

TO: Isidore Goldman, SED

FROM: Bruce Mitchell *Bm*

DATE: November 14, 1996

SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
Ft. Pierce Utilities, H.D. King Power Plant: 1110003-003-AV

The Title V operating permit application package for the referenced facility is being processed in Tallahassee. The application was previously forwarded to your office for your files and future reference. Please have someone review the package for completeness and respond in writing by December 12, 1996, if you have any comments. Otherwise, no response is required. If there are any questions, please call the project engineer, Edward Svec, at 904/488-1344 or SC:278-1344. It is very important to verify the compliance statement regarding the facility. Since we do not have a readily effective means of determining compliance at the time the application was submitted, please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. Also, do not write on the documents.

If there are any questions regarding this request, please call me or Scott Sheplak at the above number(s).

RBM/bm

cc: Joe Kahn



Department of Environmental Protection

FILE

Lawton Chiles
Governor

JUN 28 1996
CERTIFIED MAIL

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

Virginia B. Wetherell
Secretary

Mr. Thomas Richards, P.E.
Director of Operations
Forth Pierce Utilities Authority
H.D. King Power Plant
311 North Indian River Drive
Forth Pierce, FL 34950

P433 093 294
DEP File No. 1110003-002-AO
St. Lucie County
Project: H.D. King Power Plant

6/28/96

RE: Modification of Air Permit, Permit Number 1110003-002-AO, Issued June 21, 1996

Dear Mr. Richards:

We have reviewed the above permit and a typographical error in specific condition No. 13 was noticed. This condition shall be changed as follows:

FROM:

13. On or before March 1 of each calendar year, a completed DEP Form 62-210.900(5), Annual Operations Report Form for Air Pollutant Emitting Facility, shall be submitted to the Department of Environmental Protection, Southeast District Office, Air Program. Attached to this report shall be the combined total emissions and heat input specified in **specific condition No. 4**, and the maximum sulfur content based on fuel analysis for the previous year for EU 003, 004, 007, 008 (Units #6, #7, #8, and #9). [403.061(13), F.S.]

TO:

13. On or before March 1 of each calendar year, a completed DEP Form 62-210.900(5), Annual Operations Report Form for Air Pollutant Emitting Facility, shall be submitted to the Department of Environmental Protection, Southeast District Office, Air Program. Attached to this report shall be the combined total emissions and heat input specified in **specific conditions No 3 and 4**, and the maximum sulfur content based on fuel analysis for the previous year for EU 003, 004, 007, 008 (Units #6, #7, #8, and #9). [403.061(13), F.S.]

This letter must be attached to the original permit and becomes part of that permit.

This letter constitutes final agency action unless a person substantially affected by this action requests an administrative hearing pursuant to Section 120.57, Florida Statutes (F.S.). The petition must be filed within 14 days from receipt of this letter. The petition must comply with the requirements of Florida Administrative Code (F.A.C.) Rule 28-5.201 and be filed pursuant to F.A.C. Rule 62-103.155(1) in the Office of General Counsel of the Department of Environmental Protection at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions which are not filed in accordance with the above provisions will not be accepted by the Department. If a formal proceeding pursuant to Section 120.57(1) is requested, at such formal hearing all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination

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of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel. If an informal proceeding is requested, the agency will, in accordance with its rules of procedure, give affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), F.S. The hearing process is designed to formulate agency action. Accordingly, the Department's final action as a result of a hearing may be different from the position taken by it in this stage. Therefore any person who may wish to contest the Department's ultimate permitting decision must petition for hearing within the fourteen day period described above. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request a hearing under Section 120.57, F.S.

This modification 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 F.A.C. Rule 62-103.070. Upon timely filing of a petition or a request for an extension of time this modification will not be effective until further Order of the Department.

When the Order (modification) 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 modification is filed with the Clerk of the Department.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

I. Goldman 6-27-96
Isidore Goldman, P.E. Date
District Air Program Administrator
Southeast District

IG/md

cc: Scott Sheplak, DEP/DARM
Jim Stevens, FPUA

FILING AND ACKNOWLEDGMENT: FILED, on this date, pursuant to § 120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Juda C. Baxner 6/28/96
Clerk Date



Department of Environmental Protection

Lawton Chiles
Governor

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

Virginia B. Wetherell
Secretary

JUN 21 1996

NOTICE OF PERMIT

CERTIFIED MAIL

PERMITTEE:

Mr. Thomas Richards, P.E.
Director of Operations
Fort Pierce Utilities Authority
H.D. King Power Plant
311 North Indian River Drive
Ft. Pierce, FL 34950

PERMIT NUMBER: 1110003-002-AO
DATE OF ISSUE: JUN 21 1996
EXPIRATION DATE: August 15, 1996
COUNTY: St. Lucie
LAT./LONG.: 27°27'00" N/80°19'26" W
UTM: Zone 17; 566.4 Km. E; 3036.3 Km. N
PROJECT: H.D. King Power Plant
Diesels #1 & #2,
Boilers #6, #7, & #8,
Combined Cycle Gas Turbine #9

Dear Mr. Richards:

This is Permit Number 1110003-002-AO to operate an air pollution source issued pursuant to Chapter 403.087, Florida Statutes (F.S.). **This permit has been issued to incorporate changes requested by the applicant and to simplify and consolidate all previous operation permits into one permit for the facility.**

A person whose substantial interests are affected by this permit may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, 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, F.S.

The Petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department's 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 each petitioner, if any; (e) A statement of facts which each petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes each petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by each 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 publication of this notice in the Office of General Counsel at the above address of the

H.D. King Power Plant
 Permit Number 1110003-002-AO

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 conforming with F.A.C. Rule 62-103.070. 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.

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, and 62-209 through 62-297, and in conformance with all existing regulations of the Florida Department of Environmental Protection. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

OPERATE: Air pollution emission unit(s) consisting of:

Emission Unit No.	Description
001 & 002	Two General Motors Corporation, Model MP-45, diesel electric generators (Peaking Units) burning exclusively No. 2 fuel oil at 28.9 million BTU/hr. maximum, discharging emissions through a 3 ft. diameter stack 23 feet above ground level. (Diesels # 1 and # 2)
003	A 31.6 MW combined cycle gas turbine consisting of a 23.4 MW combustion turbine generator, a steam generator and an 8.2 MW condensing turbine generator. The unit uses steam injection from the waste heat recovery steam generator to control NOx emissions from the gas turbine. (Unit # 9)
004	A 218.9 million BTU/hr. Babcock & Wilcox Boiler discharging emissions through a 5-ft. diameter stack 148 feet above ground level. (Unit # 6)
007	A 470 million BTU/hr. maximum, discharging emissions through a multicyclone collector and a 7.1 ft. diameter stack 147 feet above ground level. (Unit # 7)
008	A 611 million BTU/hr. maximum, discharging emissions through an 8 foot diameter stack 150 feet above ground level, equipped with a continuous in- stack NOx and O ₂ monitors. (Unit # 8)

FACILITY DESCRIPTION: An electric power generation facility (SIC #4911)

LOCATED AT: 311 North Indian River Drive, Fort Pierce, St. Lucie County, Florida.

SUBJECT TO: General Conditions 1-14 (attached as Attachment A) and Specific Conditions 1-18.

H.D. King Power Plant
Permit Number 1110003-002-AO

PERMIT HISTORY:

Permit No. AO 56-175955 issued May 1, 1990.
 Permit No. AO 56-190275 issued May 23, 1991.
 Permit No. AC 56-2152 issued August 24, 1973.
 Permit No. AC 56-12778 issued September 11, 1978.
 Permit No. AC 56-141460 issued March 24, 1988; Modified October 31, 1988 and April 18, 1990;
 Superseded and incorporated by reference into AC 56-141460A
 Permit No. AC 56-141460A issued April 8, 1996
 Settlement Agreement for OGC Case No. 91-1610 (DOAH Case No. 91-6989) signed July 20, 1992.

This permit supersedes all operation permits issued previously.

SPECIFIC CONDITIONS:

In this permit, references to F.A.C. Rule 62-xxx refer to rules promulgated under Title 62 of the Florida Administrative Code; references (if any) to 40 CFR 60.xx refer to regulations codified under Title 40 of the Code of Federal Regulations.

Title V Permit is Required

1. An application for a Title V operation permit must be submitted to the Department of Environmental Protection, Southeast District Office, Air Program **on or before June 15, 1996**. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, and such additional information as the Department may by law require. [F.A.C. Rule 62-4.030, 62-4.050, and 62-213.420]

Emission Limiting Standards

2. Opacity limiting standard(s) are as follows :

Emission Unit No.	Opacity Standard
001 & 002 (Diesel #1 & #2)	Visible emissions shall not exceed 20% opacity while using No. 2 fuel oil. [F.A.C. Rule 62-296.310(2)]
004 & 007 (Unit #6 & #7)	a) Visible emissions shall not exceed 5% opacity when the units are firing natural gas, b) Visible emissions shall not exceed 20% opacity when the units are burning fuel oil, except for one two-minute period per hour during which opacity shall not exceed 40%. [1992 Settlement Agreement]
008 (Unit #8)	a) Visible emissions shall not exceed 5% opacity while firing natural gas, b) Visible emissions shall not exceed 20% opacity when the unit is burning fuel oil, except for one six minute period per hour during which opacity shall not exceed 27%. [1992 Settlement Agreement]

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H.D. King Power Plant
Permit Number 1110003-002-AO

003 (Unit #9)	Visible emissions shall not exceed 15% opacity. [AC 56-141460]
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3. The emissions limits for EU 004, 007, and 008 (Units #6, #7, and #8):
- a. Natural gas is the only permitted fuel for normal operation for EU 004, 007, and 008 (Units #6, #7, and #8). These units are allowed to burn natural gas with No. 6 fuel oil as a standby fuel for up to a combined total of 400 hours per year, when necessary in order to avoid curtailing electric power service to its customers. [1992 Settlement Agreement]
 - b. Emissions shall not exceed the following rates when natural gas fuel is burned [Settlement Agreement and SOx as modified by AC 56-141460A]:

Parameter	EU 004 (Unit #6) (lb/hr)	EU 007 (Unit #7) (lb/hr)	EU 008 (Unit #8) (lb/hr)
PM	0.4	0.568	0.945
SOx	2.5	2.5	2.5
NOx	1.31	104.35	173.20
VOC	0.0236	0.266	0.441
CO	0.15	7.589	12.59

- c. When burning fuel oil in EU 004, 007, and 008 (Units # 6, # 7, and # 8), the following emission limits shall apply [June 28, 1991 modification of AC 56-141460 and Unit #7 SOx as modified by 1992 Settlement Agreement]:

Parameter	EU 004 (Unit # 6) lb/mmBTU	EU 007 (Unit # 7) lb/mmBTU	EU 008 (Unit # 8) lb/mmBTU
SOx	0.80	0.80	0.80
PM	N/A	0.1	0.1
VOC	N/A	N/A	N/A

- d. The total emissions from combined EU 004, 007, 008 (Units #6, #7 and #8) shall not exceed [1992 Settlement Agreement]:

Parameter	Tons/Yr.
PM	16.0
SOx	101.6
NOx	622.0
VOC	2.3
CO	45.3

- e. Total combined heat input for the EU 004, 007, and 008 (Units #6, #7, and #8) shall not exceed 4,534,930 mmBTU per year. [November 9, 1990 modification of AC 56-141460 & 1992 Settlement Agreement]

H.D. King Power Plant
Permit Number 1110003-002-AO

4. Emission Limiting Standards for EU 003 (Unit #9):

a. NOx emissions shall not exceed:

$$(1) \text{ STD} = 0.0075 \frac{(14.4)}{Y} + F$$

Where:

STD= Allowable NOx emissions (% by volume at 15% oxygen on a dry basis)

Y= Kilojoules per watt hour.

F= NOx emission allowance for fuel-bound nitrogen.

[40 CFR 60 Subpart GG and AC 56-141460]

or

(2) 84 ppm NOx [AC 56-141460]

b. SO₂ emissions shall not exceed 0.015% by volume at 15.0% oxygen on a dry basis.
[40 CFR 60 Subpart GG]

c. CO emissions shall not exceed 32.85 lb/hr. and 110.4 ton/yr. when burning natural gas.
[April 18, 1990 modification of AC 56-141460]

d. Fuel used shall be limited to natural gas, except that No. 2 fuel oil with a maximum sulfur content of 0.5 percent by weight shall be allowed to be burned only as an emergency back-up fuel.
[AC 56-141460]

Compliance Testing Requirements

5. The permittee shall conduct compliance testing for the emission units covered by this permit in accordance with the following:

Source/Emission Point	Pollutant	Test Method	Frequency
EU 001, 002, 004, 007, 008, and 003 (Diesels #1 and #2 Units # 6, #7, #8, & #9)	VE	EPA Method 9	Annually *
EU 004,007, and 008 (Units # 6,7,8)	PM	EPA Method 5 **	"
	SOx	***	"
	NOx	EPA Method 7 or 7E	"
	VOC	EPA Method 25A	"
	CO	EPA Method 10	"
EU 003 (Unit # 9)	SO ₂	****	"
	NOx	EPA Method 20 *****	"
	CO	EPA Method 10	"

* Annual testing shall be conducted once each Federal Fiscal Year (October 1 - September 30).
[F.A.C. Rule 62-297.310(7)(a)4.]

** Particulate matter tests on EU 004, 007, 008 (Units #6, #7, #8) are waived when burning natural gas provided that the visible emissions do not exceed 5 percent opacity. [AC 56-141460A]

*** For EU 004,007,008 (Units #6,#7,#8) compliance with the sulfur dioxide emission limits shall be determined by reference Method 6 or 6C or by calculation based on fuel analysis (ASTM D1552,

H.D. King Power Plant
Permit Number 1110003-002-AO

D1072, D3031, D4084, or D3246) for sulfur content of the oil and natural gas. Certified analysis by the appropriate test method from the fuel supplier is acceptable to the Department [AC 56-141460A].

**** For EU 003 (Unit # 9) compliance with the sulfur dioxide emission limits shall be determined by Reference Method 20 or by calculation based on fuel analysis (ASTM D1552, D1072, D3031, D4084, or D3246) for sulfur content of the oil and natural gas. Certified analysis by the appropriate test method from the fuel supplier is acceptable to the Department. [AC 56-141460A]

***** For EU 003 (Unit # 9), during performance tests to determine compliance with the proposed standard, measured NOx emission at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor: [AC 56-141460 as revised October 31, 1988]

$$NO_x = (NO_{x\text{ obs}}) \left(\frac{P_{ref}}{P_{obs}} \right)^{0.5} e^{19(H_{obs} - 0.00633)} \left(\frac{288^\circ K}{T_{AMB}} \right)^{1.53}$$

Where:

- NO_x = Emissions of NO_x at 15% oxygen and ISO standard ambient condition.
 NO_{x obs} = Measured NO_x emission at 15% oxygen, ppmv.
 P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.
 P_{obs} = Measured combustor inlet absolute pressure at test ambient pressure.
 H_{obs} = Specific humidity ambient air test.
 e = Constant (2.718).
 T_{AMB} = Temperature of ambient air at test

6. Compliance testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source, otherwise the Department may required the test to be repeated or require modification of the permit to reflect tested rates and/or fuels. **However, testing on fuel oil in Unit #6, #7, #8 and #9 shall be required only if fuel oil usage for the units exceed 400 hours in any calendar year.** [1992 Settlement Agreement and request by permittee, F.A.C. Rule 62-297.310(a)(3)(b)]
7. The Department of Environmental Protection, Southeast District Office, Air Program shall be notified in writing of expected compliance test dates for Units #8 and #9 at least thirty (30) days prior to compliance testing. At least fifteen (15) days prior notice is required for Units #1, #2, #6, and #7. The notification shall include the following information: the date, time, and location of each test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner. [40 CFR 60 for Units #8 and #9; F.A.C Rule 62-297.310(7)(a)9. for Units #1, #2, #6, and #7]
8. Test Reports:
 - a. The compliance test reports shall be submitted to the Department of Environmental Protection, Southeast District Office, Air Compliance Section [F.A.C. Rule 62-297.310(8)(a)].
 - b. The test reports shall be submitted as soon as practical, but no later than 45 days after the last sampling run of each test is completed [F.A.C. Rule 62-297.310(8)(b)].
 - c. The compliance test report shall include the following information on the air pollution control devices and other information as necessary to make a complete report: [F.A.C. Rule 62-297.310(8)(c)]:
 - (1) The normal type and amount of fuels used during each test run.

H.D. King Power Plant
Permit Number 1110003-002-AO

- (2) The general condition of the air pollution control equipment, its normal operating parameters (e.g. flow rate, pressure drop), and the actual operating parameters for each test run (indicate how each parameter was determined.)
- (3) Notation of any deficiencies or problems with the air pollution control equipment which occur during testing.

Reporting, Record Keeping, and Monitoring Requirements

9. The facility shall maintain unit logs reflecting the following information: [1992 Settlement Agreement]
 - a. Number of hours per day each unit burns gas.
 - b. Number of hours per day each unit burns fuel oil.
 - c. Amount of natural gas used per unit (mmBTU/million cubic feet burned)
 - d. Amount of fuel oil used per unit including sulfur and ash content and heat input rate (mmBTU/1000 gallons)
10. For EU 004, 007, and 008 (Units #6, #7, and #8) the permittee must notify the DEP within 24 hours after commencement of oil firing and furnish the following information: [1992 Settlement Agreement]
 - a. Duration or projected duration of event.
 - b. Quantity of fuel oil burned or projected to be burned.
 - c. A description of significant circumstances precipitating the event, which shall include:
 - (1) Availability of power for purchase.
 - (2) Availability of electric transmission capacity relating to power purchases.
 - (3) Availability of natural gas.
 - (4) Availability of the permittee's generation sources.
11. For EU 008 (Unit #8):
 - a. Continuous emission monitors are required for nitrogen oxides and carbon dioxide. [40 CFR 60 Subpart D]. (Continuous monitors for SO_x and opacity pursuant to 40 CFR 60 Subpart D are not required since fuel oil use is limited to emergencies.)
 - b. Quarterly excess emissions reports pursuant to 40 CFR 60 shall be submitted to the Southeast District Office postmarked no later than the 30th day following the end of each calendar quarter.
12. For EU 003 (Unit #9):
 - a. A continuous monitoring system shall be installed to monitor and record the fuel consumption and the ratio of steam to fuel being fired in the turbine. [AC 56-141460]
 - b. Sulfur and nitrogen content of the fuel being fired in the gas turbine shall be determined and recorded as specified in the NSPS for Gas Turbine 40 CFR, Subpart GG, Section 60.334. The records of fuel oil usage will be kept by the company, available for Department inspection, for two-year period. [AC 56-141460]
13. On or before March 1 of each calendar year, a completed DEP Form 62-210.900(5), Annual Operations Report Form for Air Pollutant Emitting Facility, shall be submitted to the Department of Environmental

Protection, Southeast District Office, Air Program. Attached to this report shall be the combined total emissions and heat input specified in specific condition No. 4, and the maximum sulfur content based on fuel analysis for the previous year for EU 003, 004, 007, 008 (Units #6, #7, #8, and #9). [403.061(13), F.S.]

14. Ambient monitoring for particulate and sulfur dioxide is required if fuel oil usage exceeds 400 hours per calendar year. [1992 Settlement Agreement]

Other Requirements


15. For Unit #8, the applicant shall comply with all requirements of 40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators. [40 CFR 60.40]
16. For Unit #9, the applicant shall comply with all requirements of 40 CFR 60, Subpart GG, Standards of Performance for Stationary gas turbines. [40 CFR 60.330 and AC 56-141460]
17. Stack sampling facilities shall meet the requirements of F.A.C. Rule 62-297.310(6)
18. There shall be no discharges of liquid effluents or contaminated runoff from the plant site. [AC 56-2152C]

IG/md

cc: Scott Sheplak, DEP/DARM
Jim Stevens, FPUA

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

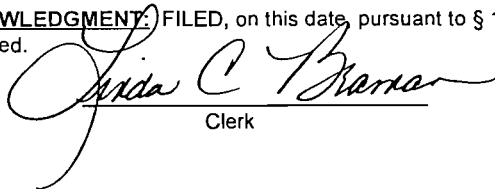

Isidore Goldman, P.E.
District Air Program Administrator
Southeast District

6/20/96
Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on JUN 21 1996 to the listed persons.

