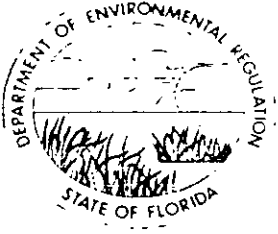


PSD-FL-130A



## Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

### STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMITS

Mr. William Herrington  
Orlando Utilities Commission  
500 South Orange Avenue  
Orlando, Florida 32802

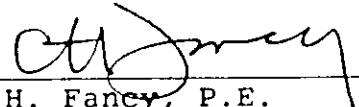
December 19, 1989

Enclosed are construction permits Nos. AC 05-144482, -146749, -146750, -146751, and PSD-FL-130 to Orlando Utilities Commission for a revision of the particulate matter emissions from the combustion turbines located at the Indian River Plant, Brevard County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

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

Copy furnished to:

C. Collins, C. District  
W. Aronson, EPA  
C. Shaver, NPS  
J. Crall, OUC  
S. Day, Black and Veatch

**SENDER:** Complete items 1 and 2 when additional services are desired and complete items 3 and 4. Put your address in the RETURN TO Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. (Extra charge) 2.  Restricted Delivery (Extra charge)

3. Article Addressed to:  
Mr. William Herrington  
Orlando Utilities Commission  
500 South Orange Avenue  
Orlando, FL 32802

4. Article Number:  
P 938 762 787


Type of Service:  
 Registered  Insured  
 Certified  COD  
 Express Mail  Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature Address:  
X

6. Signature Agent:  
X *W. Herrington*

7. Date of Delivery

8. Addressee's Address ONLY if requested (extra paid):  


PS Form 3811, Mar. 1988 U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

P 938 762 787

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

Sent to Mr. William Herrington,	
Street and No. OUC 500 S. Orange Ave.	
P.O., State and ZIP Code Orlando, FL 32802	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Permit: AC 05-144482, 14679 -146750, -146751, PSD-FL-30 Mailed: 12-21-89	

PS Form 3800, June 1985

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 12-21-89.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(9), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

Kyrie Jaben  
Clerk

12-21-89  
Date

Final Determination

Orlando Utilities Commission  
Indian River Plant  
Titusville, Brevard County, Florida

Combustion Turbine Facility

CT-A, AC 05-144482  
CT-B, AC 05-146749  
CT-C, AC 05-146750  
CT-D, AC 05-146751

PSD-FL-130 A

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

December 8, 1989

## Final Determination

OUC's application for a revision of the particulate matter emissions from the combustion turbines at the Indian River Plant in Brevard County, Florida, has been reviewed by the Bureau of Air Regulation.

Public notice of the Intent to Issue the permits was published in the Florida Today on November 2, 1989.

Copies of the Preliminary Determination have been available for public inspection at the Department's Central District office in Orlando, and the Department's Bureau of Air Regulation office in Tallahassee.

Comments received from OUC are as follows:

- a) Specific Condition No. 7 needs to reflect the 20 lbs/hr/unit particulate emissions as mentioned in the Preliminary Determination.
- b) Specific Condition No. 17 poses a conflict for OUC where the operation permit application is required to be submitted within 45 days of compliance test completion.

The Department is in agreement with OUC's comment (a), and so Specific Condition No. 7 will be amended.

DER recognizes OUC's convenience in obtaining operation permits for all four units at the same time. However, DER also recognizes the possible delays/changes in the construction schedule for CT-C (combustion turbine C) and CT-D. Therefore, although Specific Condition No. 17 will not be reworded (for the future construction of CT-C and CT-D), DER will allow OUC to apply for operation permits for CT-A and CT-B within 60 days after the issuance of this permit.

The final action of the Department is to issue the permit as proposed in the Preliminary Determination with the above mentioned change to Specific Condition No. 7.



