  
RAMON SOLIS

ORGANIZATION  
PINELLAS COUNTY DIVISION OF AIR QUALITY

STATE  
FLORIDA

ZIP  
33555

PHONE  
855-1485

CERTIFIED BY  
ETA / DEC

DATE  
9/14/82



PROCESS PEAKER UNIT NO. 1  
HIGGINS PLANT (GAS TURBINE)  
OPERATING MODE FULL LOAD  
CONTROL EQUIPMENT - NONE  
OPERATING MODE

START TIME 2:15  
STOP TIME 2:45

DESCRIBE EMISSION POINT  
RECTANGULAR SMOKESTACK

EMISSION POINT HEIGHT ABOVE GROUND LEVEL 53'  
EMISSION POINT HEIGHT RELATIVE TO OBSERVER 53'

DISTANCE TO EMISSION POINT 200'  
DIRECTION TO EMISSION POINT 320°

DESCRIBE EMISSIONS  
SMOKE EXHAUST

COLOR OF EMISSIONS BLACK  
CONTINUOUS  FUGITIVE   
INTERMITTENT

WATER VAPOR PRESENT YES  NO   
IF YES, IS PLUME ATTACHED  N/A  DETACHED

AT WHAT POINT WAS OPACITY DETERMINED  
10' ABOVE STACK EXHAUST

DESCRIBE BACKGROUND  
SKY

COLOR OF BACKGROUND BLUE / WHITE  
SKY CONDITIONS 30% cc

WIND SPEED 15 MPH  
WIND DIRECTION NE

AMBIENT TEMPERATURE 80°F  
RELATIVE HUMIDITY 75%

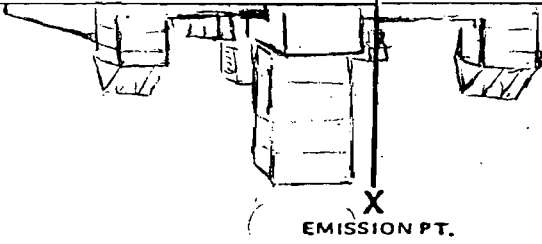
COMMENTS

|    | 0  | 15 | 30 | 45 |    | 0 | 15 | 30 | 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 | 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 |   |    |    |    |

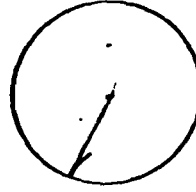
AVERAGE OPACITY WORST 6 MIN 10%  
NUMBER OF READINGS ABOVE 20 % WERE 0

RANGE OF OPACITY READINGS FROM 10% TO 10%

SOURCE LAYOUT SKETCH



DRAW NORTH ARROW



OBSERVER'S SIGNATURE  
Ramon Solis

DATE  
9/30/82

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS.  
SIGNATURE  
TITLE  
DATE

SOURCE NAME **FLORIDA POWER CO., HIGGINS PLANT PEAKER No. 2**  
 ADDRESS **BOOTH POINT OLDSMAR**  
 STATE **FLORIDA** ZIP **33050** PHONE **855-1485**

SOURCE ID NUMBER **A052-58634** OBSERVATION DATE **9/29/82**  
 OBSERVER'S NAME (PRINT) **RAMON SOLIS**  
 ORGANIZATION **PINELLAS COUNTY DIVISION OF AIR QUALITY**  
 CERTIFIED BY **ETA/DER**



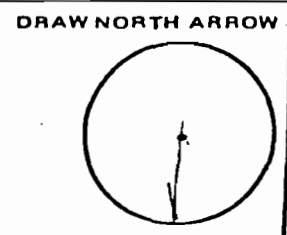
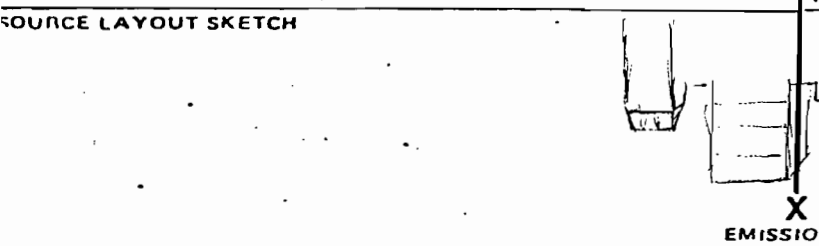
No 2

DATE **9/14/82**

PROCESS POWER GENERATION **JET ENGINE TURBINES**  
 OPERATING MODE **FULL LOAD**  
 CONTROL EQUIPMENT **NONE**  
 DESCRIBE EMISSION POINT **RECTANGULAR SMOKE STACK**  
 EMISSION POINT HEIGHT ABOVE GROUND LEVEL **53'**  
 EMISSION POINT HEIGHT RELATIVE TO OBSERVER **53'**  
 DISTANCE TO EMISSION POINT **200'**  
 DIRECTION TO EMISSION POINT **N-NW**  
 DESCRIBE EMISSIONS **SMOKE EXHAUST**  
 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' ABOVE STACK**  
 DESCRIBE BACKGROUND **SKY**  
 COLOR OF BACKGROUND **BLUE/WHITE**  
 SKY CONDITIONS **40% CC**  
 WIND SPEED **10 MPH**  
 WIND DIRECTION **NE**  
 AMBIENT TEMPERATURE **85° F**  
 RELATIVE HUMIDITY **80%**

|    | START TIME <b>2:27</b> |    |    |    | STOP TIME <b>2:57</b> |    |    |    |
|----|------------------------|----|----|----|-----------------------|----|----|----|
|    | 0                      | 15 | 30 | 45 | 0                     | 15 | 30 | 45 |
| 1  | 5                      | 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 | 15 | 15 | 40                    |    |    |    |
| 11 | 15                     | 15 | 15 | 15 | 41                    |    |    |    |
| 12 | 15                     | 15 | 15 | 15 | 42                    |    |    |    |
| 13 | 15                     | 15 | 15 | 15 | 43                    |    |    |    |
| 14 | 15                     | 15 | 15 | 15 | 44                    |    |    |    |
| 15 | 15                     | 15 | 15 | 15 | 45                    |    |    |    |
| 16 | 15                     | 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 | 5                      | 5  | 5  | 5  | 54                    |    |    |    |
| 25 | 5                      | 5  | 5  | 5  | 55                    |    |    |    |
| 26 | 5                      | 5  | 5  | 5  | 56                    |    |    |    |
| 27 | 5                      | 5  | 5  | 5  | 57                    |    |    |    |
| 28 | 5                      | 5  | 5  | 5  | 58                    |    |    |    |
| 29 | 5                      | 5  | 5  | 5  | 59                    |    |    |    |
| 30 | 5                      | 5  | 5  | 5  | 60                    |    |    |    |

AVERAGE OPACITY WORST 6 MIN **14%** NUMBER OF READINGS ABOVE **20** % WERE **0**  
 RANGE OF OPACITY READINGS FROM **5** TO **15**



25E-2  
02-8  
52-4

OBSERVER'S SIGNATURE **Ramon Solis** DATE **9/29/82**  
 CERTIFIED BY

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS.  
 SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE / /

SOURCE NAME **FLORIDA POWER CORPORATION  
HIGGINS PLANT PEAKER NO. 3**  
ADDRESS **BOOTH POINT  
OLDSMAR**

SOURCE ID NUMBER **A052-88635** OBSERVATION DATE **9/29/82**  
OBSERVER'S NAME (PRINT) **RAMON SOLIS**  
ORGANIZATION **PINELLAS COUNTY DIVISION OF AIR QUALITY**

STATE **FLORIDA** ZIP  PHONE **855-1485**

CERTIFIED BY **ETA/DER**



No. **3** DATE **9/14/82**

PROCESS POWER GENERATION **JET ENGINE TURBINES** OPERATING MODE **FULL LOAD**  
CONTROL EQUIPMENT **NONE** OPERATING MODE