FILING AND ACKNOWLEDGMENT: FILED, on this date, pursuant to § 120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.


Clerk

6/21/96
Date

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 403.141, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.). The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of 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 reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under 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 the permit, the permittee shall immediately notify and provide the Department with the following information:
 - (a) A description of and cause of noncompliance; and

GENERAL CONDITIONS CONTINUED:

- (b) The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. 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 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and 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 Rule 62-4.120 and 62-30.300, Florida Administrative Code (F.A.C.), 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 or a copy thereof shall be kept at the work site of the permitted activity.
13. 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 date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.
14. 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 the 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.

RECEIVED

ATTACHMENT "C"

cc: Harry Sams ✓
Jack Miller

10

RECEIVED

JUL 23 1992

AUG 08 1992

POWER PLANT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Hopping Boyd
Green & Sams

FORT PIERCE UTILITIES AUTHORITY,

Petitioner,

vs.

OGC CASE NO. 91-1610
DOAH CASE NO. 91-6989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION,

Respondent.

FINAL ORDER

On October 28, 1991, the State of Florida Department of Environmental Regulation ("Department") received a Petition for administrative hearing from Petitioner, FORT PIERCE UTILITIES AUTHORITY. The Petitioner challenged the Department's decision to issue Permit No. AO 56-190275 to Fort Pierce Utilities Authority, to operate an air pollution source in St. Lucie County.

On July 10, 1992, after receiving a Stipulation for Dismissal and the Settlement Agreement the assigned Hearing Officer issued an Order which closed the Division of Administrative Hearings file and relinquished jurisdiction back to the Department. (Exhibit 1) There being no further matters to consider,

IT IS ORDERED:

The petition is hereby dismissed and the Department's Southeast District Office is directed to issue Permit No. AO 56-190275 in accordance with the Settlement Agreement. (Exhibit 2)

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the

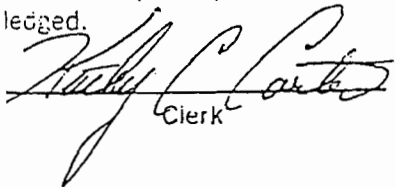
filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the clerk of the Department.

DONE AND ORDERED this 20th day of July, 1992, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


Clerk 7.21.92
Date


CAROL M. BROWNER
Secretary

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Telephone: (904) 488-4805

CERTIFICATE OF SERVICE

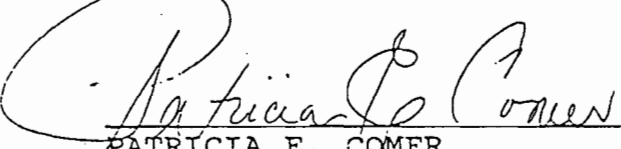
I HEREBY CERTIFY that a true and correct copy of the foregoing
has been furnished by U.S. Mail to:

Peter C. Cunningham, Esq.
Gary V. Perko, Esq.
Post Office Box 6526
Tallahassee, Florida 32314

Linda Rigot, Hearing Officer
Ann Cole, Clerk
Division of Administrative Hearing
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, Florida 32399-1550

on this 22nd day of July, 1992.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



PATRICIA E. COMER
Assistant General Counsel

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Telephone: (904) 488-9730

BEST AVAILABLE COPY

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FILED
JUL 14 1992

Dept. of Environmental Reg.
Office of General Counsel

FORT PIERCE UTILITIES AUTHORITY,)
)
 Petitioner,)
)
 vs.)
)
 DEPARTMENT OF ENVIRONMENTAL)
 REGULATION,)
)
 Respondent.)

CASE NO. 91-6989

ORDER CLOSING FILE

THIS CAUSE having come before the undersigned on the Stipulation for Dismissal and the Settlement Agreement filed July 9, 1992, and the undersigned having reviewed the record in this cause and being fully advised in the premises, it is, therefore,

ORDERED that the file of the Division of Administrative Hearings in the above-captioned matter be and the same is hereby closed.

DONE AND ORDERED in Tallahassee, Leon County, Florida, this 10th day of July, 1992.

Linda M. Rigot
LINDA M. RIGOT
Hearing Officer
Division of Administrative Hearings
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, Florida 32399-1550
(904) 488-9675 SC 278-9675
Filed with the Clerk of the
Division of Administrative Hearings
this 10th day of July, 1992.

Copies furnished:

Patricia E. Comer, Esquire
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Gary V. Perko, Esquire
Hopping Boyd Green & Sams
Post Office Box 6526
Tallahassee, Florida 32314

dw

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FORT PIERCE UTILITIES AUTHORITY)
)
Petitioner,)
)
vs.)
)
STATE OF FLORIDA, DEPARTMENT OF) DOAH Case No. 91-6989
ENVIRONMENTAL REGULATION) OGC Case No. 91-1610
)
Respondent.)
)

SETTLEMENT AGREEMENT

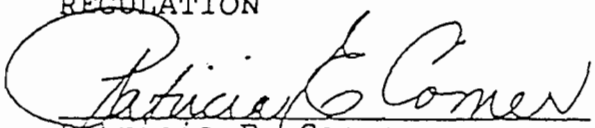
In order to resolve the pending administrative proceedings in the above case, the parties jointly agree to the following:

1. Fort Pierce Utilities Authority shall withdraw its Petition for Formal Administrative Proceedings on the Notice of Permit Issuance dated May 24, 1991 (Permit No. A0 56-190275).

2. The Department of Environmental Regulation shall issue an air operation permit for Units 6, 7 and 8 at the H.D. King facility in accordance with the terms of the Notice of Permit Issuance dated May 14, 1991, with the changes indicated in Exhibit "A", which is attached hereto and incorporated by reference.

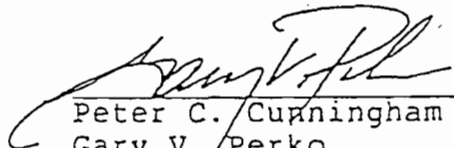
ENTERED this 8th day of July, 1992.

DEPARTMENT OF ENVIRONMENTAL
REGULATION


Patricia E. Comer
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, FL 32399-2400
(904) 488-9730

Attorney for Respondent

HOPPING BOYD GREEN & SAMS


Peter C. Cunningham
Gary V. Perko
Post Office Box 6526
Tallahassee, FL 32314
(904) 222-7500

Attorneys for Petitioner

EXHIBIT "A"

I. Specific Condition 2:

FROM:

2. Emission limiting standards are as follows:

a) Units 6, 7, and 8

1. Visible emissions shall not exceed 5% opacity while firing natural gas.
2. The operating permits emission limits for this facility's existing boilers shall not exceed the following rates:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	ton/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.4	0.0024	0.568	0.382	0.945	3.018
SOx	12.38	0.0743	0.1199	0.0806	0.1917	0.617
NOx	1.31	0.007854	104.35	70.126	173.20	552.860
VOC	0.0236	0.000142	0.266	0.179	0.441	1.407
CO	0.15	0.0009	7.589	5.100	12.59	40.2
hrs/yr	12		1344		6384	

The operating permits emission limits for these boilers (units No. 6, 7, and 8) shall be modified as stated above.

3. Natural gas is the only permitted fuel for normal operation for Units 7 and 8. Unit 6 is allowed to burn natural gas with a No. 6 fuel oil (0.76% sulfur content) as the standby fuel. If the gas supply is curtailed or an emergency is declared, the facility shall obtain an emergency order for Units 7 and 8 to burn fuel oil. Visible emissions shall not exceed 15% opacity while burning fuel oil. If fuel oil usage exceeds 15 days per calendar year, the Department shall be notified and provision made for emissions testing within 30 days.

TO:

2. Emission limiting standards are as follow:

a) Units 6, 7, and 8

1. Visible emissions shall not exceed 5% opacity while firing natural gas.

For Units 6 and 7, visible emissions shall not exceed 20% opacity when the unit is burning fuel oil, except for one two-minute period per hour during which opacity shall not exceed 40%.

For Unit 8 visible emissions shall not exceed 20% opacity when the unit is burning fuel oil, except for one six-minute period per hour during which opacity shall not exceed 27%.

2.

A) The emission limits for UNITS 6, 7, and 8 shall not exceed the following rates:

Parameter	UNIT 6 lb/hr	UNIT 7 lb/hr	UNIT 8 lb/hr
PM	0.4	0.568	0.945
SO _x	12.38	0.1199	0.1917
NO _x	1.31	104.35	173.20
VOC	0.0236 0.116	0.266	0.441
CO	0.15	7.589	12.59

Handwritten initials/signature

B) The total emissions from combined UNITS 6, 7, and 8 shall not exceed:

PARAMETER	TONS/YR
PM	16.0
SO _x	101.6
NO _x	622.0
VOC	2.3
CO	45.3

Total combined heat input for the Units 6, 7, and 8 shall not exceed 4,534,930 MBtu per year.

3. Natural gas is the only permitted fuel for normal operation for Units 6, 7, and 8. Units 6, 7, and 8 are allowed to burn natural gas with a No. 6 fuel oil (0.8 lbs/MBtu) as a standby fuel for up to a combined total of 400 hours per year, when necessary in order to avoid curtailing electric power service to its customers. FPUA must notify the DER within 24 hours after commencement of oil firing and furnish the following information:

- a. Duration or projected duration of the event.
- b. Quantity of fuel oil burned or projected to be burned.
- c. A description of significant circumstances precipitating the event, which shall include;
 - i. Availability of power for purchase
 - ii. Availability of electric transmission capacity relating to power purchases.
 - iii. Availability of natural gas
 - iv. Availability of FPUA generation sources.

When burning fuel oil in Units 6, 7, and 8, the emission rates set forth in Specific Condition 2(a)2.A above shall not apply and the following rates shall apply to Units 6, 7, and 8:

<u>PARAMETER</u>	<u>UNIT 6</u>	<u>UNIT 7</u>	<u>UNIT 8</u>
	lb/MBTU	lb/MBTU	lb/MBTU
SOx	0.80	0.80	0.80
PM	n/a	0.1	0.1
VOC	n/a	n/a	n/a

II. Specific Condition 4:

FROM:

4. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source, otherwise the Department may require the test to be repeated or require modification of the permit to reflect tested rates and/or fuels.

TO:

4. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source, otherwise the Department may require the test to be repeated or require modification of the permit to reflect tested rates and/or fuels. However, testing on fuel oil in Units 6, 7, or 8 shall be required only if fuel oil usage for the units exceed 400 hours in any calendar year.

III. Specific Condition 7:

FROM:

7. Ambient monitoring for particulate and sulfur dioxide is required when fuel oil is used.

TO:

7. Ambient monitoring for particulate and sulfur dioxide is required if fuel oil usage exceeds 400 hours per calendar year.

IV. Specific Condition 10:

ADD:

10. The facility shall maintain unit logs reflecting the following information:

- a. Number of hours per day each unit burns gas
- b. Number of hours per day each unit burns fuel oil
- c. Amount of natural gas used per unit (MBTU/million cubic feet burned)
- d. Amount of fuel oil used per unit including sulfur and ash content and heat input rate (MBTU/1000 gallons).

GVP/FPUAterms

ATTACHMENT "D"

DATE: 09/15/92

TIME: 12:55

ANALYZER#: 1

ANALYSIS TIME: 345

CYCLE TIME: 360

MODE: RUN

STREAM SEQUENCE: 12

STREAM#: 2

CYCLE START TIME: 12:49

COMP NAME	COMP CODE	MOLE %	GAL/MCF**	B.T.U.*	SP. GR.*
HEXANE +	151	0.032	0.0141	1.66	0.0010
PROPANE	152	0.186	0.0512	4.68	0.0028
I-BUTANE	153	0.020	0.0065	0.65	0.0004
N-BUTANE	154	0.016	0.0050	0.51	0.0003
PENTANE	155	6335.02-6	0.0023	0.25	0.0002
PENTANE	156	4556.31-6	0.0017	0.18	0.0001
NITROGEN	157	0.396	0.0000	0.00	0.0038
METHANE	158	96.322	0.0000	975.07	0.5335
2	159	0.974	0.0000	0.00	0.0133
ETHANE	160	2.143	0.5732	38.00	0.0222
TOTALS		100.000	0.6538	1021.02	0.5777

k @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

@ 14.730 & 60 DEG. F

COMPRESSIBILITY FACTOR (1/Z) = 1.0021
 Y B.T.U. @ 14.730 PSIA & 60 DEG. F CORRECTED FOR (1/Z) = 1023.2
 X B.T.U. @ 14.730 PSIA & 60 DEG. F CORRECTED FOR (1/Z) = 1005.4
 REAL SPECIFIC GRAVITY = 0.5787
 NORMALIZED TOTAL = 99.78

ACTIVE ALARMS

FLORIDA GAS TRANSMISSION CO.
 BROOKER LAB - COM.
 STANDARD GAS 1041.8 / 0.5939
 CERTIFIED VALUE BTU 1041.8 GRAV. 0.5939
 TOTAL SULFUR 0.36 GR/CCF H₂S 0.03 GR/CCF
 H₂O 1.3 #/MMCF BY Bill Johnson

Post-It™ brand fax transmittal memo 7871 # of pages > 01

To <u>Tony Vincik</u>	From <u>Bob Cullen</u>
Co. <u>EP Service</u>	Co. <u>FGT</u>
Dept.	Phone #
Fax #	Fax #

RECEIVED
 SEP 21 1992
 TECH OPERATIONS

Table 1 Particulate and Sulfur Dioxide Emission Summary
Unit 7 - Boiler
Ft. Pierce Utilities Authority
H.D. King Generating Station
Ft. Pierce, Florida
September 23, 1992

Run Number	Time	Flow Rate SCFMD	Oxygen %	Particulate Emissions		SO2 Emissions	
				gr/SCF w/Acetone Blank Deduction	lbs/Hr	lbs/MMBTU	lbs/Hr
1	1217-1320	93758	5.8	0.0028	2.23	0.0014	0.67
2	1350-1454	90730	5.8	0.0017	1.29	0.0059	2.66
3	1518-1620	91531	5.6	0.0020	1.53	0.0020	0.95
AVERAGE	---	92006	5.7	0.0022	1.68	0.0031	1.43

Allowable Emissions for Units 6, 7, and 8 together:

PM = 1.9 lbs/Hr
SO2 = 12.7 lbs/Hr

Table 1 Particulate and Sulfur Dioxide Emission Summary
 Unit 8 - Boiler
 Ft. Pierce Utilities Authority
 H.D. King Generating Station
 Ft. Pierce, Florida
 September 24, 1992

Run Number	Time	Flow Rate SCFMD	Particulate Emissions		SO2 Emissions	
			gr/SCF	lbs/Hr	lbs/MMBTU	lbs/Hr
1	1043-1146	143747	0.0007	0.88	0.001	0.84
2	1211-1313	140054	0.0017	1.98	0.005	3.21
3	1345-1446	142195	0.0007	0.90	0.002	1.15
AVERAGE	---	141999	0.0010	1.25	0.003	1.73

Allowable Emissions for all units:

PM = 1.9 lbs/Hr
 SO₂ = 12.7 lbs/Hr

ATTACHMENT "F"

PLANT: FT. PIERCE UTILITIES
 SOURCE: UNIT 9 TURBINE
 LOCATION: FT. PIERCE, FLORIDA
 DATE: 9/23/1992

RUN NUMBER	1	2	3	AVERAGE
TIME START	0830	0909	0948	
TIME END	0856	0934	1027	
TURBIN POWER	30	30	30	30
ACTUAL O2(%)	15.53	15.96	15.82	15.77
NOx (PPM)	34.52	34.68	35.33	34.84
NOx @15% O2 (PPM)	37.93	41.42	41.03	40.13
REFERENCE PRESS. (IN. HG)	29.92	29.92	29.92	29.92
AMBIENT PRESS. (IN. HG)	29.97	29.97	29.97	29.97
PRESS. CORRECTION	0.9992	0.9992	0.9992	0.9992
AMB. DRY BULB TEMP. (K)	301.9	305.8	306.3	304.7
AMB. RELATIVE HUM. (%)	72	58	55	62
HUMIDITY RATIO (SAT)	0.02555	0.03223	0.0333	0.03036
HUM. CORRECTION	1.4408	1.6357	1.6693	1.5820
COMB. INLET TEMP. (F)	86.6	86.6	86.6	86.6
TEMP. CORRECTION	0.9304	0.9123	0.9101	0.9176
NOx @ ISO (PPM)	50.80	61.76	62.28	58.28
FLOW RATE (SCFM)	226906	226906	226906	226906
F-FACTOR (SCF/MMBTU)	8710	8710	8710	8710
DRY FLOW RATE (SCFMD)	7745788	8420017	8187969	8117924
NOx MASS EMISSION (LB/HR)	1915.061	2091.406	2071.887	2026.118
NOx MASS EMISSION (LB/MMBTU)	0.139687	0.152549	0.151126	0.147787
MASS EMISSION PER MW GEN.	63.83539	69.71355	69.06293	67.53729

Table 1 Emission Summary
 Unit 9 - Gas Turbine
 Ft. Pierce Utilities Authority
 H.D. King Generating Station
 Ft. Pierce, Florida
 September 23, 1992

Run Number	Time	Oxygen %	CO Emissions		NOx ppm	NOx at 15% O2 ppm	Ambient Temp. °F	Temp. Correction	Relative Humidity %	Humidity Correction	Combustor Pressure in Hg	Ref Pressure in Hg	Pressure Correction	NOx ppm ISO Ambient
1	0830-0856	15.53	3.39	3.35	34.52	37.93	84	0.9304	72	1.4408	29.97	29.92	0.9992	50
2	0909-0934	15.96	2.98	2.95	34.68	41.42	91	0.9123	58	1.6357	29.97	29.92	0.9992	61.76
3	0948-1027	15.82	3.10	3.07	35.33	41.03	92	0.9101	55	1.6693	29.97	29.92	0.9992	62.28
AVERAGE	---	15.77	3.16	3.12	34.84	40.13	89	0.9176	62	1.5820	29.97	29.92	0.9992	58.28

Volumetric Flow Rate = 226906 SCFMD

lbs/Hr CO = ppm (2.595 x 10⁻⁹) 28 (SCFMD) 60

ATTACHMENT

GENERAL CONDITIONS:

2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 3.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

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

- (a) Have access to and copy any records that must be kept under 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 the permit, the permittee shall immediately notify and provide the Department with the following information:

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



Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone No. 407/433-2650

Carol M. Browner, Secretary

PERMITTEE:

Mr. H. P. Lamb
 Superintendent/Power Resources
 Fort Pierce Utilities Authority
 322 North Indian River Drive
 Fort Pierce, Florida 334500

I.D. NUMBER: 50/WPB/56/0003
 PERMIT/CERTIFICATION NUMBER: AO 56-190275 *
 DATE OF ISSUE: MAY 23 1991
 EXPIRATION DATE: February 28, 1996
 COUNTY: St. Lucie
 LATITUDE/LONGITUDE: 27°27'00"N/80°19'26"W
 UTM: Zone 17; 566 8 Km. E; 3935.3 Km. N
 PROJECT: Ft. Pierce Utilities Authority
 Units 6 - 8, Diesels 1 and 2

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

OPERATE: An air pollution source consisting of:

- a) Two (2) General Motors Corporation, Model MP-45, diesel electric generators, burning No. 2 fuel oil at 28.9 million BTU/hr. maximum; discharging pollutants through a 3-ft. diameter stack 23 feet above ground level (peaking units);
- b) Babcock & Wilcox Boiler, Unit No. 6, 218.9 million BTU/hr. discharging pollutants through a 5-ft. diameter stack 148 feet above ground level;
- c) A Foster Wheeler Boiler, Unit No. 7, 470 million BTU/hr. maximum; discharging pollutants through a multicyclone collector and a 7.1-ft. diameter stack 147 feet above ground level, and
- d) A Foster Wheeler Boiler, Unit No. 8, 611 million BTU/hr. maximum; discharging pollutants through an 8-foot diameter stack 150 feet above ground level; equipped with continuous in-stack NO_x and O₂ monitors.