ORLANDO UTILITIES COMMISSION

500 SOUTH ORANGE AVENUE • P. O. BOX 3193 • ORLANDO, FLORIDA 32802 407/423-9100

RECEIVED

NOV 14 1989

DER-BAQM

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

November 9, 1989

Mr. Bill Thomas  
Department of Environmental Regulation  
Bureau of Air Regulation  
2600 Blairstone Road  
Tallahassee, FL 32399-2400

Dear Mr. Thomas:

Enclosed is the proof of publication required by Section 403.815, F.S. and DER Rule 17-103.150, F.A.C. for the Permit Modification of the Indian River Plant gas turbines numbers:

AC 05-144482  
AC 05-146749  
AC 05-146750  
AC 05-146751

The publication date was November 2, 1989 and we plan to submit our comments prior to December 1, 1989.

Thank you and your staff for the continued cooperation on this project.

Sincerely,

J. S. Crall  
Director  
Environmental Division

JSC/cs  
Enclosure

xc: W. H. Herrington  
F. F. Haddad  
S. M. Day (B & V)

# CAPE PUBLICATIONS, INC.

**The Times**

Published Weekly on Wednesdays

**THE TRIBUNE**

Published Weekly on Wednesdays



Published Daily

STATE OF FLORIDA  
COUNTY OF BREVARD

Before the undersigned authority personally appeared Linda L. Spicer who on oath says that he/she is Legal Advertising Clerk of the FLORIDA TODAY, a newspaper published in Brevard County, Florida; that the attached copy of advertising being a Legal Notice

\_\_\_\_\_ in the matter of \_\_\_\_\_  
permit to Orlando Utilities Commission

\_\_\_\_\_ in the \_\_\_\_\_ Court

was published in the FLORIDA TODAY NEWSPAPER  
in the issues of November 2, 1989

Affiant further says that the said FLORIDA TODAY NEWSPAPER is a newspaper published in said Brevard County, Florida and that the said newspaper has heretofore been continuously published in said Brevard County, Florida regularly as stated above, and has been entered as second class mail matter at the post office in COCOA, said Brevard County, Florida for a period of one year next preceeding 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 said newspaper.

Linda L. Spicer

Sworn and subscribed to before me this

2nd November 89  
day of \_\_\_\_\_ A.D., 19 \_\_\_\_\_

[Signature]

Notary Public  
State of Florida

My Comm. Expires 12/31/90

State of Florida  
Department of  
Environmental Regulation  
Notice of Intent to Issue  
The Department of Environ-  
mental Regulation hereby gives  
notice of its intent to issue mod-  
ifying permits to Orlando Utilities  
Commission, 500 South Orange  
Avenue, Orlando, Florida 32802,  
for the gas turbine project at the  
Indian River Plant in Brevard  
County, Florida. A revision of  
Best Available Control Technol-  
ogy (BACT) was not required.  
The revised maximum degree of  
Class II TSP increment consumed  
is 25% (3-hr) and 1% annual.  
The maximum combined pollut-  
ant concentrations from the tur-  
bines and other sources in the  
area will be less than the National  
Ambient Air Quality Standards  
(NAAQS). The NAAQS are levels  
set by the EPA which identify the  
ambient concentration necessary  
to protect human health and wel-  
fare with an adequate margin of  
safety. The Department is issuing  
this intent to issue for the reasons  
stated in the Technical Evalua-  
tion and Preliminary  
Determination.

A person whose substantial in-  
terests are affected by the De-  
partment's proposed permitting  
decision may petition for an ad-  
ministrative proceeding (hear-  
ing) in accordance with Section  
170.57, Florida Statutes. The peti-  
tion must contain the information  
set forth below and must be filed  
(received) in the Office of Gen-  
eral Counsel of the Department at  
2600 Blair Stone Road, Tallahas-  
see, Florida 32399-2400, within  
fourteen (14) days of publication  
of this notice. Petitioner shall  
mail a copy of the petition to the  
applicant at the address indicat-  
ed above at the time of filing.  
Failure to file a petition within  
this time period shall constitute a  
waiver of any right such person  
may have to request an adminis-  
trative determination (hearing)  
under Section 170.57, Florida  
Statutes.

