

REEDY CREEK ENERGY SERVICES, INC.

RECEIVED  
APR 29 1996  
BUREAU OF  
AIR REGULATION

Scott -  
Thought you'd  
like to see this

19 April, 1996

Janani  
4/30/96

Mr. Al Linero  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Orange County--No. 0950110-001-AC (formerly AC48-137740/AO48-170280)  
Reedy Creek Improvement District  
Gas Turbine Generator and Heat Recovery Steam Generator with Duct Burner

Dear Mr. Linero:

The purpose of this correspondence is to confirm the issues and agreements discussed in the telephone conversation this morning between ourselves and Mr. Scott Sheplak. We discussed the July 1, 1996 expiration date of the the above-referenced construction permit and the options available for a requested extension, necessary to allow time for testing and submission of the required documents.

You indicated and Mr. Sheplak confirmed that the provisions of 62.213.420(1)(a)(4.) automatically provide an extension to November 1, 1996 of all Title V source construction permits. This blanket extension includes the specific case of a modification to an existing source's construction permit as represented by the special case under consideration here.

In conclusion, we agreed that the expiration date of July 1, 1996 has been extended by rule to November 1, 1996 and that no further action is required by the permittee to make this effective. If you have any material corrections to this confirmation, please address them to me at the earliest opportunity.

Thank you, Scott

Sincerely,

  
Edward Godwin, P.E.  
Chief Mechanical Engineer

cc: Mr. Leonard Kozlov  
Florida Department of Environmental Protection  
Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, FL 32803-3767

FYI  
Extended to later of  
11/1/96 or 8 mos.  
after commence operation  
(ie, completed construction/modification)

Intent not to require interim  
state operation permit. When  
"new" emissions units complete  
construction/modification they  
apply for initial Title V  
operation permit or revision into existing Title V  
operation permit. We haven't issued TV's  
yet



December 20, 1995

**RECEIVED**

DEC 21 1995

**BUREAU OF  
AIR REGULATION**

Mr. Clair H. Fancy, P.E., Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Reedy Creek Improvement District-Central Energy Plant  
Draft Amended Permit 0950110-001-AC

Attention: Mr. A. A. Linero, P.E.

Dear Al:

This correspondence is submitted on behalf of Reedy Creek Improvement District to provide comments on the draft amended permit for the Central Energy Plant consisting of a 30.8 MW General Electric LM5000 combustion turbine. The following are the comments offered for the draft permit. Also included is a mark-up of the draft permit that indicates our suggested changes.

### **Preliminary Determination**

Third Paragraph; Last Sentence-Replace "steam" with "water". The NOx control system uses water injection.

### **Specific Condition 1.**

The modifications to the construction permit which were dated February 15, 1991, May 29, 1991, August 13, 1991, and December 15, 1993 have also been issued by the Department. These should be added to the list in the condition.

### **Specific Condition 2.**

1. Nitrogen Oxides: Under the column "Pollutant" the word "avg." under nitrogen oxides should be clarified by adding the word "annual" before "avg.". The original intent of the word average was to calculate and ensure annual average NOx emissions meet the 77 lb/hr/337 TPY for gas and 100 lb/hr/17 TPY for oil. This is described by the footnote under the table which states: "The average emissions will be calculated using hourly.....plans." To clarify this condition, the words "annual average" should be used. Also, the wording of the footnote may be somewhat confusing as to whether it applies to both the turbine and duct burner and the mechanism as to how the annual average is calculated.. It is recommended that the wording of the footnote be changed to read:

14077A/1

KBN ENGINEERING AND APPLIED SCIENCES, INC.

6241 Northwest 23rd Street,  
Suite 500  
Gainesville, Florida 32653-1500  
904-336-5600 FAX 904-336-6603

5405 West Cypress Street,  
Suite 215  
Tampa, Florida 33607  
813-287-1717 FAX 813-287-1716

1801 Clint Moore Road, Suite 105  
Boca Raton, Florida 33487  
407-994-9910  
FAX 407-994-9393

7785 Baymeadows Way,  
Suite 105  
Jacksonville, Florida 32256  
904-739-5600 FAX 904-739-7777

1616 'P' Street N.W., Suite 350  
Washington, D.C. 20036  
202-462-1100  
FAX 202-462-2270



"The average NOx emissions from the turbine and duct burner combined will be calculated to obtain monthly average; an annual average is calculated using consecutive monthly averages."

2. Sulfur Dioxide: The sulfur dioxide emissions for gas firing should be 1.2 lb/hr and 5.1 TPY. These emission rates were included in the permit revision dated August 13, 1991 that was issued by the Department.

3. Footnote 1: This footnote was changed by the January 7, 1993 permit amendment issued by the Department to read:

"Fuel oil firing shall be limited to 14 days per year."

4. Footnote 2: It is suggested that the term "NOx" be included before "concentration" in this footnote since the footnote only applies to NOx. Therefore, the footnote would read: "Variation in NOx concentration with variation in ..... results."

5. Bottom footnote: The references to oil should be deleted since oil firing was eliminated by a permit modification and the duct burner unit is not capable of firing oil.

#### **Specific Condition 4.**

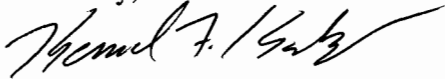
The Department's memorandum of November 22, 1995 would suggest that testing at intermediate and low loads is unnecessary. The relationships developed in the permit application indicate that CO rises with turbine inlet temperature and varies with load and water to fuel ratio. Since the water to fuel ratio would not be reduced from that in the permit, CO concentrations would not deviate from this relationship. This will be confirmed by the initial compliance tests. Thus, it is suggested that this condition be changed as follows:

"Annual stack testing for CO emissions at full capacity load conditions shall be performed according to an annual test protocol developed jointly by RCID and FDEP. This protocol will specify the test methods and procedures to be used during the annual compliance testing. Using the established procedures of this protocol as a guide, simultaneous testing full capacity load conditions shall be conducted for CO, NOx and VE. EPA Method 10 shall be used for CO, EPA Methods 7e or 20 shall be used for NOx and EPA Method 9 shall be used for VE. Testing at other loads will not be necessary if the annual compliance test is within the expected CO/NOx relationship developed from the initial compliance tests."

December 20, 1995  
Page 3

Please call if you have any questions.

Sincerely,



Kennard F. Kosky, P.E.  
President

cc: Ed Godwin, RCES

cc: A. Zahn, CD

# DRAFT

Permittee:  
Reedy Creek Improvement District

Permit Number: 0950110-001-AC  
Expiration Date: July 1, 1996

- 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;
  - the results of such analyses.

December 15, 1993

February 15, 1991

May 29, 1991

**SPECIFIC CONDITIONS:**

1. This permit supersedes permit, AC48-137740, dated March 3, 1988, and its revisions dated, September 14, 1988, May 17, 1989, November 13, 1989, January 15, 1991, August 23, 1991, January 7, 1993, October 29, 1993, October 10, 1994, March 30, 1995, June 16, 1995. The provisions of the air construction permit, AC48-137740, dated March 3, 1988, and the revisions to that permit, dated September 14, 1988, May 17, 1989, November 13, 1989, January 15, 1991, August 23, 1991, January 7, 1993, October 29, 1993, October 10, 1994, March 30, 1995, June 16, 1995, are incorporated into this air construction permit except for the changes that follow in specific conditions 2 through 4, below.

X

X

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

Pollutant	Gas Fired lb/hr	TPY*	Oil Fired <sup>1</sup> lb/hr	TPY
Nitrogen Oxides (NO <sub>x</sub> ) peak @40°F <i>ANNUAL avg.</i>	112 77	337	132 100	17
Sulfur Dioxide (SO <sub>2</sub> )	<del>1.2</del> 0.2	<del>5.1</del> 0.8	118	20
Particulates (PM)	0.8	3.5	9	2
Carbon Monoxide (CO) peak load reduced load <sup>3</sup>	11 25	110	24 N/A <sup>4</sup>	4 N/A <sup>4</sup>
Volatile Organics (VOCs)	6	26	6	1
Visible Emissions (VE)	5% Opacity		10% Opacity	
NO <sub>x</sub> , @ 15% O <sub>2</sub> dry basis peak <i>ANNUAL avg.</i>	74 ppmv 58 ppmv		82 ppmv <sup>2</sup> 68 ppmv	
SO <sub>2</sub> , @ 15% oxygen dry basis		--	58 ppmv	

\* TPY (tons per year) **FUEL OIL FIRING shall be limited to 14 days per year.**

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

<sup>2</sup> Variation in **NO<sub>x</sub>** 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.

<sup>3</sup> Reduced load is 15MW to near full-load

<sup>4</sup> When the turbine is oil-fired it will not operate at reduced load conditions.

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

The duct burner NO<sub>x</sub> 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 lb/hr for gas or oil at 198 mmBTU/hr.

Replace with suggested wording

DRAFT

Permittee:  
Reedy Creek Improvement District

Permit Number: 0950110-001-AC  
Expiration Date: July 1, 1996

3. An initial compliance test will be conducted in order to obtain the air operation permit for the modification. This test will consist of testing CO emissions at peak, two intermediate and low load conditions. Test day peak load based on BTU input will be established based on the operating limits of the unit during the test day. Intermediate loads will be established based on equally spaced points between peak and low load levels. Initial compliance testing at all load conditions will be conducted with the duct burners operating. If compliance with the proposed emission rate is demonstrated during this initial compliance test, revised annual CO compliance test procedures will be incorporated as part of the annual stack test protocol.

4. Annual stack testing for CO emissions at peak, intermediate, and low load conditions will be incorporated as part of the annual stack test protocol developed jointly by RCID and FDEP. This protocol specifies the test methods and procedures to be used during annual compliance testing. Using the established procedures of this protocol as a guide, for base loading testing CO will be tested simultaneously with NO<sub>x</sub> and VE using Method 10 for CO and Method 20 for NO<sub>x</sub> and VE. For reduced load operation, CO will be tested simultaneously with NO<sub>x</sub> reduced load testing, which will include testing both pollutants at the outlet of the steam generator with the duct burner off.

*Replace with  
suggested wording*

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes, Director  
Division Air Resources Management

I N T E R O F F I C E   M E M O R A N D U M

**Date:** 28-Nov-1995 14:59 EST  
**From:** Charles Collins ORL  
COLLINS\_C@A1@ORL1  
**Dept:** Central District Office  
**Tel No:** 407/893-3332  
**SUNCOM:**

**TO:** Kanani Winans TAL ( WINANS\_K@A1@DER )

**CC:** Alvaro Linero TAL ( LINERO\_A@A1@DER )

**Subject:** Reedy Creek Comments

We are returning our comments via FAX on the Reedy Creek document E-Mailed to us on 11/27.

Should you have any questions, please call me at SC 325-3332 or 407-894-7555.

Thank you.



REEDY CREEK  
IMPROVEMENT  
DISTRICT

DISTRICT ADMINISTRATOR  
Thomas M. Moses

RECEIVED

DEC 20 1995

BUREAU OF  
AIR REGULATION

December 18, 1995

C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Central Energy Plant - 30.8 MW GE LM5000  
Draft Amended Permit 0950110-001-AC

Dear Mr. Fancy:

In accordance with instructions in your letter of November 30, 1995, attached please find proof of publication of the "Intent to Issue" for the above permit. The notice was published in the *Orlando Sentinel* on December 8, 1995 and the certification was received from the *Sentinel* on today's date.

Should you have any questions or need additional information, please contact me immediately.

Sincerely,

Thomas M. Moses  
District Administrator

TMM:dlp

cc: Cental District  
K. Kosky, KBN



**The Orlando Sentinel**

Published Daily  
\$224.60

State of Florida } S.S.  
COUNTY OF ORANGE

Before the undersigned authority personally appeared Kelly Demmo, who on oath says that he/she is the Legal Advertising Representative of The Orlando Sentinel, a daily newspaper published at ORLANDO in ORANGE County, Florida; that the attached copy of advertisement, being a STATE OF FLORIDA in the matter of 0950110-001-AC in the ORANGE Court, was published in said newspaper in the issue; of 12/08/95

Affiant further says that the said Orlando Sentinel is a newspaper published at ORLANDO in said ORANGE County, Florida, and that the said newspaper has heretofore been continuously published in said ORANGE County, Florida, each Week Day and has been entered as second-class mail matter at the post office in ORLANDO in said ORANGE 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/she 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.

The foregoing instrument was acknowledged before me this 12 day of December, 19 95, by Kelly Demmo who is personally known to me and who did take an oath.

JUANITA ROSADO  
My Comm Exp. 7/13/98  
Bonded By Service Ins  
No. CC392006

Personally Known  Other I.D.

(SEAL)



(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 or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address 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 10.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application/request 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 Protection, Bureau of Air Regulation, 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida 32301

Department of Environmental Protection  
Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Administrator, New Source Review Section at the Department of Environmental Protection, Bureau of Air Regulation, Blair Stone Road - Mail Station 5505, Tallahassee, Florida 32399-2400. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.  
COR681853 Dec. 8, 1995

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF INTENT TO ISSUE  
0950110-001-AC

The Department of Environmental Protection (Department) gives notice of its intent to issue an amended permit to Reedy Creek Improvement District (RCID), Post Office Box 10170, Lake Buena Vista, Florida, 32830-0170 for an existing 30.8 megawatt (MW) natural gas-fired turbine generator with a duct-fired heat recovery steam generator located at 5300 North Cast Drive, Lake Buena Vista, in Orange County.

The amended permit will account for a low load condition (approximately 15 MW) which will occur about 40 percent of the time and which is characterized by higher emissions of carbon monoxide (CO) than previously permitted for the base load condition. The increase in CO emissions will be less than significant (less than 100 tons per year) with respect to requirements for Prevention of Significant Deterioration (PSD) or Best Available Control Technology (BACT) determinations. Emissions of nitrogen oxides (NOx) will be lower whenever the unit is operated at the lower load conditions. The compliance testing program will be modified to provide for low and intermediate load conditions in addition to the base load condition.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioners shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

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.

Memorandum

Florida Department of  
Environmental Protection

TO: Clair Fancy  
FROM: A. A. Linero  
SUBJECT: Re-issued Amended Permit  
Reedy Creek Improvement District  
30.8 MW Turbine and HRSG with Duct Burner

Attached for your signature is a transmittal letter and public notice package for a re-issued, amended permit for a turbine with HRSG and duct burner operated by Reedy Creek Improvement District (RCID).

RCID identified operating conditions between full load and half load which result in higher than permitted CO emissions. They want to have the flexibility to operate under these other conditions in their Title V permit but found they would violate their construction permit CO emission limits. Their air construction permit expired some time ago. In accordance with the applicable Guidance we re-issued the permit (incorporating the original permit and revisions) with the necessary changes.

The CO increase is not significant with respect to PSD. Emissions of NO<sub>x</sub> and SO<sub>2</sub> will not be affected by firing at lower loads. They use steam injection for NO<sub>x</sub> control and natural gas for low sulfur dioxide emissions (except when unavailable).

AAL/aal/1

Attachments

*Kanani - Use my memo, letter,  
& Intents. Fix up your draft  
re-issued permit - on All in one if  
possible so I can finalize if your  
aren't here. Howard will sign  
final. Clair will sign intent package.  
Please figure out why original  
permit says 38.0 MW + 450 mmbtu/hr  
instead of 30.8 MW + 365? mmbtu/hr.  
I'll still need to do a  
preliminary determination.  
Thanks  
al*

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt 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:  
 Thomas M. Moses, D.A.  
 Reedy Creek Improve. District  
 P. O. Box 10170  
 Lake Buena Vista, FL  
 32830-0170

4a. Article Number  
 2 127 632 586

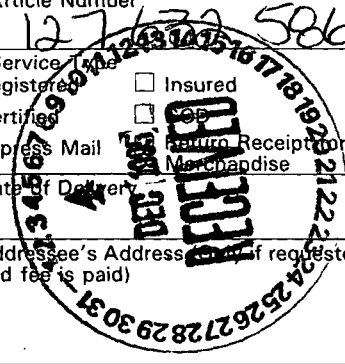
- 4b. Service Type
- Registered
  - Certified
  - Express Mail
  - Insured
  - Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

6. Signature (Agent)

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



Thank you for using Return Receipt Service.

2 127 632 586



**Receipt for Certified Mail**

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

Sent to		Thomas M. Moses
Street and No.		Reedy Creek ID
City, State and Zip Code		Lake Buena Vista, FL
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, and Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date		12-1-95
0950110-001-AC		

PS Form 3800, March 1993



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

November 30, 1995

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

Mr. Thomas M. Moses  
District Administrator  
Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-0170

Dear Mr. Moses:

Re: Central Energy Plant - 30.8 MW GE LM5000  
Draft Amended Permit 0950110-001-AC

Attached is one copy of the proposed amended permit, Intent to Issue, and Public Notice of Intent to Issue (for publication by RCID), and Preliminary Determination for the existing 30.8 MW turbine generator and heat recovery steam generator with duct burner located at the Central Energy Plant in Lake Buena Vista.

Please submit any written comments you may wish to have considered concerning the Department's proposed action to Mr. A. A. Linero, P. E., at the above address. If you have any questions regarding this matter, please call Mr. Linero at (904) 488-1344.

Sincerely,

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

CHF/aal/w

cc: C. Collins, CD  
K. Kosky, KBN

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF INTENT TO ISSUE

0950110-001-AC

The Department of Environmental Protection (Department) gives notice of its intent to issue an amended permit to Reedy Creek Improvement District (RCID), Post Office Box 10170, Lake Buena Vista, Florida, 32830-0170 for an existing 30.8 megawatt (MW) natural gas-fired turbine generator with a duct-fired heat recovery steam generator located at 5300 North Cast Drive, Lake Buena Vista, in Orange County.

The amended permit will account for a low load condition (approximately 15 MW) which will occur about 40 percent of the time and which is characterized by higher emissions of carbon monoxide (CO) than previously permitted for the base load condition. The increase in CO emissions will be less-than-significant (less than 100 tons per year) with respect to requirements for Prevention of Significant Deterioration (PSD) or Best Available Control Technology (BACT) determinations. Emissions of nitrogen oxides (NO<sub>x</sub>) will be lower whenever the unit is operated at the lower load conditions. The compliance testing program will be modified to provide for low and intermediate load conditions in addition to the base load condition.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

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.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address 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 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application/request 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 Protection  
Bureau of Air Regulation  
111 S. Magnolia Drive, Suite 4  
Tallahassee, Florida 32301

Department of Environmental Protection  
Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Administrator, New Source Review Section at the Department of Environmental Protection, Bureau of Air Regulation, Blair Stone Road - Mail Station 5505, Tallahassee, Florida 32399-2400. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL

In the Matter of an  
Application for Permit by:

DEP File No. 0950110-001-AC  
Orange County

Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-0170

---

INTENT TO ISSUE

The Department of Environmental Protection (Department) gives notice of its intent to issue an amended permit (copy attached) for the project detailed in the application specified above, for the reasons stated below.