IN ACCORDANCE WITH: Application for Renewal received December 14, 1990, additional information received January 28, January 31 and February 27, 1991, AC 56-141460 issued March 14, 1988 and modified May 1, 1990; Application to Operate/Construct Air Pollution Sources received December 12, 1985 (Diesels 1 and 2); AC 56-12778 issued September 4, 1979 (Unit 8); and Application to Operate received July 21, 1980 (Units 6 and 7) (none are attached).

LOCATED AT: 311 North Indian River Drive, Fort Pierce, St. Lucie County, Florida.

TO SERVE: An electric generating utility (SIC # 4911).

SUBJECT TO: General Conditions 1-14. and Specific Conditions 1-8.

* This permit is a renewal of Permit No. AO 56-113533 issued February 28, 1986, AO 56-113534 issued February 28, 1986, AO 56-112670 issued February 14, 1986, and AO 56-112678 issued February 14, 1986.

GENERAL CONDITIONS:

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 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and 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 Rule 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. 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 date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.
14. 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 the 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:
 Mr. H. P. Lamb
 Fort Pierce Utilities Authority
 Fort Pierce, Florida

I.D. NUMBER: 50/WPB/56/0003
 PERMIT/CERTIFICATION NUMBER: AO 56-190275
 DATE OF ISSUE: MAY 23 1991
 EXPIRATION DATE: February 28, 1996

SPECIFIC CONDITIONS:

1. Compliance testing shall be conducted for the sources covered by this permit by September 1991 and annually thereafter in accordance with the methods specified below.

2. Emission limiting standards are as follow:

a) Units 6, 7, and 8

1. Visible emissions shall not exceed 5% opacity while firing natural gas.
2. The operating permits emission limits for this facility's existing boilers shall not exceed the following rates:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	ton/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.4	0.0024	0.568	0.382	0.945	3.018
SO _x	12.38	0.0743	0.1199	0.0806	0.1917	0.617
NO _x	1.31	0.007854	104.35	70.126	173.20	552.860
VOC	0.0236	0.000142	0.266	0.179	0.441	1.407
CO	0.15	0.0009	7.589	5.100	12.59	40.2
hrs/yr	12		1344		6384	

The operating permits emission limits for these boilers (units No. 6, 7, and 8) shall be modified as stated above.

3. Natural gas is the only permitted fuel for normal operation for Units 7 and 8. Unit 6 is allowed to burn natural gas with a No. 6 fuel oil (0.76% sulfur content) as the standby fuel. If the gas supply is curtailed or an emergency is declared, the facility shall obtain an emergency order for Units 7 and 8 to burn fuel oil. Visible emissions shall not exceed 15% opacity while burning fuel oil. If fuel oil usage exceeds 15 days per calendar year, the Department shall be notified and provision made for emissions testing within 30 days.

b) Unit 8

1. Continuous emission monitors are required for nitrogen oxides and oxygen.
2. Quarterly excess emissions reports pursuant to 40CFR60 shall be submitted to the Southeast District Office postmarked no later than the 30th day following the end of each calendar quarter.

c) Diesels 1 and 2

Visible emissions shall not exceed 20 percent opacity while using No. 2 fuel oil.

Source/Emission Point	Pollutant	Test Method
Diesels 1 & 2, Boilers 6, 7, & 8	Visible Emissions	EPA Method 9
Boilers 6, 7, & 8	Particulate	EPA Method 5
	SO _x	EPA Method 6
	NO _x	EPA Method 7, 7E
	VOC	EPA Method 25A
	CO	EPA Method 10

The compliance test report shall be submitted to the Department in accordance with Florida Administrative Code (F.A.C.) Rule 17-2 700(7).

PERMITTEE:
Mr. H. P. Lamb
Fort Pierce Utilities Authority
Fort Pierce, Florida

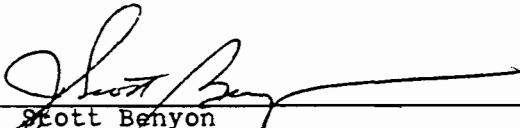
I.D. NUMBER: 50/WPB/56/0003
PERMIT/CERTIFICATION NUMBER: AO 56-190275
DATE OF ISSUE: **MAY 23 1991**
EXPIRATION DATE: February 28, 1996

SPECIFIC CONDITIONS:

4. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source, otherwise the Department may require the test to be repeated or require modification of the permit to reflect tested rates and/or fuels.
5. The Department shall be notified of expected test dates at least fifteen (15) days prior to compliance testing.
6. On or before March 1 of each calendar year, a completed DER Form 17-1 202(6), Annual Operations Report Form for Air Emissions Sources shall be submitted to the Department.
7. Ambient monitoring for particulate and sulfur dioxide is required when fuel oil is used .
8. Copies of all reports, tests, notifications or other submittals required by this permit shall be submitted to both the Department of Environmental Regulation, Southeast District Office and Palm Beach County Public Health Unit.
9. The permittee shall be aware of and operate under the attached "General Permit Conditions #1 thru #14." General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

Issued this 23rd day of MAY, 1991

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



J. Scott Benyon
Deputy Assistant Secretary

DEPARTMENT OF ENVIRONMENTAL REGULATION

ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

Preston Lewis

Initial

Date

2.

DER Tallahassee

Initial

Date

3.

Initial

Date

4.

Initial

Date

REMARKS:

INFORMATION

Review & Return

Review & File

Initial & Forward

DISPOSITION

Review & Respond

Prepare Response

For My Signature

For Your Signature

Let's Discuss

Set Up Meeting

Investigate & Report

Initial & Forward

Distribute

Concurrence

For Processing

Initial & Return

RECEIVED

MAY 29 1991

Division of Air Resources Management

FROM:

DATE

PHONE



MAY 24 1991

Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406

Lawton Chiles, Governor

Telephone No. 407/433-2650

Carol M. Browner, Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT ISSUANCE

CERTIFIED MAIL

In the Matter of an Application
for Permit by:

DER File No. AO 56-190275
St. Lucie County
Air Program

Mr. H. P. Lamb /
Superintendent/Power Resources /
Fort Pierce Utility Authority /
311 North Indian River Drive /
Fort Pierce, Florida 33450 /

Enclosed is Permit Number AO 56-190275 to operate an air pollution source issued pursuant to Section 17-2, Florida Statutes.

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

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

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

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

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

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

This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely

Mr. H. P. Lamb
Fort Pierce Utilities Authority
Fort Pierce, Florida

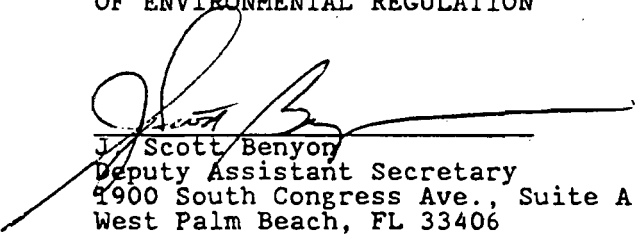
DER Permit No. AO 56-190275

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 West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

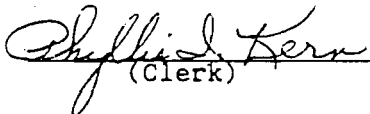

J. Scott Benyon
Deputy Assistant Secretary
1900 South Congress Ave., Suite A
West Palm Beach, FL 33406
407/433-2650

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on MAY 24 1991 to the listed persons.

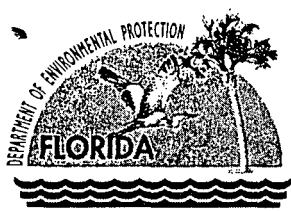
Clerk Stamp

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) MAY 24 1991
(Date)

Copies furnished to:

Harry Schindette
Preston Lewis



Department of Environmental Protection

Lawton Chiles

Governor

JUN 28 1996

CERTIFIED MAIL

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

Virginia B. Wetherell
Secretary

Mr. Thomas Richards, P.E.
Director of Operations
Forth Pierce Utilities Authority
H.D. King Power Plant
311 North Indian River Drive
Forth Pierce, FL 34950

DEP File No. 1110003-002-AO
St. Lucie County
Project: H.D. King Power Plant

RE: Modification of Air Permit, Permit Number 1110003-002-AO, Issued June 21, 1996

Dear Mr. Richards:

We have reviewed the above permit and a typographical error in specific condition No. 13 was noticed. This condition shall be changed as follows:

FROM:

13. On or before March 1 of each calendar year, a completed DEP Form 62-210.900(5), Annual Operations Report Form for Air Pollutant Emitting Facility, shall be submitted to the Department of Environmental Protection, Southeast District Office, Air Program. Attached to this report shall be the combined total emissions and heat input specified in **specific condition No. 4**, and the maximum sulfur content based on fuel analysis for the previous year for EU 003, 004, 007, 008 (Units #6, #7, #8, and #9). [403.061(13), F.S.]

TO:

13. On or before March 1 of each calendar year, a completed DEP Form 62-210.900(5), Annual Operations Report Form for Air Pollutant Emitting Facility, shall be submitted to the Department of Environmental Protection, Southeast District Office, Air Program. Attached to this report shall be the combined total emissions and heat input specified in **specific conditions No 3 and 4**, and the maximum sulfur content based on fuel analysis for the previous year for EU 003, 004, 007, 008 (Units #6, #7, #8, and #9). [403.061(13), F.S.]

This letter must be attached to the original permit and becomes part of that permit.

This letter constitutes final agency action unless a person substantially affected by this action requests an administrative hearing pursuant to Section 120.57, Florida Statutes (F.S.). The petition must be filed within 14 days from receipt of this letter. The petition must comply with the requirements of Florida Administrative Code (F.A.C.) Rule 28-5.201 and be filed pursuant to F.A.C. Rule 62-103.155(1) in the Office of General Counsel of the Department of Environmental Protection at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions which are not filed in accordance with the above provisions will not be accepted by the Department. If a formal proceeding pursuant to Section 120.57(1) is requested, at such formal hearing all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination

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

Printed on recycled paper.

of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel. If an informal proceeding is requested, the agency will, in accordance with its rules of procedure, give affected persons or parties or their counsel an opportunity, at a convenient time and place, to present to the agency or hearing officer written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), F.S. The hearing process is designed to formulate agency action. Accordingly, the Department's final action as a result of a hearing may be different from the position taken by it in this stage. Therefore any person who may wish to contest the Department's ultimate permitting decision must petition for hearing within the fourteen day period described above. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request a hearing under Section 120.57, F.S.

This modification 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 F.A.C. Rule 62-103.070. Upon timely filing of a petition or a request for an extension of time this modification will not be effective until further Order of the Department.

When the Order (modification) 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 modification is filed with the Clerk of the Department.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

I. Goldman 6-27-96
Isidore Goldman, P.E. Date
District Air Program Administrator
Southeast District

IG/md

cc: Scott Sheplak, DEP/DARM - f/s
Jim Stevens, FPUA

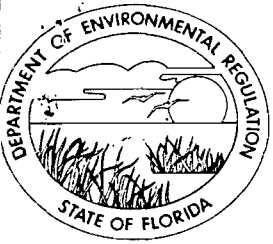
FILING AND ACKNOWLEDGMENT: FILED, on this date, pursuant to § 120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Juda C. Branan 6/28/96
Clerk Date

RECEIVED

JUL 1 1996

BUREAU OF
AIR REGULATION



Florida Department of Environmental Regulation

Southeast District • P.O. Box 15425 • West Palm Beach, Florida 33416

Lawton Chiles, Governor

1900 S. Congress Ave., Suite A

Virginia B. Wetherell, Secretary

Telephone: 407/433-2650

Fax: 407/433-2666

MAY 7 - 1993

RECEIVED

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT ISSUANCE

MAY 10 1993

POWER PLANT

CERTIFIED MAIL

In the Matter of an Application
for Permit by:

DER File No. AO 56-190275
St. Lucie County

Mr. H. P. Lamb /
Superintendent/Power Resources /
Ft. Pierce Utilities Authority /
311 North Indian River Drive /
Fort Pierce, Florida 34950 /

Enclosed is Permit Number AO 56-190275 to operate an air pollution source issued pursuant to Section 403.087, Florida Statutes.

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

The Petition shall contain the following information;

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

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

Mr. H. P. Lamb
Superintendent/Power Resources
Fort Pierce Utility Authority
Fort Pierce, Florida 34950
-Page 2 of 2


DER Permit No. AO 56-190275

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 West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

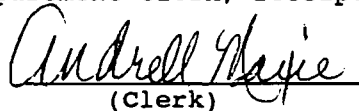

Mary E. S. Williams
Director of District Management
F.D.E.R., Southeast District
P.O. Box 15425
West Palm Beach, FL 33416
407/433-2650

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed by certified mail before the close of business on MAY 7 - 1993 to the listed persons.

Clerk Stamp

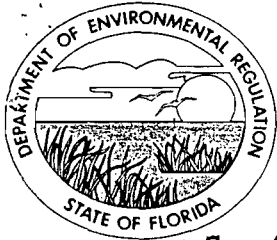
FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

MAY 7 - 1993
(Date)

Copies furnished to: Harry Schindette
Preston Lewis

RECEIVED



MAY 7 - 1993

Florida Department of Environmental Regulation

MAY 10 1993

Southeast District • P.O. Box 15425 • West Palm Beach, Florida 33416

Lawton Chiles, Governor

1900 S. Congress Ave., Suite A

Virginia B. Wetherell, Secretary

Telephone: 407/433-2650

Fax: 407/433-2666

PERMITTEE:

Mr. H. P. Lamb
Superintendent/Power Resources
Fort Pierce Utilities Authority
311 North Indian River Drive
Fort Pierce, Florida 34950

I.D. NUMBER: 50/WPB/56/0003
PERMIT/CERTIFICATION NUMBER: AO 56-190275*
DATE OF ISSUE: MAY 7 - 1993
EXPIRATION DATE: February 28, 1996
COUNTY: St. Lucie
LATITUDE/LONGITUDE: 27°27'00"N/80°19'26"W
UTM: Zone 17; 566.4 Km. E; 3036.3 Km. N
PROJECT: Ft. Pierce Utilities Authority
Units 6 - 8, Diesels 1 and 2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule 17-296, and in conformance with all existing regulations of the Florida Department of Environmental Regulation. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

OPERATE: An air pollution source consisting of:

- a) Two (2) General Motors Corporation, Model MP-45, diesel electric generators burning No. 2 fuel oil at 28.9 million BTU/hr. maximum, discharging pollutants through a 3-ft. diameter stack 23 feet above ground level (peaking units);
- b) Babcock & Wilcox Boiler, Unit No. 6, 218.9 million BTU/hr. discharging pollutants through a 5-ft. diameter stack 148 feet above ground level;
- c) A Foster Wheeler Boiler, Unit No. 7, 470 million BTU/hr. maximum; discharging pollutants through a multicyclone collector and a 7.1 ft. diameter stack 147 feet above ground level, and
- d) A Foster Wheeler Boiler, Unit No. 8, 611 million BTU/hr. maximum; discharging pollutants through an 8 foot diameter stack 150 feet above ground level, equipped with continuous in-stack NO_x and O₂ monitors.

IN ACCORDANCE WITH: Settlement Agreement for OGC Case No. 91-1610 signed July 8, 1992; Application for Renewal received December 14, 1990, additional information received January 28, January 31 and February 27, 1991, AC 56-141460 issued March 14, 1988 and modified May 1, 1990; Application to Operate/Construct Air Pollution Sources received December 12, 1985 (Diesels 1 and 2); AC 56-12778 issued September 4, 1979 (Unit 8); and Application to Operate received July 21, 1980 (Units 6 and 7) (none are attached).

LOCATED AT: 311 North Indian River Drive, Fort Pierce, St. Lucie County, Florida.

TO SERVE: An electric generating utility (SIC # 4911).

SUBJECT TO: General Conditions 1-14 and Specific Conditions 1-10.

*This permit is a renewal of permit no. AO 56-113533 issued February 28, 1986; AO 56-113534 issued February 28, 1986; AO 56-112679 issued February 14, 1986; and AO 56-112678 issued February 14, 1986; and modifies and supersedes permit no. AO 56-190275 issued May 23, 1991.

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 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in 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, 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 reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under 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 the permit, the permittee shall immediately notify and provide the Department with the following information:
 - (a) A description of and cause of noncompliance; and
 - (b) The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. 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.

GENERAL CONDITIONS:

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 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and 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 Rule 17-4.120 and 17-30.300, F.A.C., 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 or a copy thereof shall be kept at the work site of the permitted activity.

13. 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 date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

14. 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 the 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:
Mr. H. P. Lamb
Fort Pierce Utilities Authority
Fort Pierce, Florida 34950

I.D. NUMBER: 50/WPB/56/0003
PERMIT/CERTIFICATION NUMBER: AO 56-190275
DATE OF ISSUE: MAY 7 - 1993
EXPIRATION DATE: February 28, 1996

SPECIFIC CONDITIONS:

1. Compliance testing shall be conducted for the sources covered by this permit by September 1991 and annually thereafter in accordance with the methods specified below.
2. Emission limiting standards are as follow:
 - a) Units 6, 7, and 8
 - (1) Visible emissions shall not exceed 5% opacity while firing natural gas.

For Units 6 and 7, visible emissions shall not exceed 20% opacity when the unit is burning fuel oil, except for one two-minute period per hour during which opacity shall not exceed 40%.

For Unit 8 visible emissions shall not exceed 20% opacity when the unit is burning fuel oil, except for one six minute period per hour during which opacity shall not exceed 27%.

(2)

A) The emission limits for Units 6,7 and 8 shall not exceed the following rates:

<u>Parameter</u>	<u>Unit 6</u> lb/hr.	<u>Unit 7</u> lb/hr.	<u>Unit 8</u> lb/hr.
PM	0.4	0.568	0.945
SOx	12.38	0.1199	0.1917
NOx	1.31	104.35	173.20
VOC	0.0236	0.266	0.441
CO	0.15	7.589	12.59

B) The total emissions from combined Units 6, 7, and 8 shall not exceed:

<u>Parameter</u>	<u>Tons/Yr.</u>
PM	16.0
SOx	101.6
NOx	622.0
VOC	2.3
CO	45.3

Total combined heat input for the Units 6, 7, and 8 shall not exceed 4,534,930 MBtu per year.

PERMITTEE:
Mr. H. P. Lamb
Fort Pierce Utilities Authority
Fort Pierce, Florida 34950

I.D. NUMBER: 50/WPB/56/0003
PERMIT/CERTIFICATION NUMBER: AO 56-190275
DATE OF ISSUE: MAY 7 - 1993
EXPIRATION DATE: February 28, 1996

SPECIFIC CONDITIONS:

(3) Natural gas is the only permitted fuel for normal operation for Units 6, 7, and 8. Units 6, 7, and 8 are allowed to burn natural gas with a No. 6 fuel oil (0.8 lbs SO_x/MBtu) as a standby fuel for up to a combined total of 400 hours per year, when necessary in order to avoid curtailing electric power service to its customers. FPUA must notify the DER within 24 hours after commencement of oil firing and furnish the following information:

- a. Duration or projected duration of the event.
- b. Quantity of fuel oil burned or projected to be burned.
- c. A description of significant circumstances precipitating the event, which shall include:
 - i. Availability of power for purchase
 - ii. Availability of electric transmission capacity relating to power purchases.
 - iii. Availability of natural gas
 - iv. Availability of FPUA generation sources.

