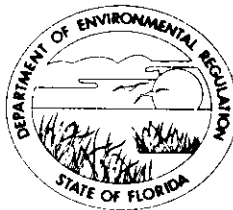


STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Thomas M. Moses
Reedy Creek Improvement District
Post Office Box 36
Lake Buena Vista, Florida 32830


March 8, 1988

Enclosed is permit No. AC 48-137740, for Reedy Creek Improvement District to construct a 38 MW natural gas-fired turbine generator and heat recovery system with a total heat input of 450 MMBtu/hr at the Central Energy Plant near Lake Buena Vista, Orange County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any Party to this permit has the right to seek judicial review of the permit 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 this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management

Copy furnished to:

T. Sawicki, CF District
H. Culp, P.E.
W. Aronson, EPA
M. Flores, NPS

● **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. <input checked="" type="checkbox"/> Show to whom delivered, date, and addressee's address.		2. <input type="checkbox"/> Restricted Delivery.	
3. Article Addressed to: Mr. Thomas M. Moses Reedy Creek Improvement District P.O. Box 36 Lake Buena Vista, FL 32830		4. Article Number P 274 010 491	
		Type of Service: <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> COD	
5. Signature — Addressee X		Always obtain signature of addressee or agent and DATE DELIVERED.	
6. Signature — Agent X <i>P. B. ...</i>		8. Addressee's Address (ONLY if requested and fee paid)	
7. Date of Delivery <i>3/11/88</i>			

Rec'd
3/11/88
LEW

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT

P 274 010 491
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

s. Thomas M. Moses Reedy Creek Improve. Dist. P.O. Box 36 Lake Buena Vista, FL 32830	
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 Mailed: 03/09/88 Permit: AC 48-137740	

Final Determination

Reedy Creek Improvement District
Orange County
Lake Buena Vista, Florida

Gas Fired Turbine Generator

Permit No. AC 48-137740

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

March 1, 1988

Final Determination

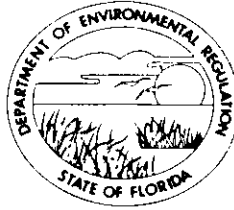
Reedy Creek's application to construct a 38 MW natural gas fired turbine generator and heat recovery system at the Central Energy Plant near Lake Buena Vista, Orange County, Florida, has been reviewed by the Department. Public Notice of the Department's Intent to Issue the permit was published in the Orlando Sentinel on February 12, 1988.

No comments were received in response to the Public Notice.

The final action of the Department will be to issue the permit as proposed in the Revised Technical Evaluation and Preliminary Determination.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

PERMITTEE:
Reedy Creek Improvement
District
Post Office Box 36
Lake Buena Vista, FL 32830

Permit Number: AC 48-137740
Expiration Date: December 1, 1988
County: Orange
Latitude/Longitude: 28° 25' 34"N
81° 34' 48"W
Project: GE Gas Fired Turbine
Generator with Heat Recovery
System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 drawings, 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 a 38 MW GE LM5000 gas fired turbine generator system with a heat input capacity of 450 MMBtu/hr. The project will include an in-line duct burner, heat recovery boiler and steam turbine, at the Central Energy Plant at Bay Lake, near Lake Buena Vista, Orange County, Florida.

Construction will be in accordance with the permit application and plans, documents, and reference material submitted unless otherwise stated in the General and Specific Conditions herein.

Attachments:

1. Reedy Creek's application package dated August 5, 1987.
2. EPA's letter dated September 3, 1987.
3. Letter of incompleteness dated September 4, 1987.
4. Reedy Creek's response dated September 18, 1987.
5. U.S. Department of the Interior's letter dated September 28, 1987.
6. EPA's letter dated October 22, 1987.
7. Reedy Creek's revised application dated December 21, 1987.
8. DER's letter dated January 11, 1988.
9. Reedy Creek's letter dated January 22, 1988.
10. DER's Technical Evaluation package dated February 4, 1988.