The petition shall contain the  
following information:  
(a) The name, address, and  
telephone number of each peti-  
tioner, the applicant's name and  
address, the Department Permit  
File Number and the county in  
which the project is proposed;

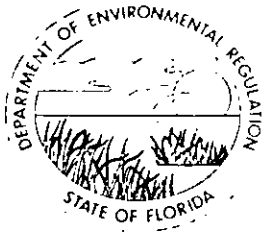
(b) A statement of how and  
when each petitioner received  
notice of the Department's action  
or proposed action;

(c) A statement of how each  
petitioner's substantial interests  
may be affected by any decision of the  
Department with regard to the  
application have the right to peti-  
tion to become a party to the pro-  
ceeding. The petition must con-  
form to the requirements  
specified above and be filed (re-  
ceived) within 14 days of publica-  
tion of this notice in the Office of  
General Counsel at the above ad-  
dress of the Department. Failure  
to petition within the allowed time  
frame constitutes a waiver of any  
right such person has to request a  
hearing under Section 170.57,  
F.S., and to participate as a party  
to this proceeding. Any subse-  
quent intervention will only be at  
the approval of the presiding offi-  
cer upon motion filed pursuant to  
Rule 28-5.207, F.A.C.

The application 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:  
Department of Environmental  
Regulation  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dept. of Environmental  
Regulation  
Central District Office  
3319 Maquire Blvd., Suite 232  
Orlando, Florida 32803-3747

Any person may send written  
comments on the proposed action  
to Mr. Bill Thomas at the Depart-  
ment's Tallahassee address. All  
comments mailed within 30 days  
of the publication of this notice  
will be considered in the Depart-  
ment's final determination. Fur-  
thermore, a public hearing can be  
requested by any person. Such  
requests must be submitted with-  
in 30 days of this notice.  
TOD989-1T-11/2, 1989.  
Thursday



## Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Ewachtmann, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**  
Orlando Utilities Commission  
500 S. Orange Avenue  
Orlando, Florida 32802

Permit Numbers: AC 05-144482  
05-146749  
05-146750  
05-146751  
PSD-FL-130

Expiration Date: Jan. 31, 1992  
County: Brevard  
Latitude/Longitude: 28°29'32"N  
80°46'59"W  
Project: Combustion Turbines,  
CT-A, CT-B, CT-C, and CT-D.

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

For the construction of four simple cycle GE Frame 6 combustion turbines, each with about 35 MW capacity, at the existing Indian River Plant, Brevard County, Florida. The turbines will primarily fire natural gas. Distillate oil will be fired during periods of curtailed or uneconomical natural gas supply. Nitrogen oxide emissions will be controlled by water injection.

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.

Attachments are listed below:

1. OUC's application package dated January 18, 1988.
2. DER's letter concerning application fees dated February 15, 1988.
3. DER's letter for additional information dated March 10, 1988.
4. DER's letter containing EPA's comments dated March 18, 1988.
5. OUC's letter received April 18, 1988.
6. Black & Veatch (B&V) letter received May 5, 1988.
7. OUC's letter received May 13, 1988.
8. B & V's letter received May 18, 1988.



PERMITTEE:  
Orlando Utilities Commission

Permit Nos. AC 05-144482  
-146749  
-146750  
-146751  
PSD-FL-130

Attachments Continued:

9. B & V's letter received June 13, 1988.
10. B & V's letter received June 16, 1988.
11. B & V's letter received June 21, 1988.
12. Fish & Wildlife Service letter received July 5, 1988.
13. OUC's comments received August 18, 1988.
14. Preliminary and Final Determinations dated July 15 and August 26, 1988, respectively.
15. OUC's letter received February 27, 1989.
16. DER's letter dated March 8, 1989.
17. OUC's letter received September 5, 1989.
18. DER's Preliminary Determination dated October 26, 1989.
19. OUC's letter received November 27, 1989.
20. DER's Final Determination dated December 8, 1989.

