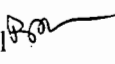


Memorandum

Florida Department of
Environmental Protection

TO: David Knowles, SD
FROM: Bruce Mitchell 
DATE: November 14, 1996
SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
Florida Power Corporation, Avon Park: 0550003-001-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 November 29, 1996, if you have any comments. Otherwise, no response is required. If there are any questions, please call the project engineer, Charles Logan, 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: Earl Baker

11-14-96

David/Earl,

I apologize for the shortness of this notice. All future notifications should provide at least 30 days for review time.

Sincerely,



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 PERMITTING APPLICATION DETAIL REPORT

19-JUL-96

Facility: FPC-AVON PARK PLANT
 Owner: FLORIDA POWER CORPORATION
 Office: Sth: FT MYERS

AIRS ID: 0550003
 County: HIGHLANDS

----- PROJECT -----

AIR Permit #: - - - Project #: 001 CRA Reference #: 2066
 Permit Office: TAL (HEADQUARTERS) Agency Action: Pending
 Project name: FPC-AVON PARK PLANT Desc: Title V Permit
 Type/Sub/Req: AV/00 / Air Operate
 Received: 14-JUN-1996 Issued: Expires:
 Fee: \$000.00 Realized: Dele: Override: NONE

----- RELATED PARTIES -----

Role: APPLICANT Begin: 18-JUL-1996 End:
 Name: , FLORIDA POWER CORPORATION SSN/FEID:
 Addr: 3201 34TH STREET SOUTH, P.O. BOX 14042
 City: ST. PETERSBURG State: FL Zip: 33711-
 Country: U.S.A. Phone: 813-866-5151 Fax: 813-866-4926

Role: FACILITY CONTACT Begin: 18-JUL-1996 End:
 Name: OSBOURN, SCOTT SSN/FEID:
 Addr: 3201 34TH STREET SOUTH,
 City: ST. PETERSBURG State: FL Zip: 33711-
 Country: U.S.A. Phone: 813-866-5158 Fax: 813-866-4926

Role: PROFESSIONAL ENGINEER Begin: 18-JUL-1996 End:
 Name: KOSKY, KENNARD F. SSN/FEID:
 Addr: 6241 NW 23RD STREET, SUITE 500
 City: GAINSVILLE State: FL Zip: 32653-1500
 Country: U.S.A. Phone: 352-336-5600 Fax: 352-336-6603

Role: RESPONSIBLE OFFICIAL Begin: 18-JUL-1996 End:
 Name: PARDUE, W. JEFFREY SSN/FEID:
 Addr: 3201 34TH STREET SOUTH,
 City: ST. PETERSBURG State: FL Zip: 33711-
 Country: USA Phone: 813-866-5151 Fax: 813-866-4926

----- PROCESSORS -----

Processor	Primary	Active Date:	Inactive Date:
LOGAN_C	Y	18-JUL-1996	
SHEPLAK_S	N	19-JUL-1996	

Date: 06/09/1998 1:25:22 PM
From: Bruce Mitchell TAL
Subject: Upload of FPC: Avon Park: 0550003 - DEP.
To: Yi Zhu TAL
CC: Scott Sheplak TAL

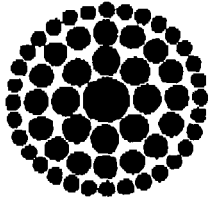
6/9/98

Dear Yi,

I've completed the EARS update. Please see if the application is ready for uploading to ARMs. Many thanks for all of your patience and help!!

