

AO 114

# Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

## NOTICE OF PERMIT

Orlando Utilities Commission  
Post Office Box 3193  
Orlando, Florida 32802

Attention: William H. Herrington, Manager  
Electric Operations

Brevard County - AP  
Combustion Turbines CT-A and CT-B

Dear Mr. Herrington:

Enclosed is Permit Number AO05-176351, dated 10-4-90, to change the permit conditions, issued pursuant to Section 403.087, Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing), unless the right to petition has been waived. The petition must conform to the requirements of Chapters 17-103 F.A.C., and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within that time constitutes a waiver of any right such person has to an administrative determination pursuant to Section 120.57, Florida Statutes.

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

This Order (Permit) is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraph. Upon the timely filing of a petition this Permit will not be effective until further Order of the Department.

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

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

*cmc* *Alexander*

A. Alexander  
Deputy Assistant Secretary  
3319 Maguire Boulevard  
Suite 232  
Orlando, Florida 32803  
(407) 894-7555

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

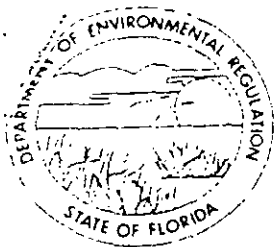
*Clerk B. Babin* *10/4/90*  
Clerk Date

*ATB*  
AA/azj

Copies furnished to:  
Dennis Nester, Orange Co. EPD

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on *10-4-90* to the listed persons by *D. Jones*.



# Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

October 2, 1990

Orlando Utilities Commission  
Post Office Box 3193  
Orlando, Florida 32802

Attention: William H. Herrington, Manager  
Electric Operations

Brevard County - AP  
Combustion Turbines CT-A and CT-B  
Permit No. A005-176351  
Change of Conditions

Dear Mr. Herrington:

We are in receipt of your request for a change of the permit conditions. The conditions are changed as follows:

<u>CONDITION</u>	<u>FROM</u>	<u>TO</u>
Specific Condition No. 11	...from the date of January 20, 1990	...from the date of February 20, 1990

CONDITION  
Specific Condition No. 16, Water to Fuel Ratio Minimum

	<u>FROM</u>	<u>Distillate Oil</u>
Combustion Turbine A	<u>Natural Gas</u> 0.635	0.569
Combustion Turbine B	0.604	0.541

	<u>TO</u>	<u>Distillate Oil</u>
Combustion Turbine A	<u>Natural Gas</u>	
Load 100%	0.635	0.569
75%	0.545	0.515
50%	0.452	0.433
30%	0.345	0.384

	<u>Natural Gas</u>	<u>Distillate Oil</u>
Combustion Turbine B		
Load 100%	0.604	0.541
75%	0.550	0.511
50%	0.461	0.460
30%	0.294	0.363

Orlando Utilities Commission  
Permit No. A005-176351  
Combustion Turbines CT-A and CT-B  
Change of Conditions  
Page Two

All other conditions remain the same.

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

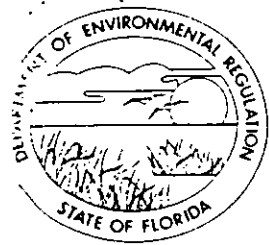
Sincerely,



c m c

A. Alexander, P.E.  
Deputy Assistant Secretary

*AOB*  
AA:azj



# Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

## NOTICE OF PERMIT

Orlando Utilities Commission  
Post Office Box 3193  
Orlando, Florida 32802

Attention: William H. Herrington, Manager  
Electric Operations

Brevard County - AP  
Combustion Turbines CT-A and CT-B

Dear Mr. Herrington:

Enclosed is Permit Number A005-176351, dated AUG. 30, 1990, to operate the above referenced sources, issued pursuant to Section 403.087, Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing), unless the right to petition has been waived. The petition must conform to the requirements of Chapters 17-103 F.A.C., and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within that time constitutes a waiver of any right such person has to an administrative determination pursuant to Section 120.57, Florida Statutes.

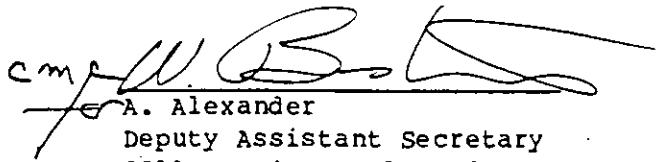
The petition shall contain the following information; (a) the name, address and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of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

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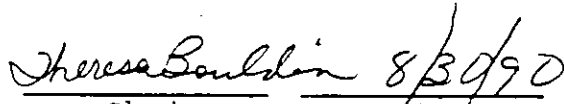
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Executed in Orlando, Florida.


STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
A. Alexander  
Deputy Assistant Secretary  
3319 Maguire Boulevard  
Suite 232  
Orlando, Florida 32803

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

  
Clerk 8/30/90  
Date

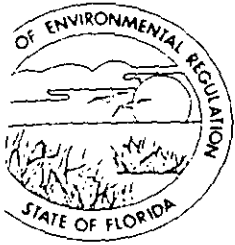
AD3

AA/jtj 

Copies Furnished to:  
Donald D. Schultz, P.E.