The applicant, Reedy Creek Improvement District (RCID), applied on June 22, 1995 to the Department for an amendment of the original permit (AC48-137740) for a 30.8 megawatt natural gas-fired turbine generator with a duct-fired heat recovery steam generator. The requested amendment is to account for a low load condition which is characterized by higher emissions of carbon monoxide than previously permitted.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The above actions are not exempt from permitting procedures. The Department has determined that a re-issued and amended permit required for the proposed change.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (RCID) are required to publish at your own expense the enclosed Notice of Intent to Issue. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "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. Where there is more than one newspaper of general circulation in the county, the newspaper must be one with significant circulation in the area that may be affected by the permit. 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, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish

the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

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.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application/ request have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address 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 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



C. H. Fancy, P.E., Chief  
Bureau of Air Regulation  
2600 Blairstone Road  
Tallahassee, Florida 32399  
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE PERMIT and all copies were mailed by certified mail before the close of business on 12-1-95 to the listed persons.

Clerk Stamp

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

Lynn Soben 12-1-95  
Clerk Date

Copies furnished to:

C. Collins, CD  
K. Kosky, KBN

Preliminary Determination

Reedy Creek Improvement District  
Central Energy Plant  
Lake Buena Vista, Florida  
Orange County

Gas Turbine and Heat recovery Steam Generator  
With Duct Burner - GE LM 5000  
30.8 Megawatts

Permit No. 0950110-001-AC  
Previously AC48-137740

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

November 30, 1995

## Preliminary Determination

On June 22, 1995, an application was received from the Reedy Creek Improvement District (RCID) to modify the construction permit for its 30.8 megawatt (MW) gas turbine electrical generator with a heat recovery steam generator (HRSG) and duct burner located at the Central Energy Plant in Lake Buena Vista, Orange County. The purpose of the modification is to allow an increase in carbon monoxide (CO) emissions so that the unit may subsequently operate at lower power output levels.

The effect of operating at lower loads is that carbon monoxide emissions may be as high as 110 tons per year (TPY) compared to the previously permitted limit of 48 TPY. However, during those periods, nitrogen oxide (NO<sub>x</sub>) emissions will be lower. If the unit were operated solely at low load (approximately 15 MW, CO emissions would increase by 48 TPY while NO<sub>x</sub> emissions would decrease by over 100 TPY from the presently permitted limit of 337 TPY.

Because RCID wishes to maintain the flexibility to operate at high and low loads, the only change required in the permit is the increase in CO emissions. The increase in emissions is less than significant with respect to applicability of Prevention of Significant Deterioration (PSD) review or a Best Available Control Technology (BACT) determination. The unit utilizes steam injection for NO<sub>x</sub> control and is fired with natural gas except when it is unavailable.

Because the original construction permit has expired, the Department intends to re-issue an amended version of it. The amended version will adopt the original version by reference with changes to the CO limits along with any other previously-issued amendments and modifications. The applicant will be required to publish the Department's Notice of Intent to Issue.



# Department of Environmental Protection

# DRAFT

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

**Mr. Thomas M. Moses**  
**District Administrator**  
**Reedy Creek Improvement District**  
**Post Office Box 10170**  
**Lake Buena Vista, Florida 32830-0170**

**Permit No: 0950110-001-AC**  
**Expiration Date: July 1, 1996**  
**County: Orange**  
**Latitude/Longitude: 28°25'30"N 81°35'10"W**  
**Project: GE Gas-Fired Turbine with Heat Recovery System**

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-212, 62-275, 62-296, and 62-297, Florida Administrative Code (F.A.C.). It replaces and amends previously issued permit No. AC48-137740 dated March 3, 1988 and revisions thereto. 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 specifically described as follows:

For the construction of a 30.8 MW GE LM 5000 gas-fired turbine generator system with a heat input capacity of 345 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. The unit will be operated at low and intermediate load conditions as well as the previously permitted base load condition.

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 are listed below:

1. Original permit AC48-137740 dated March 3, 1988 and its revisions, dated September 14, 1988, May 17, 1989, November 13, 1989, January 15, 1991, August 23, 1991, January 7, 1993, October 29, 1993, October 10, 1994, March 30, 1995, June 16, 1995.
2. RCID's application received June 22, 1995.
3. DEP letter requesting additional information dated July 6, 1995.
4. RCID's response received August 25, 1995.
5. RCID's Waiver of 90 Day Time Limit received November 9, 1995.

**Permittee:**  
**Reedy Creek Improvement District**

**DRAFT**

**Permit Number: 0950110-001-AC**  
**Expiration Date: July 1, 1996**

**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, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or 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 F.S. and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, 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 reasonable times, access to the premises where the permitted activity is located or conducted to:

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

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

**DRAFT**

**Permittee:**  
**Reedy Creek Improvement District**

**Permit Number:** 0950110-001-AC  
**Expiration Date:** July 1, 1996

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

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, 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:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) 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 his 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.

# DRAFT

Permittee:  
Reedy Creek Improvement District

Permit Number: 0950110-001-AC  
Expiration Date: July 1, 1996

- 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;
  - the results of such analyses.

### SPECIFIC CONDITIONS:

1. This permit supersedes permit, AC48-137740, dated March 3, 1988, and its revisions dated, September 14, 1988, May 17, 1989, November 13, 1989, January 15, 1991, August 23, 1991, January 7, 1993, October 29, 1993. October 10, 1994, March 30, 1995, June 16, 1995. The provisions of the air construction permit, AC48-137740, dated March 3, 1988, and the revisions to that permit, dated September 14, 1988, May 17, 1989, November 13, 1989, January 15, 1991, August 23, 1991, January 7, 1993, October 29, 1993. October 10, 1994, March 30, 1995, June 16, 1995, are incorporated into this air construction permit except for the changes that follow in specific conditions 2 through 4, below.

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

Pollutant	Gas Fired lb/hr	TPY*	Oil Fired <sup>1</sup> lb/hr	TPY
Nitrogen Oxides (NO <sub>x</sub> ) peak @40°F	112		132	
avg.	77	337	100	17
Sulfur Dioxide (SO <sub>2</sub> )	0.2	0.8	118	20
Particulates (PM)	0.8	3.5	9	2
Carbon Monoxide (CO) peak load	11		24	4
reduced load <sup>3</sup>	25	110	N/A <sup>4</sup>	N/A <sup>4</sup>
Volatile Organics (VOCs)	6	26	6	1
Visible Emissions (VE)	5% Opacity		10% Opacity	
NO <sub>x</sub> , @ 15% O <sub>2</sub> dry basis peak	74 ppmv		82 ppmv <sup>2</sup>	
avg.	58 ppmv		68 ppmv	
SO <sub>2</sub> , @ 15% oxygen dry basis	--		58 ppmv	

\* TPY (tons per year)  
<sup>1</sup> Oil will be fired only when there is natural gas curtailment. It will be fired for no more than 14 days annually.  
<sup>2</sup> Variation 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.  
<sup>3</sup> Reduced load is 15MW to near full-load  
<sup>4</sup> When the turbine is oil-fired it will not operate at reduced load conditions.

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

The duct burner NO<sub>x</sub> 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 lb/hr for gas or oil at 198 mmBTU/hr.

**DRAFT**

**Permittee:**  
**Reedy Creek Improvement District**

**Permit Number:** 0950110-001-AC  
**Expiration Date:** July 1, 1996

3. An initial compliance test will be conducted in order to obtain the air operation permit for the modification. This test will consist of testing CO emissions at peak, two intermediate and low load conditions. Test day peak load based on BTU input will be established based on the operating limits of the unit during the test day. Intermediate loads will be established based on equally spaced points between peak and low load levels. Initial compliance testing at all load conditions will be conducted with the duct burners operating. If compliance with the proposed emission rate is demonstrated during this initial compliance test, revised annual CO compliance test procedures will be incorporated as part of the annual stack test protocol.


4. Annual stack testing for CO emissions at peak, intermediate, and low load conditions will be incorporated as part of the annual stack test protocol developed jointly by RCID and FDEP. This protocol specifies the test methods and procedures to be used during annual compliance testing. Using the established procedures of this protocol as a guide, for base loading testing CO will be tested simultaneously with NO<sub>x</sub> and VE using Method 10 for CO and Method 20 for NO<sub>x</sub> and VE. For reduced load operation, CO will be tested simultaneously with NO<sub>x</sub> reduced load testing, which will include testing both pollutants at the outlet of the steam generator with the duct burner off.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

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



TO: Clair Fancy

FROM: A. A. Linero  11/30

DATE: November 30, 1995

SUBJECT: Re-issued Amended Permit  
Reedy Creek Improvement District  
30.8 MW Turbine and HRSG with Duct Burner

Attached for your signature is a transmittal letter and public notice package for a re-issued amended permit. The permit is for a turbine with HRSG and duct burner operated by Reedy Creek Improvement District (RCID).

RCID identified operating conditions between full load and half load which result in higher than permitted CO emissions. They want to have flexibility to operate under these other conditions in their Title V permit, but found they would violated their construction permit CO emission limits. Their air construction permit expired some time ago. In accordance with the applicable Guidance we re-issued the permit (incorporating the original permit and revisions) with the necessary changes.

The CO increase is not significant with respect to PSD. Emissions of NO<sub>x</sub> will be lower whenever the unit operates at low load and SO<sub>2</sub> will not be affected by firing at lower loads. They use steam injection for NO<sub>x</sub> control and natural gas for low sulfur dioxide emissions (except when unavailable).

AAL/kw

Attachments



Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Virginia B. Wetherell  
Secretary

### FAX TRANSMITTAL LETTER

TO:

NAME: Karavi Winans

AGENCY: Air Section

TELEPHONE NUMBER (FAX No.): 904-922-6979

NUMBER OF PAGES (including cover sheet): 4

FROM:

NAME: Chuck Collins

AGENCY: Air Program Adm.

(Transmitted on a Brother FAX600)  
Orlando FAX Telephone Number (407) 897-5963 - S/C: 342-5963

IF ANY OF THESE PAGES ARE NOT CLEARLY RECEIVED, PLEASE CALL IMMEDIATELY AT:

Phone Number: 407/894-7555 (S/C: 325-<sup>3332</sup>~~1011~~)

SENDER'S NAME: Diana Jones

COMMENTS: Changes to be made on pages (3)  
of Seely Creek document.

BEST AVAILABLE COPY

PERMITTEE:

Mr. Thomas M. Moses  
 District Administrator  
 Reedy Creek Improvement District  
 Post Office Box 10170  
 Lake Buena Vista, Florida 32830-0170  
 Permit No: 0950110-001-AC  
 Expiration Date: December 29, 1995  
 County: Orange  
 Latitude/Longitude: 28°25'30"N 81°35'10"W  
 Project: GE Gas-Fired Turbine with Heat Recovery System

*Change to 1997-8-9 unless the operating permit is to be immediately changed.*

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 62-212, 62-275, 62-296, and 62-297, Florida Administrative Code (F.A.C.). It replaces and amends previously issued permit No. AC43-137740 dated March 3, 1988 and revisions thereto. The above named permittee is hereby authorized to perform the work as specified on the application and approved drawing(s), plans, and other documents attached hereto on file with the Department and specifically described as follows:

For the construction of a 30.8 MW GE LM 5000 gas-fired turbine generator system with a heat input capacity of 450 mmBTU hr. The project will include and 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. The unit will be operated at low and intermediate load conditions as well as the previously permitted base load condition.

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 are listed below:

1. Original permit AC47-137740 dated March 3, 1988.
- 2.
- 3.
- 4.
- 5.
6. RCID's application received June 22, 1995.
7. DEP letter requesting additional information dated July 6, 1995.
8. RCID's response received August 25, 1995.
9. RCID's Waiver of 90 Day Time Limit received November 9, 1995.

BEST AVAILABLE COPY

SPECIFIC CONDITIONS:

1. This permit supersedes permit, AC48-137740, dated March 3, 1988, and its revisions dated, September 14, 1988, May 17, 1989, November 13, 1989, January 15, 1991, August 23, 1991, January 7, 1993, October 29, 1993, October 10, 1994, March 30, 1995, June 16, 1995. The provisions of the air construction permit, AC48-137740, dated March 3, 1988, and the revisions to that permit, dated September 14, 1988, May 17, 1989, November 13, 1989, January 15, 1991, August 23, 1991, January 7, 1993, October 29, 1993, October 10, 1994, March 30, 1995, June 16, 1995, are incorporated into this air construction permit except for the changes that follow in specific conditions 2 through 4, below.

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

Pollutant	
Nitrogen Oxides (NOx) peak @40°F	
avg.	
Sulfur Dioxide (SO2)	
Particulates (PM)	
Carbon Monoxide (CO)	
Volatile Organics (VOCs)	
Gas Fired lb/hr (?)	112
	77
	0.2
	0.8
	25
	6
TPY*	
	337
	0.8
	3.5
	110
	26

now above want to deal with this  
only want monthly but not annual

ask all  
both  
lbs / month  
lbs / hr - hourly rate

Oil Fired lb/hr (?)	
	132
	100
	118
	9
	24
	6
TPY	
	17

TPY  
12 months collection

Notes

(1) Clarify which average emissions will be calculated using hourly average ... all

(2) How many values are needed to make an hourly average. - ppm - cfm - 2019 E factor

(3) Do you mean 30 day average or 12 monthly averages?

(4) What do you mean when you say 2 lb/hr limit in conjunction with averages. Clearly if the company runs continuously at 2 lb/min (and that's the permit value) then hourly average = 2 lb/min Monthly average = 2 lb/min and so on.

CO, NOx, PM, SO2?

However, if the company does 6 lb/min you have a document with them out of compliance even though the monthly average is OK.

Therefore, if you use a 30 day average (as stated on next page), it is more logical to make the limit => pounds/30 days, which is a monthly total.

af  
Allen Zhou

BEST AVAILABLE COPY

20  
2  
4  
1

Visible Emissions (VE)  
NOx, at 15% O2 dry basis peak

avg.

SO2, ad 15% oxygen dry basis

5% Opacity  
74 ppmv  
58 ppmv  
..  
10% Opacity  
82 ppmv2  
68 ppmv  
58 ppmv

\* TPY (tons per year)

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

2 Variation 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 DEP 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 lb/hr for gas or oil at 198 mmBTU/hr.

3. An initial compliance test will be conducted in order to obtain the air operation permit for the modification. This test will consist of testing CO emissions at peak, intermediate and low load conditions. Test day peak load based on BTU input will be established based on the operating limits of the unit during the test day. Intermediate loads will be established based on equally spaced points between peak and low load levels. Initial compliance testing at all load conditions will be conducted with the duct burners operating. If compliance with the proposed emission rate is demonstrated during this initial compliance test, revised annual CO compliance test procedures will be incorporated as part of the annual stack test protocol.

4. Annual stack testing for CO emissions at peak, intermediate, and low load conditions will be incorporated as part of the annual stack test protocol developed jointly by RCID and FDEP. This protocol specifies the test methods and procedures to be used during annual compliance testing. Using the established procedures of this protocol as a guide, for base loading testing CO will be tested simultaneously with NOx and VE using Method 10. For reduced load operation, CO will be tested simultaneously with NOx reduced load testing, which will include testing both pollutants at the outlet of the steam generator with the duct burner off

ADD  
SPECIFIC CONDITION  
2. THE NOx SAMPLING SITE SHALL BE LOCATED BETWEEN THE GAS TURBINE AND THE BOILER IN ACCORDANCE WITH 40CFR 60 APPENDIX A METHOD 20 SECTION 6.1.1.

Note  
(1)  
(2) (4)  
(3)

Gary Kabursky  
TEST CO  
at 4 loads  
simultaneously  
with Method 20

CFR 60.335 A2  
up part 66

30 50 75 100  
NEPS 4 points in normal operation  
REQUIRES  
METHOD 20 for NOx VE

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes  
Department of Environmental Protection

ACE consultant

11/08/95  
Reedy Creek Energy Services, Inc.  
P.O. Box 10000  
Lake Buena Vista, FL 32830-1000  
c:\data\wd\cogen-co\faxco5.doc

**RECEIVED**  
NOV 09 1995  
BUREAU OF  
AIR REGULATION

**RCES Facsimile Transmittal**

**Wednesday, November 08, 1995**

**To: Kanani Winans and Al Linero  
Florida Department of Environmental Protection  
Twin Towers Office Building  
Tallahassee, FL 32399-2400**

**FAX #(904) 922-6979**

**cc: Gail Rampersaud  
KBN Engineering & Applied Sciences, Inc.  
Gainesville, FL**

**From: Ed Godwin  
RCES Planning & Engineering  
Mechanical Engineering Dept.  
Phone (407) 824-4943  
FAX (407) 824-4529**

**Number of pages including this page = 2**

**Re: AC48-273159/RCES Cogeneration Plant CO Emissions Permit Modification**

**Dear Mr. Linero and Ms Winans;**

**As we discussed on the telephone today, I am faxing you a signed and notarized "Waiver of 90 Day Time Limit" form. As we agreed, the revised expiration date is December 1st, 1995. The original form will be delivered via overnight mail.**

**Please proceed with processing the application as delivered. We will not be providing an amendment.**

**Please call or fax me at the above numbers if there is anything else you require.**

**Thanks,**



**Ed Godwin, P.E.  
Chief Mechanical Engineer  
Reedy Creek Energy Services, Inc.**

**WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) and 403.0876, FLORIDA STATUTES**

License (Permit, Certification) Application No. AC48-273159

Applicant's Name: Reedy Creek Improvement District, Orange County, Facility ID 300RL480110-007

With regard to the above referenced application, the applicant hereby with full knowledge and understanding of applicant's rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed by law. Said waiver is made freely and voluntarily by the applicant, with full knowledge, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 1st day of December 1995.

The undersigned is authorized to make this waiver on behalf of the applicant.