(4) When burning fuel oil in Units 6, 7, and 8, the emission rates set forth in Specific Condition 2(a)2.A above shall not apply and the following rates shall apply to Units 6, 7, and 8:

<u>Parameter</u>	<u>Unit 6</u> lb/MBTU	<u>Unit 7</u> lb/MBTU	<u>Unit 8</u> lb/MBTU
SO _x	0.80	0.80	0.80
PM	n/a	0.1	0.1
VOC	n/a	n/a	n/a

(5) Unit 8

1. Continuous emission monitors are required for nitrogen oxides and oxygen.
2. Quarterly excess emissions reports pursuant to 40CFR60 shall be submitted to the Southeast District Office postmarked no later than the 30th day following the end of each calendar quarter.

(6) Diesels 1 and 2

Visible emissions shall not exceed 20 percent opacity while using No. 2 fuel oil.

PERMITTEE:
Mr. H. P. Lamb
Fort Pierce Utilities Authority
Fort Pierce, Florida 34950

I.D. NUMBER: 50/WPB/56/0003
PERMIT/CERTIFICATION NUMBER: AO 56-190275
DATE OF ISSUE: MAY 7 - 1993
EXPIRATION DATE: February 28, 1996

SPECIFIC CONDITIONS:

3. The compliance test report shall include results of tests by the following method:

<u>Source/Emission Point</u>	<u>Pollutant</u>	<u>Test Method</u>
Diesels 1 & 2 Boilers 6,7, & 8	Visible Emissions	EPA Method 9
Boilers 6,7, & 8	Particulate	EPA Method 5
	SOx	EPA Method 6
	NOx	EPA Method 7,7E
	VOC	EPA Method 25A
	CO	EPA Method 10

The compliance test report shall be submitted to the Department in accordance with Florida Administrative Code (F.A.C.) Rule 17-297.330.

4. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source, otherwise the Department may require the test to be repeated or require modification of the permit to reflect tested rates and/or fuels. However, testing on fuel oil in Units 6, 7, and 8 shall be required only if fuel oil usage for the units exceed 400 hours in any calendar year.

5. The Department shall be notified of expected test dates at least fifteen (15) days prior to compliance testing.

6. On or before March 1 of each calendar year, a completed DER Form 17-210.900(4), Annual Operations Report Form for Air Emissions Sources shall be submitted to the Department.

7. Ambient monitoring for particulate and sulfur dioxide is required if fuel oil usage exceeds 400 hours per calendar year.

8. Copies of all reports, tests, notifications or other submittals required by this permit shall be submitted to the Department of Environmental Regulation, Southeast District Office.

9. The permittee shall be aware of and operate under the attached "General Permit Conditions #1 through 14". General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

PERMITTEE:
Mr. H. P. Lamb
Fort Pierce Utilities Authority
Fort Pierce, Florida 34950


I.D. NUMBER: 50/WPB/56/0003
PERMIT/CERTIFICATION NUMBER: AO 56-190275
DATE OF ISSUE: **MAY 7 - 1993**
EXPIRATION DATE: February 28, 1996

SPECIFIC CONDITIONS:

10. The facility shall maintain unit logs reflecting the following information:
- Number of hours per day each unit burns gas.
 - Number of hours per day each unit burns fuel oil.
 - Amount of natural gas used per unit (MBTU/million cubic feet burned).
 - Amount of fuel oil used per unit including sulfur and ash content and heat input rate (MBTU/1000 gallons).

Executed in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Mary E. S. Williams
Director of District Management
F.D.E.R., Southeast District
P.O. Box 15425
West Palm Beach, FL 33416
407/433-2650

MESW:ms:gml

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed by certified mail before the close of business on MAY 7 - 1993 to the listed persons.

Clerk Stamp

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


Clerk

MAY 7 - 1993

Date

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

February 28, 1986

MAR 04 86

Superintendent, Power Production
Fort Pierce Utilities Authority
311 North Indian River Drive
Fort Pierce, Florida 33450

AP - St. Lucie County
Fort Pierce Utilities Authority
Diesels No. 1 and 2


Dear Sir:

Enclosed is Permit Number AO-56-113533 to operate the referenced air pollution source, issued pursuant to Section(s) 403, Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition for an administrative determination of Chapters 17-103 and 28-5.201, FAC, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee 32301, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph 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, FAC. 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 32301; 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.

Sincerely,



Tim Powell
Permitting/Compliance Engineer

TP:ms/20

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on February 28, 1986 to the listed persons.

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 (9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Mary Skinner 2/28/86
Clerk Date

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHEAST FLORIDA DISTRICT
BRANCH OFFICE

2745 SOUTHEAST MORNINGSIDE BOULEVARD
PORT ST. LUCIE, FLORIDA 33452



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:

Fort Pierce Utilities Authority
311 North Indian River Drive
Fort Pierce, Florida 33450

APIS Number: 50/56/0003/01 & 02
Permit Number: A0-56-113533
Date of Issue: February 28, 1986
Expiration Date: February 28, 1991
County: St. Lucie
Latitude/Longitude: 27°27'00"N/80°19'26"W
Project: Diesels No. 1 and 2

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 to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

OPERATE:

Two (2) General Motors Corp., Model MP-45, diesel electric generators, burning No. 2 diesel oil only at 210 gal./hr. or 28.9 million BTU/hr. maximum; discharging pollutants through 3 ft. diameter stack, 10 ft. above ground; normally operated as peaking unit only.

IN ACCORDANCE WITH:

"Application to Operate/Construct Air Pollution Sources", DER Form 17-1.202(1), as received December 12, 1985.

LOCATED AT:

311 North Indian River Drive, Fort Pierce. UTM Coordinates are: Zone 17; 566.8 km E/3036.3 km N.

SUBJECT TO:

GENERAL CONDITIONS one (1) through fifteen (15) and SPECIFIC CONDITIONS one (1) through five (5).

PERMITEE:

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

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its 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 therefor caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.
6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:
 - a. Having access to and copying any records that must be kept under the conditions of the permit;
 - b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sampling or monitoring any substances or parameters at any location 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

PERMITTEE:

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

b. the period of noncompliance, 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 non-compliance of the permitted activity until the transfer is approved by the department.
12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
13. This permit also constitutes:
 - () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - () Compliance with New Source Performance Standards
14. The permittee shall comply with the following monitoring and record keeping requirements:
 - a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.
 - b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.
 - c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.
15. When requested by the department, the permittee shall within a reasonable time 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:
Fort Pierce Utilities Authority

APIS Number: 50/56/0003/01 & 02
Permit Number: AO-56-113533
Date of Issue: February 28, 1986
Expiration Date: February 28, 1991

SPECIFIC CONDITIONS:

1. The emission limiting standard for Units 1 and 2 is 20 percent opacity as referenced in FAC Rule 17-2.610(2). Compliance with the standard is accomplished by performing EPA Method 9 as referenced in FAC Rule 17-2.700.
2. Compliance with the visible emissions standard shall be tested for annually no later than September 30. At least 14 days prior notice will be afforded the DER Southeast Florida Subdistrict Office in Port St. Lucie. Test results must be submitted to this office within 45 days after the test date.
3. During the compliance test, the units shall be fired with the "worst-case" fuel permitted, 210 gal./hr. diesel, + 10%.
4. The Permittee shall submit an Annual Operating Report for each calendar year, on forms provided by the Department, no later than March 1 of the following year.
5. This permit will expire on 02/28/1991. No later than 60 days prior to this date, the Permittee shall apply for a renewal of the permit on forms provided by the Department. Along with the application, test results showing compliance with the standard must be submitted. The test must have been run no earlier than 90 days from the date of expiration. At least 14 days prior notice shall be afforded the DER Southeast Florida Office in Port St. Lucie so that a representative may witness the test.

AP:tps/20

Issued this 28th day of February, 1986

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



Alexander Padva, Ph.D.
Acting District Manager

4 Pages attached.



BEST AVAILABLE COPY

Department of Environmental Protection

RECEIVED

APR 11 1996

POWER PLANT

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Notice of Permit Amendment

Virginia B. Wetherell
Secretary

In the matter of an
Application for Permit by:

DEP File No. AC 56-141460A
31.6 MW Combined Cycle
Gas Turbine

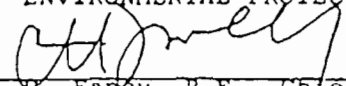
Mr. Thomas Richards, P.E.
Director of Operations
H. D. King Power Plant
311 North Indian River Drive
Ft. Pierce, Florida 34950

Enclosed is amended Permit Number AC 56-141460A for a 31.6 MW Combined Cycle Gas Turbine. This amendment corrects the sulfur dioxide emission limits for Units 6, 7, and 8 when natural gas fuel is burned at this facility and allows alternate means to determine compliance with the sulfur dioxide and particulate matter emission limits. This permit amendment is issued pursuant to Section 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 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 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

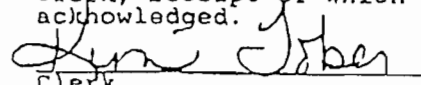

C. H. Farcy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 4-8-96 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 4-8-96
Date

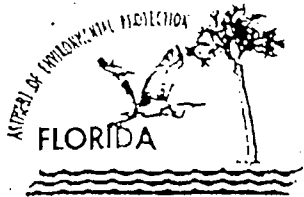
Copies furnished to:
Isidore Goldman, SED

FINAL DETERMINATION
Permit No. AC 56-141460A

The Intent to Issue an amended air construction permit to the Ft. Pierce Utility Authority for the H. D. King Power Plant at 311 North Indian River Drive, Ft. Pierce, St. Lucie County, Florida 34950 to correct the sulfur dioxide emission limits when natural gas fuel is burned in Units 6, 7, 8, and 9 and to allow alternate means to determine compliance with the sulfur dioxide and particulate matter emission limits was distributed on March 7, 1996. The Notice of Intent to Issue Permit Amendment was published in the Tribune on March 18, 1996. Copies of the evaluation were available for public inspection at the Department's offices in West Palm Beach and Tallahassee.

Comments were submitted on the Department's Intent by our Southeast District office. The District asked that the amendment clarify that the facility has separate emission limits for natural gas and fuel oil. They also asked that the EPA test methods be listed in the permit. In response to this request, the Department has clarified that the unit has separate emission limits for natural gas and fuel oil and has listed the methods that can be used to determine compliance with the sulfur dioxide and particulate matter emission limits.

The final action of the Department will be to issue amended permit No. AC 56-141460A as proposed.



BEST AVAILABLE COPY

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:
Ft. Pierce Utilities Authority
H. D. King Power Plant
311 North Indian River Drive
Ft. Pierce, Florida 34950

Permit Number: AC 56-141460A
Expiration Date: July 1, 1996
County: St. Lucie
Project: 31.6 MW Combined Cycle
Gas Turbine

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code, (F.A.C.), Chapters 62-4, 62-210 through 297. 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 re-issuance of permit No. AC 56-141460, subject to all previous conditions, amendments, and modifications, except for the changes by the Specific Conditions of this permit for Units Nos. 6, 7, 8, and 9. Permit No. AC 56-141460 expired June 1, 1990.

The H. D. King Power Plant is located at 311 North Indian River Drive, Ft. Pierce, St. Lucie County, Florida 34950. The UTM coordinates of the plant are Zone 17, 566.8 km E and 3,036.3 km N.

The project shall be constructed/operated in accordance with the attached request, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Original construction permit AC 56-141460 issued March 28, 1988.
2. Amendment dated October 31, 1988.
3. Amendment dated August 31, 1989.
4. Amendment dated April 18, 1990.
5. Amendment dated November 9, 1990.
6. Amendment dated June 28, 1991.
7. Amendment/Settlement Agreement, DOAH Case No. 91-6989
8. Request for amendment dated February 21, 1996.
9. Interoffice Memorandum dated March 29, 1996.

Page 1 of 3

APR 17 1996

APR 17 1996

PERMITTEE:
Ft. Pierce Utility Authority

Permit No. AC 56-141460A
Expiration Date: July 1, 1996

SPECIFIC CONDITIONS:

1. This permit supersedes permit No. AC 56-141460 issued March 28, 1988.
2. The provisions of permit No. AC 56-141460 are incorporated into this air construction permit except for the following changes:
3. The sulfur dioxide emission standards in Specific Condition No. 2A of permit No. AC 56-141460 for Units 6, 7, and 8 when natural gas fuel is being burned are changed:

FROM

Parameter	Unit 6 lbs/hr	Unit 7 lbs/hr	Unit 8 lbs/hr
SO ₂	12.38	0.1199	0.1917

TO

Parameter	Unit 6 lbs/hr	Unit 7 lbs/hr	Unit 8 lbs/hr
SO ₂	2.5	2.5	2.5

The emission standards for other regulated air pollutants for natural gas fuel and all air pollutants for fuel oil are not changed by this amendment.

4. Compliance testing requirements for the sulfur dioxide emission limits for unit 9 of permit No. AC 56-141460 are changed:

FROM:

Compliance with the sulfur dioxide emission limits will be determined by Reference Method 20 or by calculations based on fuel analysis (ASTM D1552) for sulfur content.

TO:

Compliance with the sulfur dioxide emission limits will be determined by Reference Method 20 or by calculation based on fuel analysis (ASTM 1552, D1072, D3031, D4084, or D3246) for sulfur content of the oil and natural gas. Certified analysis by the appropriate test method from the fuel supplier is acceptable to the Department.

PERMITTEE:
Ft. Pierce Utility Authority

Permit No. AC 141460A
Expiration Date: July 1, 1996

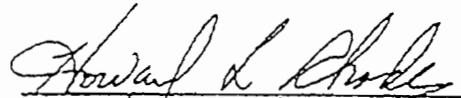
New Specific Condition for Permit No. AC 56-141460A;

11. Compliance testing requirements for the sulfur dioxide and particulate matter emission limits for units 6, 7, and 8 are:

Compliance with the sulfur dioxide emission limits will be determined by Reference Method 6 or 6C or by calculation based on fuel analysis (ASTM 1552, D1072, D3031, D4084, or D3246) for sulfur content of the oil and natural gas. Certified analysis by the appropriate test method from the fuel supplier is acceptable to the Department.

Particulate matter tests on these units are waived when burning natural gas provided that the visible emissions do not exceed 5 percent opacity.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Howard E. Rhodes, Director
Division of Air Resources
Management



Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406 • 407-964-9668

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary
Scott Benyon, Deputy Assistant Secretary

NOTICE OF PERMIT

MAY 1 1990

St. Lucie County
AP - Fort Pierce Utilities Authorities-Unit 9
31.6 MW Combined Cycle Gas Turbine

Mr. Harry Schindehette
Director of Utilities
Fort Pierce Utilities Authority
P. O. Box 3191
Fort Pierce, Florida, 33448

Dear Mr. Schindehette

Enclosed is Permit Number AO 56-175955, to operate an air pollution source issued pursuant to Section 403.087, Florida Statutes.

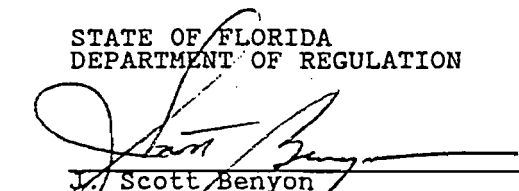
Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, FAC, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, FL 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph 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, FAC. 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, FL 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 Final Order is filed with the Clerk of the Department.

In addition, please be advised that some processes generate hazardous wastes. Please consult 40 C.F.R. Parts 260-271 and Chapter 17-730, F.A.C. for specific rules and regulations applicable to hazardous waste handlers. Attached for your use is a document entitled "Highlights of Hazardous Waste Regulations" which outlines typical compliance items applicable to various hazardous waste generators/facilities.

Executed in West Palm Beach, Florida

STATE OF FLORIDA
DEPARTMENT OF REGULATION



J. Scott Benyon
Deputy Assistant Secretary
1900 South Congress Ave., Suite A
West Palm Beach, FL 33406
407/964-9668

JSB:SB/k57

cc: Thomas W. Davis, P.E.

Mr. Harry Schindehette
Fort Pierce Utilities Authority
Fort Pierce, Florida
Page 2 of 2

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on MAY 1 1990 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to §120.52(10), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Phyllis J. Kern
Clerk

MAY 1 1990
Date



Florida Department of Environmental Regulation

Southeast District • 1900 S. Congress Ave., Suite A • West Palm Beach, Florida 33406 • 407-964-9668

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary
Scott Benyon, Deputy Assistant Secretary

PERMITTEE:

Mr. Harry Schindehette
Director of Utilities
Fort Pierce Utilities Authority
P. O. Box 3191
Fort Pierce, Florida 33448

I.D. NUMBER: 50/WPB/56/0309

PERMIT/CERTIFICATION NUMBER: AO 56-175955

DATE OF ISSUE: MAY 1 1990

EXPIRATION DATE: March 30, 1995

COUNTY: St. Lucie

LATITUDE/LONGITUDE: 27°27'00"N/80°19'26"W

UTM: Zone 17; 566.8 Km. E; 3306.3 Km. N

PROJECT: Fort Pierce Utilities Unit #9

31.6 MW Combined Cycle Gas Turbine

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

OPERATE: An air pollution source consisting of a Unit #9, 31.6 MW combined cycle gas turbine, (a 23.4 MW combustion turbine generator, a steam generator and an 8.2 MW condensing turbine generator). The unit uses steam injection from the waste heat recovery steam generator to control NO_x emissions from the gas turbine.

IN ACCORDANCE WITH: Certificate of Completion of Construction received February 7, 1990, AC 56-141460 issued March 24, 1988 and modified October 31, 1988 and Application to Construct Air Pollution Sources dated November 2, 1987 and additional information dated December 17, 1987 (none are attached).

LOCATED AT: Henry D. King Municipal Electric Station, Fort Pierce Utilities Authority, 2nd Street and B Avenue, Fort Pierce, St. Lucie County, Florida.

TO SERVE: An electrical generating facility (SIC # 4311).

SUBJECT TO: General Conditions 1-14 and Specific Conditions 1-13.

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 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

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

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

- (a) Have access to and copy any records that must be kept under 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 the permit, the permittee shall immediately notify and provide the Department with the following information:

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

GENERAL CONDITIONS:

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 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and 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 Rule 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. 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 date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

14. 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 the 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:
Mr. Harry Schindehette
Fort Pierce Utilities Authority
Fort Pierce, Florida

I.D. NUMBER: 50/WPB/56/0309
PERMIT/CERTIFICATION NUMBER: AO 56-175955
DATE OF ISSUE: MAY 1, 1990
EXPIRATION DATE: March 30, 1995

SPECIFIC CONDITIONS:

1. Compliance testing shall be conducted for the sources covered by this permit by September 30, 1990 and annually thereafter in accordance with the methods specified below.

2. Emission limiting standards are as follows:

In accordance with AC 56-141460; 40CFR60. Subpart GG, and 17-2.660 -

- a) NO_x emissions shall not exceed 84ppm NO_x or $0.0075 \frac{(14.4)}{Y} + F$.
- b) SO₂ emissions shall not exceed 0.015% by volume at 15% oxygen on a dry basis
- c) Visible emissions shall not exceed 15% opacity.
- d) The sulfur content of the No. 2 fuel oil shall not exceed 0.5% by weight.
- e) CO emissions shall not exceed 32.85 lb./hr. and 110.4 ton/yr. when burning natural gas.

3. The compliance test report shall include results of tests by the following methods:

<u>Source/Emission Point</u>	<u>Pollutant</u>	<u>Test Method</u>
Unit #9	SO ₂	EPA Method 20 or ASTM 1552
	CO	EPA Method 10
	NO _x	EPA Method 20
	VE	EPA Method 9

During performance tests to determine compliance with the proposed standard, measured NO_x emission at 15 percent oxygen will be adjusted to ISP ambient atmospheric conditions by the following correction factor:

$$NO_x = (NO_x \text{ obs}) \left(\frac{P_{\text{ref}}}{P_{\text{obs}}} \right)^{0.5} e^{19 (H_{\text{obs}} - 0.00633)} \left(\frac{T_{\text{AMB}}}{288} \right)^{1.53}$$

where:

NO_x = Emissions of NO at 15% oxygen and ISO standard ambient conditions.

