

*File*

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit by:

Florida Power Corporation  
One Power Plaza  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

DEP File No. 1050234-003-AC, PSD-FL-195B  
Hines Energy Complex Power Block 1  
Polk County

Enclosed is Final Permit Number 1050234-003-AC. This permit authorizes Florida Power Corporation to operate the Hines Energy Complex with increased heat inputs. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



C. H. Fancy, P.E., Chief  
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 8/16/00 to the person(s) listed:

- Mr. Jeffrey Pardue, Florida Power Corporation \*
- Ms. Jennifer Stenger, P.E., Florida Power Corporation \*
- Mr. Bill Thomas, P.E., DEP-SWD
- Mr. Gregg Worley, EPA
- Mr. John Bunyak, NPS

*8/16/00 cc - Reading File*

Clerk Stamp

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

*Barbara J. Pentwell*  
(Clerk) 8/16/00 (Date)

Z 333 638 220

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Ms. Jennifer Stenger, P.E.	
Street & Number	
263 13th Avenue South	
Post Office, State, & ZIP Code	
St. Petersburg, FL 33701	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 8/16/00	
DEP File No. 1050234-003	
AC, PSD-FL-195B	
Hines Energy Complex	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
 Ms. Jennifer Stenger, P.E.  
 Florida Power Corporation  
 One Power Plaza  
 263 13th Avenue South  
 St. Petersburg, Florida  
 33701

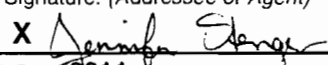
4a. Article Number  
 Z 333 638 220

4b. Service Type  
 Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)  
 X 

Thank you for using Return Receipt Service.

Z 333 638 219

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Sent to	
Mr. Jeffrey Pardue	
Street & Number	
263 13th Avenue South	
Post Office, State, & ZIP Code	
St. Petersburg, FL 33701	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 8/16/00	
DEP File No. 1050234-003-	
AC, PSD-FL-195B	
Hines Energy Complex	

PS Form 3800, April 1995

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Mr. Jeffrey Pardue  
 Florida Power Corporation  
 One Power Plaza  
 263 13th Avenue South  
 St. Petersburg, Florida  
 33701

4a. Article Number

Z 333 638 219

4b. Service Type

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

7. Date of Delivery

8/18/00

5. Received By: (Print Name)

Dana Clark

6. Signature: (Addressee or Agent)

X Dana Clark

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

Thank you for using Return Receipt Service.

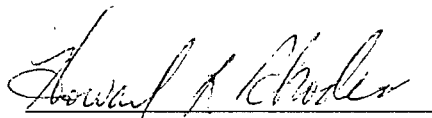
**PERMITTEE:**  
Florida Power Corporation  
3201 34th Street South  
St. Petersburg, FL 33733

**Permit Number:** PSD-FL-195B/PA-92-33  
**Issued:** 3/1/94 **Revised:** Clerk Date  
**Expiration Date:** November 1, 2000  
**County:** Polk  
**Latitude/Longitude:** 27°47'19"N/81°52'10"W  
**Project:** 500 MW Combined Cycle

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-212 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and specifically described as follows:

For two combined cycle combustion turbines (CTs) with maximum allowable heat input based on the higher heating value (HHV) at 59°F of 1,915 MMBtu/hr/unit (natural gas) and 2,020 MMBtu/hr/unit (oil) to be located at the Hines Energy Complex near Fort Meade, Florida. Power Block 1 consists of two combined cycle combustion turbines for a total of 500 MW, a 99 MMBtu/hr auxiliary boiler (Subpart Dc), a 1,300 KW diesel generator and a 97,570 barrel fuel oil storage tank (Subpart Kb). The combustion turbines are Westinghouse Model 501FC or equivalent and rated at approximately 170 MW in simple cycle and equipped with dry low NO<sub>x</sub> combustors and/or Selective Catalytic Reduction (SCR) for natural gas firing and wet injection for fuel oil firing. Each combustion turbine will incorporate an unfired heat recovery steam generator.

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



Howard L. Rhodes, Director  
Division of Air Resources  
Management

Relevant documents are listed below:

1. Florida Power Corporation (FPC) application received August 4, 1992, revision received May 4, 1999, and revision received May 22, 2000.
2. The Department's letters dated August 31 and November 13, 1992.
3. FPC's letters dated October 13 and November 30, 1992; June 27 and September 9, 1996; February 18 and June 30, 1998; and the SCR Technical Specification received August 3, 1998.
4. Westinghouse 501FC tables or curves showing Heat Input vs. Compressor Inlet Temperature and Nitrogen Oxide Emissions vs Compressor Inlet Temperature shall be attachments to and are part of this permit.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or 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, 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:
  - 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

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

**Permit Number: PA-92-33; PSD-FL-195B**  
**Expiration Date: November 1, 2000**

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
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 62-4.120 and 62-730.300, 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.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - (X) Determination of Best Available Control Technology (BACT)
  - (X) Determination of Prevention of Significant Deterioration (PSD)
  - (X) Compliance with New Source Performance Standards(NSPS)
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - the date, exact place, and time of sampling or measurements;
    - the person responsible for performing the sampling or measurements;
    - the dates analyses were performed;
    - the person responsible for performing the analyses;
    - the analytical techniques or methods used; and
    - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
16. Circumvention. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly pursuant to Rule 62-210.650 F.A.C.

**SPECIFIC CONDITIONS:**

The construction and operation of the Hines Energy Complex (Project) shall be in accordance with all applicable provisions of Chapters 62-210 to 297, F.A.C. and NSPS Subparts GG, Dc, and Kb. The following emission limitations and conditions reflect BACT determinations for the Power Block 1-500 MW (two combined cycle combustion turbines and auxiliary equipment) of generating capacity for which the need has been determined. BACT determinations for the remaining phases will be made upon review of supplemental applications. In addition to the foregoing, the Project shall comply with the following conditions of certification as indicated.

**A. General Requirements**

1. The maximum heat input (HHV) to each combustion turbine (CT) at an ambient temperature of 59° F shall neither exceed 1,915 MMBtu/hr while firing natural gas, nor 2,020 MMBtu/hr while firing fuel oil. Heat input may vary depending on ambient conditions and the CT characteristics. The manufacturer's curves (see attached curves dated May 1 & 2, 2000) be used to establish heat input rates over a range of temperatures for the purpose of compliance determination.
2. Each of the two CTs in Power Block 1 may operate continuously, i.e., 8,760 hrs/year.
3. Only natural gas (NG) or low sulfur fuel oil shall be fired in each combustion turbine. Only low sulfur fuel oil shall be fired in the diesel generator. The maximum sulfur content of the low sulfur fuel oil shall not exceed 0.05 percent, by weight. Only natural gas shall be fired in the auxiliary boiler.
4. The maximum heat input to the auxiliary boiler shall not exceed 99 MMBtu/hr. Fuel consumption shall be measured and recorded for the auxiliary boiler.
5. The maximum allowable fuel oil consumption for the two turbines is 13,762,806 gallons per year, which is equivalent to an aggregate of 1,000 hours per year of operation at full load.
6. The permittee shall have the option of installing duct module(s) suitable for possible future installation of an oxidation catalyst and/or SCR equipment on each combined cycle generating unit. In the event that the module(s) are not installed in the Heat Recovery Steam Generator (HRSG), the retrofit costs associated with not making provisions for such technology (initially) shall not be considered in any future economic evaluation to justify not installing SCR or an oxidation catalyst.
7. Fugitive dust emissions during the construction period shall be minimized by covering or watering dust generation areas.
8. If site construction does not commence on Power Block 1 (500 MW) within 18 months of issuance of this permit, then FPC may request an extension of the 18-month period, provided that such request is

8. If site construction does not commence on Power Block 1 (500 MW) within 18 months of issuance of this permit, then FPC may request an extension of the 18-month period, provided that such request is received by the Department's Bureau of Air Regulation at least 90 days prior to the expiration date. Such a request shall identify the progress made toward commencement of the construction of the site and the expected time required to start and complete construction of the initial phase. The Department may grant the extension upon a satisfactory showing that the extension is justified.

Units to be constructed or modified in later phases of the project will be reviewed under the supplementary review process of the Power Plant Siting Act. If site construction has not commenced within 18 months of issuance of this certification, then FPC shall obtain from DEP a review and, if necessary, a modification of the BACT determination and allowable emissions for the unit(s) on which construction has not commenced [40 CFR 52.21(r)(2)].

**B. Emission Limits**

1. The maximum allowable emissions from each of the two CTs, when firing natural gas or low sulfur fuel oil, in accordance with the BACT determination and subsequent data from Westinghouse, shall not exceed the following (at 59° F reference temperature for NOx emissions) (except during periods of start up, shutdown, malfunction):

**EMISSIONS LIMITATIONS**

<u>POLLUTANT</u>	<u>FUEL</u>	<u>BASIS(g)</u>	<u>LB/HR/CT</u>	<u>TPY(b)</u>
NOx (a)	Gas	12 ppmvd (h)	73(i)	639
	Oil	42 ppmvd (c) (h)	305	153
VOC (d)	Gas	7 ppmvw	10.4	91
	Oil	10 ppmvw	19.0	5.6
CO	Gas	25 ppmvd	77	675
	Oil	30 ppmvd	93	47
PM/PM10	Gas		15.6	79
	Oil(e)		44.8	21
SO2	Gas(f)		4.7	44
	Oil(f)		94	47
Visible Emissions	Gas	10 percent opacity		
	Oil	20 percent opacity		

- a. Pollutant emission rates may vary depending on ambient conditions (compressor inlet temperatures) and the CT characteristics. Manufacturer's curves for the NOx emission rate correction to other temperatures at different loads shall be provided to DEP for review 90 days after selection of the CT. Subject to approval by the Department for technical validity applying sound engineering principles, the manufacturer's curves shall be used to establish pollutant emission rates over a range of temperatures for the purpose of compliance determination. Emission limitations in LB/HR/CT of NOx are blocked 24-hour averages (midnight to midnight) and are calculated as follows:



NO<sub>x</sub> emissions shall be determined continuously by a Continuous Emissions Monitoring System (CEMS). A CEMS operated and maintained in accordance with 40 CFR 75 shall be used. Compliance with the NO<sub>x</sub> emissions standards in the above table shall be demonstrated with this CEMS system based on a 24-hour block average. Based on CEMS data at the end of each operating day, new 24-hour average emission rates, both actual and allowable (based on compressor inlet temperatures) are calculated from the arithmetic average of all valid hourly emission rates during the previous 24 operating hours. Valid hourly emission rates shall not include periods of startup (including fuel switching), shutdown, or malfunction as defined in Rule 62-210.200 where emissions exceed the NO<sub>x</sub> standard. These excess emission periods shall be reported as required in Specific Condition E.2.f. A valid hourly emission rate shall be calculated for each hour in which two NO<sub>x</sub> and carbon dioxide (or oxygen) concentrations are obtained at least 15 minutes apart. When monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the 24-hour block average.