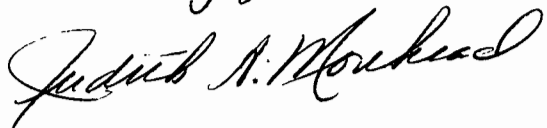


\_\_\_\_\_  
Signature

Edward Godwin, P.E.  
Chief Mechanical Engineer

\_\_\_\_\_  
Name (Please Type or Print)

*Signed Before me this 8th Day of November 1995*



Revised April, 1990



**JUDITH A. MOREHEAD**  
My Comm. Exp. 12-3-95  
Bonded By Service Ins. Co.

11/08/95

Reedy Creek Energy Services, Inc.  
P.O. Box 10000  
Lake Buena Vista, FL 32830-1000  
c:\data\wd\cogen-co\faxcc05.doc

Copy of  
correspondence

**RCES Facsimile Transmittal****Wednesday, November 08, 1995**

**To: Kanani Winans and Al Linero  
Florida Department of Environmental Protection  
Twin Towers Office Building  
Tallahassee, FL 32399-2400**

**FAX #(904) 922-6979**

**cc: Gali Rampersaud  
KBN Engineering & Applied Sciences, Inc.  
Gainesville, FL**


**From: Ed Godwin  
RCES Planning & Engineering  
Mechanical Engineering Dept.  
Phone (407) 824-4943  
FAX (407) 824-4529**

**Number of pages including this page = 2****Re: AC48-273159/RCES Cogeneration Plant CO Emissions Permit Modification****Dear Mr. Linero and Ms Winans;**

As we discussed on the telephone today, I am faxing you a signed and notarized "Waiver of 90 Day Time Limit" form. As we agreed, the revised expiration date is December 1st, 1995. The original form will be delivered via overnight mail.

Please proceed with processing the application as delivered. We will not be providing an amendment.

Please call or fax me at the above numbers if there is anything else you require.

**Thanks,**

**Ed Godwin, P.E.  
Chief Mechanical Engineer  
Reedy Creek Energy Services, Inc.**



NOV-08-1995 WED 11:16 ID:

TEL NO:

#897 P01

**WAIVER OF 90 DAY TIME LIMIT  
UNDER SECTIONS 120.60(2) AND 403.0876, FLORIDA STATUTES**

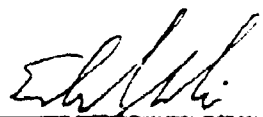
License (Permit, Certification) Application No. AC48-273159

Applicant's Name: Reedy Creek Improvement District, Orange County, Facility ID 300RL480110-007

With regard to the above referenced application, the applicant hereby with full knowledge and understanding of applicant's rights under Sections 120.60(2) and 403.0876, Florida Statutes, waives the right to have the application approved or denied by the State of Florida Department of Environmental Regulation within the 90 day time period prescribed by law. Said waiver is made freely and voluntarily by the applicant, with full knowledge, and without any pressure or coercion by anyone employed by the State of Florida Department of Environmental Regulation.

This waiver shall expire on the 1st day of December 1995.

The undersigned is authorized to make this waiver on behalf of the applicant.



Signature

Edward Godwin, P.E.  
Chief Mechanical Engineer

Name (Please Type or Print)

*Signed Before me this 8th Day of November 1995*  
*Judith A. Morehead*

Revised April, 1990



JUDITH A. MOREHEAD  
My Comm. Exp. 12-9-95  
Bonded By Service Ins. Co.



August 24, 1995

Mr. Al A. Linero, P.E.  
 Florida Department of Environmental Protection  
 Twin Towers Office Building  
 2600 Blair Stone Road  
 Tallahassee, Florida 32399-2400

RECEIVED  
 AUG 25 1995  
 Bureau of  
 Air Regulation

Re: Reedy Creek Improvement District; Facility ID 30ORL480110-007  
 Orange County  
 Permit Number AC48-273159

Dear Mr. Linero:

On behalf of the Reedy Creek Improvement District (RCID), KBN Engineering and Applied Sciences, Inc. (KBN) is hereby submitting information requested by the Florida Department of Environmental Protection (FDEP) relating to the minor modification permit application submitted for the RCID combined cycle plant. This plant is operated by the Reedy Creek Energy Services (RCES). The facility is proposing to operate at reduced-load conditions which, may potentially increase carbon monoxide (CO) emissions from the combustion turbine unit. The following information is provided as requested.

*1. Provide a brief description of the reduced-load condition(s) and a rough estimate of frequency of occurrence of those conditions.*

At any given time, the potential exists for the facility to not require the power or steam levels generated during full-load operation. Therefore, reduced-load operation during these periods becomes highly desirable. Due to technical reasons relating to gas turbine flame stability, nitrogen oxide (NO<sub>x</sub>) control needs and the steam cycle's requirement for superheat, the gas turbine unit cannot operate at less than approximately 50 percent load conditions, or about 15 megawatts electric (MWe) for the turbine generator and 2 MWe for the steam generator. The requested CO limit of 25 lb/hr is reflective of operation for up to 8,760 hours per year of reduced-load operation at a load level that represents an average 50 percent generation rate. These assumptions are considered worst-case in that the number of hours of reduced-load operation are not likely to reach 8,760 hours per year, nor are the opportunities for a full 50 percent reduction in generation rate likely to materialize every day of the year.

If historical conditions prevail, RCID anticipates that reduced-load operation may occur for 40 percent of the year, or approximately 3,500 hours per year. However, RCID wishes to retain the flexibility to operate at reduced-load conditions for the entire year since imminent changes within the electric generation industry and the increase in power production competitiveness may increase the likelihood for conditions favoring reduced-load operation.

In summary, reduced-load conditions for the facility represent a range from approximately 15 MW to near full-load. To maintain maximum flexibility, RCID has proposed a CO emission limit representative of worst-case conditions, that is, operation at approximately 50 percent load for 8,760 hours per year. Based on historical data, the facility anticipates reduced-load operation for

KBN ENGINEERING AND APPLIED SCIENCES, INC.

14077Y/F1/RTC1  
 6241 Northwest 23rd Street,  
 Suite 500  
 Gainesville, Florida 32653-1500  
 904-336-5600 FAX 904-336-6603

5405 West Cypress Street,  
 Suite 215  
 Tampa, Florida 33607  
 813-287-1717 FAX 813-287-1716

1801 Clint Moore Road, Suite 105  
 Boca Raton, Florida 33487  
 407-994-9910  
 FAX 407-994-9393

7785 Baymeadows Way,  
 Suite 105  
 Jacksonville, Florida 32256  
 904-739-5600 FAX 904-739-7777

1616 'P' Street N.W., Suite 450  
 Washington, D.C. 20036  
 202-462-1100  
 FAX 202-462-2270



approximately 40 percent of the year. However, due to rapid changes and uncertainties in the power generation industry, anticipated operation rates in the future are difficult to determine. Therefore, operational flexibility is required in order to adjust to market demands.

**2. Provide the reasons why nitrogen oxide emission limits need to be maintained instead of lowered to reflect the reduced-load condition(s).**

RCID is requesting the flexibility to operate at reduced-load conditions. However, this flexibility must also allow the facility to continue to operate at full-load conditions when needed. Therefore, permitted NO<sub>x</sub> emission rates must be maintained at current levels to allow for maximum flexibility and continuous operation at full-load. The proposed minor modification in no way increases NO<sub>x</sub> emissions from the facility. In addition, the facility must operate at a minimum water-to-fuel (WTF) ratio of 0.55 by permit condition. RCID will maintain this constant WTF ratio even when operating at reduced-load conditions.

**3. Provide a brief comparison of the recommended compliance methods with existing ones.**

RCID is proposing to alter the compliance methods for CO testing only. Currently, the facility is required to perform an annual stack test for CO using EPA Method 10. This test is to be run simultaneously with NO<sub>x</sub> and visible emissions (VE) at maximum load conditions only. To demonstrate compliance with requested CO emissions representative of reduced-load conditions, RCID proposes to perform initial CO compliance tests at full-, intermediate-, and reduced-load operation. The initial compliance tests are to be performed with the duct burners operating. Thereafter, annual compliance tests will be performed at full-load conditions with or without duct burner operation. This suggested testing protocol deviates from that submitted as part of Attachment A of the construction permit application submitted for the facility.

Please contact me or Edward Godwin of RCES at (407) 824-4943 if you have any questions concerning the information provided. It is hoped that the information contained herein will enable FDEP to continue processing of the air construction permit application.

Sincerely,

Kennard F. Kosky, P.E.  
Principal Engineer

KFK/GCR/lcb

cc: Edward Godwin, P.E., RCES  
Gail Rampersaud, KBNGainesville  
File (2)



# Department of Environmental Protection

*Kanani's*

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

July 6, 1995

## CERTIFIED MAIL- RETURN RECEIPT REQUESTED

Mr. Thomas M. Moses, District Administrator  
Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-0170

Dear Mr. Moses:

RE: Reedy Creek Improvement District, Orange County AC48-137740 (AO48-170280)

The Department has reviewed your June 19, 1995, application for minor modification of the above referenced permit. It has been assigned a new permit number, AC48-273159. Please reference this number in all further correspondence. To process your application, the Department requests the following information:

1. A brief description of the reduced-load condition(s) and a rough estimate of frequency of occurrence of those conditions.
2. The reasons why nitrogen oxide emission limits need to be maintained instead of lowered to reflect the reduced load condition(s).
3. A brief comparison of the recommended compliance methods with existing ones.

We will resume processing the application after receipt of the above information. If you have any questions, please call me or Kanani K. Winans at (904) 488-1344.

Sincerely,

A. A. Linero, P.E.  
Administrator  
New Source Review Section

AAL/kw

cc: Charles Collins, CD  
Edward Godwin, P.E.  
Ken Kosky, KBN

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

**I N T E R O F F I C E   M E M O R A N D U M**

**Date:** 11-Oct-1995 17:15 EST  
**From:** Alvaro Linero TAL  
LINERO\_A  
**Dept:** Air Resources Management  
**Tel No:** 904/921-9532  
**SUNCOM:** 291-9532

**TO:** Kanani Winans TAL

( WINANS\_K )

**Subject:** Reedy Creek

Kanani. I got a call from Ed Godwin asking me to please hold action on their request because they need to update it based on some modifications they want to make to the unit. So, we are still on track and any delays are due to applicant and not us.



August 24, 1995

Mr. Al A. Linero, P.E.  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RECEIVED

AUG 25 1995

Bureau of  
Air Regulation

Re: Reedy Creek Improvement District; Facility ID 30ORL480110-007  
Orange County  
Permit Number AC48-273159

Dear Mr. Linero:

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1616 'P' Street N.W., Suite 450  
Washington, D.C. 20036  
202-462-1100  
FAX 202-462-2270

Patty - FY5 } ~~I guess we'll get digital scan~~  
Kim - FY5 } ~~and~~ Reedy Creek docket  
item is now "complete"  
AC 98-273159

Kanani

Kanani - Please prepare outline of Intent, Public  
Notice, letter modification, + transmittal letter  
so we can fill in details. I think explanations  
make sense. Do you know who original  
enquirer was (maybe not even employed here)?  
anyone?

al



approximately 40 percent of the year. However, due to rapid changes and uncertainties in the power generation industry, anticipated operation rates in the future are difficult to determine. Therefore, operational flexibility is required in order to adjust to market demands.

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Please contact me or Edward Godwin of RCES at (407) 824-4943 if you have any questions concerning the information provided. It is hoped that the information contained herein will enable FDEP to continue processing of the air construction permit application.

Sincerely,

Kennard F. Kosky, P.E.  
Principal Engineer

KFK/GCR/lcb

cc: Edward Godwin, P.E., RCES  
Gail Rampersaud, KBNGainesville  
File (2)

*Mcostello 11-15*



Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt 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:  
*Thomas Moses, Dist. Admin.  
 Reedy Creek Improvement D.  
 P.O. Box 10170  
 LAKE BUENA VISTA, FL  
 32830-0170*

4a. Article Number  
*Z 392 979 048*

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

7. Date of Delivery  
*7-8-95*

5. Signature (Addressee)

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

6. Signature (Agent)  
*[Signature]*

PS Form 3811, December 1991 U.S. GPO: 1993-352-714

**DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.



**Receipt for Certified Mail**

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

PS Form 3800, March 1993

Sent to <i>Thomas Moses</i>	
Street and No. <i>Reedy Creek</i>	
P.O. State and ZIP Code <i>PO Box 10170</i>	
Postage <i>LBV, FL</i>	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>AC48-137740 7-6-95 (AD48-170280)</i>	

Z 392 979 048



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

July 6, 1995

CERTIFIED MAIL- RETURN RECEIPT REQUESTED

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Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-0170

Dear Mr. Moses:

RE: Reedy Creek Improvement District, Orange County AC48-137740 (AO48-170280)

The Department has reviewed your June 19, 1995, application for minor modification of the above referenced permit. It has been assigned a new permit number, AC48-273159. Please reference this number in all further correspondence. To process your application, the Department requests the following information:

1. A brief description of the reduced-load condition(s) and a rough estimate of frequency of occurrence of those conditions.
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Sincerely,

A. A. Linero, P.E.  
Administrator  
New Source Review Section

AAL/kw

cc: Charles Collins, CD  
Edward Godwin, P.E.  
Ken Kosky, KBN

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

## II. Project Description

The applicant proposes to replace two smaller Orenda turbines and their associated heat recovery system with a GE LM5000, 38 MW gas fired, oil stand-by, combustion turbine followed by an integrated heat recovery steam boiler and steam turbine, including an in-line 198 MMBtu/hr capacity gas fired duct burner. An emergency 1800HP diesel generator will also be installed and maintained in a state of readiness.

Both the turbine and downstream duct burner will fire No. 2 oil if natural gas supply is curtailed. The duct burner at low fire rate (normal mode) will have a 23 MMBtu/hr heat input rate and at high fire rate (when turbine is out of service) it will have a heat input rate of upto 198 MMBtu/hr.

NOx emissions will be controlled by water injection while other criteria pollutants (combustion products) will be controlled by good combustion practices.

During the equipment change over period of shutting down the existing Orenda turbines and starting up the GE turbine, the existing No. 1 and 2 turbine installations will be maintained on a standby basis through a six-month project debugging period. The existing No. 1 waste heat boiler will also be kept on standby but the No. 2 boiler will be dismantled to make room for the new GE/Vogt unit. The project will have one main stack and one emergency by-pass stack.

It is anticipated that after a reasonable debugging period the remaining standby Orenda turbines and associated boiler will cease operation.

As background information, it should be noted that the Department's Intent to Issue the permit for the proposed project, dated November 23, 1987, has been retracted in consideration of the applicant's revised permit application. Whereas the initial submittal was subject to a PSD review, the revised application is not because the net emissions increase is no longer significant in accordance with Rule 17-2.500, FAC. However, the self imposed NOx emission limits requested by the applicant to avoid the PSD review are substantially lower than NSPS requirements.

## III. Rule Applicability

The proposed project will emit the pollutants NOx, SO<sub>2</sub>, PM, CO, and VOCs. It is subject to preconstruction review requirements in accordance with Chapter 403 of the Florida Statutes and Chapters 17-2 and 17-4 of the Florida Administrative Code (FAC).

T.E 2/4  
Amended

The proposed project will be located in Orange County, an area designated as nonattainment for ozone and attainment for NOx, SO<sub>2</sub>, PM and CO in accordance with Rule 17-2.410 and 17-2.420, FAC, respectively.

The proposed project is more than a 100 km from the Chassahowitzka National Wilderness Area, a Class I area, in accordance with Rule 17-2.440, FAC.

The proposed project will be a minor modification to a major facility since emission increases are less than significant (17-2, Table 500-2, FAC) and is therefore not subject to a Prevention of Significant Deterioration (PSD) Review in accordance with Rule 17-2.500(2)(d)4, FAC.

The proposed project will not be subject to the New Source Review for Nonattainment Areas in accordance with Rule 17-2.510(2)(d)4, FAC, as emissions of VOC are less than significant (17-2. Table 500-2, FAC).

The proposed project will be subject to 40 CFR 60 Subpart GG - Standards of Performance for Stationary Gas Turbines.

The proposed project will also be subject to 40 CFR 60 Subpart Db - Standards of Performance for Fossil Fuel Fired Steam Generating Units, for the duct burner.

The proposed project will be required to show compliance with the emission limiting standards in accordance with:

- a) Rule 17-2.700, FAC
- b) 40 CFR 60, Subpart GG
- c) 40 CFR 60, Subpart Db

Initial and annual compliance test will be conducted in accordance with the above listed rules for the following:

- 1. NOx and SO<sub>2</sub>, EPA Method 20
- 2. CO, EPA Method 10
- 3. PM, EPA Method 5
- 4. Visible Emissions (VE), EPA Method 9

Other DER approved methods may be used with prior Departmental approval.

IV. Emission Limitations

By shutting down existing Orenda turbines the applicant proposes to net out of a PSD review, while bringing the proposed project on line.

Pollutant	Proposed Project Emission (TPY)	Shutdown Project Emissions (TPY)	Net Increase Emissions (TPY)
NO <sub>2</sub>	342	304	38
SO <sub>2</sub>	21	0.4	21
CO	51	84	(33)
VOC	26	30	(4)

As reflected by the calculations in the application and more stringent limits than the New Source Performance Standards, the emissions from the combined cycle gas turbine, including the duct burner, will not exceed:

Pollutant	Gas Fired		Oil Fired <sup>1</sup>	
	lb/hr	TPY*	lb/hr	TPY
Nitrogen Oxides (NO <sub>x</sub> ) peak @ 40°F	112		132	
	77	337	100	17
avg.				
Sulfur Dioxide (SO <sub>2</sub> )	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	
NO <sub>x</sub> , at 15% O <sub>2</sub> dry basis peak	74 ppmv		82 ppmv <sup>2</sup>	
	58 ppmv		68 ppmv	
avg.				
SO <sub>2</sub> , at 15% oxygen dry basis	--		58 ppmv	

\*TPY (tons per year)

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

<sup>2</sup>Variation in concentration with variation in ambient air temperature as per compliance plot, as submitted in the application and to be confirmed by initial compliance tests.

The duct burner NO<sub>x</sub> emissions shall not exceed (corresponding to 0.2 lb/MMBtu) 4.6 lb/hr for gas or oil at 23 MMBtu heat input and 40 lbs/hr for gas or oil at 198 MMBtu/hr.

Since there is a temperature dependence for NO<sub>x</sub> emissions from the turbine (the winter months will have higher NO<sub>x</sub> emissions than the summer months), the compliance tests will initially need to be done in a manner which establishes this relationship.

The "TPY" emission limit establishes allowable emission to avoid PSD applicability for NO<sub>x</sub>.

DETE 4/4  
Amended

The "average lb/hr" emission limit, which will be the average of 12 consecutive 30 day averages as logged by the computerized system, establishes compliance for a time period shorter than a year.

The "peak lb/hr" emission limit reflects the allowable emissions which will be encountered at low ambient temperatures (around 40°F).

The DER District office will formalize the compliance protocol with Reedy Creek prior to initial compliance tests.

