

Appendix H-1, Permit History/ID Number Changes

Florida Power Corporation
University of Florida

Facility ID No.: 0010001

Permit History (for tracking purposes):

E.U.						
<u>ID No</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue</u> <u>Date</u>	<u>Expiration</u> <u>Date</u>	<u>Extended</u> <u>Date</u> ^{1,2}	<u>Revised</u> <u>Date(s)</u>
-001	Cogeneration Gas Turbine	AC01-204652/ PSD-FL-181	08/17/92	12/31/94	11/01/96	09
-002	Boiler #4	AO01-214830	08/28/92	12/31/94	08/14/96	
-003	Boiler #5	AO01-214831	08/28/92	12/31/94	08/14/96	

(if applicable) ID Number Changes (for tracking purposes):

From: **Facility ID No.:** 31GVL010014

To: **Facility ID No.:** 0010001

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 11, 1997

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue, Director
Environmental Service Department
Florida Power Corp.
3201 34th Street South
St. Petersburg, Florida 33733

Re: FPC UF Cogen - AC01-204652/PSD-FL-181(A)
Final Permit Amendment

Dear Mr. Pardue:

The Department has evaluated your request for an increase in the heat input to the combustion turbine for operation at ambient temperatures near 45°F and a corresponding increase in the short term NO_x emission standard (lb/hr). Your request (page 8 of application) and subsequent information submitted on March 7, 1997 indicated that no increase in annual NO_x emissions would occur as a result of this amendment. The Department hereby amends the above referenced permit Specific Conditions 2 and 3 as follows and clarifies that continuous monitors are to be used to quantify the contribution from the combined cycle combustion turbine and duct burner in order to demonstrate compliance with the annual emissions caps for NO_x.

2. Emissions from this facility shall not exceed the limits listed below:

Pollutant	Source	Fuel	Basis of Limit	lbs/hr	tons/yr
NO _x	Turbine	Gas	EBM*: 25 ppmvd @ 15% O ₂	35.0 <u>39.6</u>	142.7
	Turbine	Oil	EBM*: 42 ppmvd @ 15% O ₂	66.3	7.3
	D. Burner	Gas	EBM*: 0.1 lb/MMBtu	18.7	24.6
	Facility	Gas/Oil			194.3
SO ₂	Turbine	Oil	BACT: 0.5% Sulfur Max.	---	---
	Boiler 4	Oil	BACT: 0.5% Sulfur Max.	---	---
	Boiler 5	Oil	BACT: 0.5% Sulfur Max.	---	---
VE	Turbine	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	D. Burner	Gas	" " "	10% opacity	
	Boiler 4	Gas/Oil	" " "	10%/20% opacity**	
	Boiler 5	Gas/Oil	" " "	10%/20% opacity**	
CO	Turbine	Gas	BACT: 42 ppmvd	38.8	158.0
	Turbine	Oil	EBA***: 75 ppmvd	70.5	7.7
	D. Burner	Gas	BACT: 0.15 lb/MMBtu****	28.1	36.9

* EBM: Established by manufacturer

** Except for one 6-minute period per hour of not more than 27% opacity

*** EBA: Established by applicant

**** BACT limit proposed by applicant in Table A-2 of application

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3. Fuel consumption rates and hours of operation for the turbine and duct burner shall not exceed those listed below:

	<u>Natural Gas</u>			<u>No. 2 Fuel Oil</u>		
	<u>M ft³/hr*</u>	<u>MM ft³/yr</u>	<u>hrs/yr*</u>	<u>M gal/hr*</u>	<u>Mgal/yr</u>	<u>hrs/yr*</u>
Turbine	367.9 420.3	2997.2**	8146.8**	2.9	635.1	219.0**
Duct Burner	197.7	519.5	2628.0	0	0	0


*Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.

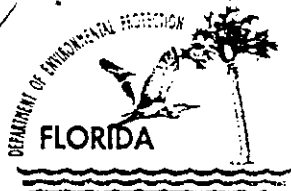
**An additional 1.9 hours/yr operation on natural gas will be allowed for each 1.0 hour/yr that fuel oil is not burned (up to 219 x 1.9 hrs/yr), in which case, the emissions limits in Specific Condition No. 2 shall be adjusted accordingly.

Boilers Nos. 4 and 5, firing natural gas or No. 2 fuel oil, may be operated as necessary for backup, as long as total NO_x emissions from the four sources ~~emissions units~~ within the permitted facility do not exceed 194.3 tons NO_x per year. The permittee shall maintain the required fuel use records ~~to demonstrate compliance with this condition~~ and include the total NO_x emission calculation in each annual operating report. For purposes of demonstrating compliance with the annual limits the NO_x emission rate (lbs/MMBtu) from the combustion turbine and duct burner shall be calculated using the NO_x analyzer data and equation F-6 from 40 CFR 75 Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lb/MMBtu of NO_x to lb/hour of NO_x and actual operating hours shall be used to obtain tons per year.

This permit amendment replaces the one issued on March 17, 1997. A copy of this permit amendment shall be filed with the referenced permit and shall become part of the permit. Any party to this order (permit amendment) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., 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 Legal Office; 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 (thirty) days from the date this permit amendment is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

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



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

March 17, 1997

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue, Director
Environmental Service Department
Florida Power Corp.
3201 34th Street South
St. Petersburg, Florida 33733

Dear Mr. Pardue:

RE: FPC UF Cogen - AC01-204652/PSD-FL-181(A)
Request to Amend Permit

The Department has evaluated your request for an increase in the heat input to the combustion turbine for operation at ambient temperatures near 45°F and a corresponding increase in the short term NO_x emission standard (lb/hr). Your request (page 8 of application) and subsequent information submitted on March 7, 1997 indicated that no increase in annual NO_x emissions would occur as a result of this modification. The Department will monitor annual emission rates for a 5 year period to verify that emissions do not increase significantly as a result of this modification. The Department hereby amends the above referenced permit Specific Conditions 2 and 3 as follows:

2. Emissions from this facility shall not exceed the limits listed below:

Pollu- tant	Source	Fuel	Basis of Limit	lbs/hr	tons/yr
NO _x	Turbine	Gas	EBM*:25 ppmvd @ 15% O ₂	35-0 <u>39.6</u>	142.7
	Turbine	Oil	EBM*:42 ppmvd @ 15% O ₂	66.3	7.3
	D. Burner	Gas	EBM*:0.1 lb/MMBtu	18.7	24.6
	Facility	Gas/Oil			194.3
SO ₂	Turbine	Oil	BACT:0.5% Sulfur Max.	---	---
	Boiler 4	Oil	BACT:0.5% Sulfur Max.	---	---
	Boiler 5	Oil	BACT:0.5% Sulfur Max.	---	---
VE	Turbine	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	D. Burner	Gas	" " "	10% opacity	
	Boiler 4	Gas/Oil	" " "	10%/20% opacity**	
	Boiler 5	Gas/Oil	" " "	10%/20% opacity**	
CO	Turbine	Gas	BACT: 42 ppmvd	38.8	158.0
	Turbine	Oil	EBA***:75 ppmvd	70.5	7.7
	D. Burner	Gas	BACT:0.15 lb/MMBtu****	28.1	36.9

*EBM: Established by manufacturer

**Except for one 6-minute period per hour of not more than 27% opacity

***EBA: Established by applicant

****BACT limit proposed by applicant in Table A-2 of application

Mr. W. Jeffrey Pardue
Page Two
March 17, 1997

3. Fuel consumption rates and hours of operation for the turbine and duct burner shall not exceed those listed below:

	<u>Natural Gas</u>			<u>No. 2 Fuel Oil</u>		
	<u>M ft³/hr*</u>	<u>MM ft³/yr</u>	<u>hrs/yr*</u>	<u>M gal/hr*</u>	<u>M gal/yr</u>	<u>hrs/yr*</u>
Turbine	367.9 <u>420.3</u>	2997.2**	8146.8**	2.9	635.1	219.0**
Duct Burner	197.7	519.5	2628.0	0	0	0

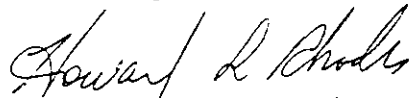
*Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.