NO obs = Measured NO_x emission at 15% oxygen, ppmv.

P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.

P_{bs} = Measured combustor inlet absolute pressure at test ambient pressure.

H_{obs} = Specific humidity of ambient air at test.

e = Transcendental constant (2.718)

T_{AMB} = Temperature of ambient air at test.

The compliance test report shall be submitted to the Department in accordance with Florida Administrative Code (F.A.C.) Rule 17-2.700(7).

PERMITTEE:
Mr. Harry Schindehette
Fort Pierce Utilities Authority
Fort Pierce, Florida

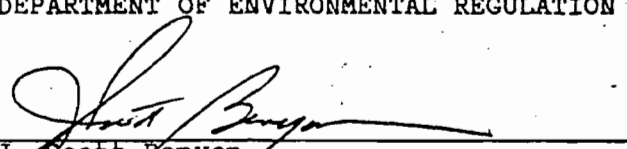
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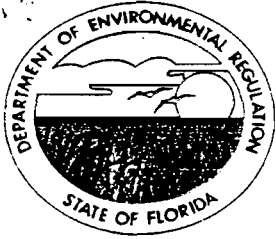
SPECIFIC CONDITIONS:

4. The compliance test report shall provide the following information on the air pollution control devices:
 - a. General condition of equipment (e.g., date of last thorough inspection and result of that inspection). Also note any deficiencies/problems, with the equipment which occur during testing,
 - b. Normal generating parameters of the equipment and the actual operation parameters for each test run (indicate how each parameter was determined).
5. Testing of emissions should be conducted using the fuel and/or process input which are expected to result in the highest emissions and within ten percent (10%) of the rated capacity of the source. Otherwise the Department may require the test to be repeated or modify the permit to reflect tested rates and/or fuels.
6. The Department shall be notified of expected test dates at least fifteen (15) days prior to compliance testing.
7. On or before March 1 of each calendar year, a completed DER Form 17-1.202(6), Annual Operations Report Form for Air Emissions Sources shall be submitted to the Department.
8. The operation of the sources covered by this permit shall be limited 8,736 hours/year.
9. Fuels used shall be limited to natural gas, except that No. 2 fuel oil with a maximum sulfur content of 0.5 percent by weight shall be allowed to be burned only as an emergency back-up fuel.
10. Sulfur and nitrogen content of the fuel being fired in the gas turbine shall be determined and recorded as specified in the NSPS for Gas Turbines 40 CFR 60, Subpart GG, Section 60.334. The records of fuel oil usage will be kept by the company, available for regulatory agency's inspection, for a two-year period.
11. The applicant shall comply with all requirements of 40 CFR 60, Subpart GG, Standards of Performance for stationary gas turbines.
12. A continuous monitoring system shall be installed to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine.
13. The permittee shall be aware of and operate under the attached "General Permit Conditions #1 thru 14.". General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

Issued this 1st day of May, 1990

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION


J. Scott Benyon
Deputy Assistant Secretary



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

June 28, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Harry Schindehette
Director of Utilities
Fort Pierce Utilities Authority
Post Office Box 3191
Fort Pierce, Florida 34948

Dear Mr. Schindehette:

Re: 1) AC 56-141460, 31.6 MW Combined Cycle Gas Turbine
2) Letter Dated 11/9/90 from Smallwood to Schindehette

The Department is in receipt of Hopping Boyd Green & Sam's letter dated June 11, 1991, requesting a permit modification to burn fuel oil in existing boilers Nos. 6, 7, and 8. The Department has reviewed your proposal and has determined, based on our discussions at the June 4, 1991, meeting, to amend Specific Condition No. 8 of your permit (AC 56-141460) as requested.

Specific Condition No. 8 is amended to further include the following:

Fort Pierce Utilities Authority (FPUA) shall be permitted to burn residual fuel oil in Units 6, 7, and 8 in order to avoid curtailing electric power service to its customers. FPUA must provide written notification to the Department's Southeast District office within 24 hours after the commencement of oil firing and furnish the following information:

- a. Duration or projected duration of the event.
- b. Quantity of fuel oil burned or projected to be burned.
- c. A description of significant circumstances precipitating the event. The description shall include the following information:
 1. Availability of power for purchase.
 2. Availability of electric transmission capacity relating to power purchases.
 3. Availability of natural gas.
 4. Availability of FPUA's generation resources.

Mr. Harry Schindehette
Page Two
June 28, 1991

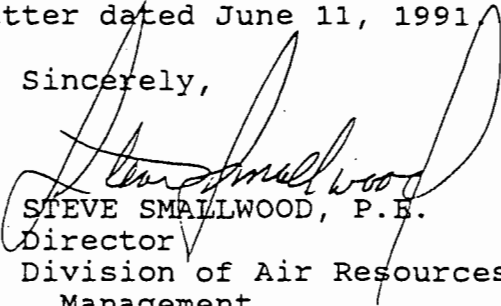
When burning residual fuel oil in Units 6, 7, and 8, the sulfur dioxide (SO₂), particulate matter (PM), and volatile organic compound (VOC) emission limits currently set forth in the permit shall not apply. In lieu of those emission limits, the following emission limits will apply to Units 6, 7, and 8:

	SO ₂ (lb/MMBtu)	PM (lb/MMBtu)	VOC
Unit 6	0.80	n/a	n/a
Unit 7	2.75	0.1	n/a
Unit 8	0.80	0.1	n/a

Attachment to be Incorporated:

Hopping Boyd Green & Sam's letter dated June 11, 1991

Sincerely,


STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/PL/plm

c: Stephanie Brooks, DER
Carol A. Forthman, OGC
Gary C. Smallridge, OGC
Peter Cunningham, HBGS
Gary V. Perko, HBGS

HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7500

FAX (904) 224-8551

CARLOS ALVAREZ
JAMES S. ALVES
BRIAN H. BIBEAU
ELIZABETH C. BOWMAN
WILLIAM L. BOYD, IV
RICHARD S. BRIGHTMAN
PETER C. CUNNINGHAM
THOMAS M. DeROSE
WILLIAM H. GREEN
WADE L. HOPPING
FRANK E. MATTHEWS
RICHARD D. MELSON
WILLIAM D. PRESTON
CAROLYN S. RAEPPLÉ
GARY P. SAMS
ROBERT P. SMITH, JR.
CHERYL G. STUART

KATHLEEN BLIZZARD
RICHARD W. MOORE
ANGELA R. MORRISON
MARIBEL N. NICHOLSON
DIANA M. PARKER
LAURA BOYD PEARCE
GARY V. PERKO
MICHAEL P. PETROVICH
DAVID L. POWELL
DOUGLAS S. ROBERTS
CECELIA C. SMITH

OF COUNSEL
W. ROBERT FOXES

June 11, 1991

BY HAND DELIVERY

Ms. Patricia E. Comer, Esq.
Assitant General Counsel
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Fort Pierce Utilities Authority
H. D. King Electric Generating Plant-Units 6, 7, 8
Permit No.: AC 56-141460

Dear Pat:

To follow up on our recent meeting, we are writing on behalf of the Fort Pierce Utilities Authority ("FPUA") to propose a permit modification that would allow FPUA to burn fuel oil in Units 6, 7, and 8 at the H. D. King plant in order to avoid curtailment of electric service in emergency circumstances. As discussed, a permit modification would provide the necessary authority while avoiding the need for the emergency order requested by FPUA on May 2, 1991.

We propose that the following language be added to the end of Specific Condition 8 of the original construction permit for Unit 9 (AC 56-141460), as amended by the attached letter from Steve Smallwood dated November 9, 1990:

FPUA shall be permitted to burn residual fuel oil in Units 6, 7, and 8 in order to avoid curtailing electric power service to its customers. FPUA must notify the DER within 24 hours after the commencement of oil firing and furnish the following information:

*1 - Fax to Stephanie Brooks
2 - Let's establish a
conference call date &
time if appropriate,*

Ms. Patricia E. Comer, Esq.
 June 11, 1991
 Page 2

- a. Duration or projected duration of the event.
- b. Quantity of fuel oil burned or projected to be burned.
- c. A description of significant circumstances precipitating the event. The description shall include the following information:
 - 1. Availability of power for purchase.
 - 2. Availability of electric transmission capacity relating to power purchases.
 - 3. Availability of natural gas.
 - 4. Availability of FPUA generation resources.

When burning residual fuel oil in Units 6, 7, and 8, the sulfur dioxide ("SO₂"), particulate matter ("PM"), and volatile organic compound ("VOC") emission limits currently set forth in the permit shall not apply. In lieu of those emission limits, the following emission limits will apply to Units 6, 7, and 8:

	Sulfur Dioxide (lb/MBTu)	Particulate Matter (lb/MBTu)	VOC
Unit 6	0.80	n/a	n/a
Unit 7	2.75	0.1	n/a
Unit 8	0.80	0.1	n/a

*This does
 this compare
 to the
 existing
 permit
 conditions
 in Unit
 6-8?*

Although we believe this language reflects the consensus reached at our recent meeting, we would be happy to meet with you to discuss any changes the Department feels appropriate. However, we cannot overemphasize FPUA's critical need for

Ms. Patricia E. Comer, Esq.
June 11, 1991
Page 3

authority to burn oil in emergency circumstances, which could arise at any time throughout the summer.

Thank you for the opportunity to meet with you and the other Department and Public Service Commission officials on Tuesday, June 4, 1991. We appreciate the Department's cooperation in this matter of great importance to FPUA.

Sincerely,

HOPPING BOYD GREEN & SAMS

By: 

Peter C. Cunningham
Gary V. Perko

Attorneys for FORT PIERCE
UTILITIES AUTHORITY

Attachment

cc: Carol A. Forthman, Esq.
Gary C. Smallridge, Esq. ✓

GVP/ltrComer



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

November 9, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Harry Schindehette
Director of Utilities
Ft. Pierce Utilities Authority
P. O. Box 3191
Ft. Pierce, Florida 34948

Dear Mr. Schindehette:

Re: 31.6 MW Combined Cycle Gas Turbine
AC 56-141460.

The Department is in receipt of your letter dated August 3, 1990, requesting to delete the annual operating hours for existing boilers No. 6, No. 7, and No. 8 from the above mentioned permit's specific condition No. 8.

The Department has reviewed your proposal and has determined, based on our discussions at the July 24, 1990 meeting, to amend your permit (AC 56-141460) as requested. In order to allow flexibility in your facility's operation without increasing permitted emissions, we will be limiting the total annual emissions and the total annual heat input to the three boilers. Specific condition No. 8 will reflect this modification. Therefore, specific condition No. 8 of permit AC 56-141460 will be changed as follows:

FROM:

The operating permits emissions limits for this facility's existing boilers shall not exceed the following rates:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.4	0.0024	0.568	0.382	0.945	3.017
SOx	12.38	0.0743	0.1199	0.0806	0.1917	0.617
NOx	1.31	0.007854	104.35	70.126	173.20	552.86
VOC	0.0236	0.000142	0.266	0.179	0.441	1.407
CO	0.15	0.0009	7.589	5.100	12.59	40.20

hrs/yr

12

1344

6384

Mr. Harry Schindehette
Page 2

TO:

The operating permits emissions limits for this facility's existing boilers (unit No. 6, unit No. 7, and unit No. 8) shall not exceed the following rates:

<u>Parameter</u>	<u>lbs/hr</u>	<u>tons/yr</u>
PM	1.9	3.4
SO ₂	12.7	0.8
NO _x	278.9	622.0
VOC	0.7	1.6
CO	20.3	45.3

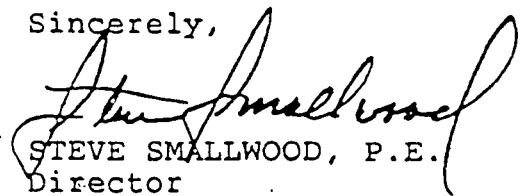
Total heat input for the three existing boilers (Nos. 6, 7, and 8) shall not exceed 4,534,930 MBtu per year.

The operating permit's emission limits for these boilers (Nos. 6, 7, and 8) shall be modified as stated above.

Attachment to be Incorporated:

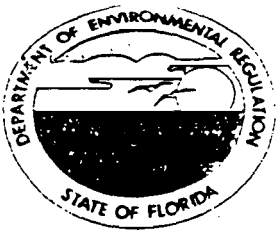
- Mr. Harry Schindehette's letter dated August 3, 1990.

Sincerely,


STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/TH/plm

c: Stephanie Brooks, DER



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

FAX TRANSMITTAL LETTER

DATE: 6/13/91

TO:

NAME: STEPHANIE BROOKS
AGENCY: DER - WEST PALM

TELEPHONE: ~~(904) 922-6979~~ (407) 433-2666

OF PAGES (INCLUDE COVER SHEET): ~~(407) 433-2666~~ 6

FROM:

NAME: Preston Pennin

AGENCY: DER - Tallahassee

IF ANY PAGES ARE NOT CLEARLY RECEIVED, PLEASE CALL IMMEDIATELY. PHONE NO. (904) 488-1344

SENDER'S NAME: SPR

COMMENTS:

Please call me! Gary wants us to "solve" the problem.



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

November 9, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Harry Schindehette
Director of Utilities
Ft. Pierce Utilities Authority
P. O. Box 3191
Ft. Pierce, Florida 34948

Dear Mr. Schindehette:

Re: 31.6 MW Combined Cycle Gas Turbine
AC 56-141460

The Department is in receipt of your letter dated August 3, 1990, requesting to delete the annual operating hours for existing boilers No. 6, No. 7, and No. 8 from the above mentioned permit's specific condition No. 8.

The Department has reviewed your proposal and has determined, based on our discussions at the July 24, 1990 meeting, to amend your permit (AC 56-141460) as requested. In order to allow flexibility in your facility's operation without increasing permitted emissions, we will be limiting the total annual emissions and the total annual heat input to the three boilers. Specific condition No. 8 will reflect this modification. Therefore, specific condition No. 8 of permit AC 56-141460 will be changed as follows:

FROM:

The operating permits emissions limits for this facility's existing boilers shall not exceed the following rates:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.4	0.0024	0.568	0.382	0.945	3.017
SOx	12.38	0.0743	0.1199	0.0806	0.1917	0.617
NOx	1.31	0.007854	104.35	70.126	173.20	552.86
VOC	0.0236	0.000142	0.266	0.179	0.441	1.407
CO	0.15	0.0009	7.589	5.100	12.59	40.20
hrs/yr	12		1344		6384	

Mr. Harry Schindehette
Page 2

TO:

The operating permits emissions limits for this facility's existing boilers (unit No. 6, unit No. 7, and unit No. 8) shall not exceed the following rates:

<u>Parameter</u>	<u>lbs/hr</u>	<u>tons/yr</u>
PM	1.9	3.4
SO ₂	12.7	0.8
NO _x	278.9	622.0
VOC	0.7	1.6
CO	20.3	45.3

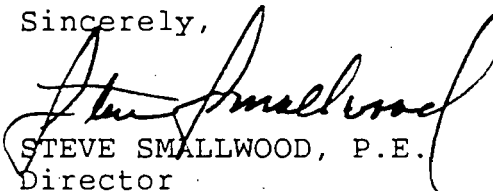
Total heat input for the three existing boilers (Nos. 6, 7, and 8) shall not exceed 4,534,930 MBtu per year.

The operating permit's emission limits for these boilers (Nos. 6, 7, and 8) shall be modified as stated above.

Attachment to be Incorporated:

- Mr. Harry Schindehette's letter dated August 3, 1990.

Sincerely,


STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/TH/plm

c: Stephanie Brooks, DER

WATER
ELECTRICGAS
SEWER

206 S. SIXTH STREET * P. O. BOX 3191 * FORT PIERCE, FLORIDA 34948 * PHONE (407) 464-5600

August 3, 1990

Florida Department of Environmental Regulation
2600 Blairstone Road
Tallahassee, Florida 32399

Attention: Mr. Barry Andrews

Dear Mr. Andrews:

REFERENCE AIR PERMITS:	Unit #6 - AO-56-113534
	Unit #7 - AO-56-112679
	Unit #8 - AO-56-112678
	Unit #9 - AO-56-175955

Thank you for meeting with us on July 24, 1990 to discuss the permit revisions. Fort Pierce Utilities Authority is requesting for our H. D. King Electric Generating Station. As we discussed, the current limitations (restricting the annual operation of Units 6, 7, and 8) of the Unit 9 operating permit may impede our ability to meet our anticipated electric generation requirements. Accordingly, we have authorized our consultant, Black & Veatch, to prepare a Prevention of Significant Deterioration (PSD) permit application for Unit 9 to relieve the limitations.

Currently, Units 6, 7, and 8 are restricted to 12, 1344 and 6384 annual operating hours, respectively. These requirements are a result of Unit 9 construction permit application assumptions for creditable emissions. Subsequently, these restrictions were included as specific conditions in the Unit 9 operating permit.

Due to transmission line restrictions beyond our control and limited availability of purchased power, there is a chance that Unit 8 will exceed 6384 hours of operation this year. Based on the current projected requirements for Unit 8, it is likely that the 6384 hour requirement would be exceeded in mid to late November, 1990. Considering the time required to process a PSD application, we are uncertain that a new Unit 9 permit would be available in time to avoid difficulties with Unit 8 operations this year. Therefore, we proposed a Unit 9 permit amendment that would allow flexibility in our station's operation without violating the essence of existing permit requirements.

The proposed amendment would restrict operation of Units 6, 7, and 8 to a total heat input restriction. The heat inputs (fuel burn rates) for Units 6, 7, and 8 are 218.8 MBtu/h, 470 MBtu/h, and 611 MBtu/h, respectively. Multiplying those heat inputs by

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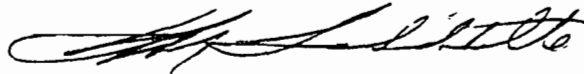
Page 2
August 3, 1990

the allowable annual hours of operation results in a total allowable heat input for the three units of 4,534,930 MBtu per year. This permit amendment would not affect the creditable emissions analysis that we the basis of the Unit 9 construction permit application.

This permit amendment would allow Fort Pierce Utilities Authority additional flexibility this year to provide electric power to our customers without comprising the restrictions delineated in the Unit 9 operating permit.

We would like to implement this permit amendment as soon as possible to avoid this potentially difficult situation. If you would like to discuss this proposed amendment in more detail, please feel free to cal Mr. Steve Day of Black & Veatch at (913) 339-2880.