V. Air Quality Impact Analysis

The technical evaluation of this application determined that air modeling or air monitoring would not be required to provide reasonable assurance that Florida's air quality standards would not be violated.

The ambient air quality impact analysis done in consideration of Reedy Creek's initial submittal, consisting of higher emissions, resulted in the following annual NOx impacts:

- Maximum Impact from Proposed Project: 0.9 ug/m<sup>3</sup>
- Predicted Total Impact (including background): 16.9 ug/m<sup>3</sup>
- Florida AAQS: 100 ug/m<sup>3</sup>

These are conservative estimates as far as the revised application is concerned.

VI. Conclusion

Based on the information provided by Reedy Creek, the Department has reasonable assurance that the proposed project, as described in this evaluation and subject to the conditions proposed herein, will not cause or contribute to a violation of an ambient air quality standard or PSD increment, or any other provision of Chapter 17-2, FAC.



# Final Permit Specific Conditions

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:

Pollutant	Gas Fired		Oil Fired <sup>1</sup>	
	lb/hr	TPY*	lb/hr	TPY
Nitrogen Oxides (NOx) peak @ 40°F	112		132	
	77	337	100	17
Sulfur Dioxide (SO <sub>2</sub> )	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 <sub>2</sub> dry basis peak	74 ppmv		82 ppmv <sup>2</sup>	
	avg. 58 ppmv		68 ppmv	
SO <sub>2</sub> , at 15% oxygen dry basis	--		58 ppmv	

\*TPY (tons per year)

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

<sup>2</sup>Variation 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 <sub>2</sub>	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 preceeding 12 month period using:

1. EPA Method 20 for NOx and SO<sub>2</sub>
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 Twachtmann, Secretary





Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Virginia H. Wettersell  
Secretary

## FAX TRANSMITTAL LETTER

TO:

NAME: Mrs Kanani

AGENCY: FDEP

TELEPHONE NUMBER (FAX No.): 292-6979

NUMBER OF PAGES (including cover sheet): 4

FROM:

NAME: Dr. A. Sobolevsky

AGENCY: FDEP

(Transmitted on a Brother FAX600)  
Orlando FAX Telephone Number (407) 897-5963 - S/C: 342-5963

IF ANY OF THESE PAGES ARE NOT CLEARLY RECEIVED, PLEASE CALL  
IMMEDIATELY AT:

Phone Number: 407/894-7555 (S/C: 325-1011)

SENDER'S NAME: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

AOR-94  
Reedy Creek

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①

District	Office	County	Facility	Emissions Unit	INPUT
APIS ID 30	ORL	48	0110	07	

EMISSIONS UNIT PROCESS/FUEL INFORMATION

1a. SCC 'a' 20100201	2a. Description of Process or Type of Fuel <i>Internal Combustion Electric Generation Natural Gas Turbine</i>	
3a. Annual Process or Fuel Usage Rate 2,145.095	4a. Ozone Season Daily Process or Fuel Usage Rate 6.52	5a. SCC Unit <i>million cubic feet</i>
6a. Fuel Average % Sulfur 0.16 gr S/100 ft <sup>3</sup>	7a. Fuel Average % Ash <i>Negligible</i>	8a. Fuel Heat Content (mmBtu/SCC Units) <i>1,038 (annual average)</i>

1b. SCC 'b' 20100101	2b. Description of Process or Type of Fuel <i>Internal Combustion Electric Generation Distillate Oil Turbine</i>	
3b. Annual Process or Fuel Usage Rate 39.798	4b. Ozone Season Daily Process or Fuel Usage Rate 0	5b. SCC Unit <i>1,000 gallons burned</i>
6b. Fuel Average % Sulfur 0.030	7b. Fuel Average % Ash <0.001	8b. Fuel Heat Content (mmBtu/SCC Units) <i>137.975</i>

1c. SCC 'c'	2c. Description of Process or Type of Fuel	
3c. Annual Process or Fuel Usage Rate	4c. Ozone Season Daily Process or Fuel Usage Rate	5c. SCC Unit
6c. Fuel Average % Sulfur	7c. Fuel Average % Ash	8c. Fuel Heat Content (mmBtu/SCC Units)

1d. SCC 'd'	2d. Description of Process or Type of Fuel	
3d. Annual Process or Fuel Usage Rate	4d. Ozone Season Daily Process or Fuel Usage Rate	5d. SCC Unit
6d. Fuel Average % Sulfur	7d. Fuel Average % Ash	8d. Fuel Heat Content (mmBtu/SCC Units)

Shaded areas are for DEP use.

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AOR-94  
Reedy Creek

③

District	Office	County	Facility	Emissions Unit	INPUT
APIS ID 30	ORL	48	0110	07	

EMISSIONS INFORMATION BY PROCESS/FUEL (EMISSION REPORT 1 OF 2)

1. SCC or Description of Process or Type of Fuel 20100201
--

2a. Pollutant 'a' <i>Volatile Organic Compounds</i>	3a. Annual Emissions (ton/year) 0	4a. Ozone Season Daily Emissions (lb/day) 0	5a. Emissions Method Code 1
6a. Emissions Calculation (Show separately both annual and daily emissions calculations) <i>None detected in source tests</i>			

2b. Pollutant 'b' <i>Sulfur Dioxide</i>	3b. Annual Emissions (ton/year) 0.49	4b. Ozone Season Daily Emissions (lb/day)	5b. Emissions Method Code 2
6b. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.16 \text{ gr S}/100 \text{ ft}^2) \times (\text{lb S}/7,000 \text{ gr}) \times (2 \text{ lb SO}_2/\text{lb S}) \times (2,145.095 \times 10^6 \text{ ft}^3/\text{yr}) \div 2,000 \text{ lb/ton} = 0.49 \text{ TPY}$			

2c. Pollutant 'c' <i>Particulate Matter - Total</i>	3c. Annual Emissions (ton/year) 0.35	4c. Ozone Season Daily Emissions (lb/day)	5c. Emissions Method Code 1
6c. Emissions Calculation (Show separately both annual and daily emissions calculations) $(0.09 \text{ lb/hr}) \times (7,677 \text{ hr/yr}) \div 2,000 \text{ lb/ton} = 0.35$			

2d. Pollutant 'd' <i>Nitrogen Oxides</i>	3d. Annual Emissions (ton/year) 232.8	4d. Ozone Season Daily Emissions (lb/day) 1,422.5	5d. Emissions Method Code 1
6d. Emissions Calculation (Show separately both annual and daily emissions calculations) <i>Annual emissions based on continuous monitoring data</i> $(60.65 \text{ lb/hr}) \times (2,017 \text{ hr/season}) \times (\text{season}/86 \text{ days}) = 1,422.5 \text{ lb/day}$			

Shaded areas are for IDEP use.

3

DEP Form No. 62-210.900(5) - Form  
Effective: 11-23-94Date: 02/22/95

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AOR-94  
Reedy Creek

2

District	Office	County	Facility	Emissions Unit	INPUT
APIS ID 30	ORL	48	0110	07	

EMISSIONS INFORMATION (Continued)

2e. Pollutant 'e' <b>Carbon Monoxide</b>	3e. Annual Emissions (ton/year) 17.96	4e. Ozone Season Daily Emissions (lb/day)	5e. Emissions Method Code 1
---	---	--	--------------------------------------

6e. Emissions Calculation (Show separately both annual and daily emissions calculations)  
 $(4.68 \text{ lb/hr}) \times (7,677 \text{ hr/yr}) \div 2,000 \text{ lb/ton} = 17.96 \text{ TPY}$

2f. Pollutant 'f' <b>Particulate Matter - PM10</b>	3f. Annual Emissions (ton/year) 0.35	4f. Ozone Season Daily Emissions (lb/day)	5f. Emissions Method Code 1
---	--	--	--------------------------------------

6f. Emissions Calculation (Show separately both annual and daily emissions calculations)  
 $(0.09 \text{ lb/hr}) \times (7,677 \text{ hr/yr}) \div 2,000 \text{ lb/ton} = 0.35 \text{ TPY}$

2g. Pollutant 'g' <b>Lead</b>	3g. Annual Emissions (ton/year) 0	4g. Ozone Season Daily Emissions (lb/day)	5g. Emissions Method Code 5
----------------------------------	---	--	--------------------------------------

6g. Emissions Calculation (Show separately both annual and daily emissions calculations)  
*Lead emission negligible for natural gas combustion*

2h. Pollutant 'h'	3h. Annual Emissions (ton/year)	4h. Ozone Season Daily Emissions (lb/day)	5h. Emissions Method Code
-------------------	------------------------------------	--	---------------------------------

6h. Emissions Calculation (Show separately both annual and daily emissions calculations)

Shaded areas are for DEP use.

Interoffice Memorandum

TO: Al Linero  
FROM: Kanani K. Winans  
DATE: 27 June 1995  
RE: Reedy Creek AC48-137740, CO Emissions Limit Change.



*This permit is expired therefore an entire new permit is required. Thereby the conditions are federally enforceable. This includes the TE:PD. we are waiting for their incompleteness response*

Dear Al,

In response to your e-mail and note I have obtained the following information.

The original permit engineer for this project was Pradeep Raval.

The PSD review was dropped because Reedy Creek voluntarily limited its annual NOx emissions to below the significance level. The PSD review was initiated under PSD-FL-123. See the attached revised technical evaluation and letters dated 12/22/87, and 01/11/88.

I have also attached the permit's specific conditions as established in the final permit. I could list the modifications via amendment that have been made since the issuance of this permit, if you would like me to do so. The CO emissions limit as stated in the final permit is 11 lb./hr, 48 TPY Gas Fired; 24 lb./hr, 4 TPY Oil Fired.

I contacted someone in the Central District Office about their AOR and he said gave me the following AOR data. He is supposed to be faxing me the actual report.

NOx	232.8 tons/year
<b>CO</b>	<b>17.96 tons/year</b>
PM	0.35 tons/year
<i>fuel usage</i>	<i>2145.095 million cubic feet</i>
<i>Natural Gas</i>	<i>40000 Gal Oil #2</i>

The last two values were confusing to me. When I receive the fax I will send you a copy.

Sincerely,

Kanani K. Winans

al



**REEDY CREEK  
IMPROVEMENT DISTRICT**

P.O. BOX 10170 LAKE BUENA VISTA, FLORIDA 32830-0170 TELEPHONE (407) 828-2034

19 June, 1995

Mr. Claire H. Fancy, P.E., Chief  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RECEIVED

JUN 22 1995

Bureau of  
Air Regulation

RE: *Orange County--AC48-137740 (AO48-170280) - Reedy Creek Improvement District  
Gas Turbine Generator and Heat Recovery Steam Generator with Duct Burner*

Dear Mr. Fancy:

The purpose of this correspondence is to request a change in the Carbon Monoxide (CO) emissions limits in this source's construction permit. This requested increase in CO emissions from currently permitted levels is less than the major status threshold for this criteria pollutant. Approval of this request will result in the operational flexibility to operate at significantly reduced power generation levels. That, in turn, will result in contemporaneously reduced nitrogen oxides emissions. The relationships are more fully explained in the attachments to this letter.

Enclosed is one original and five copies of FDEP Form No. 62-210.900(1) with attachments and our application check number 227926 in the amount of \$5,000.00. Our intention is to reference this request in our August, 1995 Title V application as a pending modification so that this request may be acted upon during the Title V Operating Permit review period.

Our technical coordinator in this matter is Mr. Edward Godwin, P.E. He can be contacted at the address listed below. Thank you for your consideration in this matter.

Sincerely,

Thomas M. Moses  
District Administrator

cc: Mr. Charles Collins  
Florida Department of Environmental Protection  
Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, FL 32803-3767

Edward Godwin, P.E.  
Reedy Creek Energy Services, Inc.  
P.O. Box 10000  
Lake Buena Vista, FL 32830-1000  
(407) 824-4943  
(407) 824-4529 FAX

Department of  
Environmental Protection

RECEIVED  
JUN 22 1995

Bureau of  
Air Regulation

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

This section of the Application for Air Permit form provides general information on the scope of this application, the purpose for which this application is being submitted, and the nature of any construction or modification activities proposed as a part of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department on diskette, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

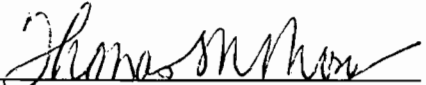
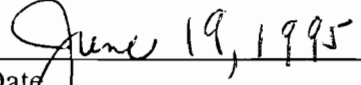
Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility name, if any; and a brief reference to the facility's physical location. If known, also enter the ARMS or AIRS facility identification number. This information is intended to give a quick reference, on the first page of the application form, to the facility addressed in this application. Elsewhere in the form, numbered data fields are provided for entry of the facility data in computer-input format.

Reedy Creek Improvement District Central Energy Plant - North Service Area, 300RL480110 5300 North Cast Drive, Lake Buena Vista, FL 32830
---

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	6-22-95
2. Permit Number:	AC 48-273159 0950110-001-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

**Owner/Authorized Representative or Responsible Official**

1.	Name and Title of Owner/Authorized Representative or Responsible Official: Thomas M. Moses, Director/General Manager
2.	Owner/Authorized Representative or Responsible Official Mailing Address:  Organization/Firm: Reedy Creek Improvement District Street Address: P.O. Box 40 City: Lake Buena Vista      State:FL      Zip Code: 32830
3.	Owner/Authorized Representative or Responsible Official Telephone Numbers:  Telephone: ( 407 ) 828-3534      Fax: (   )
4.	Owner/Authorized Representative or Responsible Official Statement:  <i>I, the undersigned, am the owner or authorized representative* of the facility (non-Title V source) addressed in this Application for Air Permit or the responsible official, as defined in Chapter 62-213, 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. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described in this application 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. If the purpose of this application is to obtain an air operation permit or operation permit revision for one or more emissions units which have undergone construction or modification, I 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. 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 unit.</i>   Signature  Date

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





**Purpose of Application and Category**

Check one (except as otherwise indicated):

**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. Also check Category III.

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. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: \_\_\_\_\_

Reason for revision: \_\_\_\_\_

\_\_\_\_\_

**Category II: All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(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. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

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).

Current operation permit number(s), if any: A048-170280

- 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:

Attached - Amount: \$ 5,000.00

Not Applicable.

**Construction/Modification Information**

1. Description of Proposed Project or Alterations: See Attachment A for project description.
2. Projected or Actual Date of Commencement of Construction (DD-MON-YYYY):  01-SEP-1995
3. Projected Date of Completion of Construction (DD-MON-YYYY):  01-NOV-1995, 01-DEC-1995

**Professional Engineer Certification**

1. Professional Engineer Name: Kennard F. Kosky, P.E.  
Registration Number: 14996

2. Professional Engineer Mailing Address:  
Organization/Firm: KBN Engineering and Applied Sciences, Inc.  
Street Address: 6241 NW 23rd Street, Suite 500  
City: Gainesville State: FL Zip Code: 32653-1500

3. Professional Engineer Telephone Numbers:  
Telephone: ( 904 ) 336-5600 Fax: ( 904 ) 336-6603

4. Professional Engineer Statement:

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

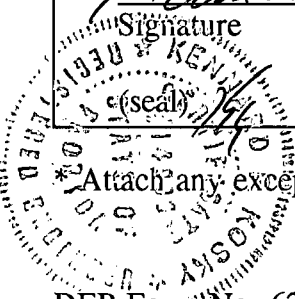
*(1) To the best of my knowledge, there is reasonable assurance (a) that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant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

*(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; and*

*(3) For any application for an air construction permit for one or more proposed new or modified emissions units, 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.*

*Kennard F. Kosky*  
\_\_\_\_\_  
Signature

*5/8/95*  
\_\_\_\_\_  
Date



Attach any exception to certification statement.

**Application Contact**

1. Name and Title of Application Contact: Thomas M. Moses, Director/General Manager
2. Application Contact Mailing Address:  Organization/Firm: Reedy Creek Improvement District Street Address: P.O. Box 40 City: Lake Buena Vista      State: FL      Zip Code: 32830
3. Application Contact Telephone Numbers:  Telephone: ( 407 ) 828-3534      Fax: (   )

**Application Comment**

--

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Name, Location, and Type

1. Facility Owner or Operator: Reedy Creek Improvement District			
2. Facility Name: Central Energy Plant - North Service Area			
3. Facility Identification Number: <input type="checkbox"/> Unknown 30ORL480110			
4. Facility Location Information: Facility Street Address: 5300 North Cast Drive City: Lake Buena Vista                      County: Orange                      Zip Code: 32830			
5. Facility UTM Coordinates: Zone: 17                      East (km): 442.0                      North (km): 3139.0			
6. Facility Latitude/Longitude: Latitude (DD/MM/SS):                      Longitude (DD/MM/SS):			
7. Governmental Facility Code: 0	8. Facility Status Code: A	9. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	10. Facility Major Group SIC Code: 49
11. Facility Comment:			

#### Facility Contact

1. Name and Title of Facility Contact: Edward Godwin			
2. Facility Contact Mailing Address: Organization/Firm: Reedy Creek Improvement District Street Address: 5300 North Cast Drive City: Lake Buena Vista                      State: FL                      Zip Code: 32830			
3. Facility Contact Telephone Numbers: Telephone: ( 407 ) 824-4943                      Fax: ( 407 ) 824-4529			





**B. FACILITY REGULATIONS**

Depending on the application category, this subsection of the Application for Air Permit form provides either a brief analysis or detailed listing of federal, state, and local regulations applicable to the facility as a whole. (Regulations applicable to individual emissions units within the facility are addressed in Subsection III-B of the form.)

**Rule Applicability Analysis** (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

<p>Not Applicable</p>
-----------------------



### C. FACILITY POLLUTANT INFORMATION

This subsection of the Application for Air Permit form allows for the reporting of potential and estimated emissions of selected pollutants on a facility-wide basis. It must be completed for each pollutant for which the applicant proposes to establish a facility-wide emissions cap and for each pollutant for which emissions are not reported at the emissions-unit level.