START TIME **2:01** STOP TIME **2:31**

DESCRIBE EMISSION POINT **RECTANGULAR  
SMOKE STACK**  
EMISSION POINT HEIGHT ABOVE GROUND LEVEL **53'** EMISSION POINT HEIGHT RELATIVE TO OBSERVER **53'**  
DISTANCE TO EMISSION POINT **200'** DIRECTION TO EMISSION POINT **N-NE**

|    | START TIME |    |    |    | STOP TIME |    |    |    |
|----|------------|----|----|----|-----------|----|----|----|
|    | 0          | 15 | 30 | 45 | 0         | 15 | 30 | 45 |
| 1  | 10         | 10 | 10 | 10 | 31        |    |    |    |
| 2  | 10         | 10 | 10 | 10 | 32        |    |    |    |
| 3  | 10         | 10 | 10 | 10 | 33        |    |    |    |
| 4  | 5          | 10 | 10 | 10 | 34        |    |    |    |
| 5  | 10         | 10 | 5  | 5  | 35        |    |    |    |
| 6  | 5          | 5  | 5  | 5  | 36        |    |    |    |
| 7  | 5          | 5  | 5  | 5  | 37        |    |    |    |
| 8  | 5          | 5  | 5  | 5  | 38        |    |    |    |
| 9  | 10         | 10 | 10 | 10 | 39        |    |    |    |
| 10 | 10         | 10 | 10 | 10 | 40        |    |    |    |
| 11 | 10         | 10 | 5  | 5  | 41        |    |    |    |
| 12 | 5          | 10 | 10 | 10 | 42        |    |    |    |
| 13 | 10         | 10 | 10 | 5  | 43        |    |    |    |
| 14 | 5          | 5  | 5  | 5  | 44        |    |    |    |
| 15 | 10         | 10 | 10 | 10 | 45        |    |    |    |
| 16 | 10         | 10 | 10 | 10 | 46        |    |    |    |
| 17 | 5          | 5  | 10 | 10 | 47        |    |    |    |
| 18 | 10         | 10 | 10 | 10 | 48        |    |    |    |
| 19 | 10         | 10 | 10 | 10 | 49        |    |    |    |
| 20 | 5          | 5  | 5  | 5  | 50        |    |    |    |
| 21 | 5          | 5  | 5  | 5  | 51        |    |    |    |
| 22 | 5          | 5  | 5  | 5  | 52        |    |    |    |
| 23 | 5          | 5  | 5  | 5  | 53        |    |    |    |
| 24 | 5          | 5  | 5  | 5  | 54        |    |    |    |
| 25 | 5          | 5  | 5  | 5  | 55        |    |    |    |
| 26 | 5          | 5  | 5  | 5  | 56        |    |    |    |
| 27 | 5          | 5  | 5  | 5  | 57        |    |    |    |
| 28 | 5          | 5  | 5  | 5  | 58        |    |    |    |
| 29 | 10         | 10 | 10 | 10 | 59        |    |    |    |
| 30 | 10         | 10 | 10 | 10 | 60        |    |    |    |

DESCRIBE EMISSIONS **SMOKE EXHAUST**

COLOR OF EMISSIONS **BLACK** CONTINUOUS  FUGITIVE   
INTERMITTENT

WATER VAPOR PRESENT **NO** YES  IF YES, IS PLUME ATTACHED  DETACHED   
**N/A**

AT WHAT POINT WAS OPACITY DETERMINED **10' ABOVE SMOKE STACK**

DESCRIBE BACKGROUND **SKY**

COLOR OF BACKGROUND **BLUE/WHITE** SKY CONDITIONS **40% CC**

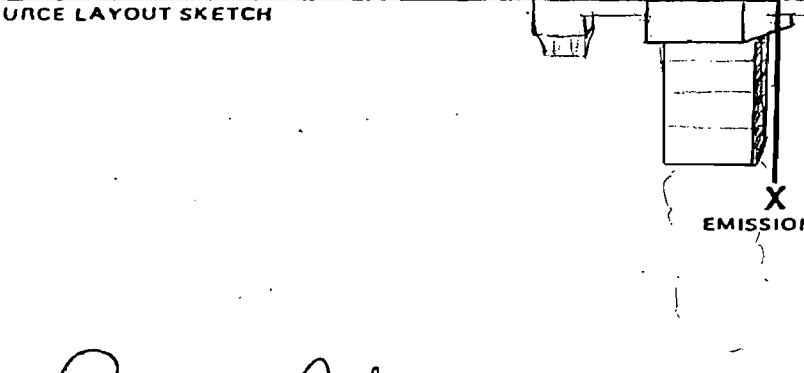
WIND SPEED **10 MPH** WIND DIRECTION **NE**

AMBIENT TEMPERATURE **85°F** RELATIVE HUMIDITY **80%**

COMMENTS

AVERAGE OPACITY WORST **8%** NUMBER OF READINGS ABOVE **20** % WERE **0**

RANGE OF OPACITY READINGS FROM **5** TO **10%**



OBSERVER'S SIGNATURE **Ramon Solis** DATE **9/29/82**

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS. SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

SOURCE NAME **FLORIDA POWER CORPORATION  
HIGGINS PLANT, PEAKER NO. 4**  
 ADDRESS **BOOTH POINT  
OLDSMAR**  
 STATE **FLORIDA** ZIP **33558** PHONE **855-1485**

SOURCE ID NUMBER **A052-58636** OBSERVATION DATE **9/29/82**  
 OBSERVER'S NAME (PRINT) **RAMON SOLIS**  
 ORGANIZATION **PINELLAS COUNTY DIVISION OF AIR QUALITY**  
 CERTIFIED BY **ETA/DER**



No. **4** DATE **9/14/82**

PROCESS POWER GENERATION **JET ENGINE TURBINES** OPERATING MODE **FULL LOAD**  
 CONTROL EQUIPMENT **NONE** OPERATING MODE

| START TIME <b>2:01</b> |    |    |    |    | STOP TIME <b>2:26</b> |    |    |    |  |
|------------------------|----|----|----|----|-----------------------|----|----|----|--|
|                        | 0  | 15 | 30 | 45 | 0                     | 15 | 30 | 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 | 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                     | 15 | 15 | 15 | 15 | 51                    |    |    |    |  |
| 22                     | 15 | 15 | 15 | 15 | 52                    |    |    |    |  |
| 23                     | 15 | 10 | 10 | 10 | 53                    |    |    |    |  |
| 24                     | 10 | 10 | 10 | 10 | 54                    |    |    |    |  |
| 25                     | 10 | 10 | 10 | 10 | 55                    |    |    |    |  |
| 26                     |    |    |    |    | 56                    |    |    |    |  |
| 27                     |    |    |    |    | 57                    |    |    |    |  |
| 28                     |    |    |    |    | 58                    |    |    |    |  |
| 29                     |    |    |    |    | 59                    |    |    |    |  |
| 30                     |    |    |    |    | 60                    |    |    |    |  |

DESCRIBE EMISSION POINT **RECTANGULAR SMOKESTACK**  
 EMISSION POINT HEIGHT ABOVE GROUND LEVEL **53'**  
 EMISSION POINT HEIGHT RELATIVE TO OBSERVER **53'**  
 DISTANCE TO EMISSION POINT **200'**  
 DIRECTION TO EMISSION POINT **N-NE**

DESCRIBE EMISSIONS **SMOKE EXHAUST**

COLOR OF EMISSIONS **BLACK**  
 CONTINUOUS  FUGITIVE   
 INTERMITTENT

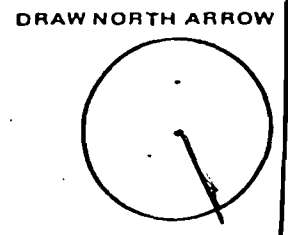
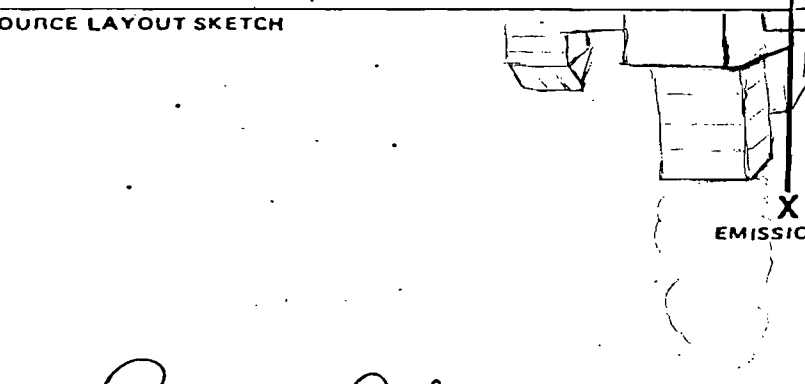
WATER VAPOR PRESENT  YES   
 IF YES, IS PLUME ATTACHED  N/A  DETACHED

AT WHAT POINT WAS OPACITY DETERMINED **10 FT ABOVE STACK**

DESCRIBE BACKGROUND **SKY**  
 COLOR OF BACKGROUND **BLUE/WHITE** SKY CONDITIONS **30% CC-40%**  
 WIND SPEED **10** WIND DIRECTION **NE**  
 AMBIENT TEMPERATURE **85°** RELATIVE HUMIDITY **80%**

COMMENTS

AVERAGE OPACITY WORST 6 MIN **12%** NUMBER OF READINGS ABOVE **20** % WERE **0**  
 RANGE OF OPACITY READINGS FROM **10** TO **15%**



OBSERVER'S SIGNATURE **Ramon Solis**  
 DATE **9/29/82**

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS.  
 SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_



DER

COMPLIANCE VERIFICATION INSPECTION

FLORIDA POWER CORPORATION  
HIGGINS PLANT - PEAKER UNITS  
PINELLAS COUNTY  
NEDS NUMBERS: 052-0012-04, 05, 06 and 07  
PERMIT NUMBERS: A052-58633, 58634, 58635 and 58636  
DATE OF INSPECTION: SEPTEMBER 8, 1982

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The Higgins Combustion Turbine Plant is located in Booth Point, Oldsmar, Florida.