Sincerely,



Harry Schindehette, P.E.
Director of Utilities

HS:kh



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

April 18, 1990

Mr. Harry Schindehette
Director of Utilities
Ft. Pierce Utilities Authority
P. O. Box 3191
Ft. Pierce, Florida 33440

Dear Mr. Schindehette:

Re: 31.6 MW Combined Cycle Gas Turbine

As per Ms. Stephanie Brooks' request, your permit AC 56-141460 will be modified as follows:

Specific Condition No. 1

FROM:

1. The maximum emission rates for the 31.6 MW combined cycle gas turbine during natural gas firing shall not exceed the limits required by 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, as follows:

Nitrogen oxides NSPS Standards = 0.0075 ($\frac{14.4}{Y}$) + F

or
= 84 ppm NOx

and

Sulfur dioxide NSPS Standard = 0.015% by volume at 15% oxygen on a dry basis

Visible Emission Not to exceed 15% opacity

Fuel Oil No. 2 Not to exceed 0.5% sulfur content by weight

TO:

1. The maximum emission rates for the 31.6 MW combined cycle gas turbine during natural gas firing shall not exceed the limits required by 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, as follows:

Mr. Harry Schindehette
 Page 2
 April 18, 1990

Nitrogen oxides NSPS Standards = $0.0075 \left(\frac{14.4}{Y} \right) + F$
 or
 = 84 ppm NOx
 and

Sulfur dioxide NSPS Standard = 0.015% by volume at 15% oxygen on a dry basis

Visible Emission Not to exceed 15% opacity
 Fuel Oil No. 2 Not to exceed 0.5% sulfur content by weight
 Carbon Monoxide Not to exceed 32.85 lbs/hr and 110.4 tons/yr

Specific Condition No. 8

FROM:

The operating permits for this facility shall be modified as follows:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	ton/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.04	0.0024	0.568	0.382	0.945	3.017
SOx	12.38	0.0743	0.1199	0.0806	0.1917	0.617
NOx	1.31	0.007854	104.35	70.126	173.20	552.86
VOC	0.0236	0.000142	0.266	0.179	0.441	1.407
CO	0.15	0.0009	7.589	5.100	12.59	40.20
hrs/yr	12		1344		6384	

TO:

The operating permits emission limits for this facility's existing boilers shall not exceed the following rates:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	ton/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.4	0.0024	0.568	0.382	0.945	3.017
SOx	12.38	0.0743	0.1199	0.0806	0.1917	0.617
NOx	1.31	0.007854	104.35	70.126	173.20	552.86
VOC	0.0236	0.000142	0.266	0.179	0.441	1.407
CO	0.15	0.0009	7.589	5.100	12.59	40.20
hrs/yr	12		1344		6384	

The operating permits emission limits for these boilers (units No. 6, 7, and 8) shall be modified as stated above.

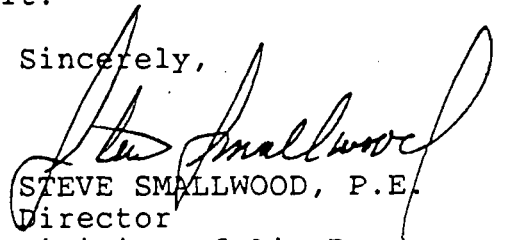
Mr. Harry Schindehette
Page 3
April 18, 1990

Attachment to be Incorporated

Ms. Stephanie Brooks' request

This letter must be attached to the above mentioned permit and shall become a part of the permit.

Sincerely,



STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/TH/plm



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing to Other Than The Addressee	
To: _____	LOCATION: _____
To: _____	LOCATION: _____
To: _____	LOCATION: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Stephanie Brooks
FROM: Clair Fancy. *[Signature]*
DATE: April 23, 1990
SUBJ: 31.6 MW Combined Cycle Gas Turbine
AC 56-141460

In response to your telephone conversation with Mr. Jim Pennington on April 2, 1990, we are modifying permit AC 56-141460.

An emission limit will be included as a specific condition for the CO pollutant. The Bureau will modify specific condition No. 1 by adding the following sentence:

Carbon monoxide emissions shall not exceed 32.85 lbs/hr and 110.4 tons/yr when burning natural gas.

This limit for CO was the basis for the rule applicability and it is the same emission limit that the company proposed.

In addition, you also requested we clarify condition No. 8. This condition calls for modification of the permit for units No. 6, 7, and 8. You indicated this condition does not give emission limits.

The Bureau's intent was to make emissions from boilers No. 6, 7, and 8 federally enforceable since the reduction of emissions from these boilers (net emission change) were credited to the combined cycle gas turbine (unit No. 9) project. The new emission limits are as stated in specific condition No. 8 (units are lbs/hr, tons/yr and hrs/yr) of permit AC 56-141460.

It should also be noted that particulate emissions from unit No. 6 need to be changed from 0.04 lbs/hr to 0.4 lbs/hr (this appears to be a typographical error).

The existing boilers' compliance schedule, specific conditions, and operating limitations (excepting the new emission limits) should remain the same as stated in the current operating permits.

CHF/TH/plm



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

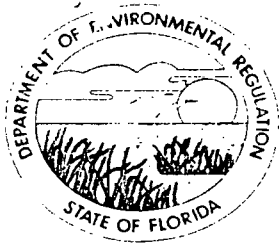
TO: Steve Smallwood *ent*
FROM: Clair Fancy *CF*
DATE: April 18, 1990
SUBJ: Air Construction Permit Amendment
AC 56-141460, Ft. Pierce Utilities Authority

Attached for your signature is an amendment prepared by the Bureau of Air Regulation for the above referenced permit to construct a 31.6 MW combined cycle gas turbine.

I recommend your approval.

CF/TH/pa

Attachment



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

October 31, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. George L. Whitmer
Environmental Compliance Manager
Environmental Science and Engineering, Inc.
Post Office Box 4943
Jacksonville, Florida 32201

Dear Mr. Whitmer:

Re: Ft. Pierce Utility Authority - File No. AC 56-141460

The Department is in receipt of your letter dated October 6, 1988, on behalf of Ft. Pierce Utilities Authority, requesting changes in the specific conditions of permit No. AC 56-141460.

The Department has considered your request and determined that Specific Condition No. 3 regarding ASTM methods and No. 5 regarding steam to fuel ratio will be modified as per your letter of October 6, 1988.

The formula which includes the factor in Specific Condition No. 5 is an error. The correct formula must be used in determining the compliance status of this source. Please see the attached letter.

Please replace pages 6 and 7 of permit No. AC 56-141460 with the attached new pages.

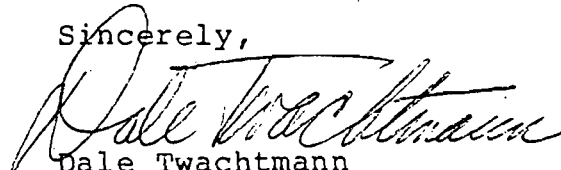
Attachments to be Incorporated:

Mr. George L. Whitmer's letter of October 6, 1988.
Mr. Eric A. Noble's letter of April 28, 1983.

Mr. George L. Whitmer
Page Two
October 31, 1988

This letter must be attached to the above mentioned permit and shall become a part of the permit.

Sincerely,



Dale Twachtmann
Secretary

DT/ks

cc: S. Brooks

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

SPECIFIC CONDITIONS:

Nitrogen oxides NSPS Standards = $0.0075 \frac{(14.4)}{Y} + F$

or

= 84 ppm NOx

and

Sulfur dioxide NSPS Standard = 0.015% by volume at 15% oxygen
on a dry basis

Visible Emission Not to exceed 15% opacity

Fuel oil No. 2 Not to exceed 0.5% sulfur
content by weight

2. The combined cycle gas turbine shall be allowed to operate continuously (8736 hours per year). The gas turbine shall operate on natural gas at all times, except that No. 2 fuel oil with a maximum sulfur content of 0.5 percent by weight shall be allowed to be burned only as a emergency back-up fuel.

3. Before this construction permit expires, the 31.6 MW combined cycle gas turbine will be tested for sulfur dioxide, visible emissions, carbon monoxide and nitrogen oxides. Except as provided under 40 CFR 60.8(b), the performance tests shall be in accordance with the provisions of the following reference methods in Appendix A of 40 CFR 60.

- a. Method 1. Sample and Velocity Traverses
- b. Method 2. Volumetric Flow Rate
- c. Method 3. Gas Analysis
- d. Compliance with the opacity limitation will be determined by reference Method 9, Visual Determination of Opacity of Emission from Stationary Sources.
- e. Compliance with the sulfur dioxide emission limits will be determined by reference Method 20 or by calculations based on fuel analysis (ASTM D1552) for sulfur content.
- f. Compliance with the carbon monoxide emission limit will be determined by Method 10, Determination of Carbon Monoxide Emissions from Stationary Sources.

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

SPECIFIC CONDITIONS:

- g. Compliance with the allowable emissions limits for nitrogen oxides shall be conducted using EPA reference Method 20 subpart GG Section 60.335.

During performance tests to determine compliance with the proposed standard, measured NOx emission at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$\text{NOx} = (\text{NOx obs}) \left(\frac{P_{\text{ref}}}{P_{\text{obs}}} \right)^{0.5} e^{19(H_{\text{obs}} - 0.00633) \left(\frac{288^\circ\text{K}}{T_{\text{AMB}}} \right) 1.53}$$

where:

NOx = Emissions of NOx at 15% oxygen and ISO standard ambient conditions.

NOx obs = Measured NOx emission at 15% oxygen, ppmv.

P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.

P_{obs} = Measured combustor inlet absolute pressure at test ambient pressure.

H_{obs} = Specific humidity of ambient air at test.

e = Transcendental constant (2.718)

T_{AMB} = Temperature of ambient air at test.

4. Test results will be the average of 3 valid runs. The Department's District office in West Palm Beach will be notified 15 days in advance of the compliance test. Tests shall be conducted operating between 90 and 100% of permitted capacity while using natural gas fuel.

5. A continuous monitoring system shall be installed to monitor and record the fuel consumption and the ratio of steam to fuel being fired in the turbine.

**ENVIRONMENTAL SCIENCE
AND ENGINEERING, INC.**October 6, 1988
87031-0000**RECEIVED**

OCT 7 1988

C.H. Fancy, P.E., Deputy Chief
 Bureau of Air Quality Management
 Florida Department of Environmental Regulation **DER-BAQM**
 Twin Towers Office Building
 2600 Blair Stone Road
 Tallahassee, Florida 32399-2400

Subject: Permit No. AC56-141460
 Combined Cycle Gas Turbine
 Fort Pierce Utilities Authority
 Fort Pierce, Florida

Dear Mr. Fancy:

The enclosed letter was received from General Electric Company, vendor supplying the gas turbine for Fort Pierce Utilities Authority (FPUA). They bring three Specific Conditions of the subject permit to our attention. Two of the items are obvious typographical errors and should be corrected. These are:

- Specific Condition No. 3.e - "ASTM 1552" should read "ASTM D1552".
- Specific Condition No. 5 - "ratio of water to fuel" should read "ratio of steam to fuel".

The other item listed is not as readily apparent. General Electric contends that the formula listed in 40 CFR 60.335 for adjusting NO_x emission levels measured by Reference Method 20 to ISO standard day conditions is in error in the Code of Federal Regulations (CFR) and, therefore, is in error in Specific Condition No. 3.g. in the permit. It is General Electric's contention that the formula as printed:

$$NO_x = (NO_{x_{obs}}) \left(\frac{P_{ref}}{P_{obs}} \right) 0.5 e^{19(H_{obs} - 0.00633)} \left(\frac{T_{AMB}}{288^{\circ}K} \right)^{1.53}$$

should read:

$$NO_x = (NO_{x_{obs}}) \left(\frac{P_{ref}}{P_{obs}} \right) 0.5 e^{19(H_{obs} - 0.00633)} \left(\frac{288^{\circ}K}{T_{AMB}} \right)^{1.53}$$

C.H. Fancy, P.E.
Page 2
October 6, 1988

General Electric refers to this as a "long standing error" in the CFR. In discussions with FDER Air Quality personnel, I was told they were not aware of this error and unless the CFR were corrected, FDER would continue to use the formula as it is presently printed.

We would appreciate your office looking into this matter and determining whether this formula is correct as written or whether it should be corrected as stated above. It is realized that either way the formula is written, the change in the resulting figure will be very slight and possibly insignificant. We would also appreciate the correction of the two typographical errors in Specific Conditions Number 3.e and 5.

Your cooperation in this matter is appreciated. Please feel free to call me if you need further information or have any questions.

Very truly yours,

ENVIRONMENTAL SCIENCE AND ENGINEERING, INC.
A HUNTER COMPANY



George L. Whitmer
Environmental Compliance Manager
Industrial Environmental Division

GLW/cdb

Enclosure

cc: Bob Gambon - RS&H
Harry Schindehette - FPUA
L.E. Tandy - Metric Constructors

*Copy of letter to
J. Caldwell and file
10/15*

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Fort Pierce Utilities Authority
H.D. King Electric Generating Plant
P. O. Box 1298
Fort Pierce, Florida 33448

DER File No. AC 56-185836
PSD-FL-154

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue an air construction permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Fort Pierce Utilities Authority, applied on October 23, 1990, to the Department of Environmental Regulation for a PSD permit to operate a 31.6 MW combined cycle gas turbine generator and to change restrictions on existing units at their H.D. King Electric Generating Plant.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

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

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

to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Barry D. Arler

fr

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

Copies furnished to:

Stephanie Brooks, SED
Jewell Harper, EPA
Steven M. Day, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on April 15, 1991.

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

Julie C. Carter
clerk

4-15-91
Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a PSD permit to Fort Pierce Utilities Authority, P. O. Box 1298, Fort Pierce, St. Lucie County, Florida 33448, to operate a 31.6 MW combined cycle gas turbine system and to change restrictions on existing units. A determination of Best Available Control Technology (BACT) was required. The maximum degree of increment consumed for nitrogen dioxide is 2.0% of the Class II proposed annual mean. For sulfur dioxide, the maximum consumption is also 2.0%. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, 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 Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

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

Department of Environmental Regulation
Southeast District
1900 S. Congress Avenue, Suite A
West Palm Beach, Florida 33406

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person. Such requests must be submitted within 30 days of this notice.

Technical Evaluation
and
Preliminary Determination

Fort Pierce Utilities Authority
H.D. King Electric Generating Plant
Fort Pierce, St. Lucie County, Florida

31.6 MW Combined Cycle Gas Turbine System

Permit Number: AC 56-185836
PSD-FL-154

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

April 15, 1991

SYNOPSIS OF APPLICATION

I. NAME AND ADDRESS OF APPLICANT

Fort Pierce Utilities Authority
H.D. King electric Generating Plant
P. O. Box 1298
Fort Pierce, Florida 33448

II. REVIEWING AND PROCESS SCHEDULE

Date of Receipt of Application: August 31, 1990.

1st Completeness Review: Department letter dated September 28, 1990.

Response to 1st Incompleteness Letter: Company letter received on October 23, 1990.

2nd Completeness Review: Department letter dated November 21, 1990.

Response to 2nd Incompleteness Letter: Company letter dated December 6, 1990.

3rd Completeness Review: Department letter dated January 4, 1991.

Application Completeness Date: January 16, 1991.

III. FACILITY INFORMATION

III.1 Facility Location

This facility is located at 311 North Indian River Drive in Fort Pierce, St. Lucie County, Florida. The UTM coordinates are 566.692 km East and 3036.292 km North.

III.2 Facility Identification Code (SIC)

Major Group No. 49 - Electric, Gas and Sanitary Services.

Industry Group No. 493 - Combination Electric, Gas and Other Utility Services.

Industry Group No. 4931 - Electric and Other Services Combined.

III.3 Facility Category

The City of Fort Pierce Utilities Authority-H.D. King Electric Generating Plant is classified as a major emitting facility. The proposed project will burn natural gas only and emit

approximately 258.0 tons per year (TPY) of nitrogen oxides (NO_x), 0.9 TPY of sulfur dioxide (SO₂), 11.0 TPY of particulate matter (PM), 10.5 TPY of volatile organic compounds (VOC), 0.0007 TPY of beryllium, 0.06 TPY of lead, 0.1 TPY of mercury, and 0.027 TPY of sulfuric acid mist.

IV. PROJECT DESCRIPTION

The Fort Pierce Utilities Authority proposes to operate a 31.6 MW combined cycle gas turbine at the H.D. King Power Plant in Fort Pierce, Florida. The combined cycle system (Units 9 and 5) consists of a 23.4 MW natural gas fired combustion turbine-generator, steam generator, and an 8.2 MW condensing turbine. A chronology of major events are as follows:

- a) The application for permit to construct was submitted in October of 1987.
- b) The permit to construct was issued on March 28, 1988.
- c) The initial operation of the unit occurred in February of 1989.
- d) The permanent operating permit was issued on May 8, 1990, including restricted hours on Units 6, 7, and 8.
- e) The application for a PSD permit to operate without restricted hours on Units 6, 7, and 8 was submitted on August 31, 1990.
- f) The application was considered complete on January 16, 1991.

V. RULE APPLICABILITY

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code (F.A.C.).

The plant is located in an area designated attainment for all criteria pollutants in accordance with F.A.C. Rule 17-2.420.

The proposed project will be reviewed under F.A.C. Rule 17-2.500, Prevention of Significant Deterioration (PSD), because it will be a major modification to a major facility. This review consists of a determination of Best Available Control Technology (BACT) and unless otherwise exempted, an analysis of the air quality impact of the increased emissions. For PSD reviews in which the source has been already constructed, the rules require that BACT be evaluated as if the source has not been constructed. No air quality impact analysis is required for ozone, even though there will be a significant increase in VOC emissions, because this increase is less than 100 TPY. The review also includes an analysis of the project's impacts on soils, vegetation and visibility; along with air quality impacts resulting from associated commercial, residential and industrial growth.

This source shall comply with the New Source Performance Standards for Gas Turbines, Subpart GG, Appendix A, which is contained in 40 CFR 60, and is adopted by reference in F.A.C. Rule 17-2.660. The proposed source shall also comply with applicable provisions of F.A.C. Rule 17-2.700, Stack Test Procedures, and F.A.C. Rule 17-2.630, Best Available Control Technology.

VI. SOURCE IMPACT ANALYSIS

VI.1 Emission Limitations

The operation of the combined cycle plant will produce emissions of NO_x, SO₂, CO, HC, sulfuric acid mist, PM, Be, Pb and Hg. The impact of these pollutant emissions are below the Florida ambient air quality standards (AAQS) and/or the acceptable ambient concentration levels (AAC). Table 1 lists each contaminant and its maximum expected emission rate, along with the proposed increase of emissions.

VI.2 Air Toxics Evaluation

The operation of this source will produce emissions of chemical compounds that may be toxic in high concentrations. The emission rates of these chemicals shall not create ambient concentrations greater than the acceptable ambient concentrations (AAC) as shown below. Determination of the AAC for these organic compounds shall be determined by Department approved dispersion modeling or ambient monitoring.

$$AAC = \frac{OEL}{\text{Safety Factor}}$$

Where,

AAC = acceptable ambient concentration

Safety Factor = 50 for category B substances and 8 hrs/day
100 for category A substances and 8 hrs/day
210 for category B substances and 24 hrs/day
420 for category A substances and 24 hrs/day

OEL = Occupational exposure level such as ACGIH, ASHA and NIOSH published standards for toxic materials.

MSDS = Material Safety Data Sheets

VI.3 Air Quality Analysis

a. Introduction

The operation of the proposed 31.6 MW combined cycle gas turbine system will result in emissions increases which are projected to be greater than the PSD significant emission rates for the following pollutant: NO_x. Therefore, the project is subject to the PSD review requirements contained in F.A.C. Rule 17-2.500 for this pollutant. Part of these requirements is an air quality impact analysis for NO_x, which includes:

- An analysis of existing air quality;
- A PSD increment analysis;
- An Ambient Air Quality Standards analysis (AAQS);

- An analysis of impacts on soils, vegetation, visibility and growth-related air quality impacts; and
- A Good Engineering Practice (GEP) stack height determination

The analysis of existing air quality generally relies on preconstruction monitoring data collected in accordance with EPA-approved methods. The PSD increment and AAQS analyses are based on air quality dispersion modeling completed in accordance with EPA guidelines.

Based on these required analyses, the Department has reasonable assurance that the combined cycle gas turbine system, as described in this report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any PSD increment or ambient air quality standard. A brief description of the modeling methods used and results of the required analyses follow. A more complete description is contained in the permit application on file.

b. Analysis of the Existing Air Quality

Preconstruction ambient air quality monitoring may be required for pollutants subject to PSD review. However, an exemption to the monitoring requirement can be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined through air quality modeling, is less than a pollutant-specific de minimus concentration. The predicted maximum concentration increase for NO_x is 9.6 ug/m³, which is less than the PSD de minimus concentration for NO_x of 14 ug/m³, annual average.