**Facility Pollutant Information:** Pollutant \_\_\_\_ of \_\_\_\_ Not Applicable

1. Pollutant Emitted:		
2. Estimated Emissions:		(tons/yr)
3. Requested Emissions Cap:	(lb/hr)	(tons/yr)
4. Basis for Emissions Cap Code:		
5. Facility Pollutant Comment:		

**Facility Pollutant Information** Pollutant \_\_\_\_ of \_\_\_\_

1. Pollutant Emitted:		
2. Estimated Emissions:		(tons/yr)
3. Requested Emissions Cap:	(lb/hr)	(tons/yr)
4. Basis for Emissions Cap Code:		
5. Facility Pollutant Comment:		

**Facility Pollutant Information** Pollutant \_\_\_\_ of \_\_\_\_

1. Pollutant Emitted:		
2. Estimated Emissions:		(tons/yr)
3. Requested Emissions Cap:	(lb/hr)	(tons/yr)
4. Basis for Emissions Cap Code:		
5. Facility Pollutant Comment:		

**Facility Pollutant Information** Pollutant \_\_\_\_ of \_\_\_\_

1. Pollutant Emitted:		
2. Estimated Emissions:		(tons/yr)
3. Requested Emissions Cap:	(lb/hr)	(tons/yr)
4. Basis for Emissions Cap Code:		
5. Facility Pollutant Comment:		

## D. FACILITY SUPPLEMENTAL INFORMATION

This subsection of the Application for Air Permit form provides supplemental information related to the facility as a whole. (Supplemental information related to individual emissions units within the facility is provided in Subsection III-I of the form.) Supplemental information must be submitted as an attachment to each copy of the form, in hard-copy or computer-readable form.

### Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A, Figure 1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A, Figure 2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input checked="" type="checkbox"/> Attached, Document ID(s): <u>Attachment A, Figure 3</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Supplemental Information for Construction Permit Application: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

### Additional Supplemental Requirements for Category I Applications Only Not Applicable

7. List of Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities Onsite but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable

<p>9. Alternative Methods of Operation:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>10. Alternative Modes of Operation (Emissions Trading):</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>11. Enhanced Monitoring Plan:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>12. Risk Management Plan Verification:</p> <p><input type="checkbox"/> Plan Submitted to Implementing Agency - Verification Attached Attached, Document ID: _____</p> <p><input type="checkbox"/> Plan to be Submitted to Implementing Agency by Required Date</p> <p><input type="checkbox"/> Not Applicable</p>
<p>13. Compliance Report and Plan</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>14. Compliance Statement (Hard-copy Required)</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input type="checkbox"/> Not Applicable</p>

### III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

#### A. GENERAL EMISSIONS UNIT INFORMATION

This subsection of the Application for Air Permit form provides general information on the emissions unit addressed in this Emissions Unit Information Section, including information on the type, control equipment, operating capacity, and operating schedule of the emissions unit.

##### Type of Emissions Unit Addressed in This Section

Check one:

- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, an individually-regulated emission point (stack or vent) serving a single process or production unit, or activity, which also has other individually-regulated emission points.
- This Emissions Unit Information Section addresses, as a single emissions unit, a collectively-regulated group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section  1  of  1

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section: Gas-fired turbine generator with duct-fired heat recovery system generator.		
2. ARMS Identification Number: [ ] No Corresponding ID [ ] Unknown 007		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ X ] Yes [ ] No	5. Emissions Unit Major Group SIC Code: 49
6. Initial Startup Date (DD-MON-YYYY):		
7. Long-term Reserve Shutdown Date (DD-MON-YYYY):		
8. Package Unit: Manufacturer: General Electric Model Number: LM5000		
9. Generator Nameplate Rating: 38 MW		
10. Incinerator Information:  Dwell Temperature: °F Dwell Time: seconds Incinerator Afterburner Temperature: °F		
11. Emissions Unit Comment:		



**Emissions Unit Control Equipment**

**A.**

<p>1. Description: Water injection to reduce NO<sub>x</sub> at 65 - 75% efficiency.</p> <p>2. Control Device or Method Code: 028</p>
--

**B.**

<p>1. Description:</p> <p>2. Control Device or Method Code:</p>
---

**C.**

<p>1. Description:</p> <p>2. Control Device or Method Code:</p>
---

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate: 450.0 mmBtu/hr
2. Maximum Incineration Rate: lbs/hr    tons/day
3. Maximum Process or Throughput Rate:
4. Maximum Production Rate:
5. Operating Capacity Comment:

**Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/yr	8,760 hours/yr

**B. EMISSIONS UNIT REGULATIONS**

Depending on the application category, this subsection of the Application for Air Permit form provides either a brief analysis or detailed listing of all federal, state, and local regulations applicable to the emissions unit addressed in this Emissions Unit Information Section.

**Rule Applicability Analysis** (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

<p><b>Not Applicable</b></p>
------------------------------



**C. EMISSION POINT (STACK/VENT) INFORMATION**

This subsection of the Application for Air Permit form provides information about the emission point associated with the emissions unit addressed in this Emissions Unit Information Section. An emission point is typically a stack or vent but can be any identifiable location at which air pollutants, including fugitive emissions, are discharged into the atmosphere.

**Emission Point Description and Type**

<p>1. Identification of Point on Plot Plan or Flow Diagram:</p> <p style="margin-left: 20px;">TB-1 (HRSG Stack)</p>
<p>2. Emission Point Type Code:</p> <p style="margin-left: 20px;"> <input type="checkbox"/> 1            <input checked="" type="checkbox"/> 2            <input type="checkbox"/> 3            <input type="checkbox"/> 4         </p>
<p>3. Descriptions of Emissions Points Comprising this Emissions Unit:</p> <p style="margin-left: 20px;">Gas turbine and duct burners vent through the HRSG stack.</p>
<p>4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:</p>
<p>5. Discharge Type Code:</p> <p style="margin-left: 20px;"> <input type="checkbox"/> D            <input type="checkbox"/> F            <input type="checkbox"/> H            <input type="checkbox"/> P  <input type="checkbox"/> R            <input checked="" type="checkbox"/> V            <input type="checkbox"/> W         </p>

Emissions Unit Information Section  1  of  1

6. Stack Height:	65	ft
7. Exit Diameter:	11.16	ft
8. Exit Temperature:	285	°F
9. Actual Volumetric Flow Rate:	227,000	acfm
10. Percent Water Vapor:	7.2	%
11. Maximum Dry Standard Flow Rate:	149,500	dscfm
12. Nonstack Emission Point Height:		ft
13. Emission Point UTM Coordinates:		
Zone:	East (km):	North (km):
14. Emission Point Comment: Estimated flow rate and temperature indicative of gas turbine operating at reduced-load conditions.		

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of segment data (Fields 1-10) must be completed for each segment required to be reported and for each alternative operating method or mode (emissions trading scenario) under Chapter 62-213, F.A.C., for which the maximum hourly or annual segment-related rate would vary. A segment is a material handling, process, fuel burning, volatile organic liquid storage, production, or other such operation to which emissions of the unit are directly related. See instructions for further details on this subsection of the Application for Air Permit.

**Segment Description and Rate Information:** Segment  1  of  2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):  Natural gas used in turbine generator and duct burner (emissions related to million cubic feet burned)	
2. Source Classification Code (SCC): 20100201	
3. SCC Units: Million cubic feet burned	
4. Maximum Hourly Rate: 0.45	5. Maximum Annual Rate: 3,942
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.006	8. Maximum Percent Ash: 0
9. Million Btu per SCC Unit: 925 (LHV)	
10. Segment Comment:	

Emissions Unit Information Section  1  of  1

Segment Description and Rate Information: Segment  2  of  2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode): No. 2 fuel oil used in turbine generator (emissions related to thousand gallons burned)	
2. Source Classification Code: 20100101	
3. SCC Units: 1000 gallons burned	
4. Maximum Hourly Rate: 3.43	5. Maximum Annual Rate: 1152.48
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.4 (maximum)	8. Maximum Percent Ash: 0.005
9. Million Btu per SCC Unit: 131.350 (LHV)	
10. Segment Comment:	



**E. POLLUTANT INFORMATION**

For the emissions unit addressed in this Emissions Unit Information Section, a separate set of pollutant information must be completed for each pollutant required to be reported. See instructions for further details on this subsection of the Application for Air Permit.

**Pollutant Potential/Estimated Emissions:** Pollutant  1  of  1

1. Pollutant Emitted: CO		
2. Total Percent Efficiency of Control:	%	
3. Primary Control Device Code:		
4. Secondary Control Device Code:		
5. Potential Emissions:	25 lbs/hr	110 tons/yr
6. Synthetically Limited?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3 _____ to _____ tons/yr
8. Emission Factor: See Attachment A		
Reference:		
9. Emissions Method Code:		
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5
10. Calculation of Emissions: See Attachment A		
11. Pollutant Potential/Estimated Emissions Comment:		

Emissions Unit Information Section  1  of  1

Allowable Emissions (Pollutant identified on front page)

**A.**

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	<b>25 lbs/hr</b>	<b>110 tons/yr</b>
5. Method of Compliance: <b>Annual stack testing using EPA Method 10</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):		

**B.**

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lbs/hr	tons/yr
5. Method of Compliance:		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):		

F. VISIBLE EMISSIONS INFORMATION

Not Applicable

This subsection of the Application for Air Permit form must be completed for only those emissions units which are subject to a visible emissions limitation. The intent of this subsection of the form is to identify each activity associated with the emissions unit addressed in this section for which a separate opacity limitation would be applicable. Visible emission subtype codes for each such activity are listed in the instructions for Field 1. Most emissions units will be subject to a "subtype VE" limit only.

**Visible Emissions Limitations:** Visible Emissions Limitation  1  of  1

1. Visible Emissions Subtype:			
2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other			
3. Requested Allowable Opacity:		Exceptional Conditions:	
Normal Conditions:	%		%
Maximum Period of Excess Opacity Allowed:			min/hr
4. Method of Compliance:			
5. Visible Emissions Comment:			



**G. CONTINUOUS MONITOR INFORMATION**

Not Applicable for Carbon Monoxide

This subsection of the Application for Air Permit form must be completed for only those emissions units which are required by rule or permit to install and operate one or more continuous emission, opacity, flow, or other type monitors. A separate set of continuous monitor information (fields 1-6) must be completed for each monitoring system required.

Continuous Monitoring System Continuous Monitor   of

1. Parameter Code:	
2. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Monitor Information:	
Manufacturer:	
Model Number:	Serial Number:
4. Installation Date (DD-MON-YYYY):	
5. Performance Specification Test Date (DD-MON-YYYY):	
6. Continuous Monitor Comment:	

Emissions Unit Information Section  1  of  1

Continuous Monitoring System Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:
2. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Monitor Information: Manufacturer: Model Number: Serial Number:
4. Installation Date (DD-MON-YYYY):
5. Performance Specification Test Date (DD-MON-YYYY):
6. Continuous Monitor Comment:

Continuous Monitoring System Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:
2. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Monitor Information: Manufacturer: Model Number: Serial Number:
4. Installation Date (DD-MON-YYYY):
5. Performance Specification Test Date (DD-MON-YYYY):
6. Continuous Monitor Comment:

**H. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION**

**Not Applicable**

This subsection of the Application for Air Permit form must be completed for all applications, not just those undergoing prevention-of-significant-deterioration (PSD) review pursuant to Rule 62-212.400, F.A.C. The intent of this subsection is to make a preliminary determination as to whether the emissions unit addressed in this Emissions Unit Information Section consumes PSD increment. PSD increment is consumed (or expanded) as a result of emission increases (decreases) occurring after pollutant-specific baseline dates. Pollutants for which baseline dates have been established are sulfur dioxide, particulate matter, and nitrogen dioxide.

**PSD Increment Consumption Determination**

**1. Increment Consuming for Particulate Matter or Sulfur Dioxide?**

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

- 1 The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- 1 The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- 1 The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- 1 For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- 1 None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
SO2	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
NO2	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
4. Baseline Emissions:			
PM	lbs/hr		tons/yr
SO2	lbs/hr		tons/yr
NO2			tons/yr
5. PSD Comment:			



**I. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**

This subsection of the Application for Air Permit form provides supplemental information related to the emissions unit addressed in this Emissions Unit Information Section. Supplemental information must be submitted as an attachment to each copy of the form, in hard-copy or computer-readable form.

**Supplemental Requirements for All Applications**

1. Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u> Attachment A, Figure 3 </u>	<input type="checkbox"/> Waiver Requested
	<input type="checkbox"/> Not Applicable	
2. Fuel Analysis or Specification	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
	<input checked="" type="checkbox"/> Not Applicable	
3. Detailed Description of Control Equipment	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
	<input checked="" type="checkbox"/> Not Applicable	
4. Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
	<input checked="" type="checkbox"/> Not Applicable	
5. Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Not Applicable
	<input checked="" type="checkbox"/> Previously Submitted, Date: _____	
6. Procedures for Startup and Shutdown	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
7. Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
8. Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable

Additional Supplemental Requirements for Category I Applications Only Not Applicable

10. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Enhanced Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application  <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____  <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____  <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____  <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____  <input checked="" type="checkbox"/> Not Applicable

## **1.0 INTRODUCTION**

Reedy Creek Improvement District (RCID) currently owns a combined cycle electric generation facility located in Lake Buena Vista, Florida (see Figure 1). The facility is operated by Reedy Creek Energy Services (RCES). The facility consists of a 30.8-megawatt (MW) natural-gas-fired turbine generator unit with a duct-fired heat recovery steam generator (HRSG). A facility plot plan and process flow diagram is included in Figures 2 and 3, respectively. The facility is permitted to burn No. 2 fuel oil for a maximum of 14 days per year in the event of natural gas curtailment. This facility is considered to be an existing major source because potential emissions of nitrogen oxides (NO<sub>x</sub>) are in excess of 100 tons per year (TPY). Copies of the most current air construction and operating permits are included in Appendix A.

The facility typically operates at base load conditions. However, RCID would like the flexibility to operate the combustion turbine at lower load conditions. Operating the unit at reduced-load conditions will potentially increase carbon monoxide (CO) emissions beyond the maximum permitted emission rate of 11 pounds per hour (lb/hr) and 48 TPY. Therefore, the proposed operation of the facility at reduced-load conditions will require a modification to the Air Construction Permit for the facility. This modification to the permit will be limited to those conditions relating to CO emissions.

RCID is submitting the attached Application For Air Permit - Long Form [Florida Department of Environmental Protection (FDEP) Form No. 62-210.900(1)] for the requested facility modification. Because the resulting net emission increase for CO is less than 100 TPY, the modification is considered "minor" and will, therefore, not be subject to the prevention of significant deterioration (PSD) review requirements.

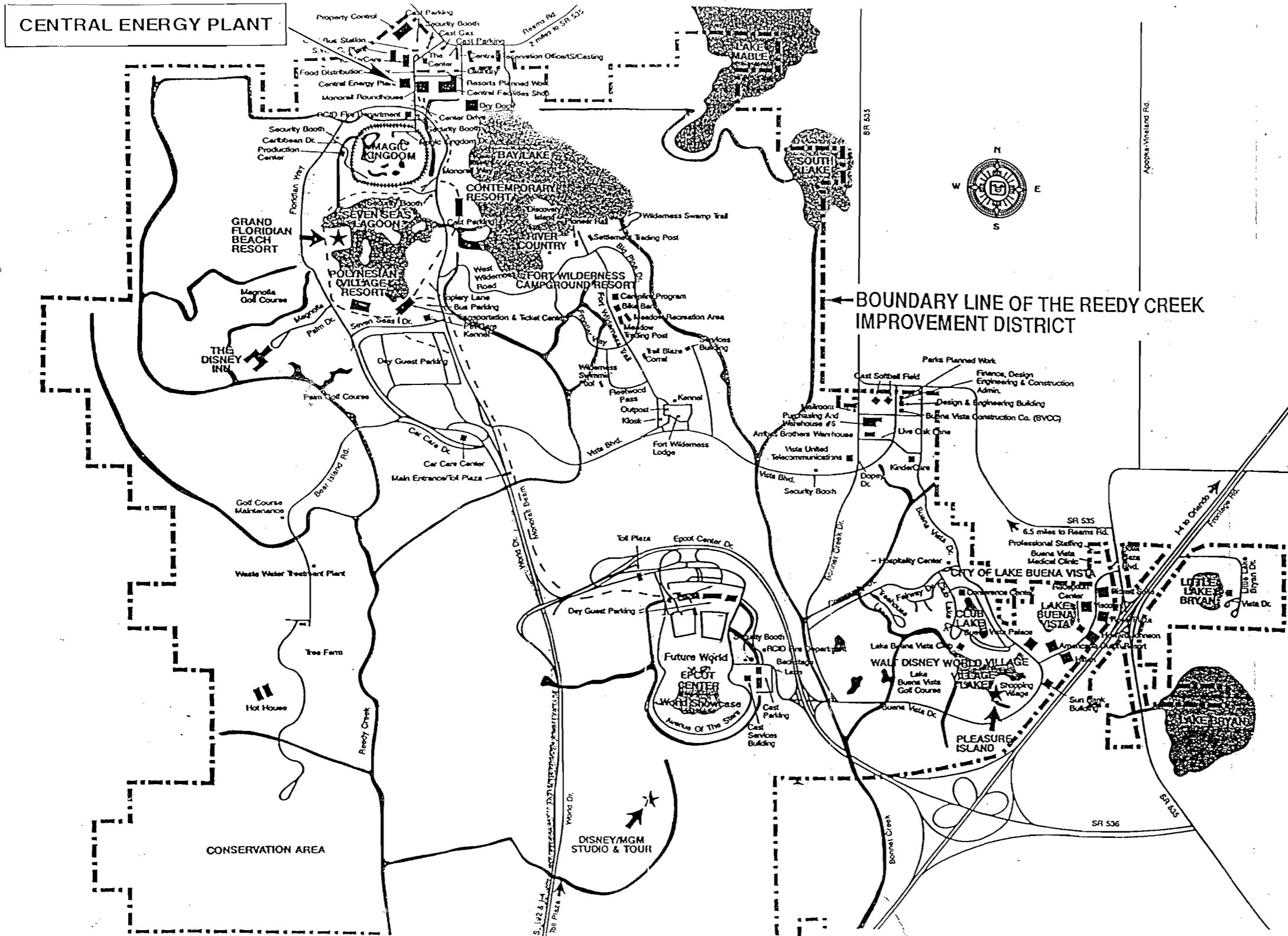


Figure 1  
 Site Location of Central Energy Plant  
 With Respect to the Reedy Creek Improvement District,  
 Orange County, Florida