Bruce

BEST AVAILABLE COPY



**Florida
Power**
CORPORATION

ENVIRONMENTAL SERVICES DEPARTMENT
FAX TRANSMITTAL SHEET
FAX #: (813) 866-4926

DATE: 11/21/96

TO: Charles Logan

DEP / BAR

FAX (904) 922-6979

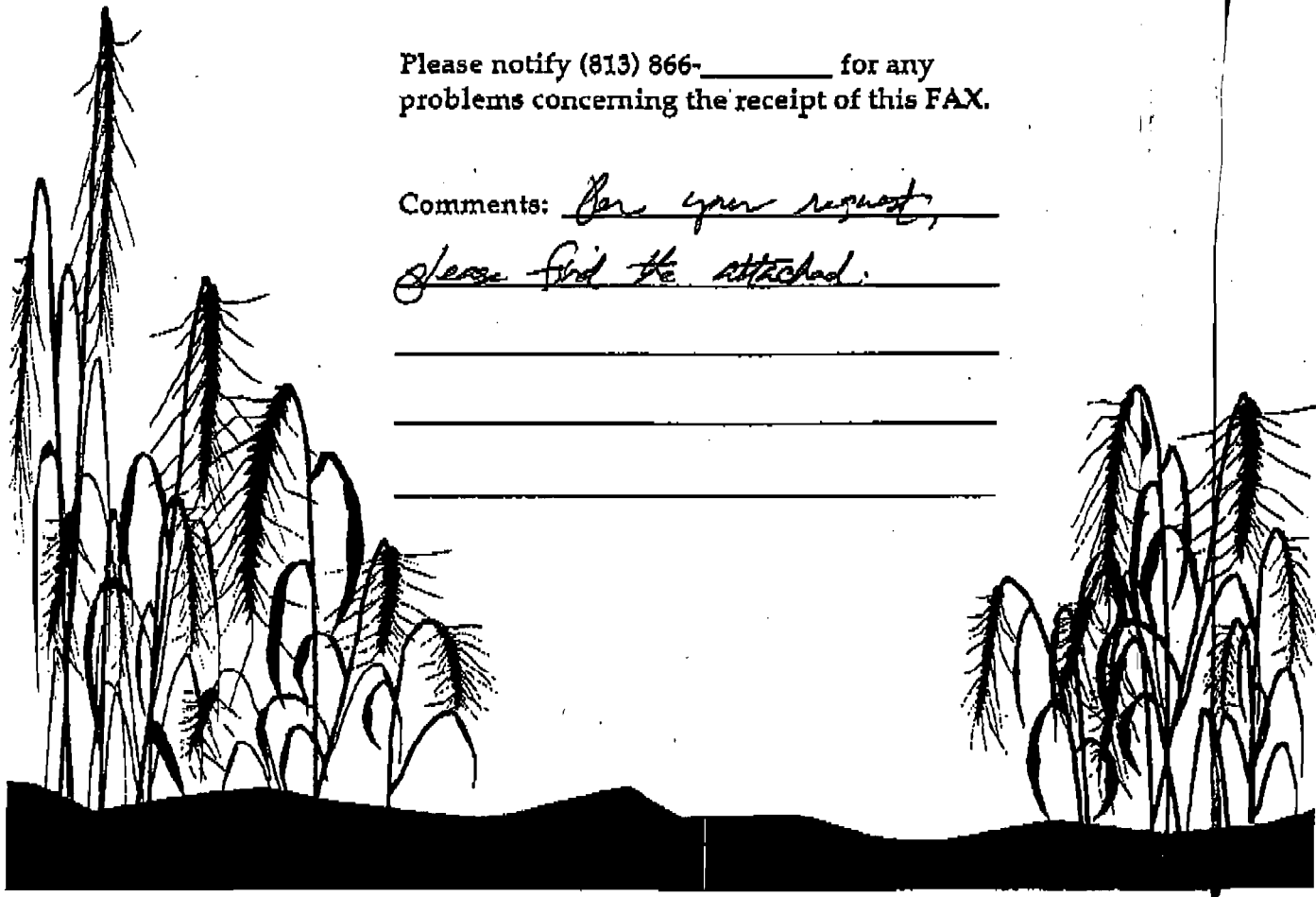
FROM: [Signature]

TELEPHONE: (813) 866-5158

Pages to follow 3

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

Comments: Per your request,
please find the attached:



BEST AVAILABLE COPY



November 21, 1996

Mr. David M. Knowles
Florida Department of Environmental Protection
South District
2295 Victoria Ave.
Fort Myers, Florida 33901

Dear Mr. Knowles:

Re: Retirement of Avon Park Steam Unit No. 2
DEP Permit No. AO28-211596

This letter serves to provide notification to the Department that Florida Power Corporation (FPC) has officially retired the above-referenced unit. As you may recall, FPC had previously maintained this unit in extended cold shutdown status in the event that it would again become economically viable to re-start. However, FPC has now dismantled this unit and physically removed it from the site.