GENERAL CONDITIONS:

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

PERMITTEE:  
Orlando Utilities Commission

Permit Nos. AC 05-144482  
-146749  
-146750  
-146751  
PSD-FL-130

**GENERAL CONDITIONS:**

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
- 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.

PERMITTEE:  
Orlando Utilities Commission

Permit Nos. AC 05-144482  
-146749  
-146750  
-146751  
PSD-FL-130

**GENERAL CONDITIONS:**

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 proscribed 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 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

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

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.

PERMITTEE:  
Orlando Utilities Commission

Permit Nos. AC 05-144482  
-146749  
-146750  
-146751  
PSD-FL-130

**GENERAL CONDITIONS:**

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.

**SPECIFIC CONDITIONS:**

1. These permits replace the previous permits issued with the same numbers on August 26, 1988. Upon issuance of these permits, the previous permits will be void.

2. Each turbine may operate continuously (8,760 hrs/year).

3. Only natural gas or distillate oil shall be fired in the turbine.

4. The maximum heat input to each turbine shall not exceed 445 MMBtu/hr, at sea level and 59°F (see Attachment 13 for a plot of heat input vs. temperature).

PERMITTEE:  
Orlando Utilities Commission

Permit Nos. AC 05-144482  
-146749  
-146750  
-146751  
PSD-FL-130

SPECIFIC CONDITIONS:

5. The maximum allowable emissions from the turbine(s) in accordance with the BACT determination, shall not exceed the following, at sea level and 59°F:

Pollutant	Fuel	lb/hr/unit	TPY/unit	TPY/4 units
NOx	Gas	75.1	328.9	1316
	Oil	118.3	518.2	2073
SO <sub>2</sub>	Gas	0.34	1.5	6
	Oil	142.7	625.0	2500

6. Visible emissions shall not exceed 5% opacity while burning natural gas or 10% opacity while burning distillate oil.

7. The following emissions are tabulated for PSD and inventory purposes:

Pollutant	Fuel	Emissions		
		lbs/hr/unit	TPY/unit	TPY 4 units
Carbon Monoxide	Gas	10.0	43.8	175
	Oil	10.0	44.2	177
Total Particulates	Gas	2.5	11.0	44
	Oil	20.0	87.6	350
PM <sub>10</sub>	Gas	2.5	11.0	44
	Oil	10.0	43.8	175
VOC	Gas	4.0	17.5	70
	Oil	4.0	17.5	70
Sulfuric Acid Mist	Oil	10.0	44.0	176
Beryllium	Oil	0.0001	0.0005	0.0018

8. The distillate oil sulfur content shall not exceed 0.3% by weight.

9. Water injection shall be utilized for NOx control. The water to fuel ratio at which compliance is achieved shall be incorporated into the permit and shall be monitored.

10. Both start and black start capability shall be provided by a No. 2 fuel oil fired 800 HP internal combustion diesel (for each turbine), projected to run for approximately 10 minutes per start. These diesels are expected to emit minimal air emissions (15 lbs SO<sub>2</sub>/yr/unit).

11. Initial (I) compliance tests shall be performed using both fuels. Annual (A) compliance tests shall be performed with the fuel(s) used for more than 170 hours in the preceding 12 month period. Tests shall be conducted using EPA methods in accordance with the July 1, 1987 version of 40 CFR 60 Appendix A:

15. If construction does not commence on all four units within 18 months of issuance of this permit, then the permittee shall obtain from DER a review and, if necessary, a modification of the control technology and allowable emissions for the unit(s) on which construction has not commenced (40 CFR 52.21(r)(2)). The proposed schedule indicates construction commencement dates of October 1988 for units 1 and 2, and November 1989 for units 3 and 4.

14. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to the Central District office.  
30 days of test completion.

13. DER's Central District office shall be notified in writing a minimum of 15 days prior to source testing. Written reports of the tests shall be submitted to the Central District office within 30 days of test completion.

12. The project shall comply with all the applicable requirements of Chapter 17-2, Florida Administrative Code and the July 1, 1987 version of 40 CFR 60 Subpart GG, Gas Turbines.  
after prior Departmental approval.

Other DER approved methods may be used for compliance testing  
Any unit which has accumulated 170 hours burning fuel oil during the preceding 12 month period shall conduct an annual test using fuel oil.

Tests for Be and SO<sub>2</sub> are to be conducted for oil only. Compliance with SO<sub>2</sub> limits may be demonstrated by testing all oil shipments for sulfur content less than 0.30 percent using ASTM D 2880-71.

- a. 20 for NOX (I,A)
- b. ASTM D 2880-71 for sulfur content of distillate oil, and ASTM D 1072-80, D 3031-81, D 4084-82 or D 3246-81 for sulfur content of natural gas (I, and A if deemed necessary by DER)
- c. 10 for CO (I)
- d. 9 for VE (I,A)
- e. 104 for Beryllium (I, for distillate oil only) A fuel analysis for Be using either Method 7090 or 7091, and sample extraction using Method 3040, as described in the EPA solid waste regulations SW 846, is also acceptable.

SPECIFIC CONDITIONS:

Permit Nos. AC 05-144482  
-146749  
-146750  
-146751  
PSD-FL-130

PERMITTEE:  
Orlando Utilities Commission

PERMITTEE:  
Orlando Utilities Commission

Permit Nos. AC 05-144482  
-146749  
-146750  
-146751  
PSD-FL-130

SPECIFIC CONDITIONS:

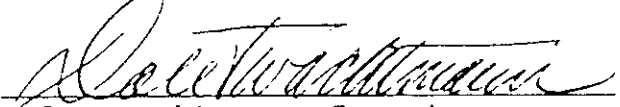
16. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

17. An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing (for CT-C and CT-D), whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. 17-4.220).

18. Specifically for CT-A and CT-B, the permittee shall apply for an operation permit within 60 days of the issuance of this permit.

Issued this 18 day  
of Nov, 1989

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary

Attachment 13





ORLANDO UTILITIES COMMISSION

500 SOUTH ORANGE AVENUE • P. O. BOX 3193 • ORLANDO, FLORIDA 32802 • 305/423-9100  
CERTIFIED RETURN RECEIPT REQUESTED

August 17, 1988

Florida Department of  
Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
ATTN: Mr. Bill Thomas

RECEIVED

AUG 22 1988

DER-BAQM

Dear Mr. Thomas:

We appreciate your continuing efforts in the processing of our PSD permit application for the four unit combustion turbine project at the Indian River Plant, Brevard County, Florida.

We would like to present the following comments on four of the specific conditions contained in the proposed permit attached to your letter of July 18.

Specific Condition 3 incorrectly specifies the maximum heat input. Each turbine is baseload rated at 445 Million BTU/hr (not 112) on oil at sea level and 59° F as specified in Section III E of the application. As you are aware, the ambient temperature affects the capacity of combustion turbines with lower temperatures serving to increase their maximum heat input firing rate. The amount of water required for NO<sub>x</sub> control also affects turbine performance. The enclosed two figures of heat input vs. temperature provide the range of heat input values expected for the GE frame 6 turbine for oil and natural gas. The center line on each figure is the rated baseload curve with maximum water injection. The top line represents the peak load values which could be sustained for only short periods of time without extensive maintenance. This line has also been adjusted to represent the higher heating value of the fuel (HHV). The bottom line represents the baseload condition with no water injection and is adjusted to represent the lower heating value of the fuel (LHV). Thus the figures provide the "normal" maximum capability vs. temperature and the range around that value. Based on the preceding discussion, Condition 3 should read, "The maximum heat input to each turbine shall not exceed the maximum values in the attached Figures of Heat Input vs. Temperature for the OUC Indian River Combustion Turbines." OUC is also providing copies of various GE correction charts and letter of expected performance which were used to develop the two Figures.