**An additional 1.9 hours/yr operation on natural gas will be allowed for each 1.0 hour/yr that fuel oil is not burned (up to 219 x 1.9 hrs/yr), in which case, the emissions limits in Specific Condition No. 2 shall be adjusted accordingly.

Boilers Nos. 4 and 5, firing natural gas or No. 2 fuel oil, may be operated as necessary for backup, as long as total NO_x emissions from the four sources emissions units within the permitted facility do not exceed 194.3 tons NO_x per year. The permittee shall maintain the required fuel use records to demonstrate compliance with this condition and include the total NO_x emission calculation in each annual operating report. Beginning in 1997, the NO_x emission rate (lbs/MMBtu) from the combustion turbine and duct burner shall be calculated using the NO_x analyzer data and equation F-6 from 40 CFR 75 Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lb/MMBtu of NO_x to lb/hour of NO_x.

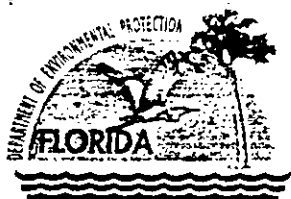
A copy of this amendment letter shall be attached to and shall become a part of Air Construction Permit AC01-204652/PSD-FL-181(A).

Sincerely,



Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/mc/t



Feld

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 13, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott H. Osbourn
Senior Environmental Engineer
Florida Power Corporation
3201 Thirty-fourth Street South
St. Petersburg, Florida 33733

Re: Extension of Permits No. AC 01-204652, University of Florida Cogeneration Facility
AC 49-203114, Intercession City Facility

Dear Mr. Osbourn:

On August 30 the Department received your application letters, dated August 25, requesting an extension of the expiration date of the above referenced permits. The attached proposed rule language will, if adopted, extend the air construction permit by law. It is anticipated that the rule will be adopted in early September. If the rule is adopted within 90 days of receipt of your application, the Department will not be required to respond further. However, we will inform you upon adoption of the proposed rule.

If the rule, for any reason, is not adopted within 90 days of receipt of your application we will act upon your request in a timely manner. Please note that your air construction permit is valid until the Department acts upon your request.

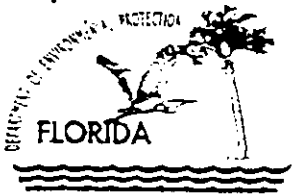
Should you have any questions please contact me at (904) 488-1344.

Sincerely,

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

AAL/kw

cc: C. Collins, CD
E. Frey, NED
P. Reynolds, NED GBO
K. Kosky, KBN



Department of
Environmental Protection

file

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 22, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue, Director
Environmental Service Department
Florida Power Corporation
P. O. Box 14042
St. Petersburg, Florida 33733

Dear Mr. Pardue:

RE: University of Florida Cogeneration Facility Alachua County
AC01-204652 and PSD-F1-181
Request for Amendment of Construction Permit

The Department is in receipt of your March 31 letter requesting to incorporate the EPA approved custom fuel monitoring schedule and to amend Specific Conditions No. 2, No. 3, and No. 8 of the above mentioned permit. This permit was issued under a stipulated settlement (OGC case No. 91-1113). The Department has evaluated your request and determines the following:

CUSTOM FUEL MONITORING SCHEDULE:

FPC'S REQUEST:

To incorporate the EPA approved custom fuel monitoring schedule for sulfur in natural gas.

DEPARTMENT'S RESPONSE:

The Department will amend the permit to incorporate the fuel monitoring schedule. The attached EPA custom fuel monitoring schedule shall be part of this permit.

SPECIFIC CONDITION NO.2

FPC'S REQUEST:

To delete reference to boiler No. 2 with no increases in the current cap for typ of NO_x for boilers No. 4 and 5.

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Mr. W. Jeffrey Pardue
May 22, 1995
Page Four

o The following information is requested to help the Department resolve this request. Please describe how FPC determined that increased heat rates, and corresponding increased NO_x emission rates, are achievable based on the initial performance test. Provide manufactures curves and example calculations. Please describe how tpy of NO_x are monitored for each emissions unit. State if any F factors will be used when the NO_x CEMS system is used for NO_x tpy monitoring. Supply example calculations and state all assumptions for these calculations. Describe fuel and process monitoring associated with the NO_x monitoring.

Submit any written inquiries or additional information to me at the above address. If you have any questions or need clarification on any of these items, please call Martin Costello at (904)488-1344.

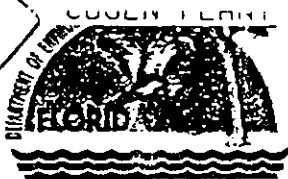
Sincerely,


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

CHF/mc/h

attachments: Mr. Pardue's letter of March 31, 1995
EPA's custom fuel monitoring schedule guidance
Rule 62-297.620, F.A.C.

cc: Robert Leetch, NED
John Reynolds
Mike Harley
Morton Benjamin
Martin Costello



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

CERTIFIED - RETURN RECEIPT

August 5, 1994

Mr. Johnny Miller
Supt., Heat Plant II
University of Florida
Building 473
Gainesville, Florida 32611

Dear Mr. Miller:

Alachua County - AP
University of Florida - Heat Plant II

Emissions Unit	Permit No.	ID No.
#1 Boiler	A001-214826	31GVL01001402
#2 Boiler	A001-214828	31GVL01001403
#3 Boiler	A001-214829	31GVL01001404
#4 Boiler	A001-214830	31GVL01001411
#5 Boiler	A001-214831	31GVL01001415

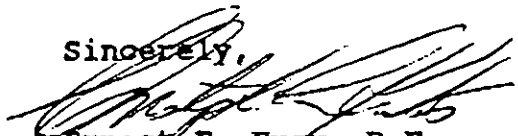
Each permit above is extended to 09-02-95 to coordinate each emissions unit with the submittal of the Title V source (facility) permit application which shall be submitted by 07-02-95 per FAC Rule 17-213.420(1)(a)1.b.

Since each extension is in lieu of processing an operation permit application for a short-term operation permit, the testing required by each permit shall continue to be performed at the interval in each permit.

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

If there are any questions, please contact Johnny Cole at (904) 448-4310, Ext. 236.

Sincerely,


Ernest E. Frey, P.E.
Director of District Management

EEF:JLC

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

NORTHEAST DISTRICT
REGISTRATION
AUG 19 1992
REGULATIVE
DER-JACKSONVIL

In the matter of an
Application for Permit by:

DER File No. AC 01-204652
PSD-FL-181
Alachua County

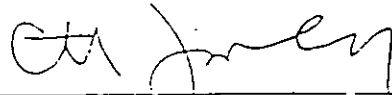
Mr. R. W. Neiser
Florida Power Corporation
3201-34th Street South
St. Petersburg, Florida 33733

Enclosed is Permit Number AC 01-204652 to construct a 43 MW cogeneration facility at the University of Florida's Central Heat Plant facility in Gainesville, Alachua County, Florida, issued pursuant to Section(s) 403, Florida Statutes.

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 this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

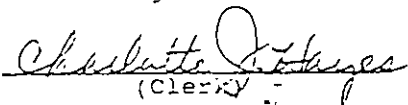

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on August 17, 1992 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) 8/17/92
(Date)

Copies furnished to:
A. Kutyna, NED ✓
J. Harper, EPA
C. Shaver, KPS
K. Kosky, P.E.

Final Determination

Florida Power Corporation/University
of Florida Cogeneration Project
Alachua County, Florida

Permit No. AC 01-204652
PSD-FL-181

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

August 7, 1992

Final Determination

The Technical Evaluation and Preliminary Determination for the permit to construct a 43 megawatt cogeneration facility at the University of Florida Central Heat Plant in Gainesville, Alachua County, Florida, was distributed on June 30, 1992. The Notice of Intent to Issue was published in the Gainesville Sun on July 3, 1992. Copies of the evaluation were available for public inspection at the Department's Tallahassee and Jacksonville offices.