PERMITTEE:
Reedy Creek Improvement
District

Permit Number: AC 48-137740
Expiration Date: December 1, 1988

GENERAL CONDITIONS:

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

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

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:
Reedy Creek Improvement
District

Permit Number: AC 48-137740
Expiration Date: December 1, 1988

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

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

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

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

PERMITTEE:
Reedy Creek Improvement
District

Permit Number: AC 48-137740
Expiration Date: December 1, 1988

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 revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

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

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

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

PERMITTEE:
Reedy Creek Improvement
District

Permit Number: AC 48-137740
Expiration Date: December 1, 1988

GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The turbine may operate continuously (8760 hrs/yr).
2. Only natural gas shall be fired in the turbine and duct burner. No. 2 oil shall be used in periods of curtailed natural gas supply. The duration of oil firing shall not exceed 14 days annually.
3. The maximum heat input to the turbine and the duct burner combined shall not exceed 450 MMBtu/hr (normal duct burner heat input rate of 23 MMBtu/hr).

PERMITTEE:
Reedy Creek Improvement
District

Permit Number: AC 48-137740
Expiration Date: December 1, 1988

SPECIFIC CONDITIONS:

4. When the gas turbine is not in operation, the duct burner heat input may be increased up to, but not to exceed, 198 MMBtu/hr.

5. The emissions, from the turbine and duct burner combined, shall not exceed:

<u>Pollutant</u>	<u>Gas Fired</u>		<u>Oil Fired¹</u>	
	<u>lb/hr</u>	<u>TPY*</u>	<u>lb/hr</u>	<u>TPY</u>
Nitrogen Oxides (NOx) peak @ 40°F	112		132	
	77	337	100	17
avg.				
Sulfur Dioxide (SO ₂)	0.2	0.8	118	20
Particulates (PM)	0.8	3.5	9	2
Carbon Monoxide (CO)	11	48	24	4
Volatile Organics (VOCs)	6	26	6	1
Visible Emissions (VE)	5% opacity		10% opacity	
NOx, at 15% O ₂ dry basis peak	74 ppmv		82 ppmv ²	
	avg.	58 ppmv	68 ppmv	
SO ₂ , at 15% oxygen dry basis	--		58 ppmv	

*TPY (tons per year)

¹Oil will be fired only when there is natural gas curtailment. It will be fired for no more than 14 days annually.

²Variation in concentration with variation in ambient air temperature to be documented by a plot of pollutant concentration versus ambient temperature, as per initial compliance test results.

The average emissions will be calculated using hourly logged averages to obtain a 30 day average and then using 12 consecutive 30 day averages to obtain an annual average. The DER District office may alter this averaging method after due consideration of alternative compliance plans.

The duct burner NOx emissions shall not exceed (corresponding to 0.2 lb/MMBtu) 4.6 lb/hr for gas or oil at 23 MMBtu heat input or 40 lbs/hr for gas or oil at 198 MMBtu/hr.

6. The No. 2 oil sulfur content shall not exceed 0.4 percent.

7. The "Black Start" Cummins No. 2 oil fired emergency generator, when fired on a normal basis to maintain a state of readiness, shall not be operated beyond the 10 minutes/week check out period.

PERMITTEE:
Reedy Creek Improvement
District

Permit Number: AC 48-137740
Expiration Date: December 1, 1988

For inventory purposes only, the emergency generator's expected emissions are listed below:

<u>Pollutant</u>	<u>lbs/year</u>
NOx	232
CO	36
VOC	9
PM	8
SO ₂	30

8. Water injection shall be utilized for NOx control at a minimum of 0.6/1.0 water to fuel ratio. If compliance testing warrants this ratio to be re-investigated, the ratio at which compliance is maintained shall be incorporated into the permit.