Plant contact person was Mr. Thomas M. Pryslak, Senior Engineer and Plant Superintendent. Ramon Solis of Pinellas County Division of Air Quality performed the inspection.

The existing 4 peaking units were constructed with 1960 technology. Each unit consists of two Pratt & Whitney jet engines which drive another turbine inside an expander chamber, by means of their exhaust gas thrust. A transmission shaft connects the turbine in the expander chamber with an electrical generator. The peaking units operate as an emergency back-up plant for the Florida Power Production Department. The Higgins peaking plant is the only one with dual capability to burn either natural gas or fuel oil No. 2. Currently, the cost of operating with natural gas is \$3.50/million BTU, whereas it costs \$7.00/million BTU to operate with oil No. 2. The Babcock & Wilcox steam boilers in the main plant operate at a cost of \$5.80/million BTU. However, the peakers operate most of the time on fuel oil No. 2 due to fuel availability, especially during the winter season. Enclosed is a table of the number of hours of operation and the fuel usage by the Higgins peaking units from 1977 to 1981.

NUMBER OF HOURS AND FUEL USAGE  
HIGGINS PEAKING TURBINE GENERATORS

| Year | Unit No. 1 |     |     | Unit No. 2 |     |     | Unit No. 3 |     |     | Unit No. 4 |     |     |
|------|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
|      | Hours      | Oil | Gas | Hours      | Oil | Gas | Hours      | Oil | Gas | Hours      | Oil | Gas |
| 1977 | 272        | 219 | 82  | 280        | 641 | 35  | 326        | 147 | 131 | 307        | 558 | 80  |
| 1979 | 221        | 428 | 31  | 229        | 341 | 28  | 280        | 628 | 42  | 287        | 665 | 42  |
| 1980 | 483        | 763 | 89  | 401        | 510 | 72  | 357        | 649 | 58  | 332        | 711 | 61  |
| 1981 | 34         | 73  | 0.1 | 191        | 345 | 21  | 143        | 320 | 24  | 149        | 364 | 16  |

Oil units are  $10^3$  gal.  
Gas units are  $10^6$  cu. ft.

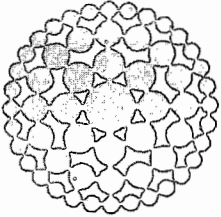
The last time the peakers were in operation, was in June 1982, when the Crystal River Nuclear Plant was down.

Compliance Verification Inspection  
Florida Power Corporation  
Higgins Plant - Peaker Units  
Date of Inspection: September 8, 1982  
Page -2-

At the time of the inspection, the peakers were not in operation and therefore no visible emissions tests were performed. Mr. Prysak will report back at the first opportunity to test the units.

Pending performance of the above mentioned tests, the Higgins Peaking Units Plant is considered to be in unknown status of compliance with Chapters 17-2 and 17-4, Florida Administrative Code.

RS/jh



**Florida  
Power**  
CORPORATION

July 28, 1982

Dan Williams  
Department of Environmental Regulation  
Southwest District  
7601 Highway 301 North  
Tampa, Florida 33610

Subject: Renewal of Air Operating Permits  
Higgins Peaking Units 1-4

Dear Mr. Williams:

Enclosed are 4 copies of applications for renewal of the air operating permits for Higgins Peaking Units 1-4. Also enclosed are four checks for \$100.00 each for the filing fee.

If you have any questions, please contact me at (813) 866-5528.

Sincerely,

*T. H. Wooten*

T. H. Wooten

THW/gr

Enclosures

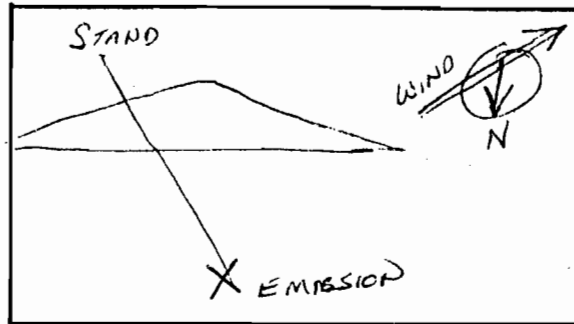
**D.E.R.**

**JUL 29 1982**

**SOUTHWEST DISTRICT  
TAMPA**

RECORD OF VISUAL DETERMINATION OF OPACITY

LOCATION Higgins Peaker Plant  
 PERMIT NUMBER A052-5702  
 DATE 9/30/82  
 TYPE FACILITY ELECTRIC GEN.  
 CONTROL DEVICE NONE



HOURS OF OBSERVATION 1416-1446  
 OBSERVER STEVEN L. STANBROUGH  
 OBSERVER CERTIFICATION DATE 9/15/82  
 POINT OF EMISSIONS Stack  
 HEIGHT OF DISCHARGE POINT 40'

|   |                            |  |                   |
|---|----------------------------|--|-------------------|
| CLOCK TIME  | Initial<br>1416 HR         |  | Final<br>1446 HRS |
| OBSERVER LOCATION<br>Distance to Discharge          | 150'                       |  |                   |
| Direction from Discharge                            | S.E.                       |  |                   |
| Height of Observation Point                         |                            |  | S<br>A<br>M       |
| BACKGROUND DESCRIPTION                              | white, gray<br>blue<br>SKY |  | E                 |
| WEATHER CONDITIONS<br>Wind Direction                | N.E.                       |  |                   |
| Wind Speed  | 2-5                        |  |                   |
| Ambient Temperature                                 | 90°                        |  |                   |
| SKY CONDITIONS (clear,<br>overcast, % clouds, etc.) | Cloudy                     |  |                   |
| PLUME DESCRIPTION<br>Color                          | BLACK                      |  |                   |
| Distance Visible                                    | 1/4 mi.                    |  |                   |
| Other Information                                   | WORE<br>SUNGLASSES         |  |                   |

SUMMARY OF AVERAGE OPACITY

| Set Number | Time<br>Start--End | Opacity |         |
|------------|--------------------|---------|---------|
|            |                    | Sum     | Average |
| 1          | 1416-1446          | 705     | 5.9     |
|            |                    |         |         |
|            |                    |         |         |
|            |                    |         |         |
|            |                    |         |         |
|            |                    |         |         |
|            |                    |         |         |
|            |                    |         |         |
|            |                    |         |         |

Readings ranged from 5 to 10 % opacity.  
 The source was/was not in compliance with 5.9 at the time evaluation was made.

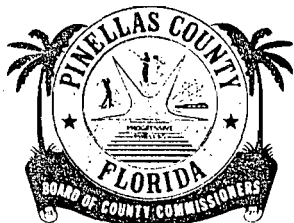
- NOTES:  
 1. Minimum of 24 readings to be taken at 15 second intervals.  
 2. Readings are to be to the nearest 5% opacity.