A-3

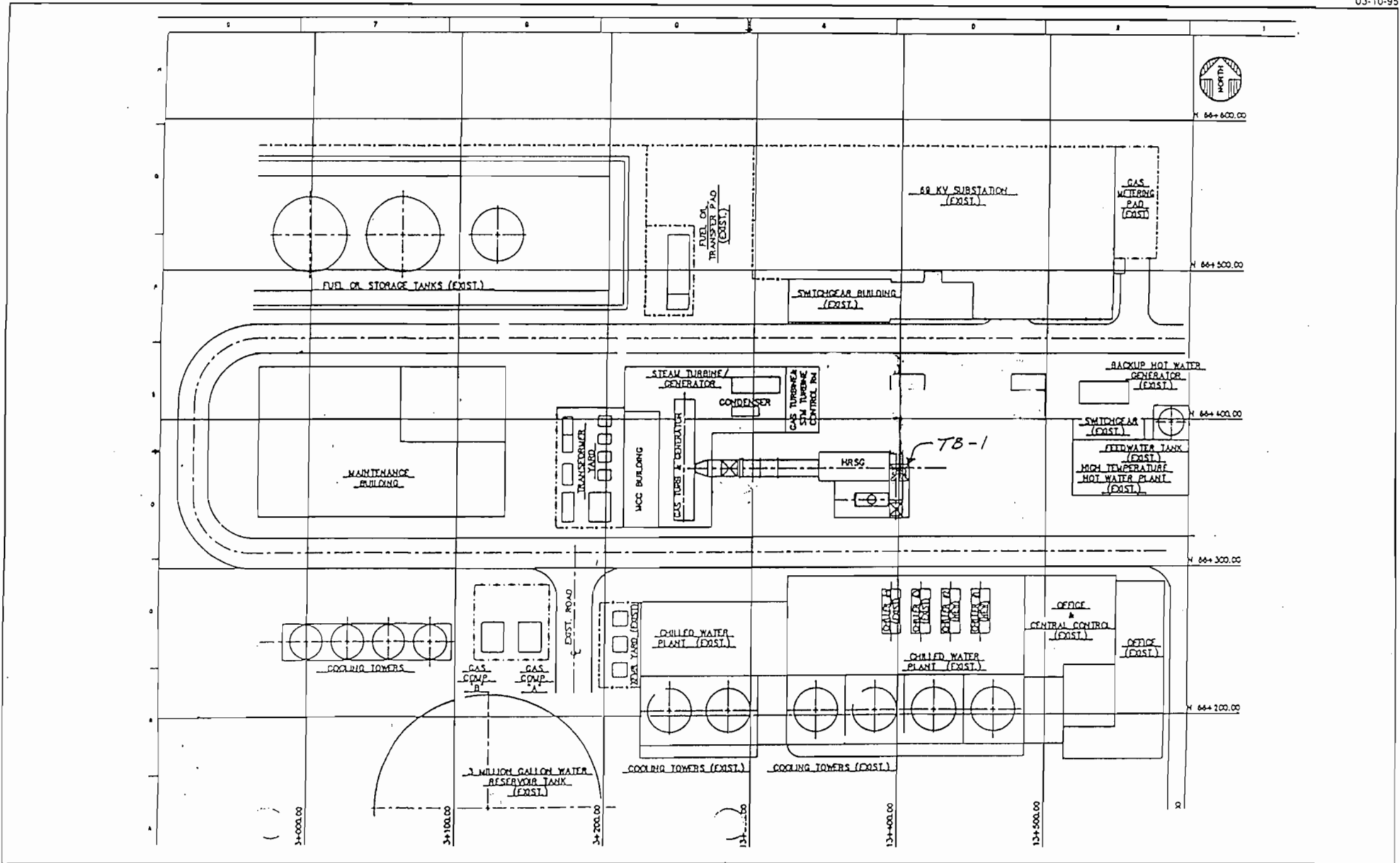


Figure 2  
Site Plan for the RCID Central Energy Plant—North Service Area



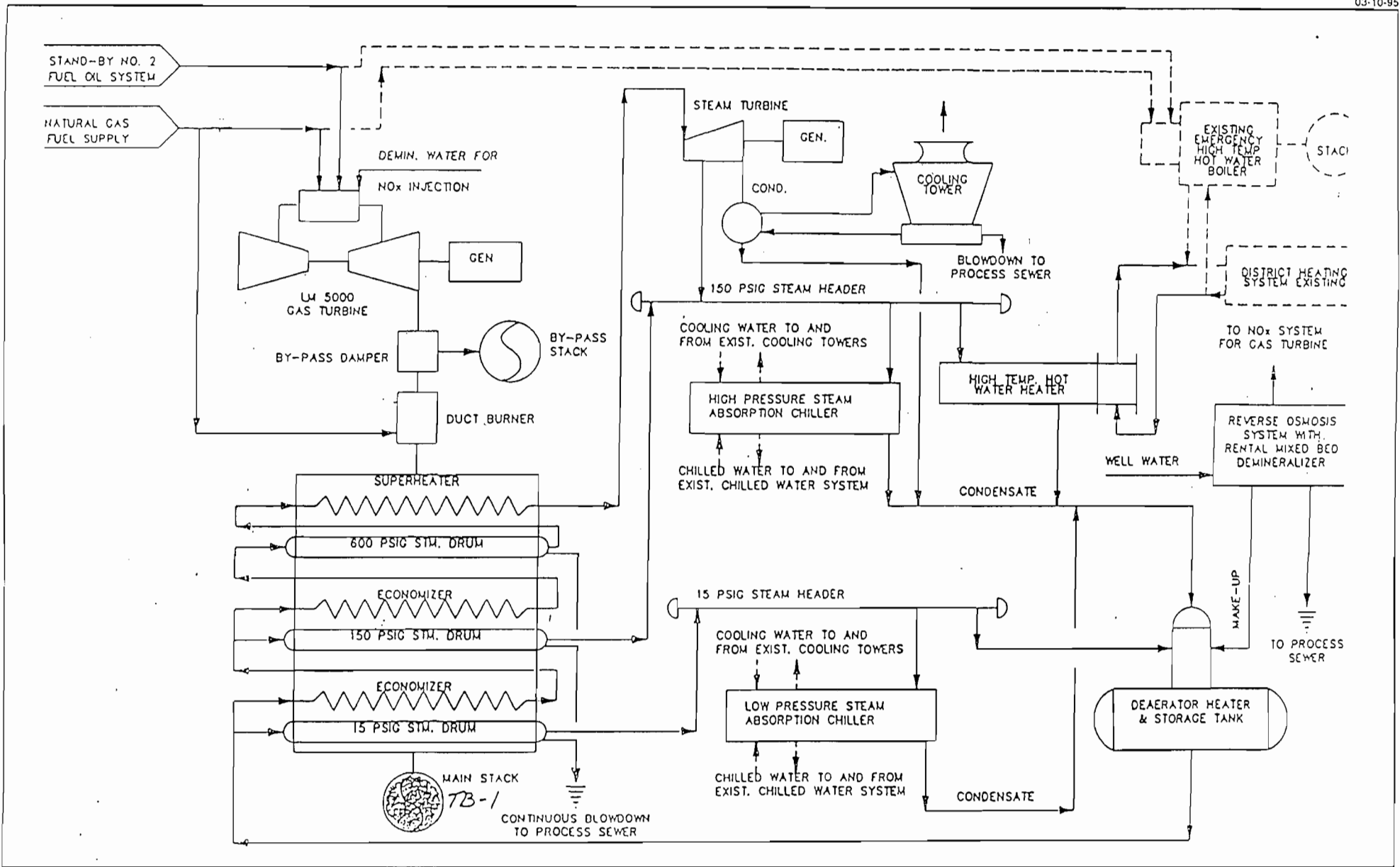


Figure 3  
Process Flow Diagram for the RCID Central Energy Plant—North Service Area



## **2.0 EVALUATION OF POTENTIAL CO EMISSIONS**

The magnitude of CO emissions from the gas turbine is dependent on two independent variables: the turbine inlet temperature and the post-Stage 1 engine temperature, referred to as the T2 and T4.4 temperatures, respectively. The T2 temperature represents the turbine inlet temperature after the evaporative cooler. Variations in electrical generation and emissions are highly dependent on inlet temperature. The T4.4 temperature represents an internal engine temperature which is measured within the engine area between the first and second turbine stages. This temperature is directly used to control turbine fuel flow during higher machine load conditions. Based on manufacturers data, high (i.e., base) load conditions correspond to T4.4 temperatures greater than 1320 degrees Fahrenheit (deg F). At lower load conditions, fuel flow is dictated by the turbine shaft speed. Although the T4.4 temperature does not directly control fuel flow at reduced load operation, the magnitude of CO emissions is related to the T4.4 temperature.

Gas turbine manufacturers and design data were evaluated to relate CO emissions to the T2 and T4.4 independent temperature parameters. To develop a relationship, a non-linear regression analysis was performed to define CO emissions in terms of both the T2 and T4.4 temperatures. This analysis yielded a regression equation defined as:

$$\text{CO Emissions (lb/hr)} = 0.24306 \times (\text{T2 Temperature}) - 0.06912 \times (\text{T4.4 Temperature})$$

Based on this equation and representative T2 and T4.4 temperatures expected during reduced load operation, expected CO emissions will be approximately 17 lb/hr at reduced load operation.

Variations in engine performance are expected to result in CO emissions variations. Therefore, RCID proposes a limit of 25 lb/hr CO emissions to accommodate operation of the gas turbine at reduced load. For potential full-year operation at reduced load (i.e., 8,760 hr/yr), maximum annual emissions will be 110 TPY. RCID proposes that these emission limits replace the current permitted CO emission limits of 11 lb/hr and 48 TPY.

Because the proposed operation at reduced load will cause an increase in actual and permitted CO emissions, the change meets the definition of "modification" as defined under the PSD regulations. A modification refers to:

"any physical change in, change in the method of operation of, or addition to a stationary source or facility which increases the actual emissions of any air pollutant regulated under Rules 62-210, 62-212, 62-252, 62-272, 62-273, 62-275, 62-296, or 62-297, F.A.C., including any not previously emitted, from any source or facility."

A change in the method of operation shall not include an increase in hours of operation or production rate, unless such change would be prohibited under any federally enforceable permit condition or applicable Department air construction or air operation permit. Operation of the combustion turbine at reduced load conditions would constitute a change in the method of operation of the unit. A "major modification", which would be subject to PSD review, refers to a modification where the net emissions increase of a regulated pollutant exceeds the significant emission rate limits established for that pollutant. The significant emission rate level for CO has been established as 100 TPY. The net emissions increase is determined by comparing the emissions due to the proposed modification with actual emissions. Actual emissions are based on the average of the most recent two years of actual emissions data (e.g., those reported on the Annual Operating Reports) if these emissions are representative of normal facility operation.

Actual CO emissions for the combined cycle unit for 1993 and 1994 were 26 and 18 TPY, respectively, for a two-year average of 22 TPY. These actual emissions are considered to be representative of normal facility operation. The net emissions increase due to the proposed modification is 88 TPY (i.e., 110 TPY minus 22 TPY). This increase is less than the significant emission rate of 100 TPY for CO. Therefore, this modification is not subject to PSD review.

### **3.0 REDUCTION IN NITROGEN OXIDE EMISSIONS**

Because RCID will continue to operate its water injection system at a 0.55 water-to-fuel ratio as currently permitted, increases in CO emissions due to reduced-load operation will result in simultaneous reduction in NO<sub>x</sub> emissions. Turbine manufacturer's design information suggest that operating at reduced-load conditions causes a decrease in NO<sub>x</sub> emissions of approximately 2 lb/hr for every 1 lb/hr increase in CO emissions. Therefore, the operation of the unit at reduced-load conditions is expected to reduce NO<sub>x</sub> emissions at a greater rate than CO emissions are increased, thereby reducing overall NO<sub>x</sub> impacts in the ozone maintenance area. On an annual basis, CO emissions are increased from 48 TPY (currently permitted) to 110 TPY (proposed), or a 62 TPY increase. A 2 lb/hr NO<sub>x</sub> decrease for every 1 lb/hr CO increase could potentially decrease NO<sub>x</sub>



emissions by 124 TPY, or from 337 TPY (currently permitted) to 213 TPY when operating at reduced load for the entire year.

#### **4.0 OIL FIRING**

The facility is currently permitted to operate for a maximum of 14 days (336 hours) while firing No. 2 fuel oil in the turbine. However, RCID will not operate at reduced load conditions (i.e., less than a T4.4 temperature of 1,320 deg F) while firing oil. Therefore, current CO emission rates for oil firing will not change.

#### **5.0 COMPLIANCE DEMONSTRATION**

RCID will demonstrate compliance with the proposed CO emission limit by conducting initial and annual stack testing at full and reduced load operation using EPA Method 10. The suggested testing procedures are as follows:

1. An initial compliance test will be conducted in order to obtain the air operation permit for the modification. This test will consist of testing CO emissions at the applicable peak and reduced load conditions achievable on the day of the test. Test day peak load based on BTU input will be established and peak load megawatts determined for test day conditions. Low load conditions will be established based on the operating limits of the unit during the test day. Intermediate loads will be established based on equally spaced points between peak and low load levels. Initial compliance testing at all load conditions will be conducted with the duct burners operating. If compliance with the proposed emission rate is demonstrated during this initial compliance test, revised annual CO compliance test procedures will be incorporated as part of the annual stack test protocol.
2. Annual stack testing for CO emissions at base and reduced load conditions will be incorporated as part of the annual stack test protocol developed jointly by RCID and FDEP. This protocol specifies the test methods and procedures to be used during annual compliance testing. Using the established procedures of this protocol as a guide, for base load testing CO will be tested simultaneously with NO<sub>x</sub> and VE using Method 10. For reduced load operation, CO will be tested simultaneously with NO<sub>x</sub> reduced load testing, which will include testing both pollutants at the outlet of the steam generator with the duct burner off.

**6.0 PROPOSED PERMIT MODIFICATIONS**

RCID proposes the following permit modifications to existing construction permit AC48-137740:

1. Specific Condition Number 5--Revise the emission limit table for CO emissions

<i>FROM:</i>	<u>Gas-Fired</u>	
	lb/hr	TPY
Carbon Monoxide (CO)	11	48
<i>TO:</i>		
Carbon Monoxide (CO)	25	110

2. An initial CO compliance test will be conducted in accordance with the procedures outlined in Section 5.0. The compliance test will be conducted using EPA Method 10 at peak, intermediate, and low load conditions. The initial compliance test will be conducted for each load condition while the duct burners are operating. The general provisions of the established RCID/FDEP annual stack test protocol will be adhered to for this initial test.
3. The annual CO compliance test will be conducted in accordance with the procedures outlined in Section 5.0. Annual stack testing for CO will include testing at peak, intermediate, and low load conditions. Base load testing will be conducted simultaneously with NO<sub>x</sub> and VE. Reduced load testing will be conducted simultaneously with NO<sub>x</sub> reduced load testing which includes testing at the outlet of the steam generator with the duct burners off.

**APPENDIX A**

**CONSTRUCTION PERMIT AC48-137740  
OPERATING PERMIT AO48-170280**

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

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 <sub>2</sub>	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 preceeding 12 month period using:

1. EPA Method 20 for NOx and SO<sub>2</sub>
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).

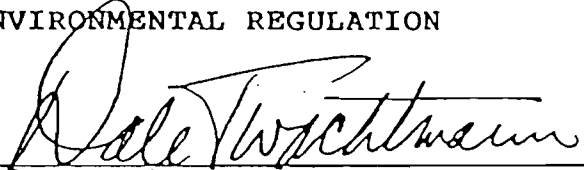
If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application (Rule 17-4, FAC).

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

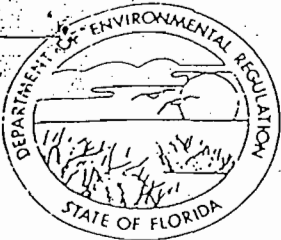
13. During the new turbine debugging period, not to exceed nine months, the older Orenda power trains shall not be fired unless the new GE turbine is not in operation. After the debugging period is over, the Orenda turbines and their associated equipment shall be dismantled.

Issued this 3 day of March 1988

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Dale Twachtman, Secretary

1200 Nov



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Trachtmann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

## NOTICE OF PERMIT

RECEIVED

JAN 16 1990

REEDY CREEK ENERGY SERVICES, INC.

Reedy Creek Improvement District  
P.O. Box 36  
Lake Buena Vista, FL 32830

Attention: Thomas M. Moses, Director/ General Manager

Orange County - AP  
GE Gas Fired Turbine Generator with Heat Recovery System

Dear Mr. Moses:

Enclosed is Permit Number A048-170280, dated 1-3-90, to operate a GE Gas Fired Turbine Generator with Heat Recovery System, issued pursuant to Section 403.087, Florida Statutes.

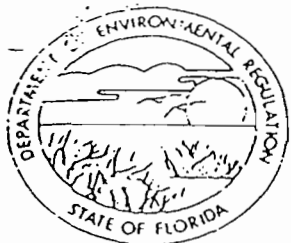
Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing), unless the right to petition has been waived. The petition must conform to the requirements of Chapters 17-103 F.A.C., 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.

CC: Ed Godwin, 201151 Effective November 30, 1987 Page 6 of 6

Bob Kiddle  
Bob Koll

*Bob Koll*



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Trachtman, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

## NOTICE OF PERMIT

RECEIVED

JAN 16 1990

Reedy Creek Improvement District  
P.O. Box 36  
Lake Buena Vista, FL 32830

REEDY CREEK ENERGY SERVICES, INC.

Attention: Thomas M. Moses, Director/ General Manager

Orange County - AP  
GE Gas Fired Turbine Generator with Heat Recovery System

Dear Mr. Moses:

Enclosed is Permit Number A048-170280, dated 1-3-90, to operate a GE Gas Fired Turbine Generator with Heat Recovery System, 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.

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*c.c. Ed Doduvin  
Bob Koll  
Bob Koll*

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.

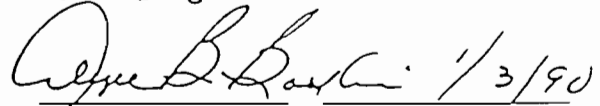
Executed in Orlando, Florida.

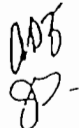
STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

*cme* 

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.

 1/3/90  
Clerk Date

AA/jts 

Copies furnished to:  
Harold L. Culp, 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 1-3-90 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 Truchumann, Secretary

John Shearer, Assistant Secretary  
Alex Alexander, Deputy Assistant Secretary

Permittee:  
Reedy Creek Improvement District  
P.O. Box 36  
Lake Buena Vista, FL 32830

Attention: Thomas M. Moses  
Director/ General Manager

I. D. Number:  
Permit/Certification  
Number: A048-170280  
Date of Issue:  
Expiration Date: 12/15/94  
County: Orange  
Latitude/Longitude:  
28°25'34"N/81°34'48"W  
UTM: 17-442.0 KmE; 3139.0 KmN  
Project: Gas Fired Turbine  
Generator with Heat Recovery  
System

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 a 30.8 MW GE LM5000 gas fired turbine generator system with a heat input capacity of 345 MMBTU/hr. The project includes an in-line duct burner, heat recovery boiler and steam turbine, at the Central Energy Plant. This source is located at Bay Lake, near Lake Buena Vista, Orange County, Florida.