No preconstruction monitoring is required for NO_x. However, a background concentration was developed by the Department for use in the ambient air quality analysis. This value of 24 ug/m³, annual average, was based on 1989 data from a site in West Palm Beach. Data from the West Palm Beach monitor are considered conservatively high since West Palm Beach is significantly more urbanized than Fort Pierce.

c. Modeling Method

The EPA-approved Industrial Source Complex Short-Term (ISCST) dispersion model was used by the applicant to predict the impact of the proposed project on the surrounding ambient air. All recommended EPA default options were used. Direction-specific downwash parameters were used because the stacks were less than the good engineering practice (GEP) stack height. Five years of sequential hourly surface and mixing depth data from the West Palm Beach, Florida National Weather Service (NWS) station collected during 1982 through 1986 were used in the model. Since five years of data were used, the highest-second-high short-term predicted concentrations are compared with the appropriate ambient air quality standards or PSD increments. For the annual averages, the highest predicted yearly average was compared with the standards.

d. Modeling Results

The applicant first evaluated the potential increase in ambient ground-level concentrations associated with the project to determine if these predicted ambient concentration increases would be greater than the specified PSD significant impact level for NOx. This evaluation was based on the "worst case" load conditions with the turbine operating at 100% load and with the HRSG operational. Dispersion modeling was performed with receptors placed along the 36 standard radial directions (10 degrees apart) surrounding the proposed source at the following downwind distances: 100 meter intervals from 100 to 1,000 meters, 250 meter intervals from 1,250 to 3,000 meters, and 1,000 meter intervals from 4,000 to 10,000 meters. The results of this modeling showed that the increases in ambient ground-level concentrations for all NO₂ were greater than the PSD significant impact level for NOx, thus requiring the applicant to perform a full impact analysis for NOx. The significant impact area was determined to be 300m and all sources within 50 km of the significant impact area were evaluated by the applicant.

The results of the AAQS analysis and the PSD Class II increment analysis for NOx are shown below. No PSD Class I increment analysis was done since the project is located more than 100 km from the nearest Class I area.

NOx AAQS Analysis (all values in ug/m³)

Maximum Predicted Concentration	83.2
Combined Fort Pierce Utilities Source Impact	59.2*
Background Concentration	24
NOx AAQS, Annual Average	100

* Maximum combined Fort Pierce Utilities impact from: Unit 9 (HRSG firing natural gas), Units 6-8 (firing No. 6 fuel oil), Diesel Units 1 and 2 (firing No. 2 fuel oil).

NOx PSD Class II Increment Analysis (all values in ug/m³)

Maximum Predicted Concentration	9.6
Increment, Annual Average	25

e. Additional Impacts Analysis

The maximum predicted concentrations from NOx emissions are less than the AAQS and the PSD Class II increments. As such no harmful effects on soils and vegetation is expected. In addition, the proposed modification will not significantly change employment, population, housing or commercial/industrial development in the area to the extent that a significant air quality impact will result.

VII. CONCLUSION

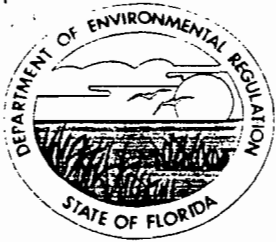
Based on the information provided by H.D. King Electric Generating Plant, the Department has reasonable assurance that the proposed installation of the 31.6 MW combined cycle gas turbine system, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

Benny D. Anderson
36024
4-15-91

TABLE 1
ALLOWABLE EMISSION LIMITS
Combined Cycle Combustion Turbine

Pollutant	<u>Standard</u> Gas Firing	Gas Turbine and HRSG ^(a) <u>Tons Per Year</u> Gas	Basis
NO _x	9 ppm at 15% oxygen on a dry basis	55.2	BACT
SO ₂	Natural gas as fuel	0.9	Est. by Appl.
PM/PM ₁₀	" "	11	Est. by Appl.
VOC	-	11	Est. by Appl.
CO	-	37	Est. by Appl.
Sulfuric Acid Mist	Natural gas as fuel	0.027	Est. by Appl.

(a) Emission rates based on 20°F and 15% O₂.



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:

Fort Pierce Utilities Authority
H.D. King Electric Generating
Plant
P. O. Box 1298
Fort Pierce, FL 33448

Permit Number: AC 56-185836
PSD-FL-154
Expiration Date: March 30, 1992
County: St. Lucie
Latitude/Longitude: 27°27'01"N
80°19'29"W
Project: 31.6 MW Combined Cycle
Gas Turbine (Unit 9)

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 an existing 31.6 MW combined cycle gas turbine (Unit 9) to be located at the H.D. King Electric Generating Plant in Fort Pierce, Florida. The UTM coordinates are 566.692 km East and 3036.292 km North.

This permit addresses the need to remove operational restrictions on existing Units 6, 7, and 8, which thereby subjects Unit 9 to a Prevention of Significant Deterioration (PSD) review. As this is the case, the Specific Conditions contained in this permit supercede those contained in construction permit AC 56-141460 for Unit 9. In addition, all operational restrictions for Units 6, 7, and 8 that were imposed in AC 56-141460 are removed as a result of this permitting action.

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. H.D. King Pre-application document dated August 27, 1990.
2. Department's letter dated September 28, 1990.
3. H.D. King Electric Generating Plant's application dated October 23, 1990.
4. Department's letter dated November 21, 1990.
5. H.D. King Electric Generating Plant's letter dated December 5, 1990.
6. Department's letter dated December 26, 1990.
7. H. D. King Electric Generating Plant's letter dated January 16, 1991.

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

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.

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.

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

GENERAL CONDITIONS:

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

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

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

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

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

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

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

GENERAL CONDITIONS:

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

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

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

GENERAL CONDITIONS:

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

Emission Limits

1. The maximum allowable emissions from this facility shall not exceed the emission rates listed in Table 1.

2. Unless the Department has determined that other concentrations are required to protect public health and safety, the predicted acceptable ambient air concentrations (AAC) of the following pollutants shall not be exceeded:

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

Pollutant	Acceptable Ambient Concentrations ug/m ³		
	8-hrs	24-hrs	Annual
Beryllium	0.02	0.005	0.0004
Lead	1.5	0.36	0.09
Mercury: allyl compounds	0.1	0.024	- RAC = 2
· all forms of vapor except allyl	0.5	0.12	-
· allyl & organic compounds	1	0.24	-

3. Visible emissions shall not exceed 10% opacity.

Operating Rates

4. This source is allowed to operate continuously (8760 hours per year).

5. This source is allowed to use natural gas only.

6. The permitted materials and utilization rates for the combined cycle gas turbine shall not exceed the maximum heat input of 353 MMBtu/hr (gas).

7. Any change in the method of operation, equipment or operating hours shall be submitted to the DER's Bureau of Air Regulation and Southeast District offices.

8. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

Compliance Determination

9. Compliance with the NO_x, SO₂, CO, PM, and VOC standards shall be determined by the following reference methods as described in 40 CFR 60, Appendix A (July 1, 1988) and adopted by reference in F.A.C. Rule 17-2.700.

- Method 1. Sample and Velocity Traverses
- Method 2. Volumetric Flow Rate
- Method 3. Gas Analysis

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

- Method 5. Determination of Particulate Matter Emissions from Stationary Sources
- Method 9. Determination of the Opacity of the Emissions from Stationary Sources
- Method 10. Determination of the Carbon Monoxide Emission from Stationary Sources
- Method 20. Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines

10. Method 5 must be used to determine the initial compliance status of this unit. Thereafter, the opacity emissions test may be used unless 10% opacity is exceeded.

11. Compliance with the SO₂ emission limit can also be determined by calculations based on fuel analysis using ASTM D2880-71 for the sulfur content of liquid fuels and ASTM D1072-80, D3031-81, D4084-82 or D3246-81 for sulfur content of gaseous fuels.

12. Compliance with the total volatile organic compound emission limits will be assumed, provided the CO allowable emission rate is achieved; specific VOC compliance testing is not required.

13. During performance tests, to determine compliance with the proposed NO_x standard, measured NO_x emission at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_x = (NO_x \text{ obs}) \left(\frac{P_{\text{Pref}}}{P_{\text{Obs}}} \right)^{0.5} e^{19} (H_{\text{Obs}} - 0.00633) \left(\frac{288^\circ\text{K}}{T_{\text{AMB}}} \right)^{1.53}$$

where:

NO_x = Emissions of NO_x at 15 percent oxygen and ISO standard ambient conditions.

NO_x obs = Measured NO_x emission at 15 percent oxygen, ppmv.

P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure.

P_{Obs} = Measured combustor inlet absolute pressure at test ambient pressure.

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

H_{obs} = Specific humidity of ambient air at test.

e = Transcendental constant (2.718).

T_{AMB} = Temperature of ambient air at test.

14. Test results will be the average of 3 valid runs. The Southeast District office will be notified at least 30 days in advance of the compliance test. The source shall operate between 90% and 100% of permitted capacity during the compliance test. Compliance test results shall be submitted to the Southeast District office no later than 45 days after completion.

15. A continuous monitoring system shall be installed to monitor and record the fuel consumption. Continuous monitoring shall also be installed, operated, and maintained in accordance with 40 CFR 60, Appendix F, for the combined cycle unit to monitor nitrogen oxides emissions.

- a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B.
- b. CEMS data shall be recorded and reported in accordance with Chapter 17-2, F.A.C., and 40 CFR 60. The record shall include periods of startup, shutdown and malfunction.
- c. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset conditions or preventable equipment breakdown shall not be considered malfunctions.
- d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.
- e. For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Condition No. 22 herein, which exceeds the applicable emission limits in Condition No. 1.

PERMITTEE: Fort Pierce Utilities Authority Permit Number: AC 56-185836
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

16. Sulfur, nitrogen content and lower heating value of the fuel being fired in the gas turbine shall be recorded daily. The records of fuel oil usage will be kept by the company for a two-year period; available for regulatory agency's inspection.

17. Compliance with the acceptable ambient concentrations for Be, Lead, and Hg emissions shall be demonstrated based on calculations certified by a Professional Engineer registered in Florida, using actual operating conditions. Determination of the ambient concentrations for chemical compounds shall be determined by Department approved dispersion modeling. This compliance determination shall be made available upon request.

Rule Requirements

18. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes and Chapters 17-2 and 17-4, Florida Administrative Code.

19. This source shall comply with all requirements of 40 CFR 60, Subpart GG and F.A.C. Rule 17-2.660(2)(a), Standards of Performance for Stationary Gas Turbines.

20. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-2.210(1)).

21. This source shall comply with F.A.C. Rule 17-2.700, Stationary Paint Source Emission Test Procedures.

22. Pursuant to F.A.C. Rule 17-2.210(2), Air Operating Permits, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur, nitrogen content and lower heating value of the fuel being fired, fuel usage, hours of operation, air emissions limits, etc. Annual reports shall be sent to the Department's Southeast District office.

23. 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).

PERMITTEE:
Fort Pierce Utilities Authority

Permit Number: AC 56-185836
Expiration Date: March 30, 1992

SPECIFIC CONDITIONS:

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

Issued this _____ day
of _____, 1990

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Carol M. Browner
Secretary

Best Available Control Technology (BACT) Determination
 Ft. Pierce Utilities Authority
 H.D. King Electric Generating Plant
 St. Lucie County

The applicant proposes to operate a 31.6 MW combined cycle gas turbine system (Unit 9) at their facility on North Indian River Drive, Ft. Pierce, St. Lucie County, Florida.

The maximum heat input will be 353 MMBtu/hr using natural gas as a fuel. Fuel oil will not be fired in the unit. The applicant has indicated the maximum annual tonnage of regulated air pollutants emitted from the facility based on sea level conditions at 59°F and 100 percent capacity to be as follows:

Pollutant	Potential Emissions (tons/yr)	PSD Significant Emission Rate (tons/yr)
NOx	258.0	40
SO ₂	0.9	40
PM	11.0	25
PM ₁₀	11.0	15
CO	37.2	100
VOC	10.5	40

Florida Administrative Code Rule 17-2.500(2)(f)(3) requires a BACT review for all regulated pollutants emitted in an amount equal to or greater than the significant emission rates listed in the previous table.

Date of Receipt of a BACT Application

January 16, 1991

BACT Determination Requested by the Applicant

<u>Pollutant</u>	<u>Determination</u>
NOx	42 ppmvd @ 15% O ₂

BACT Determination Procedure

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, 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 methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

BACT

Ft. Pierce Utilities Authority

Page 2

- (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.

The applicant has stated that BACT for nitrogen oxides will be met by using steam injection necessary to limit emissions to 42 ppmvd at 15% oxygen.

A review of the EPA's BACT/LAER Clearinghouse indicates that the lowest NOx emission limit established to date for a combustion turbine is 4.5 ppmvd at 15% percent oxygen. This level of control was accomplished through the use of water injection and a selective catalytic reduction (SCR) system.

Selective catalytic reduction is a post-combustion method for control of NOx emissions. The SCR process combines vaporized ammonia with NOx in the presence of a catalyst to form nitrogen and water. The vaporized ammonia is injected into the exhaust gases prior to passage through the catalyst bed. The SCR process can achieve up to 90% reduction of NOx with a new catalyst. As the catalyst ages, the maximum NOx reduction will decrease to approximately 86 percent.

BACT

Ft. Pierce Utilities Authority

Page 3

Given the applicant's proposed BACT level for nitrogen oxides control stated above, an evaluation can be made of the cost and associated benefit of using SCR as follows:

The applicant has indicated that the annualized cost (amortized capital plus operating) for a SCR system would be approximately \$1,250,000 based on a total system cost of \$3.1 million and a 13.6 percent fixed charge rate. Operating costs are projected to be \$910,000 per year.

Based on recent economic evaluations for reviewing SCR as a BACT alternative, the applicant's capital and operating cost estimates appear high. Since this source has been constructed and originally avoided PSD review in 1987 by taking certain restrictions on existing units, the Department does not support including HRSG modification costs and higher erection costs as part of the BACT evaluation.

For comparison purposes, the Department is currently reviewing an application for a 40 MW natural gas fired combustion turbine. The cost to operate SCR in this case is estimated to be \$520,000 annually. Considering that the turbine proposed for Ft. Pierce Unit 9 is smaller (31.6 MW compared to 40 MW) it is estimated that the annual operating cost for SCR should be approximately \$410,800 instead of the \$0.9 million proposed.

In terms of equipment cost, the estimates provided for the 40 MW turbine application are also less than what has been stated for Ft. Pierce's application. The total capital cost of equipping the 40 MW turbine with SCR is estimated to be 1.85 million dollars. This is well below that estimated for equipping Unit 9 (\$3.09 million).

Because the Ft. Pierce Unit 9 should be evaluated as if it were never constructed, a conservative cost analyses can be developed by using the data presented in the application for the 40 MW unit. Using this approach it is expected that the actual cost which would be incurred for Unit 9 will be lower since Unit 9 is smaller (rated at 31.6 MW).

Assuming that SCR would reduce NOx emissions by an additional 80%, the SCR would control approximately 206 tons of NOx annually. When this reduction is taken into consideration with the total levelized annual cost of \$790,000 which was provided for the 40 MW unit (\$270,000 for annualized capital plus \$520,000 for operation), the cost per ton of controlling NOx is \$3,835. This cost

(\$3,835/ton) is representative of costs that have been previously justified as BACT and explains why the use of using SCR on combined cycle facilities is becoming common as BACT instead of just a LAER requirement for facilities being permitted today.

Since SCR has been determined to be BACT for several combined cycle facilities, the EPA has clearly stated that there must be unique circumstances to consider the rejection of such control on the basis of economics. In a recent letter from EPA Region IV to the Department regarding the permitting of a combined cycle facility (Tropicana Products, Inc.), the following statement is made:

"In order to reject a control option on the basis of economic considerations, the applicant must show why the costs associated with the control are significantly higher for this specific project than for other similar projects that have installed this control system or in general for controlling the pollutant."

A review of the combined cycle facilities in which SCR has been established as a BACT requirement indicates that the majority of these facilities are also intended to operate at high capacity factors. As this is the case, the proposed project is similar to other facilities in which SCR has been established as BACT, thereby supporting SCR as BACT for the proposed facility.

Environmental Impact Analysis

The predominant environmental impacts associated with this proposal are related to the use of SCR for NOx control. The use of SCR results in emissions of ammonia, which may increase with increasing levels of NOx control. In addition, some catalysts may contain substances which are listed as hazardous waste, thereby creating an additional environmental burden. Although the use of SCR does have some environmental impacts, the disadvantages do not outweigh the benefit which would be provided by reducing nitrogen oxide emissions by 80 percent. The overwhelming benefit of NOx control by using SCR is substantiated by the fact that nearly one half of all BACT determinations have established SCR as the control measure for nitrogen oxides over the last five years.

In addition to the criteria pollutants, the impacts of toxic pollutants associated with the combustion of natural gas have been evaluated. These toxics (formaldehyde and polycyclic organic matter) common to the combustion of natural gas, are expected to be emitted in minimal amounts and will not have an impact on air quality.

Although the emissions of these toxic pollutants could be controlled by particulate control devices such as a baghouse or scrubber, the amount of emission reductions would not warrant the added expense. As this is the case, the Department does not believe that the BACT determination would be affected by the emissions of these pollutants.

Potentially Sensitive Concerns

With regard to controlling NOx emissions with SCR, the applicant has identified the following technical limitations:

- o Reduced power output, ammonia slip and disposal of hazardous waste generated (spent catalyst)

BACT Determination by DER

Based on the information presented by the applicant and the studies conducted, the Department believes that the use of SCR for NOx control is justifiable as BACT. A review of the permitting activities for combined cycle proposals across the nation indicates that SCR has been required and most recently proposed for installations with a variety of operating conditions (i.e., natural gas, fuel oil, capacity factors ranging from low to high). Although the concerns expressed by the applicant were valid at one time the most recent experiences indicate that these problems have been resolved through advances in catalysts and experiences gained through operation.

The review conducted by the Department indicates that the maximum expected incremental cost of controlling NOx when following PSD regulations for sources already constructed (\$3,835/ton) is reasonable based on recent BACT determinations. It should be noted that this cost estimate to control NOx is likely higher than what would be incurred since it is based on a 40 MW combined cycle unit and not the 31.6 MW unit that is being evaluated. As this is the case, SCR shall be required with the emission limit for the Ft. Pierce Unit 9 project being established as follows:

<u>Pollutant</u>	<u>Emission Limit</u>
NOx	9 ppmvd @ 15% O ₂

BACT
Ft. Pierce Utilities Authority
Page 6

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, 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:

Approved by:

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

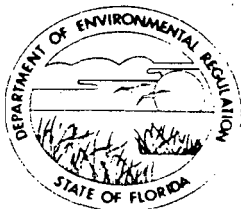
Carol M. Browner, Secretary
Dept. of Environmental Regulation

Date 1991

Date 1991

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Harry Schindehette, Director
Fort Pierce Utilities Authority
Post Office Box 3191
Fort Pierce, Florida 33448

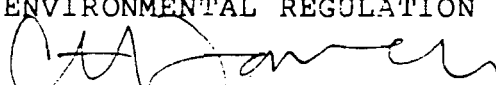
March 28, 1988

Enclosed is permit No. AC 56-141460, for Fort Pierce Utilities Authority to install/construct a 31.6 MW combined cycle gas turbine (a 23.4 MW combustion turbine generator, steam generator and a 8.2 MW condensing turbine generator) to be located in Fort Pierce, St. Lucie County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


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

Copy furnished to:

Stephanie Brooks, SE Dist.
Lloyd H. Stebbins, P.E.

Final Determination

Ft. Pierce Utilities Authority
Ft. Pierce, St. Lucie County, Florida

Permit No. AC 56-141460

31.6 MW Combined Cycle Gas Turbine

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

March 22, 1988

Final Determination

Ft. Pierce Utilities Authority's application for a permit to install/construct a 31.6 MW combined cycle turbine at its facility in Ft. Pierce, St. Lucie County, Florida, has been reviewed by the Bureau of Air Quality Management.