Specific condition 12 is currently incorrect as written since the proposed Unit 3 commence construction date is within 18 months of

the permit issuance date. We are hereby notifying you our intent to change the proposed commence construction date of Unit 4 from November 1990 to November 1989 so that it too will fall within 18 months of the permit issuance date. Our proposed new specific condition 12 would read "If construction does not commence on any of the four units within 18 months of the date of this permit issuance, then the permittee shall obtain from the Department a review and, if necessary, a modification of the control technology and allowable emission limits for any such unit. The proposed schedule indicates construction commencement dates of October 1988 for Units 1 & 2, and November 1989 for Units 3 & 4."

We are concerned that Specific Condition 2 could be read to imply a limitation with regard to the combustion of oil. This would be inconsistent with the permit application and the Department's BACT analysis. We have been assured by DER staff that this is not the Department's intent. Rather, the intent was to include in the permit the Department's preference that natural gas be burned if available. We are suggesting that the second sentence in Specific Condition 2 be moved to the second paragraph of the permit on page one following the second sentence in the paragraph to read "Natural gas is the expected primary fuel with distillate oil to be used if the units are needed during periods of curtailed or uneconomical natural gas supply."

Specific Condition B specifies the initial and annual compliance tests to be conducted. We would like to see the requirement to test annually on oil be limited to any unit burning fuel oil more than 170 hours in the preceding 12 month period. It would require 170 hours/year of operation on oil to create 40 tons of NO<sub>x</sub> from oil combustion. This would allow OUC to avoid firing the units on oil to do testing when the units have been used only slightly on oil. For item (a), under Specific Condition 12, we agree with the use of EPA test method 20 for NO<sub>x</sub>. For SO<sub>2</sub>, we propose testing all oil shipments using ASTM D2880-71 for sulfur content less than 0.30 percent as a demonstration of compliance rather than stack testing. We propose that no SO<sub>2</sub> testing be conducted for natural gas because of the very low emission rates. For item (c) we propose testing for particulate matter on oil only since particulate emissions from the combustion of natural gas are also minimal.

We appreciate your attention to these matters.