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

PERMITTEE:

I.D. Number:  
Permit/Certification Number:  
Date of Issue:  
Expiration Date:

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 agent, employees, servants or representatives.*
  2. *This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.*
  3. *As provided in Subsections 403.087(6) and 403.722(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 of 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 therefor 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.*
  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 reasonable 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*



PERMITTEE:

I.D. Number:  
Permit/Certification Number:  
Date of Issue:  
Expiration Date:

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.73 and 403.111, Florida Statutes.
10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.
11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.
12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
13. This permit also constitutes:
- Determination of Best Available Control Technology (BACT)
  - Determination of Prevention of Significant Deterioration (PSD)
  - Certification of Compliance with State Water Quality Standards  
(Section 401, PL 92-500)
  - Compliance with New Source Performance Standards
14. The permittee shall comply with the following monitoring and record keeping requirements:
- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.
  - 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 furnished any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

PERMITTEE:  
 Reedy Creek Improvement District  
 Attention: Thomas M. Moses  
 Director/General Manager

I. D. Number:  
 Permit/Certification Number:  
 A048-170280  
 Date of Issue:  
 Expiration Date: 12/15/94

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 345 MMBTU/hr. (normal duct burner heat input rate of 23 MMBTU/hr).
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 Fired<sup>1</sup></u>	
	<u>lb/hr.</u>	<u>TPY*</u>	<u>lb/hr.</u>	<u>TPY</u>
Nitrogen Oxides (NOX) peak @ 40°F	112		132	
	average	77 337	100	17
Sulfur Dioxide (SO <sub>2</sub> )	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 <sub>2</sub> dry basis	peak	74 ppmv	82 ppmv <sup>2</sup>	
	Average	58 ppmv	68 ppmv	
SO <sub>2</sub> , at 15% oxygen dry basis	-		58 ppmv	

\*TPY (tons per year)

- 1 Oil will be fired only when there is natural gas curtailment. It will be fired for no more than 14 days annually.
- 2 Variation in concentration with variation in ambient air temperature documented by a plot of pollutant concentration versus ambient temperature, as per initial compliance test results.

PERMITTEE:  
Reedy Creek Improvement District  
  
Attention: Thomas M. Moses  
Director/General Manager

I. D. Number:  
Permit/Certification Number:  
A048-170280  
Date of Issue:  
Expiration Date: 12/15/94

SPECIFIC CONDITIONS:

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.

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 <sub>2</sub>	30

8. Water injection shall be utilized for NOx control at a minimum of 0.55 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. Annual compliance testing conducted annually from the date of February 1, 1989 shall be conducted with the fuels used in the preceding 12 months period using:
  1. EPA Method 20 for NOx and SO<sub>2</sub>
  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.

PERMITTEE:  
Reedy Creek Improvement District  
  
Attention: Thomas M. Moses  
Director/General Manager

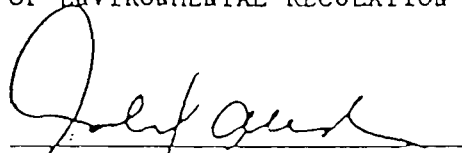
I. D. Number:  
Permit/Certification Number:  
A048-170280  
Date of Issue:  
Expiration Date: 12/15/94

SPECIFIC CONDITIONS:

10. The 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.
12. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to DER's District Office.
13. 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.
14. 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 1-3-90

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

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

PERMITTEE:  
 Reedy Creek Improvement District  
 Attention: Thomas M. Moses  
 Director/General Manager

I. D. Number:  
 Permit/Certification Number:  
 A048-170280  
 Date of Issue:  
 Expiration Date: 12/15/94

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 345 MMBTU/hr. (normal duct burner heat input rate of 23 MMBTU/hr).
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 Fired<sup>1</sup></u>	
	<u>lb/hr.</u>	<u>TPY*</u>	<u>lb/hr</u>	<u>TPY</u>
Nitrogen Oxides (NOX) peak @ 40°F	112		132	
	average	77 337	100	17
Sulfur Dioxide (SO <sub>2</sub> )	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 <sub>2</sub> dry basis	peak	74 ppmv	82 ppmv <sup>2</sup>	
	Average	58 ppmv	68 ppmv	
SO <sub>2</sub> , at 15% oxygen dry basis	-		58 ppmv	

\*TPY (tons per year)

- 1 Oil will be fired only when there is natural gas curtailment. It will be fired for no more than 14 days annually.
- 2 Variation in concentration with variation in ambient air temperature documented by a plot of pollutant concentration versus ambient temperature, as per initial compliance test results.

PERMITTEE:  
Reedy Creek Improvement District  
Attention: Thomas M. Moses  
Director/General Manager

I. D. Number:  
Permit/Certification Number:  
AO48-170280  
Date of Issue:  
Expiration Date: 12/15/94

SPECIFIC CONDITIONS:

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.

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 <sub>2</sub>	30

8. Water injection shall be utilized for NOx control at a minimum of 0.55 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. Annual compliance testing conducted annually from the date of February 1, 1989 shall be conducted with the fuels used in the preceding 12 months period using:
  1. EPA Method 20 for NOx and SO<sub>2</sub>
  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.

PERMITTEE:  
Reedy Creek Improvement District  
  
Attention: Thomas M. Moses  
Director/General Manager

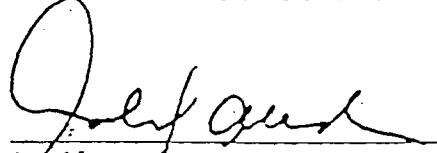
I. D. Number:  
Permit/Certification Number:  
A048-170280  
Date of Issue:  
Expiration Date: 12/15/94

SPECIFIC CONDITIONS:

10. The 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.
12. Any change in the method of operation, fuels, equipment or operating hours shall be submitted for approval to DER's District Office.
13. 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.
14. 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 1-3-90

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

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

PERMITTEE:

I.D. Number:  
Permit/Certification Number:  
Date of Issue:  
Expiration Date:

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 agent, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.
3. As provided in Subsections 403.087(6) and 403.722(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 of 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 therefor 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.
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 reasonable 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



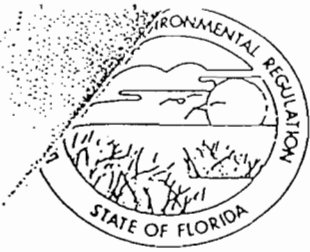
PERMITTEE:

I.D. Number:  
Permit/Certification Number:  
Date of Issue:  
Expiration Date:

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.73 and 403.111, Florida Statutes.
10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.
11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.
12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
13. This permit also constitutes:
- Determination of Best Available Control Technology (BACT)
  - Determination of Prevention of Significant Deterioration (PSD)
  - Certification of Compliance with State Water Quality Standards  
(Section 401, PL 92-500)
  - Compliance with New Source Performance Standards
14. The permittee shall comply with the following monitoring and record keeping requirements:
- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.
- 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 furnished 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.



*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:  
Reedy Creek Improvement District  
P.O. Box 36  
Lake Buena Vista, FL 32830  
  
Attention: Thomas M. Moses  
Director/ General Manager

I. D. Number:  
Permit/Certification  
Number: A048-170280  
Date of Issue:  
Expiration Date: 12/15/94  
County: Orange  
Latitude/Longitude:  
28°25'34"N/81°34'48"W  
UTM: 17-442.0 KmE; 3139.0 KmN  
Project: Gas Fired Turbine  
Generator with Heat Recovery  
System

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 a 30.8 MW GE LM5000 gas fired turbine generator system with a heat input capacity of 345 MMBTU/hr. The project includes an in-line duct burner, heat recovery boiler and steam turbine, at the Central Energy Plant. This source is located at Bay Lake, near Lake Buena Vista, Orange County, Florida.

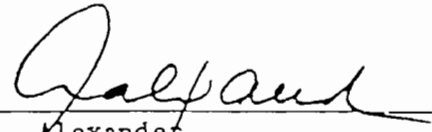
General Conditions are attached to be distributed to the permittee only.

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

*cme*   
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.

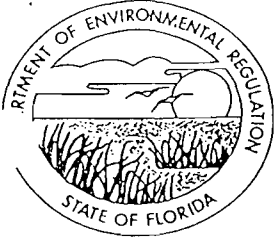
 1/3/90  
Clerk Date

*AAJ*  
AA/jts 

Copies furnished to:  
Harold L. Culp, 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 1-3-90 to the listed persons, by D. Jones.



# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

## NOTICE OF PERMIT

Reedy Creek Improvement District  
Post Office Box 36  
Lake Buena Vista, Florida 32830

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Turbine Generator with Heat Recovery System

Dear Mr. Moses:

Enclosed is Permit Number A048-170280, dated 2/15/91, 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.

2/19. Pense, B.  
Kohl, B.  
Dobson, Ed  
Smith, Willard

EG: BILL BROCK  
FRANK JONES  
~~BOB KENDLE~~

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

*cm c* Richard B. Alexander

*fr*  
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.

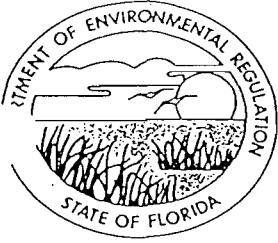
Gene B. Powell 2/15/91  
Clerk Date

*AB*  
AA/jtj *97*

Enclosure

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 2-18-91 to the listed persons, by D. J. [Signature].



# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

Reedy Creek Improvement District  
Post Office Box 36  
Lake Buena Vista, Florida 32830

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Turbine Generator with Heat Recovery System  
Permit No. AO48-170280  
Change of Conditions

Dear Mr. Moses:

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

#### CONDITION

Permit Specific Condition No. 9

#### FROM:

9. Annual compliance testing conducted annually from the date of February 1, 1989 shall be conducted with the fuels used in the preceding 12 month period using:

1. EPA Method 20 for NO<sub>x</sub> and SO<sub>2</sub>
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.

#### TO:

9. Annual compliance testing conducted annually from the date of February 1, 1989 shall be conducted with the fuels used in the preceding 12 month period using:


1. EPA Method 20 for NO<sub>x</sub> and SO<sub>2</sub>
2. EPA Method 10 for CO
3. EPA Method 17 for PM
4. EPA Method 9 for VE

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

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.* 

*for* A. Alexander, P.E.  
Deputy Assistant Secretary

*2/15/91*

\_\_\_\_\_  
Date

*AB*  
AA:jtj-*37*



# Florida Department of Environmental Protection

*File  
RCID/DEF*

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

October 29, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Thomas M. Moses  
District Administrator  
Reedy Creek Improvement District  
P. O. Box 10170  
Lake Buena Vista, Florida 32830-0170

Dear Mr. Moses:

RE: Reedy Creek Improvement District (RCID)  
Gas Turbine Generator and Heat Recovery Steam Generator with  
Duct Burner  
Orange County - Permit No. AC48-137740 (AO48-170280)  
PSD-FL-123

The Department is in receipt of your letter dated September 29, 1993, on behalf of the above mentioned facility, requesting a permit amendment to change the continuous opacity monitoring requirement for the Heat Recovery Steam Generator (HRSG). RCID proposes to disconnect the fuel oil lines from the HRSG, thereby rendering it incapable of firing fuel oil and eliminating the requirement for a continuous opacity monitor system. The Department has considered your request and has agreed to amend the permit as proposed in your letter. This permit will be amended to include the following:

SPECIFIC CONDITION NO. 2:

FROM:

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.

TO:

Natural gas shall be the primary fuel fired in the turbines and duct burner system. No. 2 fuel oil can be used as a backup fuel in the turbine only for up to 14 days per year.



Mr. Thomas M. Moses  
October 29, 1993  
Page Two

SPECIFIC CONDITION NO. 5:

FROM:

The duct burner NO<sub>x</sub> emissions shall not exceed (corresponding to 0.2 lb/MMBtu) 4.6 lb/hr for gas or oil at 23 MMBtu input or 40 lbs/hr for gas or oil at 198 Btu/hr.

TO:

The duct burner NO<sub>x</sub> emissions shall not exceed (corresponding to 0.2 lb/MMBtu) 4.6 lb/hr for gas at 23 MMBtu heat input or 40 lbs/hr for gas at 198 MMBtu/hr.

SPECIFIC CONDITION NO. 10(c)

FROM:

The 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.

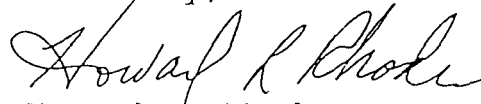
TO:

The project shall comply with all the applicable requirements of:

- a. Chapter 17-2, FAC.
- b. 40 CFR 60, Subpart GG, Gas Turbines.

If you have any questions, please contact Teresa Heron at (904) 488-1344 or write to me at the above address.

Sincerely,



Howard L. Rhodes  
Director  
Division of Air Resources  
Management

HLR/TH/bjb

cc: Alex Alexander



Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Virginia B. Wetherell  
Secretary

## NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL  
P 712 572 650

Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-0170

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Turbine Generator with Heat Recovery System

Dear Mr. Moses:

Enclosed is Permit Number AO48-170280 to change the permit conditions for the above referenced source pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding(hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period constitutes a waiver of any right such person may have to request an administrative determination(hearing) under Section 120.57, Florida Statutes.

The petition shall contain the following information: (a) The name, address and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

cc - 12/20  
B. Penn  
G. McKeed  
B. Kohl  
D. Wiedenbeck  
B. E. Toole

(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.

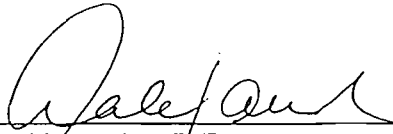
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application, have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above, and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S. , and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for extension of time, this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to this Order (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 the Final Order is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*c m c* 

A. Alexander, F.E.  
District Director  
3319 Maguire Boulevard  
Suite 232  
Orlando, Florida 32803

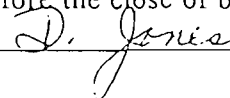
FILING AND ACKNOWLEDGMENT  
FILED, on this date, pursuant to Section  
120.52 (11), Florida Statutes, with the  
designated Department Clerk, receipt of  
which is hereby acknowledged.

 12/15/93  
Clerk Date

AA/lbl

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed  
before the close of business on 12-15-93 to the listed persons by,





Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Virginia B. Wetherell  
Secretary

Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-0170

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Turbine Generator with Heat Recovery System  
Permit No. AO48-170280  
Change of Conditions

Dear Mr. Moses:

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

Specific Condition No. 2

From

"Natural gas shall be the primary fuel fired in the turbine and duct burner system. No. 2 fuel oil can be used as a backup fuel for up to 14 days per year".

To

"Natural gas shall be the primary fuel fired in the turbines and duct burner system. No. 2 fuel oil can be used as a backup fuel in the turbine only for up to 14 days per year".

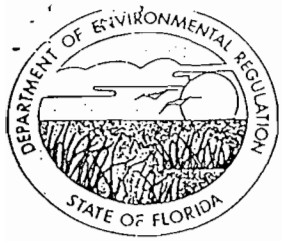
Specific Condition No. 5

From

"The duct burner NO<sub>x</sub> emissions shall not exceed (corresponding to 0.2lb/MMBtu) 4.6 lb/hr for gas or oil at 23MMBtu heat input or 40lb/hr for gas or oil at 198MMBtu/hr."

To

"The duct burner NO<sub>x</sub> emissions shall not exceed (corresponding to 0.2 lb/MMBtu) 4.6 lb/hr for gas at 23MMBtu heat input or 40lb/hr for gas at 198MMBtu/hr."



# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

## NOTICE OF PERMIT ISSUANCE

Reedy Creek Improvement District  
Post Office Box 10,170  
Lake Buena Vista, Florida 32830-0170

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Turbine Generator  
with Heat Recovery System  
Permit No. A048-170280

Dear Mr. Moses:

Enclosed is Permit Number A048-170280 to change the permit conditions, issued pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

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

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

A. Alexander

District Director  
3319 Maguire Boulevard  
Suite 232  
Orlando, Florida 32803

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

*A. Salome*      *8/9/91*  
Clerk                      Date

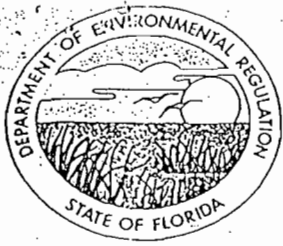
*aj*  
AA/jtt

Copies furnished to:  
Edward Godwin, P.E. ✓

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies  
were mailed before the close of business on *August 13, 1991* to the  
listed persons, by *Sherrin Bouldin*.





# Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

Reedy Creek Improvement District  
Post Office Box 10,170  
Lake Buena Vista, Florida 32830-0170

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Turbine Generator  
with Heat Recovery System  
Permit No. A048-170280  
Change of Conditions

Dear Mr. Moses:

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

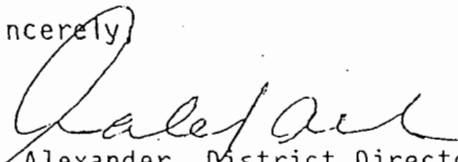
Specific Condition No. 5

The only change affects sulfur dioxide (SO<sub>2</sub>) under "Gas Fired", in which the maximum allowable emissions limit is changed from 0.2 lb/hr and 0.8 TPY to 1.2 lbs/hr and 5.1 TPY.

All other conditions remain the same.

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

Sincerely,

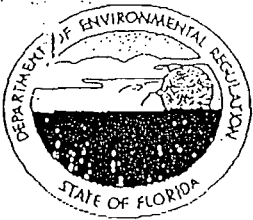
*amc*  
  
A. Alexander, District Director

8-13-91  
Date

*AA*  
AA/jtt

Copies to:

Edward Godwin, P.E.



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

January 7, 1993

1/15-cc B. Paine  
B. Koff  
D. Widenbeck

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Thomas M. Moses  
District Administrator  
Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-0170

Re: Request for Amendment of Permit No. AC48-137740, PSD-FL-123

This is in reply to your letters dated September 22 and October 9, 1992, requesting amendment of the subject permit to (1) avoid the continuous emission monitoring requirement of Subpart Db, (2) include a limit on total annual hours for fuel oil firing, and (3) convert the weekly time limit on diesel generator operation to an annual time limit.