HIGGINS P.  
#1

OBSERVATION RECORD

| Hr. | Min. | SECONDS |    |    |    | STEAM PLUME<br>(check if applicable) |          | COMMENTS                 |
|-----|------|---------|----|----|----|--------------------------------------|----------|--------------------------|
|     |      | 0       | 15 | 30 | 45 | Attached                             | Detached |                          |
|     | 0    | 5       | 10 | 10 | 10 | ✓                                    |          | Seems to be a small vent |
|     | 1    | 10      | 5  | 10 | 5  | "                                    |          |                          |
|     | 2    | 10      | 5  | 10 | 5  | "                                    |          |                          |
|     | 3    | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 4    | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 5    | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 6    | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 7    | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 8    | 10      | 10 | 5  | 5  | "                                    |          |                          |
|     | 9    | 5       | 5  | 5  | 10 | "                                    |          |                          |
|     | 10   | 5       | 5  | 5  | 10 | "                                    |          |                          |
|     | 11   | 5       | 5  | 5  | 10 | "                                    |          |                          |
|     | 12   | 10      | 5  | 5  | 10 | "                                    |          |                          |
|     | 13   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 14   | 5       | 10 | 10 | 5  | "                                    |          |                          |
|     | 15   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 16   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 17   | 10      | 5  | 5  | 10 | "                                    |          |                          |
|     | 18   | 5       | 5  | 10 | 5  | "                                    |          |                          |
|     | 19   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 20   | 10      | 5  | 5  | 5  | "                                    |          |                          |
|     | 21   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 22   | 5       | 5  | 10 | 5  | "                                    |          |                          |
|     | 23   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 24   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 25   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 26   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 27   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 28   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 29   | 5       | 5  | 5  | 5  | "                                    |          |                          |
|     | 30   |         |    |    |    |                                      |          |                          |
|     | 31   |         |    |    |    |                                      |          |                          |
|     | 32   |         |    |    |    |                                      |          |                          |
|     | 33   |         |    |    |    |                                      |          |                          |
|     | 34   |         |    |    |    |                                      |          |                          |
|     | 35   |         |    |    |    |                                      |          |                          |
|     | 36   |         |    |    |    |                                      |          |                          |
|     | 37   |         |    |    |    |                                      |          |                          |
|     | 38   |         |    |    |    |                                      |          |                          |
|     | 39   |         |    |    |    |                                      |          |                          |
|     | 40   |         |    |    |    |                                      |          |                          |
|     | 41   |         |    |    |    |                                      |          |                          |
|     | 42   |         |    |    |    |                                      |          |                          |
|     | 43   |         |    |    |    |                                      |          |                          |
|     | 44   |         |    |    |    |                                      |          |                          |
|     | 45   |         |    |    |    |                                      |          |                          |
|     | 46   |         |    |    |    |                                      |          |                          |
|     | 47   |         |    |    |    |                                      |          |                          |
|     | 48   |         |    |    |    |                                      |          |                          |
|     | 49   |         |    |    |    |                                      |          |                          |
|     | 50   |         |    |    |    |                                      |          |                          |
|     | 51   |         |    |    |    |                                      |          |                          |
|     | 52   |         |    |    |    |                                      |          |                          |
|     | 53   |         |    |    |    |                                      |          |                          |
|     | 54   |         |    |    |    |                                      |          |                          |
|     | 55   |         |    |    |    |                                      |          |                          |
|     | 56   |         |    |    |    |                                      |          |                          |
|     | 57   |         |    |    |    |                                      |          |                          |
|     | 58   |         |    |    |    |                                      |          |                          |
|     | 59   |         |    |    |    |                                      |          |                          |

*William Gene*



# 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

March 21, 1982

**D.E.R.**

MAR 25 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 February 1983 are summarized as follows:

### Citizen Complaints

Four complaints were received in February.

- |                           |             |
|---------------------------|-------------|
| 1 - General Air Pollution | 1 - Sawdust |
| 1 - Dust                  | 1 - Odor *  |

\* Complaint against City of Largo Sludge Dryer - Permit A052-30168 - Continuing Case File.

### Facility Inspections

A. The following facilities are considered to be in full compliance:

1. Florida Power Corporation - Higgins Plant - Permit A052-58633 - Peaking Unit.
2. Florida Power Corporation - Bartow Plant - Permit AC52-36102 - Unit No. 1 - V.E. Inspection Check.
3. Florida Power Corporation - Bartow Plant - Permit A052-15188 - Pipeline Heater Boiler.
4. Tarpon Springs General Hospital - Permit A052-18914.
5. Life Sciences, Inc. - Permit A052-42621.
6. Sanitary Dash of Florida, Inc. - Permit A052-13447.
7. National Linen Service - Permits A052-57834, 57835.

Mr. William K. Hennessey  
March 21, 1983  
Page -2-

8. The Plasti-Kraft Corporation - Permit A052-45373.
  9. Dana Industries - Permits A052-6501, 6502, 6503, 6504.
  10. Cement Products Corporation - Jeffords Plant - Permits A052-48812, 48838.
- B. The following facilities have a compliance status other than full compliance:
1. W. L. Cobb Construction Company - Permit A052-5749. "Unknown" status due to extended delay in performing annual stack test.
  2. Stauffer Chemical Company - All permitted points - continue in an "unknown" status due to extended plant shutdown.
  3. Southern Stone (Division of S. & I. Minerals, Inc.) - Non-permitted operation. Minor source but DER may consider permitting.

General

1. Issued six advance notices of compliance test due dates.
2. Prepared the Calendar Year 1982, VOC Emissions Inventory forms and letters for mailing in early March.
3. Consulted with Mr. James Manning, BAQM, regarding cyclonic flow, stack test procedures and problems relative to the method at W. L. Cobb Construction Company (asphalt plant with an inertial demister stack).
4. Reviewed and accepted stack test report on City of Largo Sludge Plant - Permit A052-30168 (copy enclosed for your files).

Sincerely,



Joyce M. Gibbs, Chief.  
Division of Air Quality

PAH/fm  
Enclosures

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

D.E.R.

FEB 18 1982

ANNUAL OPERATIONS REPORT FORM  
FOR AIR EMISSIONS SOURCES

SOUTHWEST DISTRICT  
TAMPA

For each permitted emission point, please submit a separate report for calendar year 1981 prior to March 1st of the following year.

I. GENERAL INFORMATION:

1. Source Name: Florida Power Corp. (Higgins Peaker #1)
2. Permit Number: A052-5702
3. Source Address: P.O. Box 3, Oldsmar, FL 33557
4. Description of Source: Gas Turbine

II. OPERATING SCHEDULE: 24 hrs/day 7 day/wk 52 wks/yr  
Operated 34.3 hours in 1981

III. RAW MATERIAL INPUT PROCESS WEIGHT:

| Raw Material                                    | Input Process Weight |                |
|---|----------------------|----------------|
| <u>N/A</u>                                      |                      | <u>tons/yr</u> |
| _____   | _____                | <u>tons/yr</u> |
| _____   | _____                | <u>tons/yr</u> |
| _____   | _____                | <u>tons/yr</u> |
| _____   | _____                | <u>tons/yr</u> |
| <u>Product Output (tons/yr - cubic feet/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>0.117</u> $10^6$ Cu. Ft. Natural Gas | <u>73.29</u> $10^3$ gallons No. 2 Oil, <u>0.26</u> %S |
| <u>_____</u> $10^3$ gallons Propane     | <u>_____</u> $10^3$ gallons Kerosene                  |
| <u>_____</u> tons Coal                  | <u>_____</u> $10^6$ lb Black Liquor Solids            |
| <u>_____</u> tons Carbonaceous          | <u>_____</u> tons Refuse                              |
| <u>Other (Specify type and units)</u>   |   |

V. EMISSION LEVEL (tons/yr):

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| A. <u>0.18</u> Particulates           | <u>_____</u> Carbon Monoxide      |
| <u>2.50</u> Nitrogen Oxide            | <u>_____</u> Total Reduced Sulfur |
| <u>_____</u> Hydrocarbon              | <u>_____</u> Flouride             |
| <u>1.33</u> Sulfur Dioxide            |                                   |
| <u>Other (Specify type and units)</u> |                                   |

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.

G. C. Moore  
Signature of Owner or Authorized Representative

G. C. Moore  
Vice President, Power Production



ANNUAL OPERATIONS REPORT FORM FOR AIR EMISSIONS SOURCES

For each permitted emission point, please submit a separate report for calendar year 1977 prior to March 1st of the following year

I GENERAL INFORMATION:

- 1. Source Name: Florida Power Corp. (Higgins Peaker #1)
- 2. Permit Number: A052-5702
- 3. Source Address: OTdsmar, Fla.

D.E.R.

MAR 7 1978

- 4. Description of Source: Jet Peaking Unit

SOUTHWEST DISTRICT  
TAMPA

II OPERATING SCHEDULE: 24 hrs/day 7 days/wk 52 wks/yr  
Operated 272.3 hrs in 1977

III RAW MATERIAL INPUT PROCESS WEIGHT:

| Raw Material | Input Process Weight |         |
|--------------|----------------------|---------|
| <u>N/A</u>   |                      | tons/yr |
|              |                      | tons/yr |
|              |                      | tons/yr |
|              |                      | tons/yr |
|              |                      | tons/yr |

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>82.28</u> 10 <sup>6</sup> cubic feet Natural Gas | <u>218.57</u> 10 <sup>3</sup> gallons No. <u>2</u> Oil, <u>0.2</u> %S |
| _____ 10 <sup>3</sup> gallons Propane               | _____ 10 <sup>3</sup> gallons Kerosene                                |
| _____ tons Coal                                     | _____ 10 <sup>6</sup> lb Black Liquor Solids                          |
| _____ tons Carbonaceous                             | _____ tons Refuse   |
| Other (Specify type and units) _____                |   |

V EMISSION LEVEL (tons/yr):

|                             |                            |
|-----------------------------|----------------------------|
| A. <u>0.70</u> Particulates | _____ Carbon Monoxide      |
| <u>9.67</u> Nitrogen Oxide  | _____ Total Reduced Sulfur |
| _____ Hydrocarbon           | _____ Fluoride             |
| <u>3.34</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.)  
Test data from similar unit

VI CERTIFICATION:

I hereby certify that the information given in this report is correct to the best of my knowledge.