Sincerely,



J.S. Crall  
Director  
Environmental Division

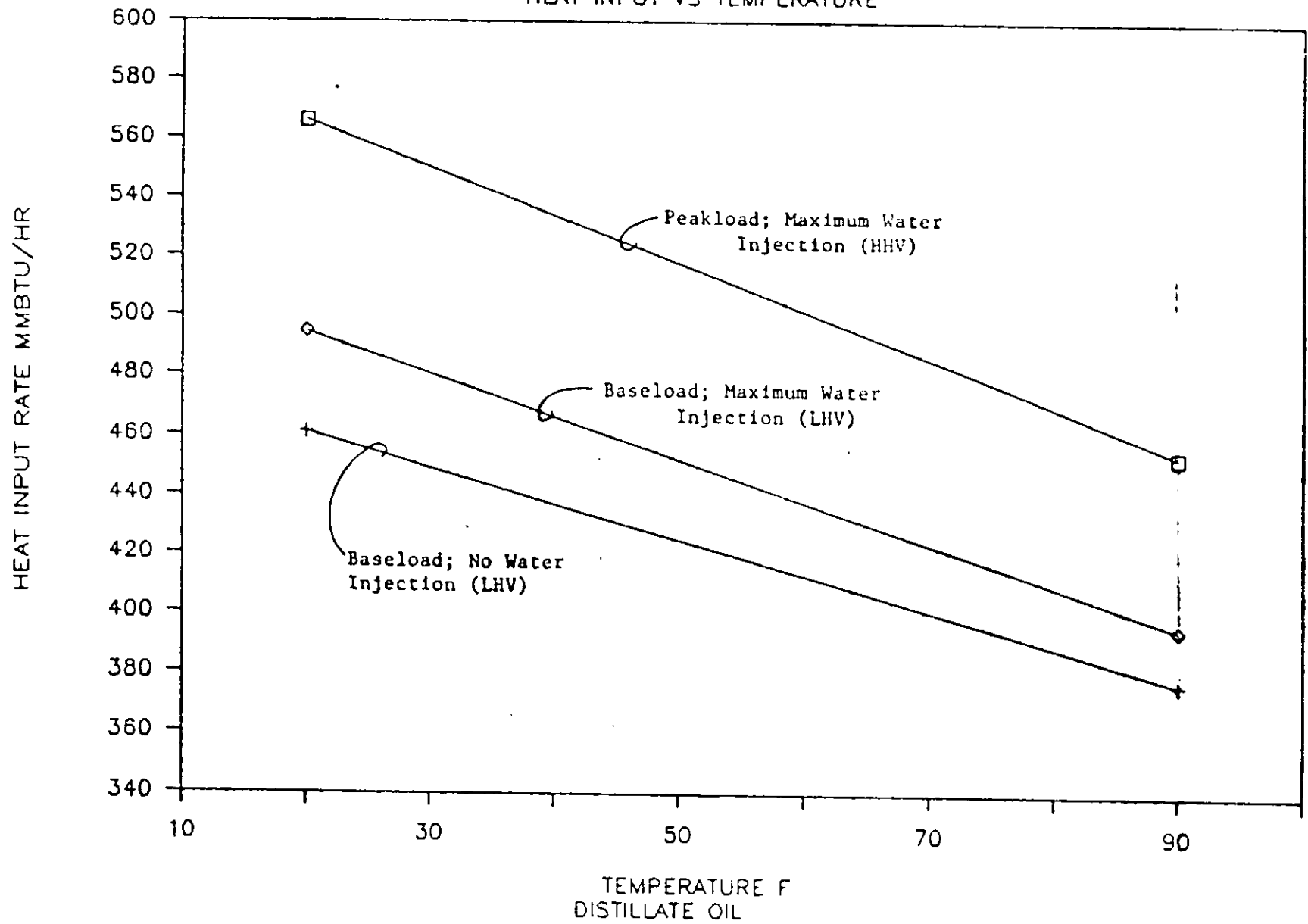
JSC:sp

Enclosure

xc: W.H. Herrington  
F.F. Haddad  
K.P. Ksionek  
T.D. Slepow  
S.M. Day, B&V  
Pradeep A. Raval, DER