- b. Annual emission limits (TPY) for natural gas are based on a total of two CTs operating at full load 8,760 hours per year (i.e., NO<sub>x</sub> - 73 lbs/hr X 2 CTs X 8,760 hrs/yr X 1 ton/2,000 lbs = 639 TPY). Annual emission limits (TPY) for fuel oil are based on full load operation for a total of 1,000 hours per year for the two CTs (i.e., NO<sub>x</sub> - 305 lbs/hr X 1,000 hrs/yr X 1 ton/2,000 lbs = 153 TPY).
- c. Fuel oil NO<sub>x</sub> emissions are based on full load operation and 15 percent oxygen. For fuel oil firing, NO<sub>x</sub> levels of 42 ppmvd @ 15 percent O<sub>2</sub> are based on a fuel bound nitrogen content of 0.015 percent or less. The emission limit for NO<sub>x</sub> is adjusted as follows for higher fuel nitrogen contents up to a maximum of 0.030 percent by weight:

<u>FUEL BOUND NITROGEN NO<sub>x</sub> LEVELS</u> <u>(% BY WEIGHT)</u>	<u>NO<sub>x</sub> LEVELS</u> <u>(PPMVD @ 15% O<sub>2</sub>)</u>	<u>NO<sub>x</sub> EMISSIONS</u> <u>LB/HR/CT</u>	<u>NO<sub>x</sub> EMISSIONS</u> <u>TPY</u>
0.015 or less	42	305	153
0.020	44	320	160
0.025	46	334	167
0.030	48	349	175

using the formula  $STD = 0.0042 + F$  where:

STD = allowable NO<sub>x</sub> emissions (percent by volume at 15 percent O<sub>2</sub> and on a dry basis).

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen defined by the following table:

<u>FUEL-BOUND NITROGEN (% BY WEIGHT)</u>	<u>F (NO<sub>x</sub> % BY VOLUME)</u>
0 < N < 0.015	0
0.015 < N < 0.03	0.04(N-0.015)

where: N = the nitrogen content of the fuel (% by weight).

NO<sub>x</sub> emissions limits are preliminary for the fuel oil specified in Specific Condition No. A.3. FPC shall maintain fuel bound nitrogen content data for the low sulfur fuel oil prior to commercial operation. Adjustments of the NO<sub>x</sub> standard (up and down) shall be calculated and recorded based upon a volume weighted average of the nitrogen content of each bulk fuel oil shipment and the nitrogen content of the existing fuel in the storage tank. The NO<sub>x</sub> emission allowance (F) for fuel oil shall not be adjusted between fuel oil shipments. Records for these adjusted standards shall be kept on site for a minimum of 5 years.

- d. Exclusive of background concentrations.

- e. PM/PM<sub>10</sub> emission limitations include sulfuric acid mist.
  - f. SO<sub>2</sub> emissions are based on a maximum of 1 grain of S/100cf of natural gas and 0.05 percent sulfur in the fuel oil.
  - g. The values are the computational basis for the lb/hr numbers, which are the actual emission limitations. Once a combustion turbine manufacturer has been selected, it may be necessary to modify this basis. If this basis is to be modified, a professional engineer-certified equivalency analysis by the manufacturer must be submitted to the Department. The equivalency analysis will recommend an emissions normalizing basis (i.e., lb/hr, lb/MMBtu, lb/MWh, or ppmvd) and associated emissions appropriate for the specific manufacturer's equipment. If the equivalency analysis demonstrates an impact equal to or less than the current lb/hr limit, the Department shall amend the conditions to reflect the alternate basis. The characteristics and parameters of the CT selected will be reflected in other permit conditions, where appropriate.
  - h. At 15 percent O<sub>2</sub>, not ISO corrected.
  - i. Control of nitrogen oxides from each CT while firing natural gas shall be accomplished using dry low NOx burners (DLN) and SCR. Ammonia slip shall not exceed 10 ppm. If the Westinghouse Piloted Ring Combustor (PRC) or a more advanced DLN burner is developed which is able to comply with the emission limits (listed in the above table) and is installed by November 1, 2000 the SCR system may be removed and replaced with these new burners upon 30 days prior notice to DEP. This action would implement the original BACT for NOx and would not be subject to PSD review. This notice shall include information on the new burners which provides reasonable assurance and PE certification that these DLN burners can consistently meet the BACT emission limits. In this case the new dry low NOx burners shall be tested in accordance with the initial performance test as described in Section C.1 within 180 days of startup with the new burners.
2. The following CT emissions, determined by BACT, are tabulated for PSD purposes:

**ESTIMATED EMISSIONS**

<b>POLLUTANT</b>	<b>METHOD OF CONTROL</b>	<b>Basis(b)</b>
Benzene	Natural Gas	BACT
Inorganic Arsenic	No. 2 Fuel Oil(a)	BACT
Beryllium	No. 2 Fuel Oil (a)	BACT
Mercury	No. 2 Fuel Oil(a)	(c)
Pb	No. 2 Fuel Oil (a)	(c)

- a. The No. 2 fuel oil shall have a maximum sulfur content of 0.05 percent.
  - b. Since these pollutants are inherent constituents in the fuel, the basis for control will be by specifying that only natural gas and No. 2 fuel oil can be fired at the facility.
  - c. Below PSD significant emission levels.
3. Excess emissions resulting from startup, shutdown, malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except in the event that

the steam turbine has been shut down for 8 hours or more. During a cold start-up to combined cycle operation, up to four hours of excess emissions are allowed in a 24-hour period. Cold start-up is defined as a startup to combined cycle operation following a steam turbine shutdown lasting at least 48 hours. During a warm start-up to combined cycle operation, up to three hours of excess emissions are allowed in a 24-hour period. Warm start-up is defined as a startup to combined cycle operation following a steam turbine shutdown lasting at least 8 hours. [Applicant Request, Vendor Combined Cycle Startup Curves Data and Rule 62-210.700, F.A.C.]

4. Operation of the auxiliary steam boiler shall be limited to a maximum of 1000 hours per year and only during periods of cold CT startup or quick startup out of a short-term shutdown mode, when no other source of steam is available or during periodic testing. The following emission limitations shall apply:
  - a. NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for natural gas firing based on vendor-certified stack test data for the model of auxiliary boiler purchased.
  - b. Sulfur dioxide emissions shall be limited by firing natural gas.
  - c. Visible emissions shall not exceed 10 percent opacity while burning natural gas.
5. Operation of the emergency diesel generator shall be limited to a maximum of 100 hours per year and only during periods of on site emergency power needs (when no other power source is available) or during periodic testing. The following emission limitations shall apply:
  - a. The manufacturers design NO<sub>x</sub> emission rate shall not exceed 9.82 grams/hp-hr based on vendor-certified stack test data (or equivalent) on the model of generator purchased. This test data shall be provided to the Department with the initial combustion turbine performance test report.
  - b. Sulfur dioxide emissions shall be limited by firing only low sulfur fuel oil with maximum sulfur content of 0.05 percent by weight.
  - c. Visible emissions shall not exceed 20 percent opacity.

### **C. Performance Testing**

1. An initial (I) performance test shall be performed on each CT for each fuel. Testing of emissions shall be conducted with the source operating at capacity (maximum heat input rate for the tested operating temperature). Capacity is defined as 90 - 100 percent of permitted capacity. If it is impracticable to test at capacity, then sources may be tested at less than capacity; in this case subsequent source operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Department. Annual (A) compliance tests shall be performed on each CT with the fuel(s) indicated below. Tests shall be conducted using EPA reference methods in accordance with 40 CFR 60, Appendix A, as adopted by reference in Rule 62-297, F.A.C.:
  - a. Reference Method 5 for PM (I, A- only for oil and only if fuel oil is fired more than 400 hours for the CT in the previous federal fiscal year).
  - b. Reference Method 9 for VE (I, A- only for oil and only if fuel oil is fired more than 400 hours for the CT in the previous federal fiscal year).
  - c. Reference Method 10 for CO (I, A- for gas and annually for oil if fuel oil is fired more than 400 hours for the CT in the previous federal fiscal year).
  - d. Reference Method 20 for NO<sub>x</sub> (I only, for compliance with 40 CFR 60.332 and 40 CFR 60.335).
  - e. Reference Method 18 or Method 25A for VOC (I).

- f. ASTM D4294 (or equivalent) for sulfur content of distillate oil (I,A), which can be used for determining SO<sub>2</sub> emissions annually.
  - g. ASTM D1072-80, D3031-81, D4084-82, or D3246-81 (or equivalent) for sulfur content of natural gas (I).
  - h. Ammonia (I) by EPA Conditional Test Method CTM-027 or a test method approved by DEP prior to the initial performance test.
  - i. Other DEP approved methods may be used for compliance testing after prior Departmental approval.
2. The maximum sulfur content of the low sulfur fuel oil shall not exceed 0.05 percent by weight. Compliance shall be demonstrated in accordance with the requirements of 40 CFR 60.334 testing for sulfur content of the fuel oil in the storage tanks on each occasion that fuel is transferred to the storage tanks from any other source. Testing for fuel bound nitrogen content by ASTM D3431 or D4629 or other equivalent ASTM method, and for fuel oil higher heating value, shall also be conducted on the same schedule.

#### **D. Monitoring Requirements**

For each combined cycle unit, the permittee shall install, operate, and maintain a continuous emission monitoring system (CEMS) (in accordance with 40 CFR 60, Appendix F or 40 CFR 75) or use other DEP approved alternate methods to monitor nitrogen oxides and, if necessary, a diluent gas (CO<sub>2</sub> or O<sub>2</sub>). The Federal Acid Rain Program requirements of 40 CFR 75 shall apply when those requirements become effective for the CTs.

1. Each CEMS shall meet performance specifications of 40 CFR 60, Appendix B or 40 CFR 75.
2. CEMS data shall be recorded and reported in accordance with Chapter 40 CFR 60 Appendix A and Subpart GG and 40 CFR 75. The record shall include periods of start up, shutdown, and malfunction. Compliance with condition B.1. for NO<sub>x</sub> shall be determined by CEMS on a mass emission rate basis (LB/HR) using EPA Method 19 and hourly averaged heat inputs (MMBtu/hr).
3. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.
4. The procedures under 40 CFR 60.13 and 40 CFR 75 shall be followed for installation, evaluation, and operation of all CEMS.
5. For purposes of the reports required under this permit, excess emissions are defined as any calculated average emission rate, as determined pursuant to Condition B.3 herein, which exceeds the applicable emission limits in Condition B.1.

#### **E. Notification, Reporting and Recordkeeping**

1. To determine compliance with the natural gas and fuel oil firing heat input limitation, the permittee shall maintain daily records of natural gas and fuel oil consumption for each turbine and the heating value for each fuel. All records shall be maintained for a minimum of two years after the date of each record and shall be made available to representatives of the Department upon request.