Public Notice of the Department's Intent to Issue the construction permit was published in the News Tribune on February 18, 1988.

Copies of the Technical Evaluation and Preliminary Determination have been available for public inspection at the Department's district office in West Palm Beach and the Bureau of Air Quality Management office in Tallahassee.

Comments on several specific conditions were received on March 17, 1988, from Ms. Stephanie Brooks, DER Engineer, West Palm Beach office.

The Bureau has listed comments and made appropriate changes to the specific conditions where necessary.

Specific Condition No. 1:

The variable Y is not defined in the NOx standard. Is the SO₂ standard of 0.015% by volume equivalent to 0.8% by weight? The sulfur content for fuel oil not to exceed 0.5% by weight?

Response:

The variable Y is defined on Subpart GG, Standards of Performance for Stationary Gas Turbines 40 CFR 60.332(a)(1). The SO₂ standard of 0.015% by volume at 15% percent oxygen on a dry basis refers to the SO₂ concentration of gases being discharged into the atmosphere. The SO₂ standard of 0.8 percent sulfur by weight is the sulfur content in the fuel. A standard of 0.015% SO₂ by volume in air is substantially equivalent to 0.8% SO₂ by weight in the fuel. Specific Condition No. 1 limiting the fuel oil to 0.5 percent sulfur by weight is more stringent than the NSPS.

The applicant's proposal of No. 2 distillate fuel oil with a sulfur content of 0.355% by weight will meet the NSPS. This condition will not be changed.

Specific Condition No. 2:

Define emergency backup fuel.

Response:

Emergency fuel, referred to as emergency backup fuel in the permit, is defined in Subpart GG, Standards of Performance for Stationary Gas Turbines, 40 CFR 60.331.

Specific Condition No. 3:

Tests required on each fuel? On worst case fuel? On the most used fuel?

- d. EPA Method 9
- e. EPA Method 20
- f. EPA Method 10

Response:

Tests are required on natural gas only (see condition No. 2). Fuel oil is to be used only as emergency backup when natural gas is not available.

Specific Condition No. 4:

Where is Specific Condition No. 4? Are you allowing the unit to be operated over capacity?

Response:

This condition was renumbered and reworded in the final permit as follows:

From:

Test results will be the average of 3 valid runs. The Department will be notified 15 days in advance of the compliance test. The test will be conducted at permitted capacity ± 10%.

To:

Test results will be the average of 3 valid runs. The Department's District office in West Palm Beach will be notified 15 days in advance of the compliance test. Tests shall be conducted operating between 90 and 100% of permitted capacity while using natural gas fuel.

Specific Condition No. 5:

What about the calibration of the continuous monitoring system.

Response:

The combined cycle gas turbine shall comply with monitoring requirements in accordance with 40 CFR 60.334. Subpart GG, NSPS for Gas Turbines. The continuous monitoring system shall be accurate to within ± 5.0 percent and shall be approved by the Bureau of Air Quality Management.

Specific Conditions No. 9 and No. 11:

Where are Specific Conditions 9 and 11?

Response:

These numbers were inadvertently omitted from the specific conditions. These specific conditions have been renumbered.

Based on discussions within BAQM, the limits in the table listed in Specific Condition No. 8 was rounded to three decimal points.

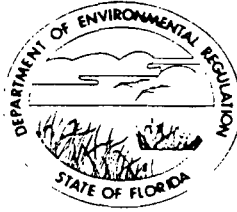
The final action of the Department will be to issue the permit with the changes described above.

Attachment

Ms. Stephanie Brooks' memo of March 10, 1988.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PERMITTEE: Ft. Pierce Utilities Authority
P. O. Box 3191
Ft. Pierce, Florida 33448

Permit Number: AC 56-141460
Expiration Date: December 1, 1989
County: St. Lucie
Latitude/Longitude: 27° 27' 00" N
80° 19' 26" W

Project: 31.6 MW Combined Cycle
Gas Turbine

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

For the construction of a 31.6 MW combined cycle gas turbine (a 23.4 MW combustion turbine generator, a steam generator and a 8.2 MW condensing turbine generator). This will be located at the Ft. Pierce Utilities Authority facility in Ft. Pierce, St. Lucie County, Florida. The UTM coordinates of this site are Zone 17, 566.8 E and 3.306.3 N.

Construction shall be in accordance with the attached permit application, plans, documents, and drawings except as noted in the General Conditions and Specific Conditions of this permit.

Attachments:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16) dated November 2, 1987.
2. Department's letter of December 1, 1987.
3. Applicant's letter of December 17, 1987.

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

GENERAL CONDITIONS:

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

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

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

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

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

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

GENERAL CONDITIONS:

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

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

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

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

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

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

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

GENERAL CONDITIONS:

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

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

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

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

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

13. This permit also constitutes:

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

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

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

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

GENERAL CONDITIONS:

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

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

SPECIFIC CONDITIONS:

1. The maximum emission rates for the 31.6 MW combined cycle gas turbine during natural gas firing shall not exceed the limits required by 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, as follows:

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

SPECIFIC CONDITIONS:

Nitrogen oxides NSPS Standards = $0.0075 \frac{(14.4)}{Y} + F$

or

= 84 ppm NOx

and

Sulfur dioxide NSPS Standard = 0.015% by volume at 15% oxygen
on a dry basis

Visible Emission Not to exceed 15% opacity

Fuel oil No. 2 Not to exceed 0.5% sulfur
content by weight

2. The combined cycle gas turbine shall be allowed to operate continuously (8736 hours per year). The gas turbine shall operate on natural gas at all times, except that No. 2 fuel oil with a maximum sulfur content of 0.5 percent by weight shall be allowed to be burned only as a emergency back-up fuel.

3. Before this construction permit expires, the 31.6 MW combined cycle gas turbine will be tested for sulfur dioxide, visible emissions, carbon monoxide and nitrogen oxides. Except as provided under 40 CFR 60.8(b), the performance tests shall be in accordance with the provisions of the following reference methods in Appendix A of 40 CFR 60.

- a. Method 1. Sample and Velocity Traverses
- b. Method 2. Volumetric Flow Rate
- c. Method 3. Gas Analysis
- d. Compliance with the opacity limitation will be determined by reference Method 9, Visual Determination of Opacity of Emission from Stationary Sources.
- e. Compliance with the sulfur dioxide emission limits will be determined by reference Method 20 or by calculations based on fuel analysis (ASTM 1552) for sulfur content.
- f. Compliance with the carbon monoxide emission limit will be determined by Method 10, Determination of Carbon Monoxide Emissions from Stationary Sources.

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

SPECIFIC CONDITIONS:

- g. Compliance with the allowable emissions limits for nitrogen oxides shall be conducted using EPA reference Method 20 subpart GG Section 60.335.

During performance tests to determine compliance with the proposed standard, measured NOx emission at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$\text{NOx} = (\text{NOx obs}) \left(\frac{P_{\text{ref}}}{P_{\text{obs}}} \right)^{0.5} e^{19(H_{\text{obs}} - 0.00633)} \left(\frac{T_{\text{AMB}}}{288^{\circ}\text{K}} \right)^{1.53}$$

where:

NOx = Emissions of NOx at 15% oxygen and ISO standard ambient conditions.

NOx obs = Measured NOx emission at 15% oxygen, ppmv.

P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.

P_{obs} = Measured combustor inlet absolute pressure at test ambient pressure.

H_{obs} = Specific humidity of ambient air at test.

e = Transcendental constant (2.718)

T_{AMB} = Temperature of ambient air at test.

4. Test results will be the average of 3 valid runs. The Department's District office in West Palm Beach will be notified 15 days in advance of the compliance test. Tests shall be conducted operating between 90 and 100% of permitted capacity while using natural gas fuel.

5. A continuous monitoring system shall be installed to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine.

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

SPECIFIC CONDITIONS:

6. Sulfur and nitrogen content of the fuel being fired in the gas turbine shall be determined and recorded as specified in the NSPS for Gas Turbines 40 CFR 60, Subpart GG, Section 60.334. The records of fuel oil usage will be kept by the company, available for regulatory agency's inspection, for a two year period.

7. The applicant shall comply with all requirements of 40 CFR 60, Subpart GG, Standards of Performance for stationary gas turbines.

8. The operating permits for this facility shall be modified as follows:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.04	0.003	0.568	0.382	0.945	3.017
SOx	12.38	0.074	0.119	0.080	0.191	0.612
NOx	1.31	0.008	104.350	70.126	173.200	552.860
VOC	0.02	0.001	0.266	0.179	0.441	1.407
CO	0.15	0.001	7.589	5.100	12.590	40.200
hrs/yr	12		1344		6384	

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

10. To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with compliance test results and Certificate of Completion, to the Department's Southeast District

PERMITTEE:
Ft. Pierce Utilities
Authority

Permit Number: AC 56-141460
Expiration Date: December 1, 1989

SPECIFIC CONDITIONS:

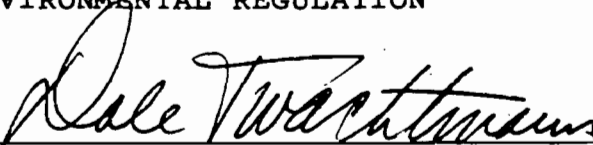
office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate, (Rules 17-2 and 17-4, FAC).

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

12. Upon obtaining a permit to operate, the permittee will be required to submit annual reports on the actual operation and emissions of the facility. Annual reports shall be sent to the Department's Southeast District office in West Palm Beach.

Issued this 24 day of March 19 88

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


Dale Twachtmann, Secretary



Interoffice Memorandum

For Routing To Other Than The Addressee

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

TO: Dale Twachtmann
FROM: Howard L. Rhodes *HR*
SUBJ: Approval of Fort Pierce Utilities Authority
Air Construction Permit Number: AC 56-141460
DATE: March 22, 1988

Attached for your approval and signature is a permit prepared by Central Air Permitting for the above mentioned company to install/construct a 31.6 MW combined cycle gas turbine (a 23.4 MW combustion turbine generator, steam generator and a 8.2 MW condensing turbine generator) to be located in Ft. Pierce, St. Lucie County, Florida.

Comments were received on March 17, 1988, from Ms. Stephanie Brooks, DER Engineer, West Palm Beach office.

Day 90, after which this permit will be issued by default, is April 8, 1988.

I recommend your approval and signature.

HLR/aqm/th
attachment

RECEIVED
MAR 23 1988

Office of the Secretary

RECEIVED

MAR 24 1988

DER - UNYIII

Technical Evaluation
and
Preliminary Determination

Ft. Pierce Utilities Authority
Ft. Pierce, St. Lucie County, Florida

Original

Permit No. AC 56-141460

31.6 MW Combined Cycle Gas Turbine

APIS No. 50WPB56000309

Bureau of Air Quality Management
Central Air Permitting
New Source Review Section

February 12, 1988

I. NAME AND ADDRESS OF APPLICANT

Ft. Pierce Utilities Authority
Post Office Box 3191
Ft. Pierce, Florida 33448

II. REVIEWING AND PROCESS SCHEDULE

Date of Receipt of Application: November 2, 1987

Completeness Review (30 days): Department's
letter of December 1, 1987

Response to Request for Additional Information:

Ft. Pierce Utilities Authority's letter of
December 17, 1987

Application Completeness Date: December 18, 1987

III. FACILITY INFORMATION

III.1 Facility Location

The proposed source is located on 311 North Indian river
Drive in Ft. Pierce, St. Lucie County, Florida. The UTM
coordinates are 566.8 East and 3063.3 North.

III.2 Standard Industrial Classification Code (SIC)

This facility is classified as follows:

Major Group No. - 49 ELECTRIC, GAS, AND SANITARY
SERVICES

Group No. - 491 ELECTRIC SERVICES

Industry No. - 4911 ELECTRIC SERVICES

III.3 Facility Category

Ft. Pierce Electric Utility is a major facility for
nitrogen oxides (NOx) and carbon monoxide (CO).

The proposed project will increase the overall NOx and CO
emissions by 19.7 TPY and 99.2 TPY, respectively.

III.3.1 Background Information

A revision of the current existing permits at the Ft.
Pierce facility was conducted by Environmental Science and
Engineering Inc.

It was concluded that the contemporaneous emissions calculations, as presented, are creditable in accordance with Rule 17-2.500(2)(e)4, Creditable Emissions Changes. The current operating rate for all boilers (Unit 6, Unit 7, and Unit 8) are less than the permitted rates (hours per year) listed on the operating permits. These permitted rates (hours/year) will be decreased as a result of the operation of the new combined cycle turbine (see Table 2). The current operating permits will be modified as follows:

Parameter	Unit 6		Unit 7		Unit 8	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Part.	0.04	0.0024	0.568	0.382	0.945	3.017
SOx	12.38	0.0743	0.1199	0.0806	0.1917	0.612
NOx	1.31	0.007854	104.35	70.126	173.20	552.86
VOC	0.0236	0.000142	0.266	0.179	0.441	1.407
CO	0.15	0.0009	7.589	5.100	12.59	40.20
hrs/yr	12		1344		6384	

IV. PROJECT DESCRIPTION

The new source at Ft. Pierce Utility Authority will consist of a combustion turbine-generator, a heat recovery steam generator (HRSG), cooling tower, and a steam turbine-generator.

Electrical energy will be produced directly from the combustion turbine generator (23.4 MW). A significant portion of the waste heat from the products of combustion will be captured by passing the hot gas steam through a heat recovery steam generator (boiler). The steam produced will drive a smaller (8.2 MW) condensing turbine-generator.

Power produced by the facility will be transferred to the authority's transmission system via step-up transformers and the existing 69 KV substation at the power plant.

The combined cycle unit will provide baseload power to the Ft. Pierce community and the regional grid. The new unit will use natural gas as the primary fuel and No. 2 fuel oil as an emergency secondary fuel.

Emissions control will be provided by steam injection into the turbine, which will reduce NOx emissions by 65%.

V. RULE APPLICABILITY

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code, (FAC).

The facility site is in an area, St. Lucie County, designated attainment for all pollutants in accordance with Rule 17-2.420, Florida Administrative Code (FAC).

Ft. Pierce Electric Utilities Authority is classified as a major facility. Emissions of nitrogen oxides are in the order of 776 tons per year.

This source, combined cycle gas turbine, is exempt from the New Source Review Requirements of the Prevention of Significant Deterioration, Rule 17-2.500 because the net emissions increases of NOx and CO are below the significance levels, Rule 17-2.500(2)(e)4., FAC.

This project shall be permitted under Rule 17-2.520 Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements. The proposed source shall comply with Rule 17-2.660 Standards of Performance for New Stationary Sources (NSPS). Specifically, Subpart GG, NSPS for Gas Turbines, Rule 17-2.610, General Particulate Emissions Limiting Standards and Rule 17-2.700 Stationary Point Sources Emissions Test Procedures.

For a future modification, this facility may be subject to a Prevention of Significant Deterioration Review, Rule 17-2.500, if the net increase of emissions of any criteria pollutant is equal to or greater than the significant emission rates listed in Table 500-2, FAC.

VI. EMISSIONS SUMMARY

The operation of the combined cycle gas turbine will produce emissions of nitrogen oxides (NOx), sulfur dioxide (SO₂), carbon monoxide (CO), particulate matter (PM), and volatile organic compounds (VOC) to the atmosphere.

Table 1 summarizes the potential to emit all pollutants regulated under the ACT which are affected by the proposed project. These permitted emissions are in compliance with all applicable requirements of Chapter 17-2, FAC.

Table 2 shows a summary of the existing and proposed emissions for this facility.

VI.1 Air Quality Analysis

From a technical review of the application, the department has determined that the installation and operation of this source will not have a detrimental impact on Florida's ambient air quality standards.

VI.2 Air Toxics Information

Currently, the Department is developing acceptable ambient concentrations for toxic substances. Specifically, sources classified as Category A (carcinogens and highly toxic substances) and Category B (moderately toxic substances).

In the event toxics emission limits are set during the term of this permit or any subsequent permit, the Department may seek modification pursuant to Rule 17-4.08, FAC.

VII. CONCLUSION

Based on the review of the data submitted by Ft. Pierce Electric Authority, the Florida Department of Environmental Regulation (FDER) concludes that compliance with all applicable state air quality regulations will be achieved provided certain specific conditions are met. The impact of installing and operating the combined cycle gas turbine at the Ft. Pierce facility will not cause or contribute to a violation of any ambient air quality standards.

Table 1
 Allowable Emission Limits
 31.6 MW Combined Cycle Gas Turbine

Pollutant	Standard	Gas Turbine (1)	Waste Heat Boiler
NOx	0.0075 $\frac{14.4}{Y} + F(2)$	84 ppm (gas); 172.5 TPY 134 ppm (No. 2 oil)	
SO ₂	0.8% by weight 0.015% by volume at 15% oxygen on a dry basis	0.17 lb/hr 0.576 TPY (gas)	
PM		15% opacity	15% opacity
CO	---	32.85 lbs/hr (gas) 110.4 TPY (gas)	

(1) The combined cycle gas turbine will be operating mostly with natural gas. Diesel fuel No. 2 will be used for emergency back-up. The NOx allowance for oil burning is 50 ppm. The maximum sulfur content in the oil shall not exceed 0.5% by weight.

(2) F = 0 (NOx emission allowance for fuel-bound nitrogen). Natural gas has virtually no fuel-bound nitrogen.

Table 2

SUMMARY OF EMISSIONS
(tons per year)

PRESENT ACTUAL EMISSIONS

Pollutant	No. 6 12 hrs (0.07 wks)	No. 7 2748.6 hrs (16.3 wks)	No. 8 7262.9 hrs (43.2 wks)	6,7,8 10023.5 hrs TOTAL
Part	0.0061	0.781	3.451	4.238
SOx	0.0743	0.16485	0.70002	0.93917
NOx	0.007854	143.4134	632.338	775.760
VOC	0.000142	0.36507	1.6096	1.974
CO	0.0009	10.43	45.98	56.41

PROJECTED EMISSIONS

Pollutant	No. 6 12 hrs (0.07 wks)	No. 7 1344 hrs (8 wks)	No. 8 6384 hrs (38 wks)	No. 9 6720 hrs (40 wks)	6,7,8,9 144460 hrs TOTAL	Net Emissions Increase	Significant Emission Rate
Part	0.0024	0.382	3.017	13.44	16.841	12.607	25
SOx	0.0743	0.0806	0.612	0.567	1.334	0.395	40
NOx	0.007854	70.126	552.86	172.52	795.51	19.75	40
VOC	0.000142	0.179	1.407	12.10	13.69	11.72	40
CO	0.0009	5.100	40.20	110.4	155.7	99.29	100

Appendix H-1, Permit History/ID Number Changes

Ft. Pierce Utilities Authority

[DRAFT/PROPOSED/FINAL]Permit No.: 1110003-003-AV
Facility ID No.: 1110003

Permit History (for tracking purposes):

E.U.

<u>ID No</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue Date</u>	<u>Expiration Date</u>	<u>Extended Date</u> ^{1,2}	<u>Revised Date(s)</u>
-001	Diesel Generator #1	AO56-190275	05/23/91	02/28/96	08/14/96	06/27/96
-002	Diesel Generator #2	AO56-190275	05/23/91	02/28/96	08/14/96	06/27/96
-003	Combined Cycle Gas Turbine	AC56-141460A		07/01/96		04/18/90 11/09/90 06/28/91
-004	Boiler #6 (Backup Only)	AO56-190275	05/23/91	02/28/96	08/14/96	06/27/96
-007	Boiler (Unit #7)	AO56-190275	05/23/91	02/28/96	08/14/96	06/27/96
-008	Boiler (Unit #8)	AO56-190275	05/23/91	02/28/96	08/14/96	06/27/96

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

From: **Facility ID No.:** 50WPB560003

To: **Facility ID No.:** 1110003

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}