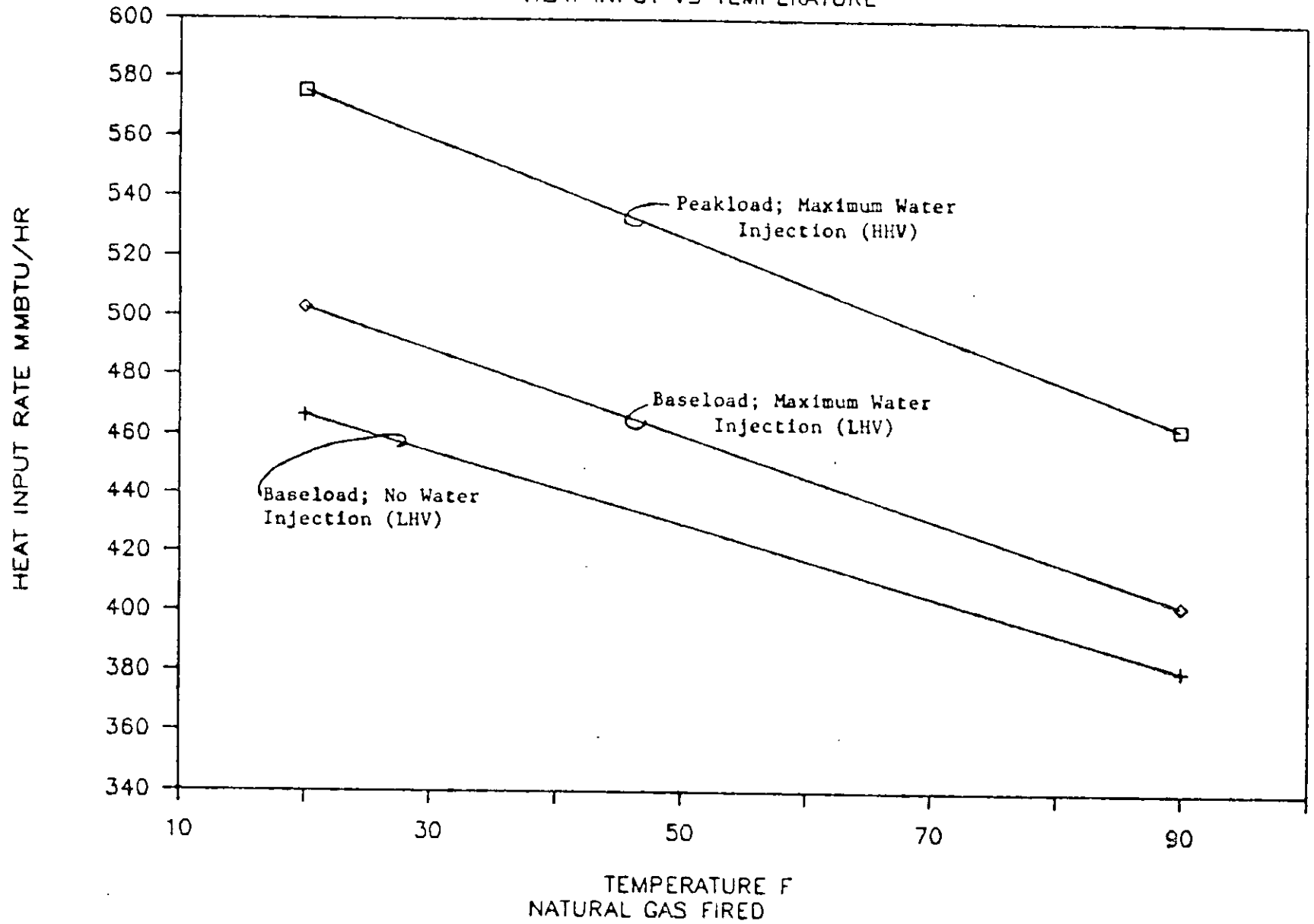
# OUC IRP COMBUSTION TURBINES

## HEAT INPUT VS TEMPERATURE



# OUC IRP. COMBUSTION TURBINES

## HEAT INPUT VS TEMPERATURE



Other Attachments Available Upon Request



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: <b>RECEIVED</b>	Location:
To: <b>RECEIVED</b>	Location:
To: <b>SS</b>	Location:
From: <b>JAN 10 1990</b>	Date:

# Interoffice Memorandum Office of the Secretary

TO: Dale Twachtmann  
FROM: Steve Smallwood *[Signature]*  
DATE: January 8, 1990  
SUBJ: Approval of Construction Permit Amendment  
Orlando Utilities Commission  
Indian River Combustion Turbine Project, PSD-FL-130

Attached for your approval and signature is a construction permit amendment prepared by the Bureau of Air Regulation for Orlando Utilities Commission's Indian River turbine project at their existing facility in Brevard County, Florida.

I recommend your approval and signature.

Attachment

SS/plm