2. The project shall comply with all the applicable requirements of Chapter 62, F.A.C., and 40 CFR 60 Subparts A, GG, Dc, and Kb. The requirements shall include:
- a. CFR 60.7(a)(1) - By postmarking or delivering notification of the start of construction no more than 30 days after such date.
  - b. CFR 60.7(a)(2) - By postmarking or delivering notification of the anticipated date of the initial startup of each CT and the auxiliary steam boiler not less than 30 days prior to such date.
  - c. CFR 60.7(a)(3) - By postmarking or delivering notification of the actual start up of each turbine and the auxiliary steam boiler within 15 days after such date.
  - d. CFR 60.7(a)(5) - By postmarking or delivering notification of the date for demonstrating the CEMS performance, no less than 30 days prior to such date.
  - e. CFR 60.7(a)(6) - By postmarking or delivering notification of the anticipated date for conducting the opacity observations no less than 30 days prior to such date.
  - f. CFR 60.7(b) - By initiating a recordkeeping system to record the occurrence and duration of any start up, shutdown or malfunction of a turbine and the auxiliary steam boiler, of any malfunction of the air pollution control equipment, and the periods when the CEMS is inoperable.
  - g. CFR 60.7(c) - By postmarking or delivering a quarterly excess emissions and monitoring system performance report within 30 days after the end of each calendar quarter. This report shall contain the information specified in 40 CFR 60.7(c) and (d). When firing natural gas or fuel oil in the combustion turbines, the NOX CEMS shall be used in lieu of the water/fuel monitoring system and fuel bound nitrogen (FBN) monitoring required for reporting excess emissions in 40 CFR 60.334(c)(1) (1997 version). The calibration of the water/fuel monitoring device required in 40 CFR 60.335 (c)(2) (1997 version) will be replaced by the 40 CFR 75 certification tests of the NOX CEMS. Upon request from DEP, the CEMS emission rates for NOX shall be corrected to ISO conditions to demonstrate compliance with the NOX standard established in 40 CFR 60.332.
  - h. A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:
    1. The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
    2. The permittee shall submit a monitoring plan, certified by signature of the Designated Representative (DR), that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
    3. Each unit shall be monitored for SO2 emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO2 emissions must be accounted for as required pursuant to 40 CFR 75.11(d).
  - i. CFR 60.8(a) - By conducting all performance tests within 60 days after achieving the maximum turbine and boiler firing rates, but not more than 180 days after the initial start up of each CT and the auxiliary boiler.
  - j. CFR 60.8(d) - By postmarking or delivering notification of the date of each performance test required by this permit at least 30 days prior to the test date; and,
  - k. Rule 62-297.345, F.A.C. - By providing stack sampling facilities where necessary .

All notifications and reports required by this specific condition shall be submitted to the Department's Air Program, within the Southwest District office. Performance test results shall be submitted within 45 days of completion of such test.

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

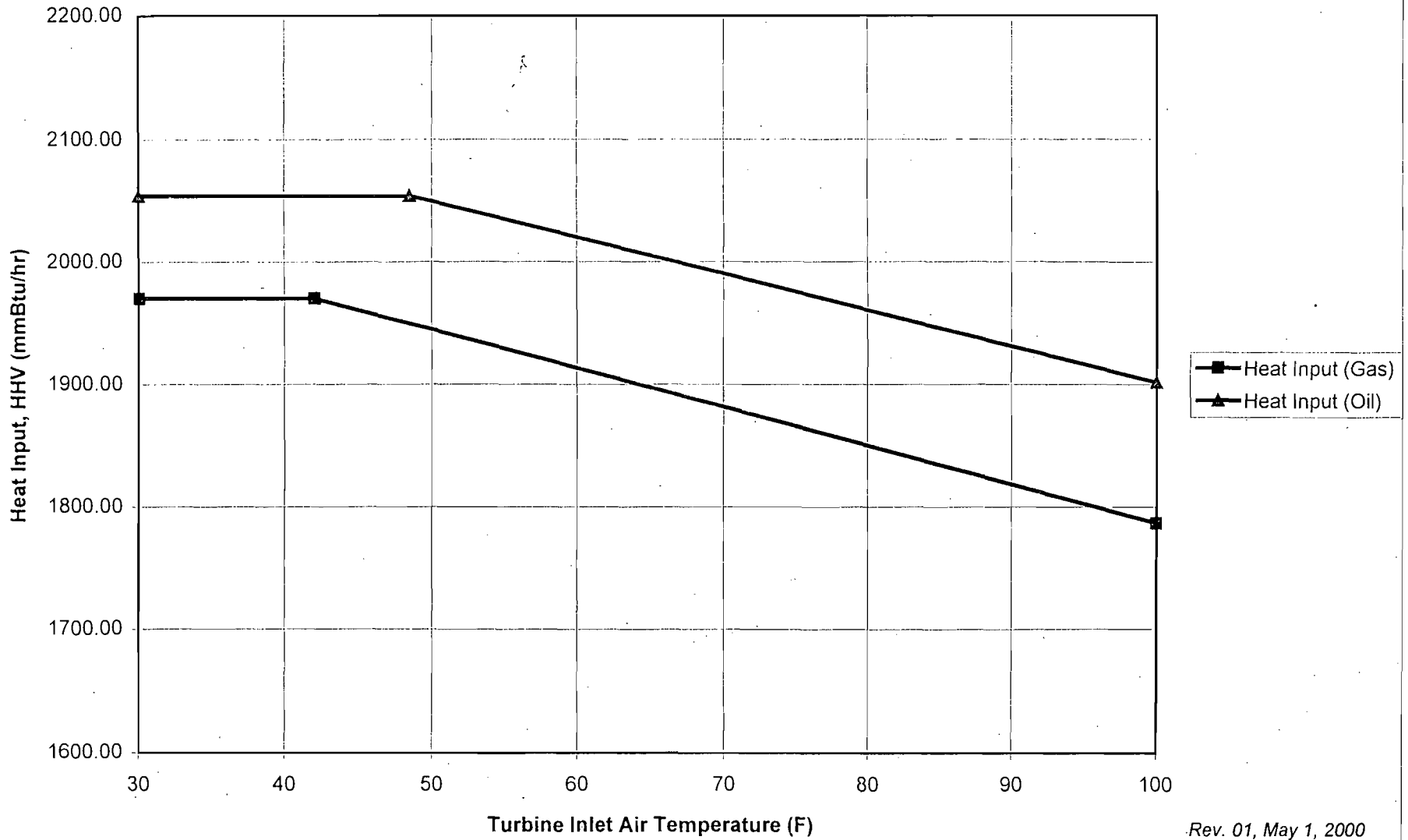
**Permit Number: PA-92-33; PSD-FL-195B**  
**Expiration Date: November 1, 2000**

3. The following information shall be submitted to the Department's Bureau of Air Regulation within 90 days after selection of each, respectively:
  - a. Description of the final selection of the turbines, the auxiliary steam boiler and diesel generator for installation at the facility. Descriptions shall include the specific make and model numbers, any changes in the proposed method of operation, fuels, emissions or equipment.
  - b. Description of the CEMS selected. Description shall include the type of sensors, the manufacturer and model number of the equipment.
4. The following protocols shall be submitted to the Department's Air Program, within the Southwest District office for approval;
  - a. CEMS Protocol - Within 60 days after selection of the CEMS, but prior to the initial startup, a CEMS protocol describing the system, its installation, operating and maintenance characteristics and requirements. The protocol shall meet the requirements of 40 CFR 60.13, 40 CFR 60 Appendix B and Appendix F or 40 CFR 75. The Federal Acid Rain Program requirements of 40 CFR 75 shall apply when those requirements become effective within the state.
  - b. Performance Test Protocol - At least 30 days prior to conducting the initial performance tests required by this permit, the permittee shall submit to the Department's Air Program, within the Southwest District office, a protocol outlining the procedures to be followed, the test methods and any differences between the reference methods and the test methods proposed to be used to verify compliance with the conditions of this permit. The Department shall approve the testing protocol provided that it meets the requirements of this permit.

#### **F. Modifications**

The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change.

Hines Energy Complex - Power Block 1  
CT Heat Input, HHV (per CT) vs. Turbine Inlet Air Temperature, Rev. 01



Rev. 01, May 1, 2000

T Ambient (F)	GasHeat Content (Btu/lb)	Gas Fuel Flow (lbm/hr)	GAS Heat Input (MMBtu/hr) HHV	GAS Heat Input 10% Margin	GAS Heat Input 5% Margin	OilHeat Content (Btu/lb)	Oil Fuel Flow (lbm/hr)	OIL Heat Input, HHV (MMBTU)	OIL Heat Input, HHV 10% Margin	OIL Heat Input, HHV 5% Margin
30.0	23210	80050	1857.96	2043.76	1950.86	19903	98300	1956.46	2152.11	2054.29
42.0	23210	80050	1857.96	2043.76	1950.86	19903	98300	1956.46	2152.12	2054.29
45.0	23210	79500	1845.20	2029.71	1937.45	19903	98300	1956.46	2152.11	2054.29
48.5	23210	78845	1829.99	2012.99	1921.49	19903	98300	1956.46	2152.11	2054.29
60.0	23210	76550	1776.73	1954.40	1865.56	19903	95450	1899.74	2089.72	1994.73
72.0	23210	74250	1723.34	1895.68	1809.51	19903	92550	1842.02	2026.22	1934.12
85.0	23210	71850	1667.64	1834.40	1751.02	19903	89550	1782.31	1960.55	1871.43
88.3	23210	71260	1653.94	1819.34	1736.64	19903	88800	1767.39	1944.13	1855.76
105.0	23210	66700	1548.11	1702.92	1625.51	19903	85100	1693.75	1863.12	1778.43

Red = Estimated

Heat Input Curve, Rev 01:



Florida Department of  
**Environmental Protection**

**Memorandum**

BAR

TO: Howard L. Rhodes  
FROM: Clair H. Fancy *CHF*  
DATE: August 8, 2000  
SUBJECT: FINAL Permit No.: 1050234-003-AC  
Florida Power Corporation  
Hines Energy Complex Power Block 1  
Day 90 = August 21, 2000

**RECEIVED**

AUG 11 2000

BUREAU OF AIR REGULATION

This permit is for a modification to allow Florida Power Corporation to utilize the fully installed capacity of the combined cycle units by modifying the maximum heat input ratings and to include revised heat input curves for its combined cycle combustion turbines, Units 1A and 1B. This modification will not cause an increase in emissions from their previously permitted limits.

We received no comments.

I hereby recommend that you approve this permit.

Attachment

CHF/sms/raw

-file-

RECEIVED

AUG 07 2000

BUREAU OF AIR REGULATION



August 1, 2000

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

Dear Mr. Wider:

Re: Hines Heat Input Modification - Proof of Publication

I have enclosed the proof of publication of the Public Notice of Intent to Issue PSD Permit Modification for Florida Power Corporation's Hines facility.

Please contact me at (727) 826-4334 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Michael Kennedy". The signature is fluid and cursive, written over a white background.

J. Michael Kennedy, Q.E.P.  
Manager, Air Programs

# AFFIDAVIT OF PUBLICATION

## THE LEDGER

### Lakeland, Polk County, Florida

**RECEIVED**  
AUG 07 2000  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Case No .....

**STATE OF FLORIDA)  
COUNTY OF POLK)**

Before the undersigned authority personally appeared Nelson Kirkland, who on oath says that he is Classified Advertising Manager of The Ledger, a daily newspaper published at Lakeland in Polk County, Florida; that the attached copy of advertisement, being a

Notice of Intent .....

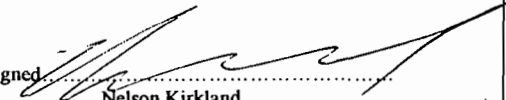
in the matter of ..... **To Issue PSD Permit Modification** .....

in the .....

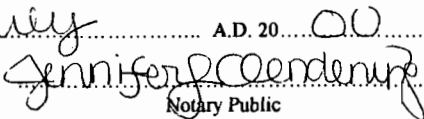
Court, was published in said newspaper in the issues of .....

7-24;2000 .....

Affiant further says that said *The Ledger* is a newspaper published at Lakeland, in said Polk County, Florida, and that the said newspaper has heretofore been continuously published in said Polk County, Florida, daily, and has been entered as second class matter at the post office in Lakeland, in said Polk County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Signed   
Nelson Kirkland  
Classified Advertising Manager  
Who is personally known to me.