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 8-30-90 to the listed persons, by D. J. Jones.



# Florida Department of Environmental Regulation

Central District • 3319 Maguire Boulevard, Suite 232 • Orlando, Florida 32803-3767 • 407-894-7555

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

permittee:  
Orlando Utilities Commission  
Post Office Box 3193  
Orlando, Florida 32802

Attention: William R. Herrington  
Manager, Electric Operations

I. D. Number:  
Permit/Certification  
Number: A005-176351  
Date of Issue: ~~8/30/90~~  
Expiration Date: August 25, 1995  
County: Brevard  
Latitude/Longitude:  
28°29'32"N/80°46'59"W  
UTM: 17-521.5 KmE; 3151.6 KmN  
Project: Combustion Turbines  
CT-A and CT-B

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2. 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:

The permittee can operate Combustion Turbines CT-A and CT-B. Each is a simple cycle GE Frame 6 combustion turbine, with about 35 MW capacity. 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.

These sources are located at the Indian River Plant in Brevard County, Florida.

General Conditions are attached to be distributed to the permittee only.

PERMITTEE:  
Orlando Utilities Commission  
  
Attention: William H. Herrington  
          Manager, Electric Operations

I. D. Number:  
Permit/Certification Number:  
A005-176351  
Date of Issue:  
Expiration Date: August 25, 1995

**GENERAL CONDITIONS:**

16. This permit does not preclude compliance with any applicable local permitting requirements and regulations.

**SPECIFIC CONDITIONS:**

OPERATING LIMITS

1. Each turbine may operate continuously (8,760 hrs/year).
2. Only natural gas or distillate oil shall be fired in the turbines.
3. The maximum heat input to each turbine shall not exceed 445 MMBTU/hr, at sea level and 59°F (see OUC's August 17, 1988 letter and Attachment 13 for a plot of heat input vs. temperature).
4. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to the Central District Office.
5. 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).

EMISSION LIMITS

6. 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/2 units
NOX	Gas	75.1	328.9	658
	Oil	118.3	518.2	1036.5
SO <sub>2</sub>	Gas	0.34	1.5	3
	Oil	142.7	625.0	1250

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



PERMITTEE:  
Orlando Utilities Commission

Attention: William H. Herrington  
Manager, Electric Operations

I. D. Number:  
Permit/Certification Number:  
AO05-176351  
Date of Issue:  
Expiration Date: August 25, 1995

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

Pollutant	Fuel	Emissions		
		lbs/hr/unit	TPY/unit	TPY/2 units
Carbon Monoxide	Gas	10.0	43.8	87.5
	Oil	10.0	44.2	88.5
Total Particulates	Gas	2.5	11.0	22
	Oil	20.0	87.6	175
PM <sub>10</sub>	Gas	2.5	11.0	22
	Oil	20.0	87.6	175
VOC	Gas	4.0	17.5	35
	Oil	4.0	17.5	35
Sulfuric Acid Mist	Oil	10.0	44.0	88
Beryllium	Oil	0.0001	0.0005	0.0009

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

**COMPLIANCE TESTING**

10. Annual 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:

- a. 20 for NOx
- b. ASTM D 2880-71 for sulfur content of distillate oil
- c. 9 for VE

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.

Any unit which has accumulated 170 hours burning fuel oil during the preceding 12 month period shall conduct an annual test using fuel oil.

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

11. The required compliance tests shall be conducted at yearly intervals from the date of January 20, 1990.

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.

PERMITTEE:  
Orlando Utilities Commission

I. D. Number:  
Permit/Certification Number:  
AO05-176351  
Date of Issue:  
Expiration Date: August 25, 1995

Attention: William H. Herrington  
Manager, Electric Operations

13. This office (Florida Department of Environmental Regulation, Air Permitting, Orlando) shall be notified at least fifteen (15) days in advance of the compliance tests so that we can witness them (Rule 17-2.700(2)(a)5, F.A.C.).
14. This plant is required to operate within 90 to 100 percent of permitted capacity during the compliance tests.
15. The required test report shall be filed with the department as soon as practical but no later than 45 days after the last sampling run of each test is completed (Rule 17-2.700(7)(a),(b) and (c), F.A.C.).
16. Water injection shall be continuously monitored for NOx control at the following one-hour average minimum water to fuel weight ratio.

	Natural Gas	Distillate Oil
Combustion Turbine A	0.635	0.569
Combustion Turbine B	0.604	0.541

**REPORTS**

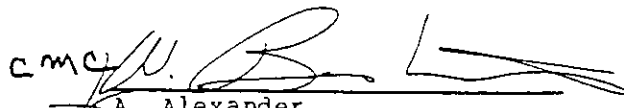
17. Each calendar year on or before March 1, submit for each source, an Annual Operations Report DER Form 17-1.202(6) for the preceding calendar year in accordance with Rule 17-4.14, F.A.C.

**EXPIRATION DATE**

18. An operation permit renewal must be submitted at least 60 days prior to the expiration date of this permit (Rule 17-4.09, F.A.C.).

ISSUED AUGUST 30, 1990

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
A. Alexander  
Deputy Assistant Secretary  
3319 Maguire Boulevard  
Suite 232  
Orlando, Florida 32803