W.P. Stewart

Signature of Owner or Authorized Representative:

W. P. Stewart, Director, Power Production

Typed Name and Title

March 3, 1978

Date

INTEROFFICE MEMORANDUM

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

|             |               |
|-------------|---------------|
| To: _____   | Loctn.: _____ |
| To: _____   | Loctn.: _____ |
| To: _____   | Loctn.: _____ |
| From: _____ | Date: _____   |

TO: File

THRU: Dan A. Williams

FROM: William H. Brown *WB*

RE: Florida Power Corporation, Higgins

Unit #1 is a 42 MW, 488 x 10<sup>6</sup> BTU steam generator, in 1977 it operated 5503.4 hours using 382.1 x 10<sup>6</sup> cu. ft. natural gas and 8940 x 10<sup>3</sup> gal. of #6 fuel oil with 2.3% sulfur or a discharge of 1676 tons SO<sub>2</sub>/yr. and 61 T/yr. TSP.

Unit #2 is a 45 MW 511 x 10<sup>6</sup> BTU steam generator. In 1977 it operated 6620.3 hours burning 362.8 x 10<sup>6</sup> cu. ft. of natural gas 13321 x 10<sup>3</sup> gal. #6 fuel oil, 1.9 x 10<sup>6</sup> gal #2 fuel oil. the emissions were 69 T/yr. TSP, 408.5 T/yr. NO<sub>x</sub>, and 2500 T/yr. TSP.

Unit #3 is a 45 MW 512 x 10<sup>6</sup> BTU steam generator. In 1977 it operated 5089.8 hours burning 13582.3 x 10<sup>3</sup> gal. #6 fuel oil 1.34 x 10<sup>6</sup> gal. #2 oil with an emission of 85.6 T/yr. TSP, 425 T/yr. NO<sub>x</sub> and 2547 T/yr. SO<sub>2</sub>.

This facility has four peaking deisel turbines. The total installation emits 221.6 T/yr. TSP, 1309.6 T/yr. NO<sub>x</sub>, 6747 T/yr. SO<sub>2</sub>.

This operation on Recon had less than 20% opacity and seemed to be in compliance.

OBSERVATION RECORD

D. E. R.

AUG 23 1911

COMMENTS SOUTH WEST DISTRICT ST. PETERSBURG

| Hr. | Min. | SECONDS |    |    |    | STEAM PLUME<br>(check if applicable) |          |  |
|-----|------|---------|----|----|----|--------------------------------------|----------|--|
|     |      | 0       | 15 | 30 | 45 | Attached                             | Detached |  |
|     | 0    | o       | o  | o  | o  |                                      |          |  |
|     | 1    | o       | o  | o  | o  |                                      |          |  |
|     | 2    | o       | o  | o  | o  |                                      |          |  |
|     | 3    | o       | o  | o  | o  |                                      |          |  |
|     | 4    | o       | o  | o  | o  |                                      |          |  |
|     | 5    | o       | o  | o  | o  |                                      |          |  |
|     | 6    |         |    |    |    |                                      |          |  |
|     | 7    |         |    |    |    |                                      |          |  |
|     | 8    |         |    |    |    |                                      |          |  |
|     | 9    |         |    |    |    |                                      |          |  |
|     | 10   |         |    |    |    |                                      |          |  |
|     | 11   |         |    |    |    |                                      |          |  |
|     | 12   |         |    |    |    |                                      |          |  |
|     | 13   |         |    |    |    |                                      |          |  |
|     | 14   |         |    |    |    |                                      |          |  |
|     | 15   |         |    |    |    |                                      |          |  |
|     | 16   |         |    |    |    |                                      |          |  |
|     | 17   |         |    |    |    |                                      |          |  |
|     | 18   |         |    |    |    |                                      |          |  |
|     | 19   |         |    |    |    |                                      |          |  |
|     | 20   |         |    |    |    |                                      |          |  |
|     | 21   |         |    |    |    |                                      |          |  |
|     | 22   |         |    |    |    |                                      |          |  |
|     | 23   |         |    |    |    |                                      |          |  |
|     | 24   |         |    |    |    |                                      |          |  |
|     | 25   |         |    |    |    |                                      |          |  |
|     | 26   |         |    |    |    |                                      |          |  |
|     | 27   |         |    |    |    |                                      |          |  |
|     | 28   |         |    |    |    |                                      |          |  |
|     | 29   |         |    |    |    |                                      |          |  |
|     | 30   |         |    |    |    |                                      |          |  |
|     | 31   |         |    |    |    |                                      |          |  |
|     | 32   |         |    |    |    |                                      |          |  |
|     | 33   |         |    |    |    |                                      |          |  |
|     | 34   |         |    |    |    |                                      |          |  |
|     | 35   |         |    |    |    |                                      |          |  |
|     | 36   |         |    |    |    |                                      |          |  |
|     | 37   |         |    |    |    |                                      |          |  |
|     | 38   |         |    |    |    |                                      |          |  |
|     | 39   |         |    |    |    |                                      |          |  |
|     | 40   |         |    |    |    |                                      |          |  |
|     | 41   |         |    |    |    |                                      |          |  |
|     | 42   |         |    |    |    |                                      |          |  |
|     | 43   |         |    |    |    |                                      |          |  |
|     | 44   |         |    |    |    |                                      |          |  |
|     | 45   |         |    |    |    |                                      |          |  |
|     | 46   |         |    |    |    |                                      |          |  |
|     | 47   |         |    |    |    |                                      |          |  |
|     | 48   |         |    |    |    |                                      |          |  |
|     | 49   |         |    |    |    |                                      |          |  |
|     | 50   |         |    |    |    |                                      |          |  |
|     | 51   |         |    |    |    |                                      |          |  |
|     | 52   |         |    |    |    |                                      |          |  |
|     | 53   |         |    |    |    |                                      |          |  |
|     | 54   |         |    |    |    |                                      |          |  |
|     | 55   |         |    |    |    |                                      |          |  |
|     | 56   |         |    |    |    |                                      |          |  |
|     | 57   |         |    |    |    |                                      |          |  |
|     | 58   |         |    |    |    |                                      |          |  |
|     | 59   |         |    |    |    |                                      |          |  |

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



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

LOCATION HIGGINS P-1  
PERMIT NUMBER AC52-3120  
DATE \_\_\_\_\_  
TYPE FACILITY PEAKING UNIT  
CONTROL DEVICE \_\_\_\_\_

TY

HOURS OF OBSERVATION \_\_\_\_\_  
OBSERVER DENNIS SHANTZ  
OBSERVER CERTIFICATION DATE \_\_\_\_\_  
POINT OF EMISSIONS \_\_\_\_\_  
HEIGHT OF DISCHARGE POINT 40 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 |
|--|---------|--|-------|
| Distance to Discharge                            | 200 ft  |  |       |
| Direction from Discharge                         | NW      |  |       |
| Height of Observation Point                      | GROUND  |  |       |
| BACKGROUND DESCRIPTION                           |         |  |       |
| Wind Direction                                   | SE      |  |       |
| Wind Speed                                       | 0-5     |  |       |
| Ambient Temperature                              | 95      |  |       |
| SKY CONDITIONS (clear, overcast, % clouds, etc.) | CLEAR   |  |       |
| PLUME DESCRIPTION Color                          | CLEAR   |  |       |
| Distance Visible                                 | -       |  |       |
| Other Information                                | -       |  |       |

SUMMARY OF AVERAGE OPACITY

| Set Number | Time Start--End | Opacity |         |
|------------|-----------------|---------|---------|
|            |                 | Sum     | Average |
| 1          | 2:00-2:00       | 0       | 0       |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |

Readings ranged from 0 to 0 % opacity.

The source was/was ~~not~~ in compliance with 0 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.