Sworn to and subscribed before me this 24<sup>th</sup> .....

day of July A.D. 20 00  
  
Notary Public

(Seal)  
My Commission Expires 1/10/04 .....

### Attach Notice Here

**PUBLIC NOTICE OF INTENT TO  
ISSUE PSD PERMIT MODIFICATION**  
STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
DEP File No. PA-92-33,  
PSD-FL-1998  
Florida Power Corporation  
Hines Energy Complex  
Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue a modification of the permit for the Prevention of Significant Deterioration of Air Quality (PSD permit) to Florida Power Corporation for the Hines Energy Complex located at 7700 County Road 565, Bartow, Polk County. The permit is to modify the maximum heat input ratings and to include revised heat input curves for its combined cycle combustion turbines, Units 1A and 1B. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 62.21, Prevention of Significant Deterioration (PSD).

The existing facility is a natural gas-fired/fuel oil-fired electrical plant that consists of two combined cycle combustion turbines for a total of 500 MW. This project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity. An air quality impact analysis was not conducted. Emissions from the facility will not consume PSD increment and will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the Final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 days from the date of publication of this Public Notice of Intent to Issue PSD Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S. before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.493(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding official upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts that petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.30.

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

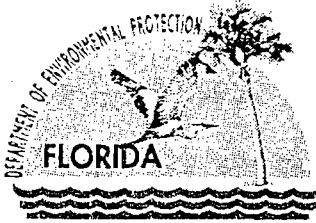
A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays.

Dept. of Environmental Protection  
Bureau of Air Regulation  
Suite 4, 111 S. Magnolia Drive  
Tallahassee, Florida 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Dept. of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619-5218  
Telephone: 813/744-6100

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott Sheplak, P.E., Administrator, Title V Section, or the Department's reviewing engineer for this project, Russell Wilder, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. E-256 - 7-24: 2000

*File Copy*



# Department of Environmental Protection

Jeb Bush  
Governor

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

David B. Struhs  
Secretary

July 18, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue  
Director, Environmental Services  
FPC - Hines Energy Complex  
One Power Plaza  
263 13th Avenue South  
St. Petersburg, Florida 33701

Re: DEP File No. PA-92-33; Modification of Permit No. PSD-FL-195B

Dear Mr. Pardue:

Enclosed is one copy of the Draft PSD permit for the Hines Energy Complex located at 7700 County Road 555, Bartow, Polk County. The Department's Intent to Issue PSD Permit Modification and the Public Notice of Intent to Issue PSD Permit Modification are also included.

The Public Notice of Intent to Issue PSD Permit Modification must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Scott Sheplak, P.E., Administrator, Title V Section at the above letterhead address. If you have any other questions, please contact Russell Wider at 850/921-9585.

Sincerely,

A handwritten signature in cursive script, appearing to read "C. H. Fancy".

C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation

CHF/raw

Enclosures

Z 094 212 841

US Postal Service  
**Receipt for Certified Mail**

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

Sent to Mr. W. Jeffrey Pardue	
Street & Number 263 13th Avenue South	
Post Office, State, & ZIP Code St. Petersburg, FL 33701	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 7/19/00	
DEP File No. PA-92-33	
Mod. of Permit No. PSD-FL-195B	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
Mr. W. Jeffrey Pardue  
Director, Environmental Services  
FPC - Hines Energy Complex  
One Power Plaza  
263 13th Avenue South  
St. Petersburg, FL 33701

4a. Article Number  
Z 094 212 841

4b. Service Type  
 Registered                       Certified  
 Express Mail                       Insured  
 Return Receipt for Merchandise    COD

7. Date of Delivery  
7-21-00

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)  
X Dana Clark

Thank you for using Return Receipt Service.

Z 094 212 242

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to Ms. Jennifer Stenger, P.E.	
Street & Number 263 13th Avenue South	
Post Office, State, & ZIP Code St. Petersburg, FL 33701	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 7/19/00 DEP File No. PA-92-33; Mod. of Permit No. PSD-FL-195B	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
Ms. Jennifer Stenger, P.E.  
Florida Power Corporation  
One Power Plaza  
263 13th Avenue South  
St. Petersburg, FL 33701

4a. Article Number  
Z 094 212842

4b. Service Type

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

7. Date of Delivery  
7-21-00

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)

X Dana Clark

Thank you for using Return Receipt Service.

In the Matter of an  
Application for Permit by:

W. Jeffrey Pardue, Director, Environmental Services  
Florida Power Corporation  
One Power Plaza  
263 13th Avenue South  
St. Petersburg, Florida 33701

Project No. 1050234-003-AC (PSD-FL-195B)  
Hines Energy Complex  
Permit Modifications  
Polk County

### INTENT TO ISSUE PSD PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD Permit Modification (copy of Draft permit attached) for the proposed project, detailed in the application specified above, for the reasons stated below.

The applicant, Florida Power Corporation, applied on May 22, 2000, to the Department for a PSD Permit Modification for its Hines Energy Complex located at 7700 County Road 555, Bartow, Polk County. The permit is to allow the facility to utilize the fully installed capacity of the combined cycle units by modifying the maximum heat input ratings and to include revised heat input curves for its combined cycle combustion turbines, Units 1A and 1B.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an PSD Permit Modification is required to incorporate the revised heat input curves and the modification of the maximum heat input ratings.

The Department intends to issue this PSD Permit Modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue PSD Permit Modification. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 days from the date of publication of Public Notice of Intent to Issue PSD Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

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

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

Mediation is not available in this proceeding.

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

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition



must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

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

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

Executed in Tallahassee, Florida.



C. H. Fancy, P.E.  
Chief, Bureau of Air Regulation

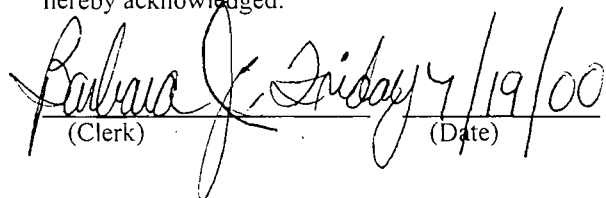
#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue PSD Permit Modification (including the Public Notice of Intent to Issue PSD Permit Modification, and the Draft permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 7/19/00 to the person(s) listed:

Mr. W. Jeffrey Pardue, Florida Power Corporation \*  
Ms. Jennifer Stenger, P.E., Florida Power Corporation \*  
Bill Thomas, P.E., DEP-SWD  
Mr. Gregg Worley, EPA  
Mr. John Bunyak, NPS

Clerk Stamp

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

  
(Clerk) 7/19/00 (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. PA-92-33, PSD-FL-195B

Florida Power Corporation  
Hines Energy Complex  
Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue a modification of the permit for the Prevention of Significant Deterioration of Air Quality (PSD permit) to Florida Power Corporation, for the Hines Energy Complex located at 7700 County Road 555, Bartow, Polk County. The permit is to modify the maximum heat input ratings and to include revised heat input curves for its combined cycle combustion turbines, Units 1A and 1B. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

The existing facility is a natural gas-fired/fuel oil-fired electrical plant that consists of two combined cycle combustion turbines for a total of 500 MW.

This project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity.

An air quality impact analysis was not conducted. Emissions from the facility will not consume PSD increment and will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the Final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 days from the date of publication of this Public Notice of Intent to Issue PSD Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

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

**NOTICE TO BE PUBLISHED IN THE NEWSPAPER**

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection  
Bureau of Air Regulation  
Suite 4, 111 S. Magnolia Drive  
Tallahassee, Florida, 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Dept. of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott Sheplak, P.E., Administrator, Title V Section, or the Department's reviewing engineer for this project, Russell Wider, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

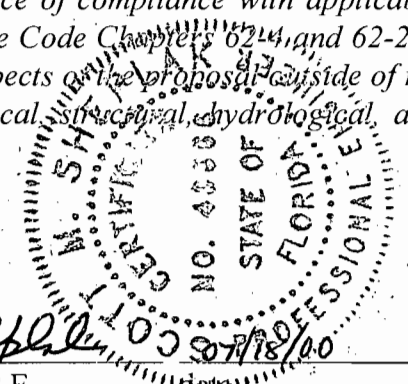
## P.E. Certification Statement

**Permittee:**  
Florida Power Corporation  
Hines Energy Complex

**Project No.:** 1050234-003-AC  
**Facility ID No.:** 1050234

**Project type:** Air Construction (Modification) Permit

*I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4, and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).*



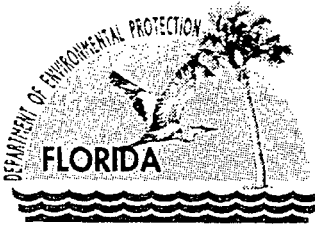
*Scott M. Sheplak*  
\_\_\_\_\_  
Scott M. Sheplak, P.E.

Registration Number: 0048866

Permitting Authority:  
Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: 850/921-9532  
Fax: 850/922-6979

"More Protection, Less Process"

Printed on recycled paper.



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

July 18, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue  
Director, Environmental Services  
FPC - Hines Energy Complex  
One Power Plaza  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

Re: DEP File No. PSD-FL-195B; Modification of Permit No. PSD-FL-195B  
Hines Energy Complex / Polk County

Dear Mr. Pardue:

The applicant, Florida Power Corporation, applied on May 22, 2000, to the Department for a modification to air construction permit number PSD-FL-195B for its Hines Energy Complex located in Polk County. The modification is to allow the facility to utilize the fully installed capacity of the combined cycle units by modifying the maximum heat input ratings and to include revised heat input curves for its combined cycle combustion turbines, Units 1A and 1B. The Department has reviewed the modification request. The referenced permit is hereby modified as follows:

**Permit Cover Letter:** Multiple changes. A revised cover letter is included for clarity.

**Specific Condition Introductory text** changes as follow:

**Specific Condition A.1.**

From: The maximum heat input (HHV) to each combustion turbine (CT) at an ambient temperature of 59° F shall neither exceed 1,866 MMBtu/hr while firing natural gas, nor 1,999 MMBtu/hr while firing fuel oil. Heat input may vary depending on ambient conditions and the CT characteristics. Manufacturer's curves or equations for correction to other temperatures shall be provided to DEP for review 90 days after selection of the CT. Subject to approval by the Department for technical validity applying sound engineering principles, the manufacturer's curves shall be used to establish heat input rates over a range of temperatures for the purpose of compliance determination.

To: The maximum heat input (HHV) to each combustion turbine (CT) at an ambient temperature of 59° F shall neither exceed 1,915 MMBtu/hr while firing natural gas, nor 2,020 MMBtu/hr while firing fuel oil. Heat input may vary depending on ambient conditions and the CT characteristics. The manufacturer's curves (see attached curves dated May 1 & 2, 2000) shall be used to establish heat input rates over a range of temperatures for the purpose of compliance determination.