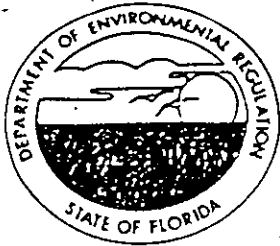
Comments were submitted by the applicant on July 29, 1992, requesting modification of Specific Conditions Nos. 3, 4, and 7. The Department made the following changes in response to those comments:

Specific Condition No. 3 - Specific limits for Boilers 4 and 5 were replaced with a total NO_x cap to provide operational flexibility in the event of gas curtailments.

Specific Condition No. 4 - The required operating rate during the compliance test was modified to reflect the maximum capacity achievable at a given ambient temperature.

Specific Condition No. 7 - Language was added to clarify that a revised BACT analysis is dependent on the facility meeting the emission limits.

The final action of the Department will be to issue construction permit AC 01-204652 (PSD-FL-181) as modified.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-240

Lawton Chiles, Governor

Carol M. Browner, Secretary

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

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994
County: Alachua
Latitude/Longitude: 29°38'23"N
82°20'55"W
Project: UF Cogeneration Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved 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 43 Megawatt cogeneration facility consisting of replacement of existing boiler Nos. 1, 2, and 3 with a GE LM-6000 combustion turbine in series with a duct burner at a designed flow of 325,200 ACFM, and operating existing boiler Nos. 4 and 5 as auxiliary units.

Particulate emissions shall be controlled by using clean fuels and good combustion practices. CO emissions shall be initially controlled by proper combustion techniques. NO_x emissions shall be initially controlled by steam injection. Future control requirements for CO and NO_x will be established by a revised BACT determination if deemed necessary by the Department.

The facility is located at the existing Central Heat Plant on the campus of the University of Florida in Gainesville, Alachua County, Florida. The UTM coordinates are 369.4 km East and 3,279.3 km North.

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

Attachments are listed below:

1. FPC letter dated 11-13-91.
2. FPC letter dated 11-25-91.
3. KBN letter dated 12-2-91.
4. DER incompleteness letter dated 12-31-91.
5. FPC letter dated 1-2-92.
6. EPA letter dated 1-8-92.
7. DER letter to EPA dated 1-16-92.

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

Attachments Cont'd

8. KEN letter dated 1-30-92.
9. FPC letter to EPA dated 2-6-92.
10. DER letter to EPA dated 2-12-92.
11. DER letter to EPA dated 2-14-92.
12. FPC response to incompleteness dated 3-5-92.
13. FWS letter to DER dated 4-2-92.
14. EPA letter to DER dated 4-8-92.
15. KBN letter to DER dated 4-8-92.
16. EPA letter to DER dated 6-16-92.
17. FPC letter to DER dated 6-19-92.
18. FPC letter to DER dated 7-29-92.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

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

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

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

GENERAL CONDITIONS:

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

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

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

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

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

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

- a. a description of and cause of non-compliance; and

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

GENERAL CONDITIONS:

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

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

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

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

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

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

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Unless otherwise indicated, the construction and operation of the subject cogeneration facility shall be in accordance with the capacities and specifications stated in the application.

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

2. Emissions from this facility shall not exceed the limits listed below:

Pollutant	Source	Fuel	Basis of Limit	lbs/hr	tons/yr
NOx	Turbine	Gas	EBM*:25 ppmvd @ 15% O2	35.0	142.7
	Turbine	Oil	EBM*:42 ppmvd @ 15% O2	66.3	7.3
	D.Burner	Gas	EBM*:0.1 lb/MMBTU	18.7	24.6
SO2	Turbine	Oil	BACT:0.5% Sulfur Max.	-	-
	Boiler 4	Oil	BACT:0.5% Sulfur Max.	-	-
	Boiler 5	Oil	BACT:0.5% Sulfur Max.	-	-
VE	Turbine	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	D.Burner	Gas	" " "	10% opacity	
	Boiler 4	Gas/Oil	" " "	10%/20% opacity**	
	Boiler 5	Gas/Oil	" " "	10%/20% opacity**	
CO	Turbine	Gas	BACT:42 ppmvd	38.8	158.0
	Turbine	Oil	EBA***:75 ppmvd	70.5	7.7
	D.Burner	Gas	BACT:0.15 lb/MMBTU****	28.1	36.9

*EBM: Established by manufacturer

**Except for one 6-minute period per hour of not more than 27% opacity

***EBA: Established by applicant

****BACT limit proposed by applicant in Table A-2 of application

3. Fuel consumption rates and hours of operation for the turbine and duct burner shall not exceed those listed below:

	Natural Gas			No. 2 Fuel Oil		
	M ft3/hr*	MM ft3/yr	hrs/yr*	M gal/hr*	M gal/yr	hrs/yr*
Turbine	367.9	2997.2**	8146.8**	2.9	635.1	219.0**
Duct Burner	197.7	519.5	2628.0	0	0	0

*Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.

**An additional 1.9 hours/yr operation on natural gas will be allowed for each 1.0 hour/yr that fuel oil is not burned (up to 219 x 1.9 hours/yr), in which case, the emission limits in Specific Condition No. 2 shall be adjusted accordingly.

296 415

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

Boilers Nos. 4 and 5, firing natural gas or No. 2 fuel oil, may be operated as necessary for backup, as long as total NO_x emissions from the four sources within the permitted facility do not exceed 194.3 tons NO_x per year. The permittee shall maintain the required fuel use records to demonstrate compliance with this condition and include the total NO_x emission calculation in each annual operating report.

4. Before this construction permit expires, the cogeneration facility and Central Heat Plant (Boilers 4 and 5) stacks shall be sampled or tested as applicable according to the emission limits in Specific Condition No. 2. Annual compliance tests shall be conducted each year thereafter. Compliance tests shall be run at 96% to 100% of the maximum capacity achievable for the average ambient temperature during the compliance tests. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results. Tests shall be conducted using the following reference methods:

NO_x: EPA Method 20
SO₂: Fuel supplier's sulfur analysis
VE: EPA Method 9
CO: EPA Method 10

5. The DER Northeast District office shall be notified at least 30 days prior to the compliance tests. Compliance test results shall be submitted to the DER Northeast District office and the Bureau of Air Regulation office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

6. A continuous operations monitoring system shall be installed, operated, and maintained in accordance with 40 CFR 60.334. The natural gas, fuel oil and steam injection flows to the cogeneration turbine along with the power output of the generator shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to DER upon request.

7. The permittee shall have the option of including, in the initial construction, adequate modules and other provisions necessary for future installation of state-of-the-art catalytic abatement or equivalent CO and NO_x control systems. Within 90 days of receipt of the initial compliance test results, the Department shall, if CO emission limits are not met, review the need for making a revised determination of Best Available Control Technology for CO.

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

If test results from the turbine and duct burner show that it is unlikely that NO_x limits can be met, a revised BACT determination for NO_x shall also be considered. The Department may revise the BACT determination to require installation of such technology if so indicated by the revised BACT cost/benefit analysis. If the permittee has elected not to provide for future addition of such technology in the initial construction and later applies for a permit modification to increase capacity, the retrofit costs associated with not making provisions for such technology (initially) shall not be considered by the Department in the retrofit cost analysis required for the future expansion.

8. Boilers Nos. 1, 2 and 3 shall permanently cease operation upon receipt of the operation permit for the cogeneration facility.

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

10. An application for an operation permit must be submitted to the Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 17th day
of August, 1992

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Carol M. Browner, Secretary

Revised
 Best Available Control Technology (BACT) Determination
 University of Florida Cogeneration Project
 Alachua County

The applicant proposes to install a 43 MW cogeneration facility to replace existing boiler capacity at the University of Florida - Gainesville campus in Alachua County. The facility will consist of a General Electric LM-6000 Gas Turbine Generator exhausting through a duct-fired heat recovery steam generator which will produce steam for the University campus. The turbine and duct burner will be fired by natural gas with No. 2 fuel oil being used only as a backup fuel for the turbine.

A BACT determination is required for all regulated air pollutants emitted in amounts equal to or greater than the significant emission rates listed in Table 500-2 of Florida Administrative Code (F.A.C.) Rule 17-2.500.

The following table presents the estimated actual emissions in tons per year proposed by the applicant for NO_x, SO₂, PM/PM₁₀, VOC, and H₂SO₄. The Department accepts the applicant's proposed emissions for those pollutants, but will require a more stringent CO limit for the turbine during natural gas firing than proposed by the applicant (42 ppmvd vs. 75 ppmvd).