9. Initial and annual compliance testing shall be conducted with the fuels used in the preceding 12 month period using:

1. EPA Method 20 for NOx and SO₂
2. EPA Method 10 for CO
3. EPA Method 5 for PM
4. EPA Method 9 for VE

Other DER approved methods may be used for compliance testing only after prior Departmental approval. The compliance protocol shall be worked out with DER's District office prior to initial compliance tests.

10. The proposed project shall comply with all the applicable requirements of:

- a) Chapter 17-2, FAC
- b) 40 CFR 60, Subpart GG, Gas Turbines
- c) 40 CFR 60, Subpart Db, Industrial Steam Generating Units

11. DER's district office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to the district office within 45 days of test completion.

The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, the Department must be notified in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit, (Rule 17-2, FAC).

PERMITTEE:
Reedy Creek Improvement
District

Permit Number: AC 48-137740
Expiration Date: December 1, 1988

SPECIFIC CONDITIONS:

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate (Rules 17-2 and 17-4, FAC).


If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application (Rule 17-4, FAC).

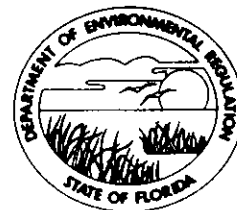
12. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to DER's District office.

13. During the new turbine debugging period, not to exceed nine months, the older Orenda power trains shall not be fired unless the new GE turbine is not in operation. After the debugging period is over, the Orenda turbines and their associated equipment shall be dismantled.

Issued this 3 day of March 1988

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


Dale Twachtman, Secretary



Interoffice Memorandum

TO: Dale Twachtmann

FROM: Howard L. Rhodes *HLR*

SUBJECT: Approval of Reedy Creek Improvement District
State Construction Permit Number: AC 48-137740

DATE: March 1, 1988

For Routing To Other Than The Addressee

To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Attached for your approval and signature is a permit prepared by Central Air Permitting for the above mentioned company to construct a 38 MW natural gas fired turbine generator and heat recovery system at the Central Energy Plant near Lake Buena Vista, Orange County, Florida. No comments were received during the public notice period.

Day 90 after which these permits will be issued by default is April 12, 1988.

I recommend your approval and signature.

HLR/aqm/pr

attachments

RECEIVED
MAR 3 1988

Office of the Secretary

RECEIVED

MAR 8 1988

DER-BAQM

ROUTING AND TRANSMITTAL SLIP

ACTION NO _____
 ACTION DUE DATE _____

1. TO: (NAME, OFFICE, LOCATION)
Vivian F. Garlein
2. _____
3. _____
4. _____

Initial _____
 Date _____
 Initial _____
 Date _____
 Initial _____
 Date _____
 Initial _____
 Date _____

REMARKS:
Per your request attached is the final Determination for Ready Creek AC 48-137740.

INFORMATION

Review & Return _____
 Review & File _____
 Initial & Forward _____

DISPOSITION

Review & Respond _____
 Prepare Response _____
 For My Signature _____
 For Your Signature _____
 Let's Discuss _____
 Set Up Meeting _____
 Investigate & Report _____
 Initial & Forward _____
 Distribute _____
 Concurrence _____
 For Processing _____
 Initial & Return _____

FROM:
B. Thomas

DATE
3.17.88

PHONE
488-1344

REGULATION

BOB MARTINEZ
 GOVERNOR
 DALE TWACHTMANN
 SECRETARY

ATION

Creek Improvement
 and turbine generator
 out of 450 MMBtu/hr at
 Orange County,
 Section 403, Florida

judicial review of
 Statutes, by the
 9.110, Florida
 of the Department in
 e Road,
 a copy of the
 filing fees with
 Notice of Appeal
 s permit is filed

DEPARTMENT
 REGULATION

[Signature]
 C. H. Fancy, P.E.
 Deputy Chief
 Bureau of Air Quality Management

- Copy furnished to:
- T. Sawicki, CF District
 - H. Culp, P.E.
 - W. Aronson, EPA
 - M. Flores, NPS