**Heat Input curves:** Revised heat input curves for the two Westinghouse 501FC combustion turbines have been included.

**DRAFT**

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

\_\_\_\_\_  
Howard L. Rhodes, Director  
Division of Air Resources  
Management

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on \_\_\_\_\_ to the person(s) listed:

W. Jeffrey Pardue, Florida Power Corporation \*  
Jennifer Stenger, P.E., Florida Power Corporation \*  
Doug Neely, EPA  
John Bunyak, NPS  
Bill Thomas, P.E., DEP-SWD  
Mr. Gregg Worley, EPA

**DRAFT**

Clerk Stamp

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

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Date)

**PERMITTEE:**

**Florida Power Corporation  
3201 34th Street South  
St. Petersburg, FL 33733**

**Permit Number: PSD-FL-195B/PA-92-33****Issued: 3/1/94 Revised: 6/28/00****Expiration Date: November 1, 2000****County: Polk****Latitude/Longitude: 27°47'19"N/81°52'10"W****Project: 500 MW Combined Cycle**

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-212 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and specifically described as follows:

For two combined cycle combustion turbines (CTs) with maximum allowable heat input based on the higher heating value (HHV) at 59°F of 1,915 MMBtu/hr/unit (natural gas) and 2,020 MMBtu/hr/unit (oil) to be located at the Hines Energy Complex near Fort Meade, Florida. Power Block 1 consists of two combined cycle combustion turbines for a total of 500 MW, a 99 MMBtu/hr auxiliary boiler (Subpart Dc), a 1,300 KW diesel generator and a 97,570 barrel fuel oil storage tank (Subpart Kb). The combustion turbines are Westinghouse Model 501FC or equivalent and rated at approximately 170 MW in simple cycle and equipped with dry low NO<sub>x</sub> combustors and/or Selective Catalytic Reduction (SCR) for natural gas firing and wet injection for fuel oil firing. Each combustion turbine will incorporate an unfired heat recovery steam generator.

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

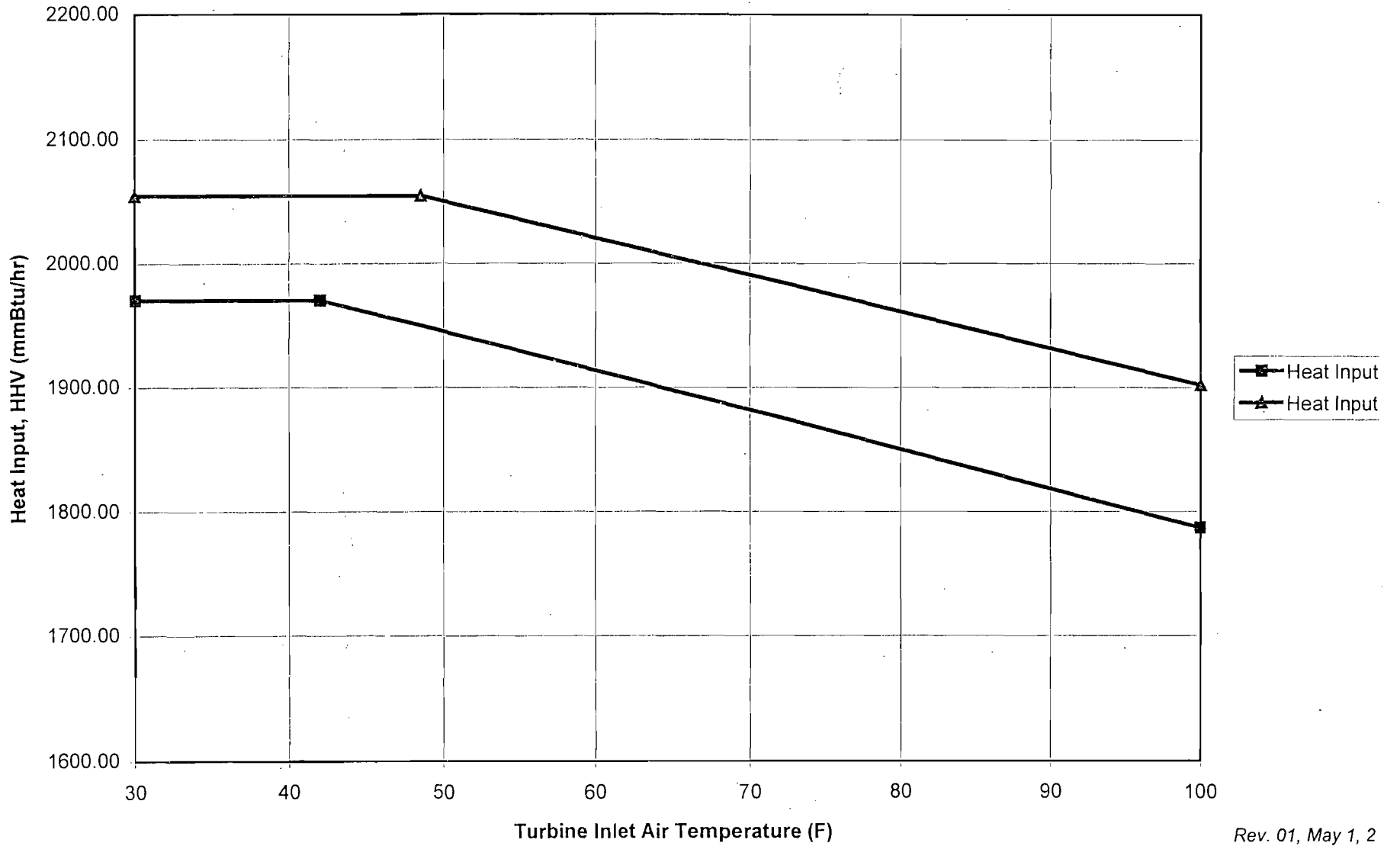
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Howard L. Rhodes, Director  
Division of Air Resources  
Management

Relevant documents are listed below:

1. FPC application received August 4, 1992, revision received May 4, 1999, and revision received May 22, 2000.
2. The Department's letters dated August 31 and November 13, 1992.
3. FPC's letters dated October 13 and November 30, 1992; June 27 and September 9, 1996; February 18 and June 30, 1998; and the SCR Technical Specification received August 3, 1998.
4. Westinghouse 501FC tables or curves showing Heat Input vs. Compressor Inlet Temperature and Nitrogen Oxide Emissions vs Compressor Inlet Temperature shall be attachments to and are part of this permit.

### Hines Energy Complex - Power Block 1 CT Heat Input, HHV (per CT) vs. Turbine Inlet Air Temperature, Rev. 01



Rev. 01, May 1, 2



T Ambient (F)	GasHeat Content (Btu/lb)	Gas Fuel Flow (lbm/hr)	GAS Heat Input (MMBtu/hr) HHV	GAS Heat Input 10% Margin	GAS Heat Input 5% Margin	OilHeat Content (Btu/lb)	Oil Fuel Flow (lbm/hr)	OIL Heat Input, HHV (MMBTU)	OIL Heat Input, HHV 10% Margin	OIL Heat Input, HHV 5% Margin
30.0	23210	80050	1857.96	2043.76	1950.86	19903	98300	1956.46	2152.11	2054.29
42.0	23210	80050	1857.96	2043.76	1950.86	19903	98300	1956.46	2152.12	2054.29
45.0	23210	79500	1845.20	2029.71	1937.45	19903	98300	1956.46	2152.11	2054.29
48.5	23210	78845	1829.99	2012.99	1921.49	19903	98300	1956.46	2152.11	2054.29
60.0	23210	76550	1776.73	1954.40	1865.56	19903	95450	1899.74	2089.72	1994.73
72.0	23210	74250	1723.34	1895.68	1809.51	19903	92550	1842.02	2026.22	1934.12
85.0	23210	71850	1667.64	1834.40	1751.02	19903	89550	1782.31	1960.55	1871.43
88.3	23210	71260	1653.94	1819.34	1736.64	19903	88800	1767.39	1944.13	1855.76
105.0	23210	66700	1548.11	1702.92	1625.51	19903	85100	1693.75	1863.12	1778.43

Red = Estimated

TEST DATA

Test Date	Unit, fuel	ambient T (F)	Fuel Flow, Gas (lb/hr)	Heating Value (LHV) Btu/lb	Heat Input (HHV) mmBtu/hr
4/17/99	1A, gas CC Test	59.5	76627	20637	1753.165
	1B, gas	61.1	76709	20637	1755.041
4/18/99	1A, oil	64.1	86176	18568	1707.964
	1B, oil	64.6	86454	18568	1713.474
3/21/00	1A, gas SC Pre-Te	80.6			1676.27
	1B, gas	83.2			1679.175
4/14/00	1A, gas SC Post-T	69.1			1772
	1B, gas	66			1791.77

Heat Input Curve, Rev 01:

PROPOSED NEW LINE:			
	Ambient Temp (F)	Heat Input (HHV)	1% Add'l Margin
GAS:	30	1950.86	1970.37
	42	1950.86	1970.37
	100	1768.901	1786.59
OIL:	30	2054.29	
	48.5	2054.29	
	100	1901.70	

Note to file

Re: KPC-Hines Energy Complex  
AC permit mod.

The 30 day public notice should have been  
14 days. KPC requested and was allowed to make the  
change in the public notice. Al Linero discussed this  
with KPC.

Scott Sheplik

7/21/00



RECEIVED

JUN 28 2000

BUREAU OF AIR REGULATION

June 22, 2000

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

Dear Mr. Sheplak:

Re: Revised Heat Input Curves - FPC Hines Facility

Copies of the proposed revised heat input curves and the supporting test data for Units 1A and 1B at Florida Power Corporation's (FPC) Hines Energy Complex were submitted on June 12. Mr. Russell Wider has requested that these be accompanied by a professional engineer seal and certified by the responsible official. I have enclosed the proposed curves and the test data with the requested certifications.

Please contact me at (727) 826-4334 if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Michael Kennedy". The signature is fluid and cursive, written over a light background.

J. Michael Kennedy, Q.E.P.  
Manager, Air Programs

Department of  
Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT  
APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : Florida Power Corporation	
2. Site Name : Hines Energy Complex	
3. Facility Identification Number : 1050234	<input type="checkbox"/> Unknown
4. Facility Location : Bartow	
Street Address or Other Locator : City : Bartow	7700 County Road 555 County : Polk Zip Code : 33841
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

I. Part 1 - 1

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : W. Jeffrey Pardue, C.E.P.  
Title : Director, Environmental Services

2. Owner or Authorized Representative or Responsible Official Mailing Address :

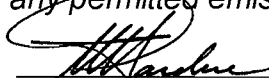
Organization/Firm : Florida Power Corporation  
Street Address : P.O. Box 14042, MAC BB1A  
City : St. Petersburg  
State : FL Zip Code : 33733

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (727)826-4301 Fax : (727)826-4216

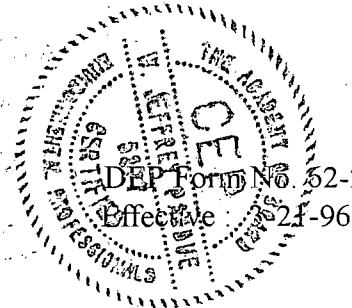
4. Owner/Authorized Representative or Responsible Official Statement :

*I, the undersigned, am the owner or authorized representative\* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

  
\_\_\_\_\_  
Signature

6/23/00  
\_\_\_\_\_  
Date

\* Attach letter of authorization if not currently on file.



**Application Processing Fee**

Check one :

Attached - Amount : \_\_\_\_\_  Not Applicable.