	<u>Gas Turbine</u>		<u>Duct Burner</u>	<u>Total</u>	<u>Offsets</u>	<u>Increase</u>	<u>PSD</u>
	<u>NG</u>	<u>Oil</u>	<u>NG</u>				
NO _x	142.7	7.3	24.6	174.6	134.9	39.7	40.0
SO ₂	4.3	21.6	0.7	26.6	36.1	-9.5	40.0
PM/PM ₁₀	10.2	1.1	2.5	13.8	3.4	10.4	25/15
CO	158.0	7.7	36.9	202.6	20.4	182.2	100.0
VOC	6.5	0.4	10.6	17.5	1.1	16.4	40.0
H ₂ SO ₄	0.3	2.0	0.1	2.4	0.8	1.6	7.0

Emissions are based on firing natural gas in the turbine for 8,147 hours/yr at 348 MMBTU/hr and natural gas in the duct burner for 2,628 hours/yr at 187 MMBTU/hr. Oil firing in the turbine is based on 219 hours/yr at 362.6 MMBTU/hr.

Turbine performance under natural gas firing is based on NO_x emissions of 25 ppmvd (corrected to 15 percent O₂). Performance on oil firing is based on NO_x emissions of 42 ppmvd (corrected to 15 percent O₂). SO₂ emissions are based on 0.5 percent sulfur.

Date of Receipt of a Complete Application

March 6, 1992

BACT Determination Requested by Applicant

Control Technology: Combustion efficiency for cogeneration CO control.

Emission Limits: 75 ppmvd CO (natural gas or No. 2 oil - 0.5% Sulfur max.)
(No request made for Boilers 4 and 5)

BACT Determined by the Department

Control Technology: Combustion efficiency for cogeneration CO control.

Emission Limits: Turbine - Natural gas firing: 42 ppmvd CO
Turbine - No. 2 oil firing: 75 ppmvd CO
Maximum % Sulfur - No. 2 oil: 0.5 % S
Duct Burner - Natural gas: 0.15 lb CO/MMETU
Boilers 4 & 5: (Gas/Oil) 10%/20% Opacity

BACT Determination Procedure

In accordance with F.A.C. Chapter 17-2, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available control methods, systems and techniques. In addition, the regulations require that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other State.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

A review of EPA's BACT/LAER Clearinghouse indicates that catalytic oxidation is the most stringent control technique. An oxidation catalyst control system allows unburned CO to react with oxygen at the surface of a precious metal catalyst such as platinum. Combustion of CO starts at about 300°F and reaches near completion (above 90%) at temperatures above 600°F. Catalytic oxidation occurs at temperatures 50 percent lower than for thermal oxidation thus reducing the thermal energy required. The oxidation catalyst is typically located directly after the turbine or as an integral part of the steam generator. Catalyst size depends on the exhaust flow, temperature, and desired efficiency.

Catalytic oxidation for CO control has been employed in nonattainment areas and is considered to be LAER technology capable of reducing CO emissions to the 10 ppm range. Due to economics, applications of catalytic oxidation technology have thus far been limited to small cogeneration facilities burning natural gas. Oxidation catalysts have not been used on base-loaded fuel oil-fired turbines in simple cycle or combined cycle facilities since extended use of sulfur-containing fuel would result in increased corrosion. Also, trace metals in the fuel could poison catalysts during prolonged fuel oil firing.

Using the applicant's proposed CO emission level of 75 ppmvd, the total annualized cost of CO catalytic oxidation for this project is \$508,156 with a cost effectiveness of about \$1,970/ton of CO removed. The cost effectiveness is based on 87% efficiency (75 ppmvd to 10 ppmvd) and includes a heat rate penalty of 0.2% based on an energy loss of \$50/MW associated with pressure drop across the catalyst. A review of previous BACT determinations indicates that \$1,970/ton would not be prohibitive. However, the decision to require catalytic oxidation should be based on a cost/benefit analysis once compliance testing has been done. Therefore, the Department will propose initial BACT emission limits for CO consistent with recent BACT determinations for similar sources. These limits are to be revised, if necessary, upon evaluation of the compliance test data. The turbine limit proposed by the applicant for fuel oil operation (75 ppmvd) is more stringent than a recent BACT determination for similar sources (78 ppmvd).

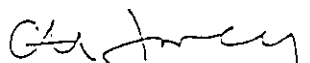
Other Air Pollutants Not Subject to BACT Determination

The application indicates that emissions of other pollutants will not be subject to a BACT determination. The applicant narrowly escaped PSD review for NO_x by lowering firing rates, and since increased firing rates may be requested at some future date, the Department will require that retrofit costs associated with the applicant's decision not to make initial provisions for future installation of advanced catalytic control shall not be considered in any cost analysis required for any future requested increase in capacity.

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:




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

Date

August 14 1992

Approved by:



Carol M. Browner, Secretary
Dept. of Environmental Regulation

Date

August 17 1992

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

NORTHEAST DISTRICT
RECEIVED
AUG 19 1992
RECEIVED
DER-JACKSONVILLE

In the matter of an
Application for Permit by:

Mr. R. W. Neiser
Florida Power Corporation
3201-34th Street South
St. Petersburg, Florida 33733

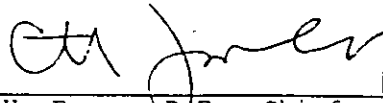
DER File No. AC 01-204652
PSD-FL-181
Alachua County

Enclosed is Permit Number AC 01-204652 to construct a 43 MW cogeneration facility at the University of Florida's Central Heat Plant facility in Gainesville, Alachua County, Florida, issued pursuant to Section(s) 403, Florida Statutes.

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 this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on August 17, 1992 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.

Charllette Hayes 8/17/92
(Clerk) (Date)

Copies furnished to:

A. Kutyna, NED
J. Harper, EPA
C. Shaver, NPS
K. Kosky, P.E.

Final Determination

Florida Power Corporation/University
of Florida Cogeneration Project
Alachua County, Florida

Permit No. AC 01-204652
PSD-FL-181

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

August 7, 1992

Final Determination

The Technical Evaluation and Preliminary Determination for the permit to construct a 43 megawatt cogeneration facility at the University of Florida Central Heat Plant in Gainesville, Alachua County, Florida, was distributed on June 30, 1992. The Notice of Intent to Issue was published in the Gainesville Sun on July 3, 1992. Copies of the evaluation were available for public inspection at the Department's Tallahassee and Jacksonville offices.

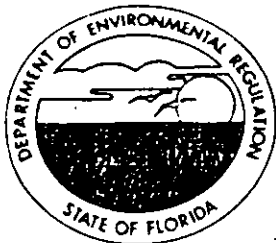
Comments were submitted by the applicant on July 29, 1992, requesting modification of Specific Conditions Nos. 3, 4, and 7. The Department made the following changes in response to those comments:

Specific Condition No. 3 - Specific limits for Boilers 4 and 5 were replaced with a total NO_x cap to provide operational flexibility in the event of gas curtailments.

Specific Condition No. 4 - The required operating rate during the compliance test was modified to reflect the maximum capacity achievable at a given ambient temperature.

Specific Condition No. 7 - Language was added to clarify that a revised BACT analysis is dependent on the facility meeting the emission limits.

The final action of the Department will be to issue construction permit AC 01-204652 (PSD-FL-181) as modified.



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

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

Permit Number: AC 01-204652

PSD-FL-181

Expiration Date: December 31, 1994

County: Alachua

Latitude/Longitude: 29°38'23"N

82°20'55"W

Project: UF Cogeneration Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved 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 43 Megawatt cogeneration facility consisting of replacement of existing boiler Nos. 1, 2, and 3 with a GE LM-6000 combustion turbine in series with a duct burner at a designed flow of 325,200 ACFM, and operating existing boiler Nos. 4 and 5 as auxiliary units.

Particulate emissions shall be controlled by using clean fuels and good combustion practices. CO emissions shall be initially controlled by proper combustion techniques. NO_x emissions shall be initially controlled by steam injection. Future control requirements for CO and NO_x will be established by a revised BACT determination if deemed necessary by the Department.