This notification is timely in light of the Department's current Title V permitting effort for this site and should eliminate any confusion regarding whether FPC wishes the air permit for this unit to remain active. Specifically, FPC desires that the air permit for this unit not remain active and, consequently, that this unit not be addressed in the Title V permit for this facility. Further, this unit is an affected unit under Phase 2 of the federal acid rain program. As such, FPC has submitted notification to the U. S. EPA under 40 CFR 72.8 regarding the unit's retired status (copy attached).

If you have any questions, please contact Mr. Mike Kennedy at (813) 866-4344 or me at (813) 866-4387.

Sincerely,



W. Jeffrey Pardue, C.E.P.
Designated Representative

Enclosure

cc: Mr. Charles Logan, DEP Tallahassee
Mr. David McNeal, EPA Region IV

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8

This submission is: New Revised

STEP 1

Identify the unit that is or will be retired by plant name, State, and ORIS Code and boiler ID# from NADB.

Plant Name <i>Avon Park Plant</i>	State <i>FL</i>	ORIS Code <i>624</i>	Boiler ID# <i>2</i>
-----------------------------------	-----------------	----------------------	---------------------

STEP 2

Check one box to indicate the deadline for this application.

- This petition is being submitted on or before the deadline for submitting an Acid Rain part application for Phase II.
- The unit has a Phase II Acid Rain part. This petition is being submitted on or before the deadline for reapplying for the Acid Rain part.

STEP 3

Read the certification and enter the actual or expected date of retirement of the unit.

I certify that this unit is or will be permanently retired on the date specified in this petition and will not emit any sulfur dioxide or nitrogen oxides after such date. The date for the permanent retirement of this unit is or will be:

<i>01/01/95</i>	mm/dd/yy
-----------------	----------

STEP 4

Indicate that the required information is attached.

- A description of any actions that have been or will be taken and that provide the basis for the certification in Step 3.

STEP 5


Read the special provisions and the certifications, and sign and date.

Special Provisions

- (1) A unit exempted under 40 CFR 72.8 and Rule 62-214.340(2), F.A.C., shall not emit any sulfur dioxide and nitrogen oxides starting on the date it is exempted.
- (2) The owners and operators of a unit exempted under 40 CFR 72.8 and Rule 62-214.340(2), F.A.C., shall comply with monitoring requirements in accordance with part 73 and will be allocated allowances in accordance with 40 CFR part 73.
- (3) A unit exempted under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits an Acid Rain part application for the unit not less than 24 months prior to the later of January 1, 2000, or the date the unit is to resume operation. On the earlier of the date the written exemption expires or the date an Acid Rain part application is submitted or is required to be submitted under this paragraph (3), the unit shall no longer be exempted and shall be subject to all requirements of 40 CFR part 72.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name <i>W. Jeffrey Pardue, C.E.P., Director, Environmental Services Dept.</i>	
Signature 	Date <i>12/14/95</i>

Avon Park Unit 2 (ORIS Code 624)

Retired Unit Exemption Description

Avon Park Unit 2 was placed into long-term reserve shutdown in July 1984, as shown in the attached letter from Florida Power Corporation (FPC) to the Florida Department of Environmental Protection (DEP). As of January 1, 1995, the unit was permanently retired from service. Avon Park Unit 2 is scheduled to be dismantled in 1996; therefore, no further operation of the unit is possible.