**Construction/Modification Information**

1. Description of Proposed Project or Alterations :  Proposed revision to the heat input curves for Power Block 1, Units 1A and 1B. Maximum heat input at 30 deg. F for oil firing does not change. Maximum heat input at 30 deg. F for natural gas firing increases from 1,950 to 1,980 mmBtu/hour.
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

**Professional Engineer Certification**

1. Professional Engineer Name : Jennifer A. Stenger Registration Number : 0052125
2. Professional Engineer Mailing Address :  Organization/Firm : Florida Power Corporation Street Address : P.O. Box 14042, MAC BB1A City : St. Petersburg State : FL Zip Code : 33733
3. Professional Engineer Telephone Numbers : Telephone : (727)826-4132 Fax : (727)826-4216

4. Professional Engineer Statement :

*I, the undersigned, hereby certify, except as particularly noted herein\*, that :*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [  ] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature  
(seal)

*Stenger*  
A. STENGER  
52125  
PROFESSIONAL ENGINEER  
FLORIDA  
EFFECTIVE 5-21-96

I. Part 6 - 1

DEP Form No. 62-370.900(1) - Form  
Effective 5-21-96

Date

6/23/00

\* Attach any exception to certification statement.

I. Part 6 - 2

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96



**Application Contact**

1. Name and Title of Application Contact :

Name : J. Michael Kennedy, Q.E.P.  
Title : Manager, Air Programs

2. Application Contact Mailing Address :

Organization/Firm : Florida Power Corporation  
Street Address : P.O. Box 14042, MAC BB1A  
City : St. Petersburg  
State : FL                      Zip Code : 33733

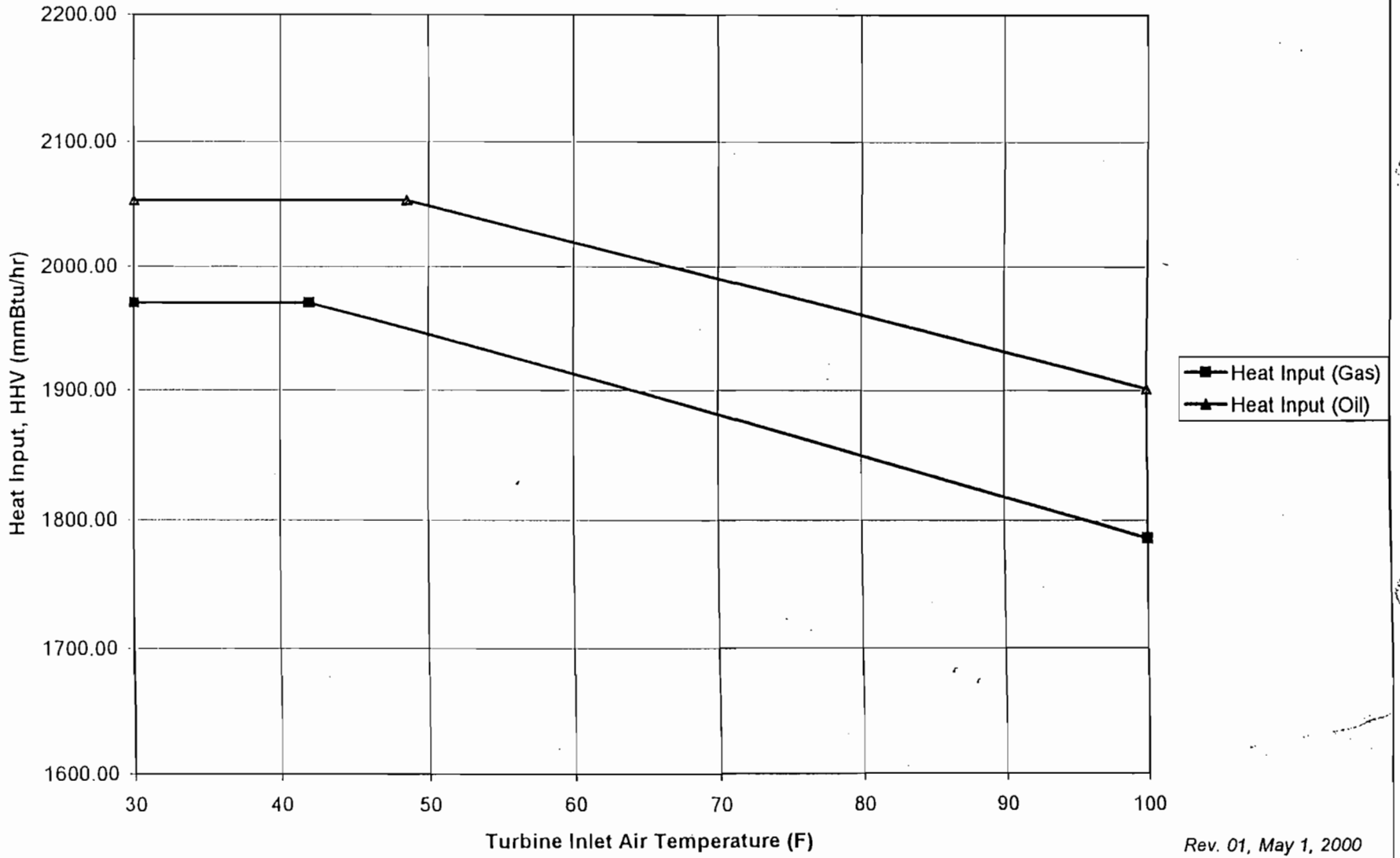
3. Application Contact Telephone Numbers :

Telephone : (727)826-4334                      Fax : (727)826-4216

**Application Comment**

This application is for the proposed revision of the heat input curves for Units 1A and 1B.

Hines Energy Complex - Power Block 1  
CT Heat Input, HHV (per CT) vs. Turbine Inlet Air Temperature, Rev. 01



Rev. 01, May 1, 2000

T Ambient (F)	Gas Heat Content (Btu/lb)	Gas Fuel Flow (lbm/hr)	GAS Heat Input (MMBtu/hr) HHV	GAS Heat Input 10% Margin	GAS Heat Input 5% Margin	Oil Heat Content (Btu/lb)	Oil Fuel Flow (lbm/hr)	OIL Heat Input, HHV (MMBTU)	OIL Heat Input, HHV 10% Margin	OIL Heat Input, HHV 5% Margin
30.0	23210	80050	1857.96	2043.76	1950.86	19903	98300	1956.46	2152.11	2054.29
42.0	23210	80050	1857.96	2043.76	1950.86	19903	98300	1956.46	2152.12	2054.29
45.0	23210	79500	1845.20	2029.71	1937.45	19903	98300	1956.46	2152.11	2054.29
48.5	23210	78845	1829.99	2012.99	1921.49	19903	98300	1956.46	2152.11	2054.29
60.0	23210	76550	1776.73	1954.40	1865.56	19903	95450	1899.74	2089.72	1994.73
72.0	23210	74250	1723.34	1895.68	1809.51	19903	92550	1842.02	2026.22	1934.12
85.0	23210	71850	1667.64	1834.40	1751.02	19903	89550	1782.31	1960.55	1871.43
88.3	23210	71260	1653.94	1819.34	1736.64	19903	88800	1767.39	1944.13	1855.76
105.0	23210	66700	1548.11	1702.92	1625.51	19903	85100	1693.75	1863.12	1778.43

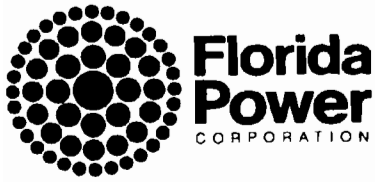
Red = Estimated

TEST DATA

Test Date	Unit, fuel	ambient T (F)	Fuel Flow, Gas (lb/hr)	Heating Value (L) Btu/lb	Heat Input (HHV) mmBtu/hr
4/17/99	1A, gas CC Test	59.5	76627	20637	1753.165
	1B, gas	61.1	76709	20637	1755.041
4/18/99	1A, oil	64.1	86176	18568	1707.964
	1B, oil	64.6	86454	18568	1713.474
3/21/00	1A, gas SC Pre-Te	80.6			1676.27
	1B, gas	83.2			1679.175
4/14/00	1A, gas SC Post-T	69.1			1772
	1B, gas	66			1791.77

Heat Input Curve, Rev 01:

PROPOSED NEW LINE:			
	Ambient Temp (F)	Heat Input (HHV)	1% Add'l Margin
GAS:	30	1950.86	1970.37
	42	1950.86	1970.37
	100	1768.901	1786.59
OIL:	30	2054.29	
	48.5	2054.29	
	100	1901.70	



Russell

RECEIVED

JUN 19 2000

BUREAU OF AIR REGULATION

June 12, 2000

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

Dear Mr. Sheplak:

Re: Revised Heat Input Curves - FPC Hines Facility

I have enclosed hardcopies of the proposed revised heat input curves and the supporting test data for Units 1A and 1B at Florida Power Corporation's (FPC) Hines Energy Complex. This information was previously sent to Mr. Russell Wider by email, and this submittal formalizes that transmission. FPC requests that DEP issue the construction permit amendment as soon as possible in order to enable FPC to utilize the available capacity at Hines.

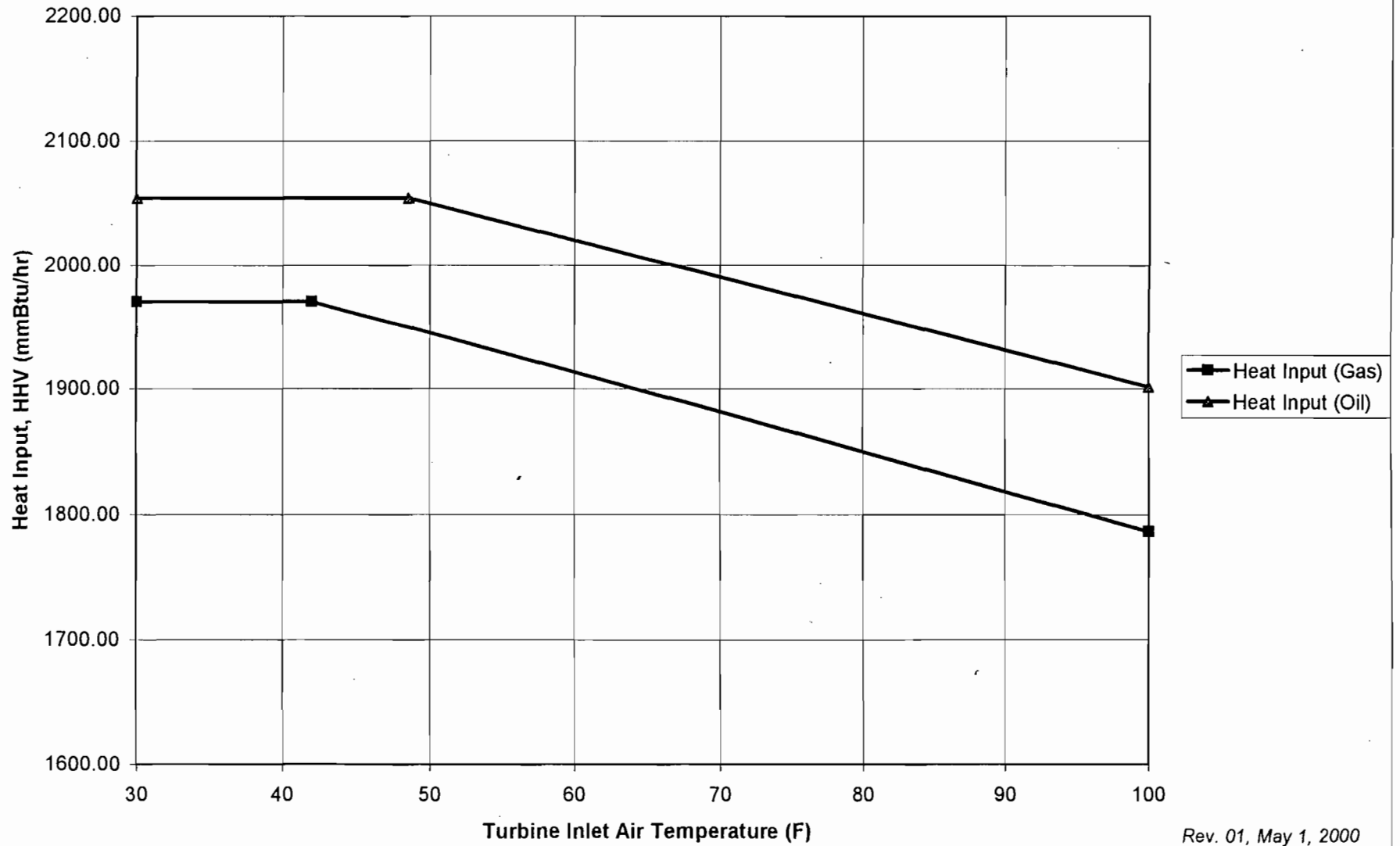
Thank you for your consideration of FPC's request. Please contact me at (727) 826-4334 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Michael Kennedy". The signature is fluid and cursive, with a prominent loop at the end.