The facility is located at the existing Central Heat Plant on the campus of the University of Florida in Gainesville, Alachua County, Florida. The UTM coordinates are 369.4 km East and 3,279.3 km North.

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

Attachments are listed below:

1. FPC letter dated 11-13-91.
2. FPC letter dated 11-25-91.
3. KBN letter dated 12-2-91.
4. DER incompleteness letter dated 12-31-91.
5. FPC letter dated 1-2-92.
6. EPA letter dated 1-8-92.
7. DER letter to EPA dated 1-16-92.

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

Attachments Cont'd

8. KBN letter dated 1-30-92.
9. FPC letter to EPA dated 2-6-92.
10. DER letter to EPA dated 2-12-92.
11. DER letter to EPA dated 2-14-92.
12. FPC response to incompleteness dated 3-5-92.
13. FWS letter to DER dated 4-2-92.
14. EPA letter to DER dated 4-8-92.
15. KBN letter to DER dated 4-8-92.
16. EPA letter to DER dated 6-16-92.
17. FPC letter to DER dated 6-19-92.
18. FPC letter to DER dated 7-29-92.

GENERAL CONDITIONS:

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

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

GENERAL CONDITIONS:

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

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

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

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

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

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

- a. a description of and cause of non-compliance; and

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

GENERAL CONDITIONS:

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

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

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

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

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

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

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Unless otherwise indicated, the construction and operation of the subject cogeneration facility shall be in accordance with the capacities and specifications stated in the application.

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

2. Emissions from this facility shall not exceed the limits listed below:

Pollutant	Source	Fuel	Basis of Limit	lbs/hr	tons/yr
NOx	Turbine	Gas	EBM*:25 ppmvd @ 15% O2	35.0	142.7
	Turbine	Oil	EBM*:42 ppmvd @ 15% O2	66.3	7.3
	D.Burner	Gas	EBM*:0.1 lb/MMBTU	18.7	24.6
					174.6
SO2	Turbine	Oil	BACT:0.5% Sulfur Max.	-	-
	Boiler 4	Oil	BACT:0.5% Sulfur Max.	-	-
	Boiler 5	Oil	BACT:0.5% Sulfur Max.	-	-
VE	Turbine	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	D.Burner	Gas	" " "	10% opacity	
	Boiler 4	Gas/Oil	" " "	10%/20% opacity**	
	Boiler 5	Gas/Oil	" " "	10%/20% opacity**	
CO	Turbine	Gas	BACT:42 ppmvd	38.8	158.0
	Turbine	Oil	EBA***:75 ppmvd	70.5	7.7
	D.Burner	Gas	BACT:0.15 lb/MMBTU****	28.1	36.9

*EBM: Established by manufacturer

**Except for one 6-minute period per hour of not more than 27% opacity

***EBA: Established by applicant

****BACT limit proposed by applicant in Table A-2 of application

3. Fuel consumption rates and hours of operation for the turbine and duct burner shall not exceed those listed below:

	Natural Gas			No. 2 Fuel Oil		
	M ft3/hr*	MM ft3/yr	hrs/yr*	M gal/hr*	M gal/yr	hrs/yr*
Turbine	367.9	2997.2**	8146.8**	2.9	635.1	219.0**
Duct Burner	197.7	519.5	2628.0	0	0	0

*Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.

**An additional 1.9 hours/yr operation on natural gas will be allowed for each 1.0 hour/yr that fuel oil is not burned (up to 219 x 1.9 hours/yr), in which case, the emission limits in Specific Condition No. 2 shall be adjusted accordingly.

296 405

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

Boilers Nos. 4 and 5, firing natural gas or No. 2 fuel oil, may be operated as necessary for backup, as long as total NO_x emissions from the four sources within the permitted facility do not exceed 194.3 tons NO_x per year. The permittee shall maintain the required fuel use records to demonstrate compliance with this condition and include the total NO_x emission calculation in each annual operating report.

4. Before this construction permit expires, the cogeneration facility and Central Heat Plant (Boilers 4 and 5) stacks shall be sampled or tested as applicable according to the emission limits in Specific Condition No. 2. Annual compliance tests shall be conducted each year thereafter. Compliance tests shall be run at 96% to 100% of the maximum capacity achievable for the average ambient temperature during the compliance tests. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results. Tests shall be conducted using the following reference methods:

NO_x: EPA Method 20
SO₂: Fuel supplier's sulfur analysis
VE: EPA Method 9
CO: EPA Method 10

5. The DER Northeast District office shall be notified at least 30 days prior to the compliance tests. Compliance test results shall be submitted to the DER Northeast District office and the Bureau of Air Regulation office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

6. A continuous operations monitoring system shall be installed, operated, and maintained in accordance with 40 CFR 60.334. The natural gas, fuel oil and steam injection flows to the cogeneration turbine along with the power output of the generator shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to DER upon request.

7. The permittee shall have the option of including, in the initial construction, adequate modules and other provisions necessary for future installation of state-of-the-art catalytic abatement or equivalent CO and NO_x control systems. Within 90 days of receipt of the initial compliance test results, the Department shall, if CO emission limits are not met, review the need for making a revised determination of Best Available Control Technology for CO.

PERMITTEE:
Florida Power Corporation

Permit Number: AC 01-204652
PSD-FL-181
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

If test results from the turbine and duct burner show that it is unlikely that NO_x limits can be met, a revised BACT determination for NO_x shall also be considered. The Department may revise the BACT determination to require installation of such technology if so indicated by the revised BACT cost/benefit analysis. If the permittee has elected not to provide for future addition of such technology in the initial construction and later applies for a permit modification to increase capacity, the retrofit costs associated with not making provisions for such technology (initially) shall not be considered by the Department in the retrofit cost analysis required for the future expansion.

8. Boilers Nos. 1, 2 and 3 shall permanently cease operation upon receipt of the operation permit for the cogeneration facility.

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

10. An application for an operation permit must be submitted to the Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 17th day
of August, 1992

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



Carol M. Browner, Secretary

Revised
 Best Available Control Technology (BACT) Determination
 University of Florida Cogeneration Project
 Alachua County

The applicant proposes to install a 43 MW cogeneration facility to replace existing boiler capacity at the University of Florida - Gainesville campus in Alachua County. The facility will consist of a General Electric LM-6000 Gas Turbine Generator exhausting through a duct-fired heat recovery steam generator which will produce steam for the University campus. The turbine and duct burner will be fired by natural gas with No. 2 fuel oil being used only as a backup fuel for the turbine.

A BACT determination is required for all regulated air pollutants emitted in amounts equal to or greater than the significant emission rates listed in Table 500-2 of Florida Administrative Code (F.A.C.) Rule 17-2.500.

The following table presents the estimated actual emissions in tons per year proposed by the applicant for NO_x, SO₂, PM/PM₁₀, VOC, and H₂SO₄. The Department accepts the applicant's proposed emissions for those pollutants, but will require a more stringent CO limit for the turbine during natural gas firing than proposed by the applicant (42 ppmvd vs. 75 ppmvd).

	<u>Gas Turbine</u>		<u>Duct Burner</u>	<u>Total</u>	<u>Offsets</u>	<u>Increase</u>	<u>PSD</u>
	<u>NG</u>	<u>Oil</u>	<u>NG</u>				
NO _x	142.7	7.3	24.6	174.6	134.9	39.7	40.0
SO ₂	4.3	21.6	0.7	26.6	36.1	-9.5	40.0
PM/PM ₁₀	10.2	1.1	2.5	13.8	3.4	10.4	25/15
CO	158.0	7.7	36.9	202.6	20.4	182.2	100.0
VOC	6.5	0.4	10.6	17.5	1.1	16.4	40.0
H ₂ SO ₄	0.3	2.0	0.1	2.4	0.8	1.6	7.0

Emissions are based on firing natural gas in the turbine for 8,147 hours/yr at 348 MMBTU/hr and natural gas in the duct burner for 2,628 hours/yr at 187 MMBTU/hr. Oil firing in the turbine is based on 219 hours/yr at 382.6 MMBTU/hr.