Best Available Copy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

1997 FEB 14 1997

RECEIVED

4APT-ARB

FEB 14 1997

Mr. W. Jeffrey Pardue, Director
Environmental Services Department
Florida Power Corporation
3201 Thirty-fourth Street South
P.O. Box 14042
St. Petersburg, Florida 33733

BUREAU OF
AIR REGULATION

SUBJ: Retired Unit Exemption

Dear Mr. Pardue:

Enclosed you will find the final Acid Rain Retired Unit Exemption issued by the Environmental Protection Agency (EPA) for Florida Power Corporation - Avon Park Plant Unit 2. The final Retired Unit Exemption was issued by EPA Region 4 on January 31, 1997. The public notice of this final permit action is scheduled for publication on February 10, 1997.

Your cooperation has been appreciated. If you have any questions, please contact Mr. Scott Davis at (404) 562-9127.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Beals", written over a white background.

Brian L. Beals
Chief
Preconstruction-Hazardous Air
Pollution Section
Air, Pesticides and Toxics
Management Division

Enclosure

cc: Tom Cascio, Florida DEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

JAN 31 1997

RETIRED UNIT EXEMPTION

Issued to: Florida Power Corporation-Avon Park Plant
Boiler ID#: 2
Operated by: Florida Power Corporation
Effective: January 1, 1997 to December 31, 1999

Statutory and Regulatory Authorities. In accordance with Title IV of the Clean Air Act Amendments of 1990, the U. S. Environmental Protection Agency exempts this unit from the Phase II permits requirements of 40 CFR Part 72, except for the requirements specified in Sections 72.8, 72.1 through 72.6, and 72.10 through 72.13. In addition, this unit is exempted from the Part 75 Phase II requirements.

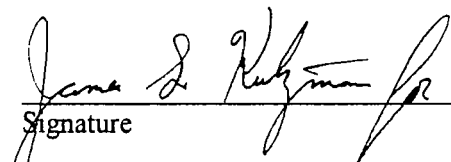
Conditions, notes and justifications that apply to the unit:

This unit shall not emit any sulfur dioxide or nitrogen oxides starting on the date the units are exempted.

The owners and operators, and to the extent applicable, the designated representative, shall comply with the requirements of Part 72 concerning all years for which the units are not exempted. This exemption shall not be a defense against any violation of such requirements of the Acid Rain Program whether the violation occurs before or after the exemption takes effect.

No unit shall resume operation unless the designated representative submits an Acid Rain permit application, as required by Section 72.8(d)(3). If any exempted unit resumes operation, the applicable compliance date for monitor certification, set forth in Section 75.4, shall apply.

Approval:

 1/31/97
Signature Date

Winston A. Smith
Director, Air, Pesticides and Toxics Management Division
U.S. Environmental Protection Agency, Region 4
100 Alabama Street, S.W.
Atlanta, Georgia 30303
Telephone: (404) 562-9077 Facsimile: (404) 562-9095

Best Available Copy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

RECEIVED
FEB 20 1997
BUREAU OF
AIR REGULATION

RETIRED UNIT EXEMPTION

Issued to: Florida Power Corporation-Avon Park Plant
Boiler ID#: 2
Operated by: Florida Power Corporation
Effective: January 1, 1997 to December 31, 2001

Statutory and Regulatory Authorities. In accordance with Title IV of the Clean Air Act Amendments of 1990, the U. S. Environmental Protection Agency exempts this unit from the Phase II permits requirements of 40 CFR Part 72, except for the requirements specified in Sections 72.8, 72.1 through 72.6, and 72.10 through 72.13. In addition, this unit is exempted from the Part 75 Phase II requirements.


Conditions, notes and justifications that apply to the unit:

This unit shall not emit any sulfur dioxide or nitrogen oxides starting on the date the units are exempted.

The owners and operators, and to the extent applicable, the designated representative, shall comply with the requirements of Part 72 concerning all years for which the units are not exempted. This exemption shall not be a defense against any violation of such requirements of the Acid Rain Program whether the violation occurs before or after the exemption takes effect.

No unit shall resume operation unless the designated representative submits an Acid Rain permit application, as required by Section 72.8(d)(3). If any exempted unit resumes operation, the applicable compliance date for monitor certification, set forth in Section 75.4, shall apply.