J. Michael Kennedy, Q.E.P.  
Manager, Air Programs

Hines Energy Complex - Power Block 1  
CT Heat Input, HHV (per CT) vs. Turbine Inlet Air Temperature, Rev. 01



Rev. 01, May 1, 2000

T Ambient (F)	GasHeat Content (Btu/lb)	Gas Fuel Flow (lbm/hr)	GAS Heat Input (MMBtu/hr) HHV	GAS Heat Input 10% Margin	GAS Heat Input 5% Margin	OilHeat Content (Btu/lb)	Oil Fuel Flow (lbm/hr)	OIL Heat Input, HHV (MMBTU)	OIL Heat Input, HHV 10% Margin	OIL Heat Input, HHV 5% Margin
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42.0	23210	80050	1857.96	2043.76	1950.86	19903	98300	1956.46	2152.12	2054.29
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48.5	23210	78845	1829.99	2012.99	1921.49	19903	98300	1956.46	2152.11	2054.29
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88.3	23210	71260	1653.94	1819.34	1736.64	19903	88800	1767.39	1944.13	1855.76
105.0	23210	66700	1548.11	1702.92	1625.51	19903	85100	1693.75	1863.12	1778.43

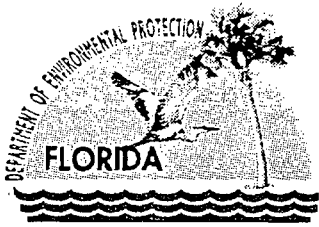
Red = Estimated

TEST DATA

Test Date	Unit, fuel	ambient T (F)	Fuel Flow, Gas (lb/hr)	Heating Value (LH) Heat Input (HHV) Btu/lb	mmBtu/hr
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	1B, gas	61.1	76709	20637	1755.041
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3/21/00	1A, gas SC Pre-Te	80.6			1676.27
	1B, gas	83.2			1679.175
4/14/00	1A, gas SC Post-T	69.1			1772
	1B, gas	66			1791.77

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PROPOSED NEW LINE:			
	Ambient Temp (F)	Heat Input (HHV)	1% Add'l Margin
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	42	1950.86	1970.37
	100	1768.901	1786.59
OIL:	30	2054.29	
	48.5	2054.29	
	100	1901.70	



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

May 25, 2000

*Russell Wider*

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue, CEP  
Director Environmental Services  
Florida Power Corporation  
Post Office Box 14042, MAC BB1A  
St. Petersburg, Florida 33733

Re: Request for Additional Information Regarding AC Permit Modification  
FPC Hines Energy Power Block I, 1050234-002-AC

Dear Mr. Pardue:

On May 22, 2000, the Department received your request for a permit amendment to include revised heat input curves for Units 1A and 1B at Florida Power Corporation's (FPC) Hines Energy Complex. The revised heat input curves for both natural gas and oil were a result of an adjustment to improve the performance of the units.

However, in order to continue processing your application, the Department will need the below additional information pursuant to Rule 62-4.055(1), F.A.C. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. We understand that there is an approximate 1% increase at ISO conditions in the overall maximum heat input from the original permitted limit. At the upper end of the temperature range, the maximum heat input for both natural gas and oil firing, reflect an increase of 5% or more over the current permit's curve. Please provide actual test data for both oil-firing and natural gas-firing to support such a change at the high temperature ranges.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, at a minimum your response to Item number 1, above should be certified by a professional engineer registered in the State of Florida. Material changes to the application should also be accompanied by a new certification statement by the authorized representative or responsible official. Permit applicants are advised that Rule 62-4.055(1), F.A.C., now requires applicants to respond to requests for information within 90 days. If there are any questions, please call Russell Wider at 850/921-9585.

Sincerely,

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

/raw

cc:  
Bill Thomas, P.E., SWD

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Printed on recycled paper.



RECEIVED  
MAY 22 2000  
BUREAU OF AIR REGULATION

May 15, 2000

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

Dear Mr. Sheplak:

Project #: 003

Re: Revised Heat Input Curves - FPC Hines Facility

Enclosed are three originals of a construction permit application for the revision of the heat input curves for Units 1A and 1B at Florida Power Corporation's (FPC) Hines Energy Complex. Recall that Siemens/Westinghouse made an adjustment to improve the performance of the units, and this resulted in a minor change to the heat input curves for both natural gas and oil.

As the revised heat input curves show, the overall maximum heat input at 30 degrees F. for oil firing will not change from the curve incorporated into the permit on May 27, 1999. At 59 degrees F., the maximum heat input while firing oil will increase from the former 1,999 mmBtu/hour to 2,020 mmBtu/hour, which is an increase of 1.1%. The overall maximum heat input while firing natural gas will increase from 1,950 mmBtu/hour to 1,980 mmBtu/hour at 30 degrees F., which is an increase of 1.5%. At 59 degrees F., the maximum heat input while firing natural gas will increase from the current 1,866 mmBtu/hour to 1,915 mmBtu/hour, which is an increase of 2.6%.

In a discussion regarding this permit amendment on May 15, Mr. Al Linero of DEP and Mike Kennedy of FPC determined that the operating history of the Hines units is less than two years in duration; therefore, allowable emissions may be used as past actual emissions. In addition, FPC is not proposing to change any permitted emission limits.

FPC requests that, to the extent possible, the DEP co-process this construction permit amendment and the corresponding change to the draft Title V permit. However, due to the coming summer season demand for electricity, FPC requests that DEP issue the construction permit amendment as soon as possible in order to enable FPC to utilize the available capacity at Hines.



Mr. Scott Sheplak, P.E.  
May 15, 2000  
Page Two

Thank you for your consideration of this request. Please contact Mike Kennedy at (727) 826-4334 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Jeffrey Pardue". The signature is stylized with a large, circular flourish at the beginning.

W. Jeffrey Pardue, C.E.P.  
Director

Cc: Mr. Al Linero, DEP

**Department of  
Environmental Protection**

**DIVISION OF AIR RESOURCES MANAGEMENT  
APPLICATION FOR AIR PERMIT - LONG FORM**

**I. APPLICATION INFORMATION**

**Identification of Facility Addressed in This Application**

1. Facility Owner/Company Name : Florida Power Corporation	
2. Site Name : Hines Energy Complex	
3. Facility Identification Number :	1050234 <input type="checkbox"/> Unknown
4. Facility Location : Bartow	
Street Address or Other Locator :	7700 County Road 555
City : Bartow	County : Polk                      Zip Code : 33841
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

I. Part 1 - 1

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : W. Jeffrey Pardue, C.E.P.  
Title : Director, Environmental Services

2. Owner or Authorized Representative or Responsible Official Mailing Address :

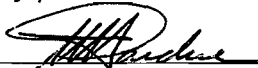
Organization/Firm : Florida Power Corporation  
Street Address : P.O. Box 14042, MAC BB1A  
City : St. Petersburg  
State : FL Zip Code : 33733

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (727)826-4301 Fax : (727)826-4216

4. Owner/Authorized Representative or Responsible Official Statement :

*I, the undersigned, am the owner or authorized representative\* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

  
\_\_\_\_\_  
Signature

5/15/00  
\_\_\_\_\_  
Date

\* Attach letter of authorization if not currently on file.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>
001	170 MW Westinghouse 501F Combustion Turbine Unit 1	AC
002	170 MW Westinghouse 501F Combustion Turbine Unit 2	AC

I. Part 3 - 1

DEP Form No. 62-210.900(1) - Form  
Effective : 3-21-96

**Purpose of Application and Category**

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

- Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.
  
- Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

- Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

- Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

- Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

- ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 2-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

- ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

- ] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

- ] Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

- ] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

I. Part 4 - 2

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

Current operation permit number(s), if any :  
1050223-002-AV

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

**Application Processing Fee**

Check one :

[ X ] Attached - Amount : \$ 250.00 [ ] Not Applicable.

**Construction/Modification Information**

1. Description of Proposed Project or Alterations :
Proposed revision to the heat input curves for Power Block 1, Units 1A and 1B. Maximum heat input at 30 deg. F for oil firing does not change. Maximum heat input at 30 deg. F for natural gas firing increases from 1,950 to 1,980 mmBtu/hour.
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

**Professional Engineer Certification**

1. Professional Engineer Name : Jennifer A. Stenger Registration Number : 0052125
2. Professional Engineer Mailing Address :  Organization/Firm : Florida Power Corporation Street Address : P.O. Box 14042, MAC BB1A City : St. Petersburg State : FL Zip Code : 33733
3. Professional Engineer Telephone Numbers : Telephone : (727)826-4132 Fax : (727)826-4216



4. Professional Engineer Statement :

*I, the undersigned, hereby certify, except as particularly noted herein\*, that :*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ x ] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature  
(seal)

*Jennifer A. Stager*

Date

*5/15/00*

I. Part 6 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

---

\* Attach any exception to certification statement.

I. Part 6 - 2

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

**Application Contact**

1. Name and Title of Application Contact :

Name : J. Michael Kennedy, Q.E.P.  
Title : Manager, Air Programs

2. Application Contact Mailing Address :

Organization/Firm : Florida Power Corporation  
Street Address : P.O. Box 14042, MAC BB1A  
City : St. Petersburg  
State : FL                      Zip Code : 33733

3. Application Contact Telephone Numbers :

Telephone : (727)826-4334                      Fax : (727)826-4216

**Application Comment**

This application is for the proposed revision of the heat input curves for Units 1A and 1B.

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility, Location, and Type

10

1. Facility UTM Coordinates :					
Zone :	17	East (km) :	414.40	North (km) :	3073.90
2. Facility Latitude/Longitude :					
Latitude (DD/MM/SS) :		27 47 19	Longitude (DD/MM/SS) :		81 52 10
3. Governmental Facility Code :	4. Facility Status Code :	5. Facility Major Group SIC Code :	6. Facility SIC(s) :		
0	A	49			
7. Facility Comment :					
Facility consists of two combined cycle combustion turbines (CT) with a heat recovery steam generator for a total generating capacity of a nominal 500 MW; a 99 mmBtu/hr auxiliary boiler, and a 1,300 KW diesel generator.					