DEP  
AUG 23 1977  
SOUTH WEST DISTRICT  
ST. PETERSBURG  
907-804

**PER**

Submit a separate report for each permitted source by FEBRUARY 28, 1977

MAR 10 1977

SECTION 1: General

SOURCE NAME: HIGGINS P-1

SOUTH WEST DISTRICT  
 ST. PETERSBURG

MAILING ADDRESS: FLORIDA POWER CORPORATION

P. O. Box 14042, St. Petersburg, FL 33733

TELEPHONE NO: 813/866-4544

OPERATING PERMIT NO: A052-3120

SOURCE DESCRIPTION: Gas Turbine

SECTION 2: PROCESS OPERATIONS:

- 180.8 hours (1976)
- a. DURATION OF OPERATION AND FREQUENCY: 24 hrs/dy 7 dys/wk 5 wk/yr  
 e.g. 8 hrs perday, 5 dys per wk and 50 wk/yr.
- b. DESIGN CRITERIA: MAXIMUM OUTPUT 33.8 MW  
 e.g. 850 MW, 750 tons/dy
- c. NORMAL(AVERAGE) OUTPUT 26.6 MW =  $\frac{\text{Gross Generation}}{\text{Hours Operated}}$   
 e.g. 424 MW, 670 tons/dy.
- d. MAXIMUM PEAK THAT OCCURED DURING ANY ONE DAY 33.8 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.

61.4  $10^6$  cu. ft gas 99.0  $10^3$  gal NO. 2 OIL 0.18% SULFUR  
 $10^3$  gal PROPANE  $10^3$  gal KEROSENE  
 tons COAL  $10^6$  lb BLACK LIQUOR SOLIDS  
 OTHER, specify type and units

SECTION 5: EMISSION: ESTIMATED/TESTED EMISSIONS(TONS PER YEAR)

- a. Not tested tons of particulates 1.3 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  
 $\left(\frac{\text{Lbs Oil}}{\text{Gas Oil}}\right) \left(\frac{42 \text{ Gal}}{\text{BBL}}\right) (\% \text{ S}) \left(\frac{2 \text{ Lbs SO}_2}{\text{Lb S}}\right) (\text{BLS}) \left(\frac{\text{Ton}}{2000 \text{ Lbs}}\right) = \text{Tons SO}_2$

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.

*Eustice 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

**VISIBLE EMISSION FIELD REPORT**

BEST AVAILABLE COPY

**FLORIDA POWER CORPORATION  
P.O. BOX 14042, ST. PETE., FLA. 33733**

DATE 21 Sept 76  
TIME 1400

PERMIT NUMBER A0 52 3120  
SOURCE NAME Higgins P-1 COUNTY Pinellas  
SOURCE LOCATION Oldsmar, Fla  
SOURCE DESCRIPTION (TYPE) Gas Turbine  
POINT OF OBSERVATION Southeast  
DISTANCE TO SOURCE 100ft

| MIN | SECONDS |    |    |    | MIN | SECONDS |    |    |    |
|-----|---------|----|----|----|-----|---------|----|----|----|
|     | 0       | 15 | 30 | 45 |     | 0       | 15 | 30 | 45 |
| 0   | 5       |    | 5  |    | 30  |         |    |    |    |
| 1   | 5       |    | 5  |    | 31  |         |    |    |    |
| 2   | 5       |    | 5  |    | 32  |         |    |    |    |
| 3   | 5       |    | 5  |    | 33  |         |    |    |    |
| 4   | 5       |    | 5  |    | 34  |         |    |    |    |
| 5   | 5       |    | 5  |    | 35  |         |    |    |    |
| 6   | 5       |    | 5  |    | 36  |         |    |    |    |
| 7   | 5       |    | 5  |    | 37  |         |    |    |    |
| 8   | 5       |    | 5  |    | 38  |         |    |    |    |
| 9   | 5       |    | 5  |    | 39  |         |    |    |    |
| 10  | 5       |    | 5  |    | 40  |         |    |    |    |
| 11  | 5       |    | 5  |    | 41  |         |    |    |    |
| 12  | 5       |    | 5  |    | 42  |         |    |    |    |
| 13  | 5       |    | 5  |    | 43  |         |    |    |    |
| 14  | 5       |    | 5  |    | 44  |         |    |    |    |
| 15  | 5       |    | 5  |    | 45  |         |    |    |    |
| 16  | 5       |    | 5  |    | 46  |         |    |    |    |
| 17  | 5       |    | 5  |    | 47  |         |    |    |    |
| 18  | 5       |    | 5  |    | 48  |         |    |    |    |
| 19  | 5       |    | 5  |    | 49  |         |    |    |    |
| 20  | 5       |    | 5  |    | 50  |         |    |    |    |
| 21  | 5       |    | 5  |    | 51  |         |    |    |    |
| 22  | 5       |    | 5  |    | 52  |         |    |    |    |
| 23  | 5       |    | 5  |    | 53  |         |    |    |    |
| 24  | 5       |    | 5  |    | 54  |         |    |    |    |
| 25  | 5       |    | 5  |    | 55  |         |    |    |    |
| 26  | 5       |    | 5  |    | 56  |         |    |    |    |
| 27  | 5       |    | 5  |    | 57  |         |    |    |    |
| 28  | 5       |    | 5  |    | 58  |         |    |    |    |
| 29  | 5       |    | 5  |    | 59  |         |    |    |    |

DIRECTION OF OBSERVER FROM SOURCE

Southeast

DIRECTION OF WIND FROM SOURCE

West

WIND VELOCITY

5

DIRECTION OF SUN FROM SOURCE

South

CLOUD COVERAGE (IN %)

50%

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



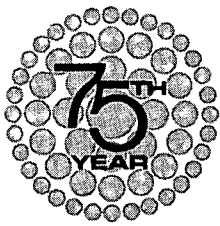
Dennis Shantz

....., 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

[Signature] Certification Officer  
[Signature] Bearer's Signature

THIS FIELD REPORT SHEET IS DRAWN IN ACCORDANCE WITH THE REQUIREMENTS (THE OPACITY OF EMISSIONS) 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 FAC CH. 17-2.



**Florida  
Power**  
CORPORATION

September 9, 1975

Mr. J. H. Kerns  
Florida Dept. of Environmental Regulation  
P. O. Box 9205  
Winter Haven, FL 33880

Dear Mr. Kerns:

Florida Power Corporation is resubmitting the Air Permit Applications for Higgins Peaking Units P-1, P-2, P-3 and P-4. These units will operate almost exclusively on natural gas. Unit No. P-2 has the capability to operate on liquid fuel; however, it rarely is operated on anything but natural gas. Listed below is the information on operation hours per past six months experience.

|          | <u>P-1</u> | <u>P-2</u> | <u>P-3</u> | <u>P-4</u> |
|----------|------------|------------|------------|------------|
| February | 1.3        | 1.6        | 0          | 0          |
| March    | 1.0        | 3.9        | 0.5        | 0          |
| April    | 26.9       | 18.3       | 36         | 0          |
| May      | 72.9       | 68.6       | 82.4       | 47         |
| June     | 2.4        | 44.5       | 52.5       | 34.7       |
| July     | 0          | 4.3        | 7.7        | 11.7       |

Enclosed is the permit application for Bartow Unit No.1 which was evidently returned by mistake.

Should you have any questions concerning this information, please telephone me at (813) 866-4544.

Sincerely,

A handwritten signature in cursive script that reads "R. E. Parnelle, Jr." The signature is written in dark ink and is positioned above the typed name.

R. E. Parnelle, Jr.  
Administrator, Environmental Operations

c1  
Atts.





JOSEPH W. LANDERS JR.

SECRETARY

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

POST OFFICE BOX 9205  
500 EAST CENTRAL AVENUE  
WINTER HAVEN, FLORIDA 33880

AUGUST 12, 1975  
FLORIDA POWER CORP.  
PINELLAS CO. AP

R. E. Parnelle, Jr., Administrator  
Environmental Operations  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Florida 33733

RE: Air Permit Applications  
Higgins Peaking Units  
P-1, P-2, P-3 & P-4

Dear Mr. Parnelle:

The above applications are being returned for inadequate information.

Please re-submit with proper visible emission test data and an average use factor for each unit regarding Jet A. fuel or natural gas. Also submit operation time data per pass 6 month experience.

Since the July 1, 1975 visible emission compliance date has passed and permit A052-2036 has expired, please respond within 20 days of the date of this letter.

Sincerely,

J. H. Kerns, P.E.



**Florida  
Power**  
CORPORATION

June 27, 1975

Mr. W. E. Linne  
Florida Department of Pollution Control  
P.O. Box 9205  
Winter Haven, FL 33880

Dear Mr. Linne:

We are forwarding applications to Operate Pollution Sources for our Bartow Plant Unit #1; Higgins Plant Units 1, 2 and 3; and Higgins Peaking Units P-1, P-2, P-3 and P-4.

Our check, No. 0155726 dated June 26, 1975, in the amount of \$160 is also enclosed to cover the required filing fee of \$20 per application.