Approval:


Signature

Winston A. Smith
Director, Air, Pes
U.S. Environment
100 Alabama Str
Atlanta, Georgia
Telephone: (404)

Please replace this copy for the
Exemption form sent on Feb 6.
The enclosed Exemption has
the correct Effective Dates:
1-1-97 to 12-31-01

2-12

Scott Davis
EPA

Terry: Please e-mail these docs to EPA

Thanks
C/S

FLORIDA's Electronic Notification Cover Memorandum

TO: Gracy R. Danois, U.S. EPA Region IV
THRU: Scott Sheplak, P.E., FDEP/DARM/BAR
FROM: Charles S. Logan
DATE: April 4, 1997
RE: U.S. EPA Region IV Title V Operation Permit Review

Pursuant to EPA Region IV's 1996 comprehensive Title V operation permit review strategy contained in the Florida/EPA Implementation Agreement, the following Title V operation permit(s) and associated documents are made available for your review/comment prior to issuance.

<u>Applicant Name</u>	<u>County</u>	<u>Method of Transmittal</u>	<u>Electronic File Name(s)</u>
Florida Power Corp. Avon Park Plant	Highlands	INTERNET	0550003d.zip

This zipped file contains the following electronic files:

- 0550003i.doc
- 0550003d.doc
- 0550003l.doc
- 05500032.doc
- 0550003h.doc

V: Charles L \ 055000f.doc

Scott: Give this to Terry & she will take care of it

C/S 4/4

Charles
Sheplak
SAA
4/4



Charles Logan

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

April 8, 1997

Mr. W. Jeffrey Pardue, C.E.P.
Director of Environmental Services
Florida Power Corporation
3201 34th Street
St. Petersburg, Florida 33711

Re: Florida Power Corp., Avon Park Plant
DRAFT Permit No. 0550003-001-AV

Dear Mr. Pardue:

Inadvertently, we distributed the incorrect version of APPENDIX TV-1, TITLE V CONDITIONS.

The correct version cited was dated 02/27/97. Please replace the distributed version with the correct version.

Thank you for your cooperation in this matter.

Sincerely,

Barbara J. Boutwell

Barbara J. Boutwell

bjb

cc: Mr. Kennard F. Kosky



May 29, 1997

Mr. Scott M. Sheplak, P.E.
Florida Department of Environmental Protection
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Dear Mr. Sheplak:

Re: Draft Title V Permit No. 0550003-001-AV
Avon Park Plant

Florida Power Corporation (FPC) appreciates the Department's efforts in issuing the above-referenced Draft Title V permit. FPC has reviewed this Draft permit and is submitting the following request for several clarifications to the Draft permit conditions. FPC respectfully requests that you and your staff review these comments and respond to us in writing before issuance of the Title V Proposed Permit.

FPC published the "Public Notice of Intent to Issue Title V Air Operation Permit" in the News-Sun newspaper on May 7, 1997. If you should have any questions or would like to schedule a meeting to discuss any of our comments, please contact Mr. Scott Osbourn at (813) 866-5158 at your earliest convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Jeffrey Pardue", enclosed within a circular scribble.

W. Jeffrey Pardue, C.E.P.
Director, Environmental Services Department

Attachment

cc: Scott Osbourn, FPC
Ken Kosky, Golder Associates
Robert Manning, HGS&S

cc: *Charles Lujan*
Bruce White
RECEIVED

MAY 30 1997

BUREAU OF
AIR REGULATION

bcc: J. M. Kennedy
D. W. Sorrick

File: Avon Park/Air/Corresp.
k:\user\sosbourn\1997\avontitv.doc

**Florida Power Corporation
Avon Park Plant
Draft Title V Permit Comments**

Appendix TV-1, Title V Conditions

1. FPC has identified several conditions in the Appendix TV-1, Title V Conditions that warrant revision. FPC supports the Florida Electric Power Coordinating Group (FCG), of which FPC is a member, and its ongoing negotiations with the Department to reach an amicable resolution of these conditions. FPC reserves the right to comment on this Appendix pending the outcome of these negotiations. In the meantime, specific to FPC's Avon Park facility, FPC requests that Condition 58 (Unconfined Emissions of Particulate Matter) be deleted from this Appendix. This rule is covered under the Facility-wide Conditions, Condition 8 and is thus redundant here. *No*