Turbine performance under natural gas firing is based on NO_x emissions of 25 ppmvd (corrected to 15 percent O₂). Performance on oil firing is based on NO_x emissions of 42 ppmvd (corrected to 15 percent O₂). SO₂ emissions are based on 0.5 percent sulfur.

Date of Receipt of a Complete Application

March 6, 1992

BACT Determination Requested by Applicant

Control Technology: Combustion efficiency for cogeneration CO control.
Emission Limits: 75 ppmvd CO (natural gas or No. 2 oil - 0.5% Sulfur max.)
(No request made for Boilers 4 and 5)

BACT Determined by the Department

Control Technology: Combustion efficiency for cogeneration CO control.

Emission Limits: Turbine - Natural gas firing: 42 ppmvd CO
Turbine - No. 2 oil firing: 75 ppmvd CO
Maximum % Sulfur - No. 2 oil: 0.5 % S
Duct Burner - Natural gas: 0.15 lb CO/MMBTU
Boilers 4 & 5: (Gas/Oil) 10%/20% Opacity

BACT Determination Procedure

In accordance with F.A.C. Chapter 17-2, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available control methods, systems and techniques. In addition, the regulations require that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other State.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

A review of EPA's BACT/LAER Clearinghouse indicates that catalytic oxidation is the most stringent control technique. An oxidation catalyst control system allows unburned CO to react with oxygen at the surface of a precious metal catalyst such as platinum. Combustion of CO starts at about 300°F and reaches near completion (above 90%) at temperatures above 600°F. Catalytic oxidation occurs at temperatures 50 percent lower than for thermal oxidation thus reducing the thermal energy required. The oxidation catalyst is typically located directly after the turbine or as an integral part of the steam generator. Catalyst size depends on the exhaust flow, temperature, and desired efficiency.

Catalytic oxidation for CO control has been employed in nonattainment areas and is considered to be LAER technology capable of reducing CO emissions to the 10 ppm range. Due to economics, applications of catalytic oxidation technology have thus far been limited to small cogeneration facilities burning natural gas. Oxidation catalysts have not been used on base-loaded fuel oil-fired turbines in simple cycle or combined cycle facilities since extended use of sulfur-containing fuel would result in increased corrosion. Also, trace metals in the fuel could poison catalysts during prolonged fuel oil firing.

Using the applicant's proposed CO emission level of 75 ppmvd, the total annualized cost of CO catalytic oxidation for this project is \$508,156 with a cost effectiveness of about \$1,970/ton of CO removed. The cost effectiveness is based on 87% efficiency (75 ppmvd to 10 ppmvd) and includes a heat rate penalty of 0.2% based on an energy loss of \$50/MW associated with pressure drop across the catalyst. A review of previous BACT determinations indicates that \$1,970/ton would not be prohibitive. However, the decision to require catalytic oxidation should be based on a cost/benefit analysis once compliance testing has been done. Therefore, the Department will propose initial BACT emission limits for CO consistent with recent BACT determinations for similar sources. These limits are to be revised, if necessary, upon evaluation of the compliance test data. The turbine limit proposed by the applicant for fuel oil operation (75 ppmvd) is more stringent than a recent BACT determination for similar sources (78 ppmvd).

Other Air Pollutants Not Subject to BACT Determination

The application indicates that emissions of other pollutants will not be subject to a BACT determination. The applicant narrowly escaped PSD review for NO_x by lowering firing rates, and since increased firing rates may be requested at some future date, the Department will require that retrofit costs associated with the applicant's decision not to make initial provisions for future installation of advanced catalytic control shall not be considered in any cost analysis required for any future requested increase in capacity.

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:



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

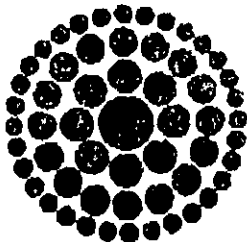
August 14 1992
Date

Approved by:



Carol M. Browner, Secretary
Dept. of Environmental Regulation

August 17 1992
Date



**Florida
Power**
CORPORATION

ENVIRONMENTAL SERVICES DEPARTMENT
FAX TRANSMITTAL SHEET

FAX #: (813) 866-4926

DATE: 2/8/95

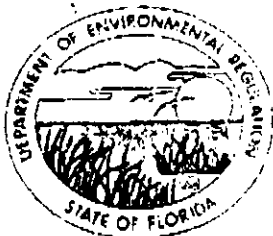
TO: John Hutton
(904) 922-6979 FAX

FROM: [Signature] Telephone #: _____

6 pages to follow

Please notify (813) 866- 5158 for any problems concerning the receipt of this FAX.

Comments:



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor NOTICE OF PERMIT ISSUANCE

Carol M. Browner, Secretary

CERTIFIED - RETURN RECEIPT

Mr. Johnny Miller, Superintendent
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

Dear Mr. Miller:

Alachua County - AP
University of Florida
No. 2 Steam Boiler

Enclosed is Permit Number A001-214828 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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

Administration 448-4300
Air 448-4310
Waste Management 448-4320



Water Facilities 448-4330
Water Management 448-4340
FAA 448-4350

University of Florida
Page two
A001-214828

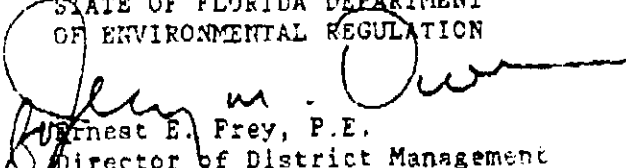
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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.

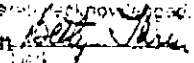
When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate procedure, with the Clerk of the Department in the Office of 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 Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Ernest E. Frey, P.E.
Director of District Management

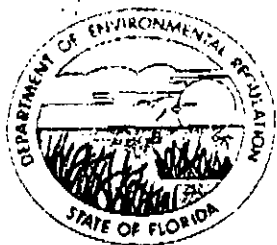
EEF:bt

Copies furnished to: John B. Koogler, Ph.D., P.E.
Gainesville Branch Office
Alachua County Office Environmental Protection

FILING AND ACKNOWLEDGEMENT
FILED on this date pursuant to §120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.
 8/28/92
Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 8/28/92 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7625 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

University of Florida
Physical Plant Division
Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001403
Permit/Cert Number: A001-214828
Date of Issue: 08-28-92
Expiration Date: December 31, 1994
County: Alachua
Latitude/Longitude: 29°38'24"N; 82°20'52"W
Project: No. 2 Steam Boiler
UTM: E-(17)369.5; N-3279.4

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

For the operation of No. 2 Steam Boiler.

Located west of Center Drive, north of Mowery Road, University of Florida, Gainesville, Alachua County, Florida.

In accordance with:

- Operation Permit Application dated 08-23-77
- Renewal application dated 06-21-82
- Renewal application dated 07-17-87
- BACT Determination received 09-24-87
- Renewal application received 06-15-92



PERMITTEE:

University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number:

Permit/Certification Number:

Date of Issue:

Expiration Date:

31GVLO1001403

A001-214828

December 31, 1994

SPECIFIC CONDITIONS:

- The maximum input rate (operating rate) is shown below and shall not be exceeded without prior approval.

<u>Rate</u>	<u>Material</u>
533 GPH	No. 6 fuel oil ¹
84,320 CFH	Natural gas

¹See SC #4, note 4 for quality requirements

- Testing of emissions must be performed at an operating rate of at least 90% of the rate in Specific Condition (SC) No. 1, or SC No. 3 will become effective.
- The operating rate shall not exceed 110% of the operating rate during the most recent test except for testing purposes, but shall not exceed that rate in SC No. 1. After testing at an operating rate greater than 110% of the last test operating rate, the operating rate shall not exceed 110% of the last (subsequent) test operating rate until the test report at the higher rate has been reviewed and accepted by the Department.
- The permitted maximum allowable emission rate for each pollutant is as follows:

<u>Pollutant</u>	<u>FAC Rule</u>	<u>Emission Rate</u>	
		<u>lbs/hr</u>	<u>TPY</u>
PM ¹	17-2.600(6)(b)	9.592 ⁴	38.38 ³
SO ₂ ⁴	17-2.600(6)(c)	132.72 ⁵	530.87 ³
VE ⁶	17-2.600(6)(a)	20% opacity, except 40% for 2 min/hr	

Fuel oil only

¹PM - Particulate matter

²Basis: 533 gals/hr; 1.5% S* in FO; AP-42 emission factor.