If you should have any questions regarding these applications, please telephone me at (813) 866-4544.

Sincerely,

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

R. E. Parnelle, Jr.  
Administrator, Environmental Operations

c1  
Atts.



JOSEPH W. LANDERS JR.

SECRETARY

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

POST OFFICE BOX 9205  
500 EAST CENTRAL AVENUE  
WINTER HAVEN, FLORIDA 33880

AUGUST 12, 1975  
FLORIDA POWER CORP.  
PINELLAS CO. AP

R. E. Parnelle, Jr., Administrator  
Environmental Operations  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Florida 33733

RE: Air Permit Applications  
Higgins Peaking Units  
P-1, P-2, P-3 & P-4

Dear Mr. Parnelle:

The above applications are being returned for inadequate information.

Please re-submit with proper visible emission test data and an average use factor for each unit regarding Jet A. fuel or natural gas. Also submit operation time data per pass 6 month experience.

Since the July 1, 1975 visible emission compliance date has passed and permit A052-2036 has expired, please respond within 20 days of the date of this letter.

Sincerely,



J. H. Kerns, P.E.

BEST AVAILABLE COPY

SOURCE: Fla. Power Corp.  
Higgins Peabery Unit P-1

DATE: 7-3-75

COUNTY: Pinellas

TYPE PERMIT: Operation

| <u>ACTION</u>          | <u>INITIAL WHEN COMPLETED</u> | <u>DATE</u> |
|------------------------|-------------------------------|-------------|
| Preliminary Review     | _____                         | _____       |
| Assigned for Review to | _____                         | _____       |
| Review comments        | _____                         | _____       |
| Number Assigned        | _____                         | _____       |
| Permit issued & signed | _____                         | _____       |
| Permit logged          | _____                         | _____       |
| Permit mailed          | _____                         | _____       |
| Data forms completed   | _____                         | _____       |
| Permit Denied          | _____                         | _____       |

$$\begin{array}{r} 75000 \\ 1800,000 \\ \hline .24 \end{array}$$

$$.3 \times 77$$

$$) 24$$

$$.1 \times$$

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

NEDS POINT ID. \_\_\_\_\_

PERMIT NO. \_\_\_\_\_

IS INFORMATION CONFIDENTIAL? YES \_\_\_\_\_ NO \_\_\_\_\_

| <u>TYPE PERMIT ACTION</u>             | <u>DESCRIPTION OF PRIMARY SOURCE</u> |
|---------------------------------------|--------------------------------------|
| New Source (No related permits) _____ | Boiler _____                         |
| Renewed or modified permit _____      | Solid Waste (Incinerator) _____      |
| Point source deleted _____            | Other Combustion _____               |
| Point source added _____              | Process _____                        |
| New Source replacing old source _____ | Product (Name) _____                 |

BRIEF DESCRIPTION OF PROCESS

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

OPERATING TIME: \_\_\_\_\_ HR/Da \_\_\_\_\_ Da/Wk \_\_\_\_\_ Wk/Yr

| <u>STACK DATA</u>            | <u>OPERATING DATA</u>   |
|------------------------------|---|
| Height (FT) _____            | Process Rate _____ #/HR                                       |
| Diam. (FT.) _____            | Process Rate _____ TONS/Yr.                                   |
| Temp. (°F) _____             | Max Design Rate _____ #/Hr.                                   |
| Flow Rate (CFM) _____        | Combustion (Units) Gal _____ TONS _____ FT <sup>3</sup> _____ |
| Plume Height (FT) _____      | Rate _____ Unit/Hr _____ Unit/Yr                              |
| Common Stack (Explain) _____ | Heat Content _____ BTU/Gal.                                   |
| _____                        | Boiler Capacity _____ BTU/Hr.                                 |
| _____                        | Max Design Rate _____ Unit/Hr.                                |
| _____                        | Fuel (Nmme) _____ %S _____ %A                                 |

COMMENTS:

$\frac{750000}{180000/00} = .24$

$\frac{1800 \text{ MCF}^3}{24} = \frac{75000 \text{ CFH}}{60} = 1250 \text{ CFM}$

$\frac{16 \times 1250}{16} \times \frac{400}{30} = 16,000 \text{ ACFM @ } 100^\circ\text{F}$

$\frac{T_2}{T_1} (2) (16,000) = 320,000 \text{ ACFM @ } 850^\circ\text{F}$

$\frac{1250 \times 16 \times 400}{16 \times 30} = 16,000$

$\frac{T_2}{T_1} = \frac{400+500}{600} = 2$

# Correction  $\rightarrow$  Avg  $330,000 \text{ ACFM @ } 850^\circ \times 24 \text{ hr}$   
 $8 \sim 9 \times 10^6$

PARTICULATE  
 $.3 \times 77 = 2.4 \#$

15' A/F ~ 16x  
 16 MW  
 $\frac{400 \text{ FT}^3}{\text{MIN}}$   
 29 MW FLV  
 Avg 30



CONTROL EQUIPMENT

| <u>Pollutant</u> | <u>Control Method</u> | <u>% EFF.</u> |
|------------------|-----------------------|---------------|
| Particulates     | _____                 | _____         |
| SO <sub>2</sub>  | _____                 | _____         |
| NO <sub>x</sub>  | _____                 | _____         |
| HC               | _____                 | _____         |
| CO               | _____                 | _____         |
| F <sup>-</sup>   | _____                 | _____         |
| _____            | _____                 | _____         |

| <u>POLLUTANT</u> | <u>LB/HR.</u> | <u>EMISSION ESTIMATE</u> |                       |                              | <u>TEST DATA</u> |
|------------------|---------------|--------------------------|-----------------------|------------------------------|------------------|
|                  |               | <u>TONS/HR.</u>          | <u>LB/TON (PROD.)</u> | <u>LB/10<sup>6</sup> BTU</u> |                  |
| Particulates     | _____         | _____                    | _____                 | _____                        | _____            |
| SO <sub>2</sub>  | _____         | _____                    | _____                 | _____                        | _____            |
| NO <sub>x</sub>  | _____         | _____                    | _____                 | _____                        | _____            |
| HC               | _____         | _____                    | _____                 | _____                        | _____            |
| CO               | _____         | _____                    | _____                 | _____                        | _____            |
| F <sup>-</sup>   | _____         | _____                    | _____                 | _____                        | _____            |
| _____            | _____         | _____                    | _____                 | _____                        | _____            |

BASIS FOR ESTIMATE:

- \_\_\_\_\_ Not applicable (if emissions are negligible)
- \_\_\_\_\_ Stack test results or emission measurements
- \_\_\_\_\_ Material balance of process using engineering knowledge
- \_\_\_\_\_ Emissions calculated using EPA emission factors
- \_\_\_\_\_ Guess
- \_\_\_\_\_ Emission factor difference from official EPA factor

| <u>POLLUTANT</u> | <u>ALLOWABLE EMISSIONS</u> |                        |                               | <u>APPLICABLE REGULATIONS</u> |
|------------------|----------------------------|------------------------|-------------------------------|-------------------------------|
|                  | <u>LBS/HR.</u>             | <u>LBS/TON (PROD.)</u> | <u>LBS/10<sup>6</sup> BTU</u> |                               |
| PARTICULATES     | _____                      | _____                  | _____                         | _____                         |
| SO <sub>2</sub>  | _____                      | _____                  | _____                         | _____                         |
| NO <sub>x</sub>  | _____                      | _____                  | _____                         | _____                         |
| HC               | _____                      | _____                  | _____                         | _____                         |
| CO               | _____                      | _____                  | _____                         | _____                         |
| F <sup>-</sup>   | _____                      | _____                  | _____                         | _____                         |





STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



LOCATION HIGGINS P-1  
 PERMIT NUMBER ACS2-3120  
 DATE \_\_\_\_\_  
 TYPE FACILITY PEAKING UNIT  
 CONTROL DEVICE \_\_\_\_\_

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

TY

HOURS OF OBSERVATION \_\_\_\_\_  
 OBSERVER DENNIS SHANTZ  
 OBSERVER CERTIFICATION DATE \_\_\_\_\_  
 POINT OF EMISSIONS \_\_\_\_\_  
 HEIGHT OF DISCHARGE POINT 40 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 |
|---------|--|--|-------|
| 200 ft  |  |  |       |
| NW      |  |  |       |
| GROUND  |  |  |       |
|         |  |  |       |
| SE      |  |  |       |
| 0-5     |  |  |       |
| 95      |  |  |       |
| CLEAR   |  |  |       |
| CLEAR   |  |  |       |
| -       |  |  |       |
| -       |  |  |       |

SUMMARY OF AVERAGE OPACITY

| Set Number | Time Start--End | Opacity |         |
|------------|-----------------|---------|---------|
|            |                 | Sum     | Average |
| 1          | 2:00-2:00       | 0       | 0       |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |
|            |                 |         |         |

Readings ranged from 0 to 0 % opacity.