Section I. Facility Information. Subsection A. Facility Description

1. The description of the facility incorrectly refers to the maximum heat input of the two units as 562.6 MMBtu/hr "combined". This maximum rate of 562.6 MMBtu/hr should be for each unit, not combined. Accordingly, the word "combined" should simply be deleted from the second sentence of the description. *OK / done*

Section II. Facility-wide Conditions

1. Condition 6 regarding general pollutant limiting standards for VOCs states that the Department will deem necessary or order the application of control devices or systems for this specific facility. Accordingly, the Department has previously not required, deemed necessary, or ordered the use of any such devices or systems. Because this facility does not emit more than five tons per year of VOCs, no such systems or devices should be required, and this condition should be deleted. *No
straight from rule - we need input to refer to*
2. Condition 8 regarding emissions of unconfined particulate matter lists several reasonable activities that are currently conducted at the Avon Park Plant to minimize such emissions. Because this is not an exclusive list, a sentence should be added to this condition stating that additional or alternative activities may be utilized to accomplish the same result. *OK done*
3. The permit note states that reporting should be made to the Department's "Southwest" District Office. This should be revised to read the Department's "South" District Office. *OK / done*

Section III. Emissions Unit(s) and Conditions

1. Condition A.10 regarding the Determination of Process Variables should be written specifically for this facility to clarify what equipment or instruments are necessary, if any, to determine any process variables. As the unit's permitted capacity is expressed in terms of heat input, the condition should specify the fuel flow meter (in conjunction with the fuel analysis) as the necessary equipment for determining this process variable. *?*
2. Condition A.12. A typographical error should be corrected. The ASTM Method "D2622-92" should be revised in accordance with Rule 62-297.440, F.A.C. to read "D2622-94". Also, this condition states that the fuel sulfur content should be evaluated using the ASTM methods, whereas Condition A.9 states that compliance with the fuel sulfur content limit shall be demonstrated by the fuel vendor. Therefore, Condition A.12 should be revised to comport with Condition A.9 and indicate that the vendor fuel analysis should be based on these ASTM methods. Table 2-1 should also be revised accordingly. *OK done*

3. Condition A.14 should be written specifically for the Avon Park Plant. For example, EPA Method 9 should be specified, as it is in Condition A.11. *Ok*
~~It is~~ *Begin w/ The required*
more exceptions w/ An exception - -
4. Condition A.17 regarding reporting of certain excess emissions resulting from malfunctions should be clarified to require any reporting to be done in accordance with Condition 10 from Appendix TV-1, Title V Conditions, in addition to the requirements of Rule 62-4.130, F.A.C. *?*



Charles Logan

June 5, 1997

RECEIVED

JUN 05 1997

**BUREAU OF
AIR REGULATION**

Ms. Kim Tober
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Dear Ms. Tober:

Re: FPC Avon Park Facility
Public Notice of Intent to Issue Draft Title V Air Permit

Enclosed please find the original public notice and notarized proof of publication regarding the Department's Intent to Issue a Draft Title V permit for Florida Power Corporation's Avon Park facility. The legal notice ran in the May 7, 1997 edition of the Sebring News-Sun.

If you should have any questions or require additional information, please do not hesitate to contact me at (813) 866-5158.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott H. Osbourn", written over a horizontal line.

Scott H. Osbourn
Senior Environmental Engineer

Attachment

cc: David Knowles, DEP South District
Ken Kosky, Golder Associates

The Sebring News-Sun, Inc.