#### Facility Contact

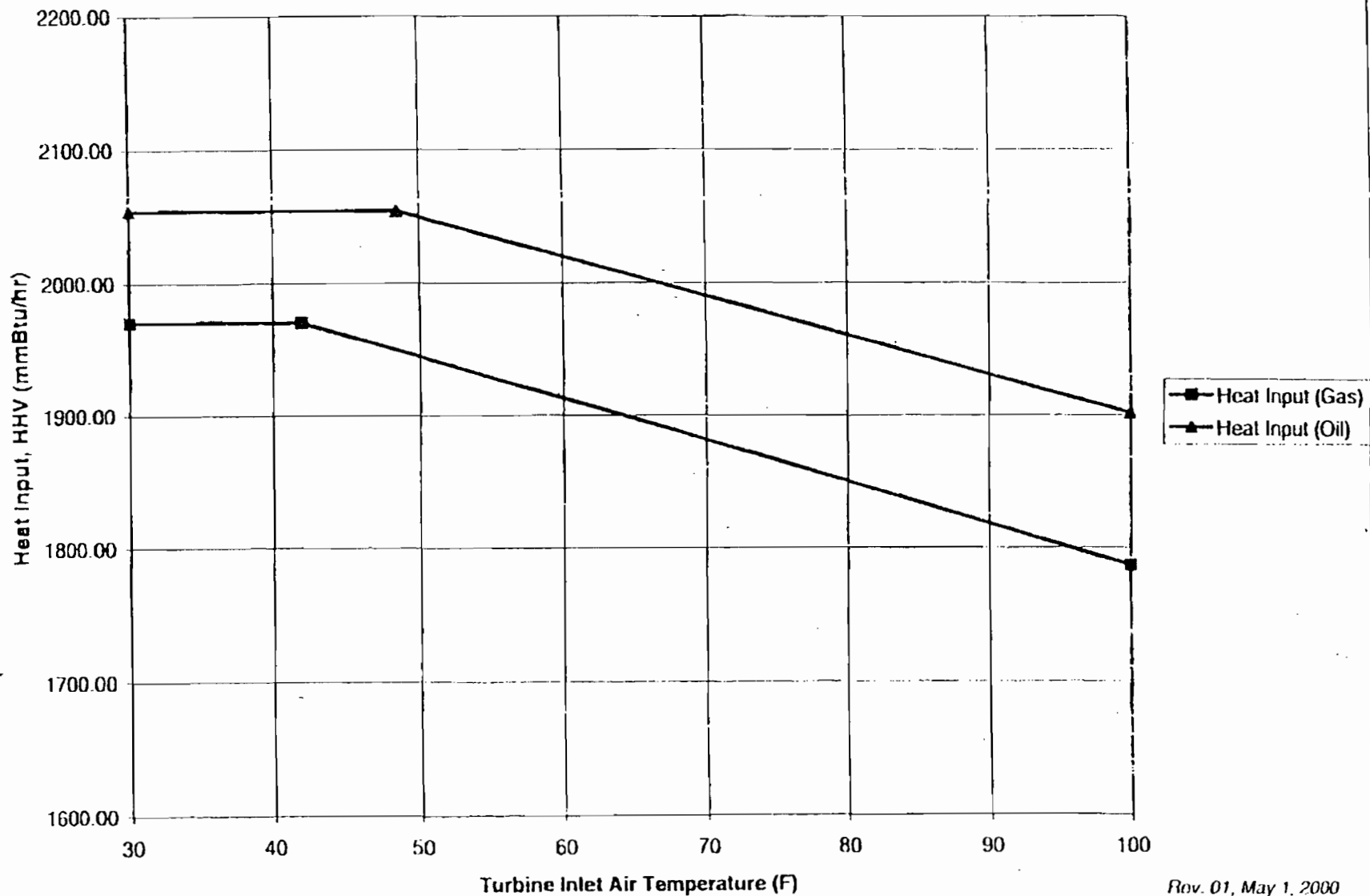
1. Name and Title of Facility Contact :	
Paul V. Crimi Asset Manager	
2. Facility Contact Mailing Address :	
Organization/Firm : Florida Power Corporation	
Street Address : 3219 State Road 630 East	
City : Ft. Meade	State : FL Zip Code : 33841
3. Facility Contact Telephone Numbers :	
Telephone : (863)519-6101	Fax : (863)519-6110

II. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

### Hines Energy Complex - Power Block 1 CT Heat Input, HHV (per CT) vs. Turbine Inlet Air Temperature, Rev. 01



Rev. 01, May 1, 2000

## PSD-FL-195 PERMITTING HISTORY

Florida Power Corporation  
Hines Energy Complex

Facility ID No.: 1050234

### PSD Permit History (for tracking purposes):

	Issue	PERMITTING ACTION DESCRIPTION
Permit No.	Date	
PSD-FL-195	3/01/94	PPSC No. PA-92-33. PSD permit issued for the construction of two 235 MW combined cycle combustion units using GE technology and with NO <sub>x</sub> limits of 12 ppmvd.
PSD-FI-195A	9/29/98	Permit modification to install SCR system and to reflect the specifications of the actual (Westinghouse 501FC) combustion turbines installed. Other changes included higher input & power rates and emissions increases.
PSD-FL-195B 1050234-002AC	5/27/99	Modification to allow the facility to utilize the fully installed capacity of the combined cycle units by modifying the maximum heat input and megawatts rating. Additional time for warm and cold start. Refer to changes in specific conditions.

Permit #:	PATS:	Issue:	Expire:
Project #/Name	Owner/Company	Type/Sub	Receive
001/FPC HINES ENERGY COMPLEX	FLORIDA POWER CORPORATION	AV /00	20-JAN-1999
002/FPC HINES PSD-FL195A, PA9	FLORIDA POWER CORPORATION	AC /M1	04-MAY-1999
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Your query has retrieved 2 records.  
 Count: \*2

<Replace>

Z 094 212 842

US Postal Service  
**Receipt for Certified Mail**

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

PS Form 3800, April 1995

Sent to Ms. Jennifer Stenger, P.E.	
Street & Number 263 13th Avenue South	
Post Office, State, & ZIP Code St. Petersburg, FL 33701	
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Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 7/19/00 DEP File No. PA-92-33; Mod. of Permit No. PSD-FL-195B	

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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

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

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
Ms. Jennifer Stenger, P.E.  
Florida Power Corporation  
One Power Plaza  
263 13th Avenue South  
St. Petersburg, FL 33701

4a. Article Number  
Z 094 212842

4b. Service Type

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

7. Date of Delivery  
7-21-00

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)  
X Dana Clark

Thank you for using Return Receipt Service.



Z 094 212 841

US Postal Service  
**Receipt for Certified Mail**

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

Sent to	
Mr. W. Jeffrey Pardue	
Street & Number	
263 13th Avenue South	
Post Office, State, & ZIP Code	
St. Petersburg, FL 33701	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
7/19/00	
DEP File No. PA-92-33	
Mod. of Permit No. PSD-FL-195B	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- 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.
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- The Return Receipt will show to whom the article was delivered and the date delivered.

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

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. W. Jeffrey Pardue  
Director, Environmental Services  
FPC - Hines Energy Complex  
One Power Plaza  
263 13th Avenue South  
St. Petersburg, FL 33701

4a. Article Number  
Z 094 212 841

4b. Service Type

Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery  
7-21-00

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)  
X Dana Clark

Thank you for using Return Receipt Service.

Z 333 638 220

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Ms. Jennifer Stenger, P.E.	
Street & Number	
263 13th Avenue South	
Post Office, State, & ZIP Code	
St. Petersburg, FL 33701	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 8/16/00	
DEP File No. 1050234-003	
AC, PSD-FL-195B	
Hines Energy Complex	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

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- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Ms. Jennifer Stenger, P.E.  
 Florida Power Corporation  
 One Power Plaza  
 263 13th Avenue South  
 St. Petersburg, Florida  
 33701

4a. Article Number

Z 333 638 220

4b. Service Type

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

7. Date of Delivery

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X 

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

Thank you for using Return Receipt Service.

Z 333 638 219

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Mr. Jeffrey Pardue	
Street & Number	
263 13th Avenue South	
Post Office, State, & ZIP Code	
St. Petersburg, FL 33701	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 8/16/00	
DEP File No. 1050234-003-	
AC, PSD-FL-195B	
Hines Energy Complex	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Jeffrey Pardue  
 Florida Power Corporation  
 One Power Plaza  
 263 13th Avenue South  
 St. Petersburg, Florida  
 33701

4a. Article Number

Z 333 638 219

4b. Service Type

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

7. Date of Delivery

8/18/00 *[Signature]*

5. Received By: (Print Name)

Dana Clark

6. Signature: (Addressee or Agent)

X *[Signature]*

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

Thank you for using Return Receipt Service.

# AFFIDAVIT OF PUBLICATION

## THE LEDGER

### Lakeland, Polk County, Florida

**RECEIVED**  
AUG 07 2000  
BUREAU OF AIR REGULATION

Case No .....

STATE OF FLORIDA)  
COUNTY OF POLK)

Before the undersigned authority personally appeared Nelson Kirkland, who on oath says that he is Classified Advertising Manager of The Ledger, a daily newspaper published at Lakeland in Polk County, Florida; that the attached copy of advertisement, being a

Notice of Intent .....


in the matter of.....To Issue PSD Permit Modification.....

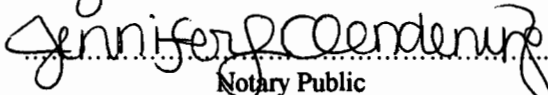
in the.....

Court, was published in said newspaper in the issues of.....

7-24;2000.....

Affiant further says that said The Ledger is a newspaper published at Lakeland, in said Polk County, Florida, and that the said newspaper has heretofore been continuously published in said Polk County, Florida, daily, and has been entered as second class matter at the post office in Lakeland, in said Polk County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Signed   
Nelson Kirkland  
Classified Advertising Manager  
Who is personally known to me.

Sworn to and subscribed before me this 24<sup>th</sup>  
day of July A.D. 20 00  
  
Notary Public

(Seal)  
My Commission Expires 1/10/04

Attach Notice Here

**PUBLIC NOTICE OF INTENT TO  
ISSUE PSD PERMIT MODIFICATION**  
STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
DEP File No. PA-92-33,  
PSD-FL-195B  
Florida Power Corporation  
Hines Energy Complex  
Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue a modification of the permit for the Prevention of Significant Deterioration of Air Quality (PSD permit) to Florida Power Corporation, for the Hines Energy Complex located at 7700 County Road 555, Bartow, Polk County. The permit is to modify the maximum heat input ratings and to include revised heat input curves for its combined cycle combustion turbines, Units 1A and 1B. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

The existing facility is a natural gas-fired/fuel oil-fired electrical plant that consists of two combined cycle combustion turbines for a total of 500 MW.

This project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity.

An air quality impact analysis was not conducted. Emissions from the facility will not consume PSD increment and will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 days from the date of publication of this Public Notice of Intent to Issue PSD Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

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

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts that petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection  
Bureau of Air Regulation  
Suite 4, 111 S. Magnolia Drive  
Tallahassee, Florida 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

Dept. of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott Sheplak, P.E., Administrator, Title V Section, or the Department's reviewing engineer for this project, Russell Wilder, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.  
E-256 - 7-24; 2000