³From previous permit.

⁴SO₂ - sulfur dioxide

⁵Basis: 533 gals/hr; 1.5% S* in FO; 8.3 lbs/gal.

⁶VE - visible emissions

$$= [9.19 \text{ (S)} + 3.22] \frac{16}{10^5} \text{ gal} \\ = 17.005 \frac{16}{10^5} \text{ gal} \\ \textcircled{1} 533 \text{ GPH} = 9.06 \text{ #/hr}$$

*Basis: BACT Determination dated 09-21-87 which limits the fuel oil fired to "new" No. 6 fuel oil (FO) with a sulfur content not to exceed 1.5% by weight. "New" means oil refined from crude oil and has not been used.

Hours of operation are limited to 24 H/D, 7 D/W; 52 W/Y and shall be recorded.

PERMITTEE:

University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

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

31GVLO1001403
A001-214828
December 31, 1994

SPECIFIC CONDITIONS:

- Test the emission for the following pollutant(s) at the interval(s) indicated, notify the Department 14 days prior to testing, and submit the test report documentation to the Department within 45 days after completion of the testing:

<u>Pollutant</u>	<u>Interval</u>	<u>Test Method</u>
VE1	12 months from 01-20-92	DER 9
SC2	12 months from 01-20-92	----2

¹Basis: Rule 17-2.700(2)(a)3., FAC - test not required when liquid fuel is burned for a total of no more than 400 hours.
²Per FAC Rule 17-2.700(6)(c)1.b.

Tests and test reports shall comply with the requirements of Florida Administrative Code Rule 17-2.700(6) and (7), respectively.

- In each test report, submit the maximum input/production rate at which this source was operated since the most recent test.
- Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 3 including the previous year's total usage of No. 6 fuel oil and documenting the sulfur % content, by weight.
- Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.
- The ID Name and ID No. for this source is to be used on all correspondence.
- This boiler shall be permanently shutdown when the cogeneration facility operation permit is received.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

FILED AND ACKNOWLEDGEMENT
FILED on this date pursuant to § 120.02
Statutes, with the designated Department
receipt of which is hereby acknowledged

[Signature]
Ernest E. Frey, P.E.
Director of District Management

CERTIFICATION

PROJECT NAME: University of Florida
No. 2 Steam Boiler

APPLICATION NO: A001-214828

I HEREBY CERTIFY that the engineering features described in application No. A001-214828 provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, and geological features).

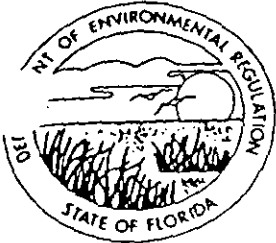
Andrew G. Kutyna, P.E.
Name, P.E.

Andrew G. Kutyna
Signature and Seal

5/27/92
Date

Jan '92

Transfer request from F.I. Power
Returned to them as pre-mature
1 & 3 should not have been transferred



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

NOTICE OF PERMIT ISSUANCE

Carol M. Browner, Secretary

CERTIFIED - RETURN RECEIPT

Mr. Johnny Miller, Superintendent
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

Dear Mr. Miller:

Alachua County - AP
University of Florida
No. 4 Steam Boiler

Enclosed is Permit Number A001-214830 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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.

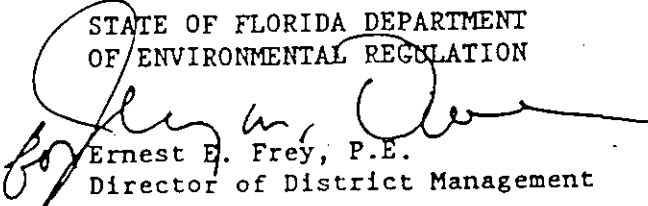
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard 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 Jacksonville, Florida.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52 Florida
Statutes, with the designated Department Clerk's
receipt of which is hereby acknowledged. 8/28/92
Betty Lamm Clerk

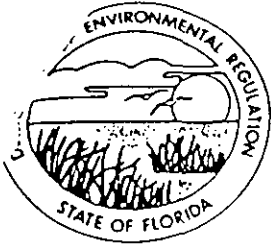
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Ernest E. Frey, P.E.
Director of District Management

EEF:bt

Copies furnished to: John B. Koogler, Ph.D., P.E.
Gainesville Branch Office
Alachua County Office Environmental Protection

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 8/28/92 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

University of Florida
Physical Plant Division
Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001411
Permit/Cert Number: A001-214830
Date of Issue: 08-28-92
Expiration Date: December 31, 1994
County: Alachua
Latitude/Longitude: 29°38'24"N; 82°20'52"W
Project: No. 4 Steam Boiler
UTM: E-(17)369.5; N-3279.4

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

For the operation of No. 4 Steam Boiler.

Located west of Center Drive, north of Mowery Road, University of Florida, Gainesville, Alachua County, Florida.

In accordance with:

Operation Permit Application dated 08-23-77
Renewal application dated 06-21-82
Renewal application dated 07-08-87
BACT Determination received 09-24-87
Renewal application received 06-15-92

PERMITTEE:

University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001411
Permit/Cert: A001-214830
Date of Issue:
Expiration Date: December 31, 1994

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.
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:

PERMITTEE:

University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001411
Permit/Cert: A001-214830
Date of Issue:
Expiration Date: December 31, 1994

GENERAL CONDITIONS

- 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 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 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 noncompliance 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.

PERMITTEE:
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001411
Permit/Cert: A001-214830
Date of Issue:
Expiration Date: December 31, 1994

GENERAL CONDITIONS

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 period of 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.

PERMITTEE:
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001411
Permit/Certification Number: A001-214830
Date of Issue:
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

1. The maximum input rate (operating rate) is shown below and shall not be exceeded without prior approval.

<u>Rate</u>	<u>Material</u>
444 GPH	No. 6 fuel oil ¹
68,000 CFH	Natural gas

¹See SC #4, note 4 for quality requirements

2. Testing of emissions must be performed at an operating rate of at least 90% of the rate in Specific Condition (SC) No. 1, or SC No. 3 will become effective.
3. The operating rate shall not exceed 110% of the operating rate during the most recent test except for testing purposes, but shall not exceed that rate in SC No. 1. After testing at an operating rate greater than 110% of the last test operating rate, the operating rate shall not exceed 110% of the last (submitted) test operating rate until the test report at the higher rate has been reviewed and accepted by the Department.
4. The permitted maximum allowable emission rate for each pollutant is as follows:

<u>Pollutant</u>	<u>FAC Rule</u>	<u>Emission Rate</u>	
		<u>lbs/hr</u>	<u>TPY</u>
PM ¹	17-2.600(6)(b)	7.99 ²	31.97 ³
SO ₂ ⁴	17-2.600(6)(c)	110.56 ⁵	442.23 ³
VE ⁶	17-2.600(6)(a)	20% opacity, except 40% for 2 min/hr	

¹PM - Particulate matter

²Basis: 444 gals/hr; 1.5% S* in FO; AP-42 emission factor.

³From previous permit.

⁴SO₂ - sulfur dioxide

⁵Basis: 444 gals/hr; 1.5% S* in FO; 8.3 lbs/gal.

⁶VE - visible emissions

*Basis: BACT Determination dated 09-21-87 which limits the fuel oil fired to "new No. 6 fuel oil (FO) with a sulfur content not to exceed 1.5% by weight. "New" means oil refined from crude oil and has not been used.

Hours of operation are limited to 24 H/D, 7 D/W; 52 W/Y and shall be recorded.

PERMITTEE:
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVLO1001411
Permit/Certification Number: A001-214830
Date of Issue:
Expiration Date: December 31, 1994

SPECIFIC CONDITIONS:

5. Test the emission for the following pollutant(s) at the interval(s) indicated, notify the Department 14 days prior to testing, and submit the test report documentation to the Department within 45 days after completion of the testing:

<u>Pollutant</u>	<u>Interval</u>	<u>Test Method</u>
VE ¹	12 months from 01-20-92	DER 9
SO ₂	12 months from 01-20-92	2

¹Basis: Rule 17-2.700(2)(a)3., FAC - test not required when liquid fuel is burned for a total of no more than 400 hours.