Published ^{3 times} ~~Twice~~ Weekly

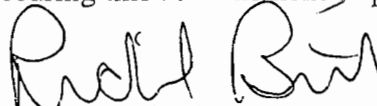
SEBRING, HIGHLANDS COUNTY FLORIDA


STATE OF FLORIDA
COUNTY OF HIGHLANDS:

Before the undersigned authority personally appeared **Richard Birt** who on oath says that he is Controller of **The News-Sun** a ^{tri}~~bi~~ weekly newspaper published at Sebring in Highlands County, Florida; that the attached copy of advertisement, being a Proof of Publication in the matter of W854 Title V Air

was published in said newspaper in the issues of May 7, 1997

Affiant further says that **The News-Sun** is a newspaper published at Sebring, in Highlands County, Florida, and that the said newspaper has heretofore been continuously published in said Highlands County, Florida, Wednesday and/or Sunday and has been entered as a second class mail matter at the post office in Sebring, in said county, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement of publication in the said newspaper.


Swore to and subscribed before me
this 28th day of May
A.D. 19 97

 **MICHELE STEVENS**
Notary Public, State of Florida
My comm. expires June 22, 1998
Comm. No. CC386300



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL
PROTECTION
Title V DRAFT Permit No.: 0550003-001-AV
Avon Park Plant
Avon Park, Highlands County
The Department of Environmental Protection permitting authority gives notice of its intent to issue a Title V air operation permit to Florida Power Corporation for the Avon Park Plant located at 1415 South Highlands Avenue, Avon Park, Highlands County. A case-by-case Maximum Achievable Control Technology (MACT) determination was not required in this permitting action. The applicant's name and address are: Florida Power Corporation, 3201 34th Street, South, St. Petersburg, Florida 33711.
The permitting authority will issue the Title V PROPOSED Permit, and subsequent title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority will issue the permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, Florida Statutes (F.S.), or a party requests mediation as an alternative remedy under Section 120.573, F.S., before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 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 of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3300 (Telephone: 904/488-9730; Fax: 904/487-4938). Petitions must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S.; or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the permitting authority upon the filing of a motion in compliance with Rule 28-3.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner; the applicant's name and address; the 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 permitting authority's action or proposed action.
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action.
- (d) A statement of the material facts disputed by the petitioner, if any.
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action.
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the permitting authority's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department of Environmental Protection a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 835, Tallahassee, FL 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information:

- (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any;
- (b) A statement of the preliminary agency action;
- (c) A statement of the relief sought; and
- (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for

subject to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at 110 M. Street, SW, Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Affected District/Local Program:
Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941-332-6969

The complete project file includes the Draft Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 904/488-1344, for additional information.

FLORIDA's Electronic Notification Cover Memorandum

Carla E. Pierce

TO: ~~Gracy R. Danois~~, U.S. EPA Region IV

THRU: Scott Sheplak, P.E., FDEP/DARM/BAR *sm*

FROM: Charles S. Logan *CSL*

DATE: June 24, 1997

RE: U.S. EPA Region IV Title V Operation Permit Review

posted 23-JUN-1997

Pursuant to EPA Region IV's 1996 comprehensive Title V operation permit review strategy contained in the Florida/EPA Implementation Agreement, the following Title V operation permit(s) and associated documents are made available for your review/comment prior to issuance.

<u>Applicant Name</u>	<u>County</u>	<u>Method of Transmittal</u>	<u>Electronic File Name(s)</u>
Florida Power Corp. Avon Park Plant	Highlands	INTERNET	0550003p.zip

This zipped file contains the following electronic files:

- 0550003p.doc
- 05500033.doc
- 05500034.doc
- 0550003h.doc

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. W. Jeffrey Pardue, C.E.P.
Director of Environmental Services
Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33711

ORDER EXTENDING PERMIT EXPIRATION DATE

Avon Park Plant, Facility ID No.: 0550003

Section 403.0872(2)(b), Florida Statutes (F.S.), specifies that any facility which submits to the Department of Environmental Protection (Department) a timely and complete application for a Title V permit "is entitled to operate in compliance with its existing air permit pending the conclusion of proceedings associated with its application."