Item (1) above will not require an amendment for the following reason. Since 40 CFR 60, Subpart Db, Section 60.48b(h) provides an exemption from the continuous emission monitoring (CEM) requirement for the primary operation mode (i.e., turbine firing), the Department will not consider the "duct burner only" operation as a "stand-alone boiler" but rather as a temporary operation mode of the combined cycle system wherein the turbine is unfired. Therefore, the Subpart Db CEM exemption will still apply when the facility must be operated without firing the turbine. No amendment is needed as long as the primary operation mode requires turbine firing.

Items (2) and (3) above will be amended since the permit language should be clarified. Therefore, specific conditions 2, 5, and 7 are amended as shown below.

Specific Condition No. 2

Present:

Only natural gas shall be fired in the turbine and duct burner. No. 2 fuel oil shall be used in periods of curtailed natural gas supply. The duration of oil firing shall not exceed 14 days annually.

Mr. Thomas M. Moses  
Reedy Creek Improvement District  
Page 2

Amended:

Natural gas shall be the primary fuel fired in the turbine and duct burner system. No. 2 fuel oil can be used as a backup fuel for up to 14 days per year.

Specific Condition No. 5 (Footnote 1)

Present:

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

Amended:

Fuel oil firing shall be limited to 14 days per year.

Specific Condition No. 7

Present:

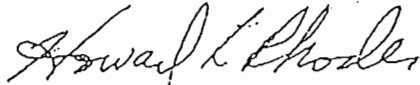
The "Black Start" Cummins No. 2 oil fired emergency generator, when fired on a normal basis to maintain a state of readiness shall not be operated beyond the 10 minutes/week check out period.

Amended:

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 for more than 9 hours per year.

This letter shall become an attachment of construction permit No. AC48-137740 (PSD-FL-123).

Sincerely,



Howard L. Rhodes, P.E.  
Director  
Division of Air Resources  
Management

HR/JR/w

cc: A. Zahm, CD  
J. Harper, EPA

H. Culp, P.E.  
J. Bunyak, NPS

Specific Condition No. 10c

From

"The 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"

To


"The project shall comply with all the applicable requirements of:

- a. Chapter 17-200 series, F.A.C.
- b. 40 CFR 60, Subpart GG, Gas Turbines"

All other conditions remain the same.

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

Sincerely,

*cm e*   
A. Alexander, P.E.  
District Director

Date 12/15/93

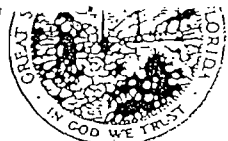
AA/ibl

# Environmental Protection

Central District

3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Virginia B. Wetherell  
Secretary



Lawton Chiles  
Governor

## NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL

#: 185 463 042

Peedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-1170

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Generator with Heat Recovery System

Dear Mr. Moses:

Enclosed is Permit Number AO48-170280 to change the permit conditions for the above referenced source issued pursuant to Section(s) 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2500 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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

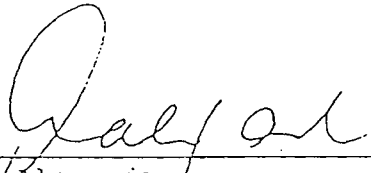
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

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

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*C.M.C.*   
A. Alexander  
District Director  
3319 Maguire Boulevard  
Suite 232  
Orlando, Florida 32803

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

Diana Jones 2/14/94  
Clerk Date

az

AA/azt

Copies furnished to:

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT ISSUANCE and all copies  
were mailed before the close of business on 2/15/94 to the  
listed persons, by Sherrill.



# Environmental Protection

Lawton Chiles  
Governor

Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Virginia B. Wetherell  
Secretary

Reedy Creek Improvement District  
Post Office Box 10170  
Lake Buena Vista, Florida 32830-1170

Attention: Thomas M. Moses, District Administrator

Orange County - AP  
GE Gas Fired Generator with Heat Recovery System  
Permit No. AO48-170280  
Change of Conditions

Dear Mr. Moses:

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

Condition

Specific Condition #3

From

3. The maximum heat input to the turbine and the duct burner combined shall not exceed 345 MMBtu/hr. (Normal duct burner heat input rate of 23 MMBtu/hr).

To

3. Testing of emissions should be conducted with the source operating at 90% to 100% of design capacity. The source may be tested at less than 90% of design capacity; however subsequent source operation is limited to 110% of the tested rate until a new test is conducted and approved by the Department in writing. Once the unit is so limited, operation at higher capacities not to exceed 450 MMBtu/hr is allowed for a cumulative total of no more than 15 successive calendar days for purposes of additional compliance testing to regain permitted capacity, with prior notification to the Department [Rule 17-4.070(3), F.A.C.].

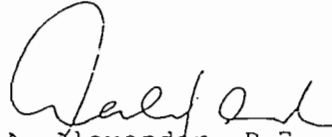


Reedy Creek Improvement District  
Permit No. AO48-170280  
Change of Conditions  
Page Two

All other conditions remain the same.

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

Sincerely,

*amc*   
A. Alexander, P.E.  
District Director

Date 2-14-14

*AR*

AR/azt

Copies furnished to:





## Department of Environmental Protection

Office Building  
Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

October 10, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

101

Mr. Thomas M. Moses  
District Administrator  
Reedy Creek Improvement District  
P. O. Box 10170  
Lake Buena Vista, Florida 32830-0170

Dear Mr. Moses:

Re: Amendment to Construction Permit  
AC48-137740 AO48-170280  
PSD-FL-123  
Custom Fuel Monitoring Schedule  
Reedy Creek Improvement District

This is in response to your June 15, 1994, letter, requesting a Custom Fuel Monitoring Schedule for sulfur content of the fuel and to clarify the applicable regulations for the subject facility. The facility is required to comply with Section 60.334(b) of Subpart GG of the New Source Performance Standards, which allows sources to apply for a custom fuel monitoring schedule. In addition, Specific Condition No. 10 is revised to include the 40 CFR 60, Subpart Db, NSPS for Industrial-Commercial Institutional Steam Generating Units. Therefore, the permit specific conditions are amended as follows:

### New Specific Condition No. 14

The following custom fuel monitoring schedule shall be used at this facility:

#### Custom Fuel Monitoring Schedule for Natural Gas

1. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel being fired in the gas turbines.
2. Sulfur Monitoring
  - a. Analysis for sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or

Mr. Thomas M. Moses  
October 10, 1994  
Page Two

an approved alternative method. The approved methods are ASTM D1072-80, ASTM D3030-81, ASTM D3246-81, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).

- b. This custom fuel monitoring schedule shall become effective on the date this amendment becomes valid. Effective the date of this custom schedule, sulfur monitoring shall be conducted at least once per calendar quarter. Sulfur analyses results shall be reported in units of grains of sulfur per 100 cubic feet of natural gas and shall be submitted with the quarterly excess emissions report required by 40 CFR 60.7. (EPA's letter dated June 15, 1994).
  - c. The sulfur content of the fuel shall also be expressed as maximum sulfur dioxide emissions (lb/hr) and shall be consistent with the limits specified in Specific Condition 5 of permit AC 48-137740.
  - d. Should any sulfur analysis as required in items 2(b) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

Custom Fuel Monitoring Schedule for Liquid Fuel

1. Sulfur and nitrogen content of the liquid fuel:

Upon delivery of the fuel, a sample shall be randomly taken from one compartment of each truck and composited for analysis (for verification of the vendor data) by a third party laboratory using ASTM Method D-3228 for nitrogen analysis, and ASTM Method D-4294 for sulfur analyses.

Mr. Thomas M. Moses  
October 10, 1994  
Page Three

Specific Condition No. 10

FROM:

The project shall comply with all the applicable requirements of:

- a. Chapter 17-2, FAC
- b. 40 CFR 60, Subpart GG, Gas Turbines

TO:

The project shall comply with all the applicable requirements of:

- a. Chapters 62-209 through 62-297, F.A.C.
- b. 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines.
- c. 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

In accordance with Rule 17-213.420(3), F.A.C., Standard Application Form and Required Information, the permittee is required to include all applicable requirements as defined in Rule 17-213.100(7), F.A.C., for each emission unit at this facility when applying for a Title V operating permit.

Attachments to be Incorporated

Mr. Thomas M. Moses' June 5, 1994, letter.  
(Permit Amendment Fee Received September 8, 1994)

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the applicant of the amendment request/application and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of the amendment issuance or within 14 days of their receipt of this amendment, whichever occurs first. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

BEST AVAILABLE COPY

Mr. Thomas M. Moses  
October 10, 1994  
Page Four

The Petition shall contain the following information:

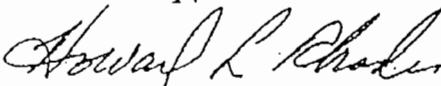
- (a) The name, address and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) 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;
- (g) A statement of the relief sought by petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the request/application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this amendment in the Office of General Counsel at the above address 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 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

BEST AVAILABLE COPY

Mr. Thomas M. Moses  
October 10, 1994  
Page Five

This letter amendment must be attached to Construction Permit No. AC48-137740 (AO48-170280), and shall become a part of the permit.

Sincerely,  
  
Howard L. Rhodes  
Director  
Division of Air Resources  
Management

HLR/TH/bjb

Attachments

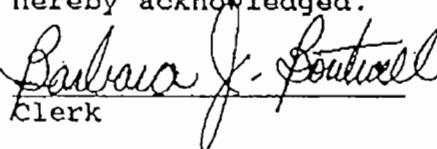
cc: C. Collins, CD  
J. Harper, EPA  
J. Bunyak, NPS

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this AMENDMENT and all copies were mailed by certified mail before the close of business on 10/11/94 to the listed persons.

Clerk Stamp

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

  
Clerk 10/11/94 Date



REEDY CREEK IMPROVEMENT DISTRICT

P.O. BOX 10170 LAKE BUENA VISTA, FLORIDA 32830-0170 TELEPHONE (407) 828-2034

19 June, 1995

Mr. Claire H. Fancy, P.E., Chief  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Orange County-AC48-137740 (AO48-170280) - Reedy Creek Improvement District  
Gas Turbine Generator and Heat Recovery Steam Generator with Duct Burner

Dear Mr. Fancy:

The purpose of this correspondence is to request a change in the Carbon Monoxide (CO) emissions limits in this source's construction permit. This requested increase in CO emissions from currently permitted levels is less than the major status threshold for this criteria pollutant. Approval of this request will result in the operational flexibility to operate at significantly reduced power generation levels. That, in turn, will result in contemporaneously reduced nitrogen oxides emissions. The relationships are more fully explained in the attachments to this letter.

Enclosed is one original and five copies of FDEP Form No. 62-210.900(1) with attachments and our application check number 227926 in the amount of \$5,000.00. Our intention is to reference this request in our August, 1995 Title V application as a pending modification so that this request may be acted upon during the Title V Operating Permit review period.

Our technical coordinator in this matter is Mr. Edward Godwin, P.E. He can be contacted at the address listed below. Thank you for your consideration in this matter.

Sincerely,

*Thomas M. Moses*  
Thomas M. Moses  
District Administrator

cc: Mr. Charles Collins  
Florida Department of Environmental Protection  
Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, FL 32803-3767

Edward Godwin, P.E.  
Reedy Creek Energy Services, Inc.  
P.O. Box 10000  
Lake Buena Vista, FL 32830-1000  
(407) 824-4943  
(407) 824-4529 FAX

*Konami - Refer to my E-mail. al*

*John - These guys found that CO goes up (in a 30+ MW GT. with HRS6) when it is operated below its permitted rate. They want to be able to operate at the lower rate as an operating mode or scenario. NOx will go down. This is not PSD. It was permitted originally as NSPS. Since the initiative is totally Title V, can one of your guys take a shot at it? The alternative is to let Chuck Collins handle it as a minor revision of major non-PSD source. The other alternative is that I give it to one of my staff and they are swamped with PSD work + PSD revision etc.*

*30 ORC 480110/07*

*Thank Al  
Application  
is with Kim.*

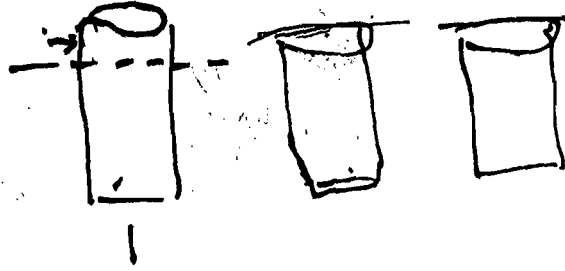
*It appears that the source is permitted to operate up to a permitted level of heat input, and that usually that means that they can operate at any heat input rate below the MAX. Does he have a CO limit in AC permit? If so and it needs to be changed it must be changed in the AC permit before Title V.*

*AC48-157472  
-169053-179648*

*normal operating  
AO Report  
Central District  
(SC)  
325 2290*

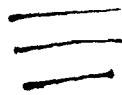
*CO limit  
Gas FRED  
whr TPO  
11 48*

*Tolley*

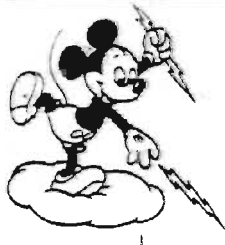


AC → CO

TV App → H CMP







REEDY CREEK ENERGY SERVICES, INC.

P.O. BOX 10,000 • LAKE BUENA VISTA, FLORIDA 32830-1000

(305) 824-4024

*cover letter  
to amended  
permit  
application*

December 21, 1987

Bureau of Air Quality Management  
Florida Department of  
Environmental Regulation  
2600 Blair Stone Road  
Twin Towers Building  
Tallahassee, FL 32399-2400

DER

DEC 22 1987

BAQM

Attention Mr. C. H. Fancy, PE  
Deputy Chief

Gas Fired Turbine  
Generator Permit Application  
AC48-137740  
PSD-FL-123

Dear Mr. Fancy:

Per our technical meeting of December 8, 1987 at your offices, please accept these amendments to the above Permit Application.

In order to resolve the outstanding BACT issues, it was discussed at that meeting that we might amend our permit application in one of two ways: 1) select an approach involving PSD Review with application of BACT determination based on an economic criterion of \$1000/ton of NOx reduction; 2) select an approach involving a voluntary limitation of annual NOx emissions to below the significance level. We have selected the latter methodology. We believe the attached satisfies the items discussed per the stipulated guidelines.

It was suggested that if we were able to submit these revisions before the Holidays, your staff would be able to act on this application promptly. As our 1988 schedule is now being impacted severely, we would greatly appreciate your timely response.

As requested previously, if you have any questions on this application, please contact us immediately, thus allowing our timely follow-up.

Very truly yours,

Edward Godwin, P.E.  
Project Engineer  
Reedy Creek Energy Services, Inc.

bgfh:D509:k

Attachments

pc Mr. Thomas M. Moses

*Copied: Pradeep Rawan }  
          C.H.F. } 12-23-87  
          Tom S... }*

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



January 11, 1988

*DEP  
Response to  
Amended  
Permit  
Application*

BOB MARTINEZ  
GOVERNOR

DALE TWACHTMANN  
SECRETARY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Thomas M. Moses  
Reedy Creek Improvement District  
Post Office Box 40  
Lake Buena Vista, Florida 32830

Dear Mr. Moses:

Re: Application for Construction of a Gas-Fired Turbine  
Generator, Permit No. AC 48-137740

The Department has received your revised application package  
dated December 21, 1987.

Your application will be reviewed with the amendments as  
submitted. The Department's Intent to Issue dated November 23,  
1987, is no longer valid as the Technical Evaluation and  
Preliminary Determination will change in consideration of your  
submittal dated December 21, 1987. If it is determined that PSD  
no longer applies, the PSD File Number PSD-FL-123, will be  
closed.

If you have any questions, please call Pradeep Raval at  
(904)488-1344 or write to me at the above address.

Sincerely,

A handwritten signature in black ink, appearing to read "C. H. Fancy".

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

CHF/PR/s

cc: R. Sadow  
T. Sawicki  
W. Aronson  
M. Flores



REEDY CREEK ENERGY SERVICES, INC.

RECEIVED  
APR 29 1996  
BUREAU OF  
AIR REGULATION

19 April, 1996

Mr. Al Linero  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

*file*

RE: Orange County--No. 0950110-001-AC (formerly AC48-137740/AO48-170280)  
Reedy Creek Improvement District  
Gas Turbine Generator and Heat Recovery Steam Generator with Duct Burner

Dear Mr. Linero:

The purpose of this correspondence is to confirm the issues and agreements discussed in the telephone conversation this morning between ourselves and Mr. Scott Sheplak. We discussed the July 1, 1996 expiration date of the the above-referenced construction permit and the options available for a requested extension, necessary to allow time for testing and submission of the required documents.

You indicated and Mr. Sheplak confirmed that the provisions of 62.213.420(1)(a)(4.) automatically provide an extension to November 1, 1996 of all Title V source construction permits. This blanket extension includes the specific case of a modification to an existing source's construction permit as represented by the special case under consideration here.

In conclusion, we agreed that the expiration date of July 1, 1996 has been extended by rule to November 1, 1996 and that no further action is required by the permittee to make this effective. If you have any material corrections to this confirmation, please address them to me at the earliest opportunity.

Sincerely,

Edward Godwin, P.E.  
Chief Mechanical Engineer

cc: Mr. Leonard Kozlov  
Florida Department of Environmental Protection  
Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, FL 32803-3767

*Scott Sheplak*



**DATE:** April 19, 1996

**TO:** Ed Godwin and Pete Burnette

**COMPANY:** Reedy Creek Energy Services and Air Consulting and Testing

**FAX:** (407)824-4529/335-1891      **TELEPHONE:** (407)824-4943/335-1889

**FROM:** Kennard F. Kosky, P.E.

**PROJECT NUMBER:** 14077

**TOTAL NUMBER OF PAGES:** 2

**MESSAGE/INSTRUCTIONS:**

Ed/Pete: I have the following suggestion for the test protocol:

"Test Purpose: The test is being conducted to address the testing requirements of Specific Condition 14 of FDEP Air Construction Permit No. 0950110-001-AC. This condition requires that compliance with the carbon monoxide (CO) emission limit at peak, two intermediate and low loads be demonstrated. Emissions of nitrogen oxides will also be determined to demonstrate the CO/NOx relationship as required by Specific Condition 15. This testing is in addition to the annual compliance test which was performed in January 1996 (??? put exact date here)."

Please note that I have not included VE since the specific conditions do not require VE at reduced loads per Specific Condition 14. You may want to perform VE anyway. See my comments.

I talk to Al Linero and Kanani Winanf of FDEP and they confirmed that only CO and NOx needs to be tested at the various loads to meet the requirements of Specific Condition. The initial compliance testing footnote in Specific Condition 5 was included as a permit cleanup item to indicate that PM and VOC were only required in the original compliance testing. I indicated that we would send a copy of the protocol to Kanani.

Ken Kosky

cc: Project File