²Per FAC Rule 17-2.700(6)(c)1.b.

Tests and test reports shall comply with the requirements of Florida Administrative Code Rule 17-2.700(6) and (7), respectively.

6. In each test report, submit the maximum input/production rate at which this source was operated since the most recent test.
7. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1 including the previous year's total usage of No. 6 fuel oil and documenting the sulfur % content, by weight.
8. Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.
9. The ID Name and ID No. for this source is to be used on all correspondence.
10. This permit will be superseded by the cogeneration facility operation permit.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

RECEIVED AND ACKNOWLEDGEMENT
This permit was issued to S. J. ...
Statewide ... Department ...
received of ... acknowledge.
Betty ...
Clerk

Ernest E. Frey, P.E.
Ernest E. Frey, P.E.
Director of District Management

CERTIFICATION

PROJECT NAME: University of Florida~
No. 4 Steam Boiler

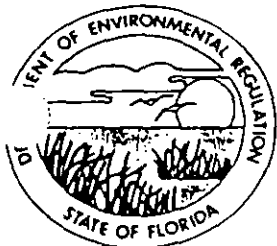
APPLICATION NO: A001-214830

I HEREBY CERTIFY that the engineering features described in application No. A001-214830 provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, and geological features).

Andrew G. Kutyna, P.E.
Name, P.E.

Andrew G. Kutyna
Signature and Seal

8/17/42
Date



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

NOTICE OF PERMIT ISSUANCE

Carol M. Brown, Secretary

CERTIFIED - RETURN RECEIPT

Mr. Johnny Miller, Superintendent
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

Dear Mr. Miller:

Alachua County - AP
University of Florida
No. 5 Steam Boiler

Enclosed is Permit Number A001-214831 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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.

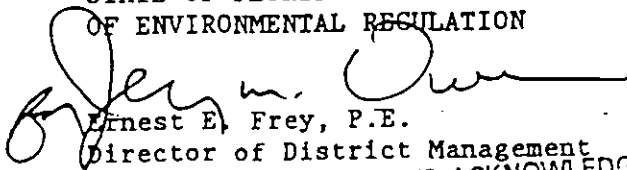
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard 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.

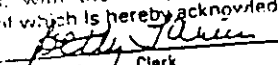
Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Ernest E. Frey, P.E.
Director of District Management

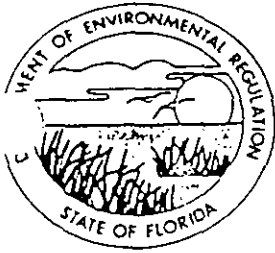
EEF:bt

Copies furnished to: John B. Koogler, Ph.D., P.E.
Gainesville Branch Office
Alachua County Office Environmental Protection

FILED AND ACKNOWLEDGEMENT
FILED on this date, pursuant to S120.52 Florida
Statutes, with the designated Department Clerk,
at which is hereby acknowledged. 
Betty Turner
Clerk Date 8/28/92

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 8/28/92 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

University of Florida
Physical Plant Division
Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001415
Permit/Cert Number: A001-214831
Date of Issue: 08-28-92
Expiration Date: December 31, 1994
County: Alachua
Latitude/Longitude: 29°38'24"N; 82°20'52"W
Project: No. 5 Steam Boiler
UTM: E-(17)369.5; N-3279.4

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

For the operation of No. 5 Steam Boiler.

Located west of Center Drive, north of Mowery Road, University of Florida, Gainesville, Alachua County, Florida.

In accordance with:

Operation Permit Application dated 08-23-77
Renewal application dated 06-21-82
Renewal application dated 07-08-87
BACT Determination received 09-24-87
Renewal application received 06-15-92

PERMITTEE:
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001415
Permit/Cert: A001-214831
Date of Issue:
Expiration Date: December 31, 1994

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.
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:

PERMITTEE:
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001415
Permit/Cert: A001-214831
Date of Issue:
Expiration Date: December 31, 1994

GENERAL CONDITIONS

- 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 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 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 noncompliance 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.

PERMITTEE:
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

I.D. Number: 31GVL01001415
Permit/Cert: A001-214831
Date of Issue:
Expiration Date: December 31, 1994

GENERAL CONDITIONS

13. This permit also constitutes:

- (X) 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 period of 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.

PERMITTEE:
 University of Florida
 Physical Plant Division, Bldg. 473
 Gainesville, Florida 32611

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

31GVL01001415
 A001-214831
 December 31, 1994

SPECIFIC CONDITIONS:

1. The maximum input rate (operating rate) is shown below and shall not be exceeded without prior approval.

<u>Rate</u>	<u>Material</u>
1,067 GPH	No. 6 fuel oil ¹
164,000 CFH	Natural gas

¹See SC #4, note 4 for quality requirements

2. Testing of emissions must be performed at an operating rate of at least 90% of the rate in Specific Condition (SC) No. 1, or SC No. 3 will become effective.
3. The operating rate shall not exceed 110% of the operating rate during the most recent test except for testing purposes, but shall not exceed that rate in SC No. 1. After testing at an operating rate greater than 110% of the last test operating rate, the operating rate shall not exceed 110% of the last (submitted) test operating rate until the test report at the higher rate has been reviewed and accepted by the Department.
4. The permitted maximum allowable emission rate for each pollutant is as follows:

<u>Pollutant</u>	<u>FAC Rule</u>	<u>Emission Rate</u>	
		<u>lbs/hr</u>	<u>TPY</u>
PM ¹	17-2.600(6)(b)	19.20 ²	76.80 ³
SO ₂ ⁴	17-2.600(6)(c)	265.58 ⁵	1062.33 ³
VE ⁶	17-2.600(6)(a)	20% opacity, except 40% for 2 min/hr	

¹PM - Particulate matter

²Basis: 1067 gals/hr; 1.5% S* in FO; AP-42 emission factor.

³From previous permit.

⁴SO₂ - sulfur dioxide

⁵Basis: 1067 gals/hr; 1.5% S* in FO; 8.3 lbs/gal.

⁶VE - visible emissions

*Basis: BACT Determination dated 09-21-87 which limits the fuel oil fired to "new" No. 6 fuel oil (FO) with a sulfur content not to exceed 1.5% by weight. "New" means oil refined from crude oil and has not been used.

Hours of operation are limited to 24 H/D, 7 D/W; 52 W/Y and shall be recorded.

PERMITTEE:
University of Florida
Physical Plant Division, Bldg. 473
Gainesville, Florida 32611

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

31GVL01001415
A001-214831
December 31, 1994

SPECIFIC CONDITIONS:

5. Test the emission for the following pollutant(s) at the interval(s) indicated, notify the Department 14 days prior to testing, and submit the test report documentation to the Department within 45 days after completion of the testing:

<u>Pollutant</u>	<u>Interval</u>	<u>Test Method</u>
VE ¹	12 months from 01-20-92	DER 9
SO ₂	12 months from 01-20-92	____2

¹Basis: Rule 17-2.700(2)(a)3., FAC - test not required when liquid fuel is burned for a total of no more than 400 hours.

²Per FAC Rule 17-2.700(6)(c)1.b.

Tests and test reports shall comply with the requirements of Florida Administrative Code Rule 17-2.700(6) and (7), respectively.

6. In each test report, submit the maximum input/production rate at which this source was operated since the most recent test.
7. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1 including the previous year's total usage of No. 6 fuel oil and documenting the sulfur % content, by weight.
8. Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.
9. The ID Name and ID No. for this source is to be used on all correspondence.
10. This permit will be superseded by the cogeneration facility operation permit.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

AND ACKNOWLEDGEMENT
Betty Tarn
8/28/92

Ernest E. Frey, P.E.
Director of District Management

CERTIFICATION

PROJECT NAME: University of Florida
No. 5 Steam Boiler

APPLICATION NO: A001-214831

I HEREBY CERTIFY that the engineering features described in application No. A001-214831 provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, and geological features).

Andrew G. Kutyna, P.E.
Name, P.E.

Andrew G. Kutyna
Signature and Seal

8/23/92
Date