The source was/~~was not~~ in compliance with 0 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.

DATE  
 AUG 21 1977  
 SOUTH WEST FLORIDA  
 ST. PETERSBURG  
 907-804

# OBSERVATION RECORD

D. E. R.

AUG 28 1977

SOUTH WEST DISTRICT  
ST. PETERSBURG

| Hr. | Min. | SECONDS |    |    |    | STEAM PLUME<br>(check if applicable) |          | COMMENTS |
|-----|------|---------|----|----|----|--------------------------------------|----------|----------|
|     |      | 0       | 15 | 30 | 45 | Attached                             | Detached |          |
|     | 0    | 0       | 0  | 0  | 0  |                                      |          |          |
|     | 1    | 0       | 0  | 0  | 0  |                                      |          |          |
|     | 2    | 0       | 0  | 0  | 0  |                                      |          |          |
|     | 3    | 0       | 0  | 0  | 0  |                                      |          |          |
|     | 4    | 0       | 0  | 0  | 0  |                                      |          |          |
|     | 5    | 0       | 0  | 0  | 0  |                                      |          |          |
|     | 6    |         |    |    |    |                                      |          |          |
|     | 7    |         |    |    |    |                                      |          |          |
|     | 8    |         |    |    |    |                                      |          |          |
|     | 9    |         |    |    |    |                                      |          |          |
|     | 10   |         |    |    |    |                                      |          |          |
|     | 11   |         |    |    |    |                                      |          |          |
|     | 12   |         |    |    |    |                                      |          |          |
|     | 13   |         |    |    |    |                                      |          |          |
|     | 14   |         |    |    |    |                                      |          |          |
|     | 15   |         |    |    |    |                                      |          |          |
|     | 16   |         |    |    |    |                                      |          |          |
|     | 17   |         |    |    |    |                                      |          |          |
|     | 18   |         |    |    |    |                                      |          |          |
|     | 19   |         |    |    |    |                                      |          |          |
|     | 20   |         |    |    |    |                                      |          |          |
|     | 21   |         |    |    |    |                                      |          |          |
|     | 22   |         |    |    |    |                                      |          |          |
|     | 23   |         |    |    |    |                                      |          |          |
|     | 24   |         |    |    |    |                                      |          |          |
|     | 25   |         |    |    |    |                                      |          |          |
|     | 26   |         |    |    |    |                                      |          |          |
|     | 27   |         |    |    |    |                                      |          |          |
|     | 28   |         |    |    |    |                                      |          |          |
|     | 29   |         |    |    |    |                                      |          |          |
|     | 30   |         |    |    |    |                                      |          |          |
|     | 31   |         |    |    |    |                                      |          |          |
|     | 32   |         |    |    |    |                                      |          |          |
|     | 33   |         |    |    |    |                                      |          |          |
|     | 34   |         |    |    |    |                                      |          |          |
|     | 35   |         |    |    |    |                                      |          |          |
|     | 36   |         |    |    |    |                                      |          |          |
|     | 37   |         |    |    |    |                                      |          |          |
|     | 38   |         |    |    |    |                                      |          |          |
|     | 39   |         |    |    |    |                                      |          |          |
|     | 40   |         |    |    |    |                                      |          |          |
|     | 41   |         |    |    |    |                                      |          |          |
|     | 42   |         |    |    |    |                                      |          |          |
|     | 43   |         |    |    |    |                                      |          |          |
|     | 44   |         |    |    |    |                                      |          |          |
|     | 45   |         |    |    |    |                                      |          |          |
|     | 46   |         |    |    |    |                                      |          |          |
|     | 47   |         |    |    |    |                                      |          |          |
|     | 48   |         |    |    |    |                                      |          |          |
|     | 49   |         |    |    |    |                                      |          |          |
|     | 50   |         |    |    |    |                                      |          |          |
|     | 51   |         |    |    |    |                                      |          |          |
|     | 52   |         |    |    |    |                                      |          |          |
|     | 53   |         |    |    |    |                                      |          |          |
|     | 54   |         |    |    |    |                                      |          |          |
|     | 55   |         |    |    |    |                                      |          |          |
|     | 56   |         |    |    |    |                                      |          |          |
|     | 57   |         |    |    |    |                                      |          |          |
|     | 58   |         |    |    |    |                                      |          |          |
|     | 59   |         |    |    |    |                                      |          |          |



SOURCE

FLORIDA Power

HIGGINS  
P-1

BEST AVAILABLE COPY

DATE 9-21-77

COUNTY

PINELLAS

TYPE PERMIT

0

| ACTION   | INITIAL WHEN COMPLETED | DATE |
|--|------------------------|------|
| Preliminary Review   | <i>SWR</i>             | 9-21 |
| Assigned for Review to   |                        |      |
| Review Comments  |                        |      |
| <p>I have reviewed the plans and applications submitted and find that the above mentioned source will not reasonably be expected to cause pollution in violation of the Department standards, rules and regulations. I recommend approval of this permit.</p> <p><i>George W. Richards</i></p> |                        |      |
| Number Assigned  | A053-5702              | 9-21 |
| Permit Issued & Signed   |                        |      |
| Permit Logged  |                        |      |
| Permit Mailed  |                        |      |
| Data Forms Completed   |                        |      |
| Permit Denied  |                        |      |

1-4-77  
DW

New Source (No related permits) \_\_\_\_\_ Boiler \_\_\_\_\_  
 Renewed or modified permit X \_\_\_\_\_ Solid Waste (Incinerat \_\_\_\_\_  
 Point source deleted \_\_\_\_\_ Other Combustion X \_\_\_\_\_  
 Point source added \_\_\_\_\_ Process \_\_\_\_\_  
 New Source replacing old source \_\_\_\_\_ Product (Name) \_\_\_\_\_

BRIEF DESCRIPTION OF PROCESS

Peaking Unit USING GAS OR OIL TO Produce Electricity.

OPERATING TIME: 24 HR/DY 7 D2/WK 28 WK/YR

STACK DATA

OPERATING DATA

|                              |  |
|------------------------------|--|
| Height (FT) _____            | Process Rate _____                         |
| Diam. (FT) _____             | Process Rate _____ TONS                    |
| Temp. (°F) _____             | Max Design Rate _____ #/HR                 |
| Flow Rate (CFM) _____        | Combustion (Units) Gal _____ TONS _____ FT |
| Plume Height (FT) _____      | Rate _____ Unit/HR _____ Unit/             |
| Common Stack (Explain) _____ | Heat Content _____ BTU/Gal                 |
| _____                        | Boiler Capacity _____ BHP/HR               |
| _____                        | Max Design Rate _____ Unit/HR              |
| _____                        | Fuel (Name) _____ \$/SS _____ \$/BA        |

COMMENTS:

FUEL USAGE JAN THRU July  
 NAT GAS 73743 MCF 0% S  
 #2 OIL 4714 BBL 0.07% S

$$SO_2 = \frac{4714 \text{ BBL} \times 42 \text{ gal/BBL} \times 7.7 \text{ #/gal} \times 2 \times \overset{.0007}{\cancel{.0007}} \times 2}{2000}$$

$SO_2_{TYR} = 2.13 \text{ Tons/Yr.}$

EMISSIONS

|                           | lb/hr    |           | lb/ton Product |           | lb/10 <sup>6</sup> BTU |           | Regulation |
|---------------------------|----------|-----------|----------------|-----------|------------------------|-----------|------------|
|                           | Emission | Allowable | Emission       | Allowable | Emission               | Allowable |            |
| <u>MUTANT</u><br>incubate |          |           |                |           |                        |           |            |
|                           |          |           |                |           |                        |           |            |
|                           |          |           |                |           |                        |           |            |
|                           |          |           |                |           |                        |           |            |
|                           |          |           |                |           |                        |           |            |
|                           |          |           |                |           |                        |           |            |
| <u>VE</u>                 | 0%       | 20%       |                |           |                        |           |            |

CITY Test \_\_\_\_\_ Allowable \_\_\_\_\_

METHODS FOR ESTIMATE

- Stack Test Results Date \_\_\_\_\_ Report Received \_\_\_\_\_
- V. E. Test Date 8-27-77 Report Received 8-23-77
- Other tests or emission measurement \_\_\_\_\_
- Material balance of process using engineering knowledge \_\_\_\_\_
- Emissions calculated using EPA emission factors \_\_\_\_\_
- Other Method (Describe): \_\_\_\_\_