Section 403.0872(6), F.S., provides that a proposed Title V permit which is not objected to by the United States Environmental Protection Agency (EPA) "must become final no later than fifty-five (55) days after the date on which the proposed permit was mailed" to the EPA.

Pursuant to the Federal Acid Rain Program as defined in rule 62-210.200, Florida Administrative Code (F.A.C.), all Acid Rain permitting must become effective on January 1 of a given year.

This facility which will be permitted pursuant to section 403.0872, F.S., (Title V permit) will be required to have a permit effective date subsequent to the final processing date of the facility's Title V permit.

To prevent misunderstanding and to assure that the above identified facility continues to comply with existing permit terms and conditions until its Title V permit becomes effective, it is necessary to extend the expiration date(s) of its existing valid permit(s) until the effective date of its Title V permit. Therefore, under the authority granted to the Department by section 403.061(8), F.S., **IT IS ORDERED:**

1. The expiration date(s) of the existing valid permit(s) under which the above identified facility is currently operating is (are) hereby extended until the effective date of its permit issued pursuant to section 403.0872, F.S., (Title V permit);

2. The facility shall comply with all terms and conditions of its existing valid permit(s) until the effective date of its Title V permit;

3. The facility will continue to comply with the requirements of Chapter 62-214, F.A.C., and the Federal Acid Rain Program, as defined in rule 62-210.200, F.A.C., pending final issuance of its Title V permit.

PETITION FOR ADMINISTRATIVE REVIEW

The Department will take the action described in this Order unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 of the Florida Statutes, or a party requests mediation as an alternative remedy under section 120.573, F.S., before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed decision may petition for an administrative hearing in accordance with sections 120.569 and 120.57 of the 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 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Petitions must be filed within 21 days of receipt of this Order. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department 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 the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action;

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

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this Order. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the Department's proposed decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information:

(a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any;

(b) A statement of the preliminary agency action;

(c) A statement of the relief sought; and

(d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following:

(a) The names, addresses, and telephone numbers of any persons who may attend the mediation;

(b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;

(c) The agreed allocation of the costs and fees associated with the mediation;

(d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;

(e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;

(f) The name of each party's representative who shall have authority to settle or recommend settlement; and

(g) The signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57, F.S., for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57, F.S., remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under section 120.542 of the Florida Statutes. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner;

(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;

(c) Each rule or portion of a rule from which a variance or waiver is requested;

(d) The citation to the statute underlying (implemented by) the rule identified in (c) above;

(e) The type of action requested;

(f) The specific facts that would justify a variance or waiver for the petitioner;

(g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested. The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in section 120.542(2) of the Florida Statutes, and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

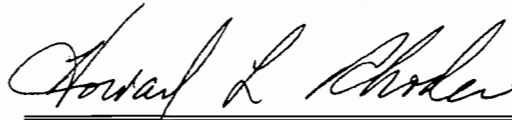
This Order constitutes final agency action unless a petition is filed in accordance with the above paragraphs. Upon timely filing of a petition or request for mediation, this Order will not be effective until further Order of the Department.

RIGHT TO APPEAL

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; 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 Notice of Agency Action is filed with the Clerk of the Department.

DONE AND ORDERED this 6 day of 30, 1997 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



HOWARD L. RHODES, Director
Division of Air Resources Management
Twin Towers Office Building
Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 488-0114

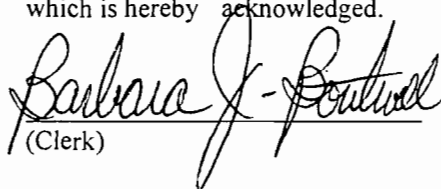
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this order and all copies were sent by certified mail before the close of business on 6/30/97 to the person(s) listed:

Mr. W. Jeffrey Pardue, C.E.P., Florida Power Corporation
Mr. David Knowles, SD

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

 6/30/97
(Clerk) (Date)

DEP ROUTING AND TRANSMITTAL SLIP

TO: (NAME, OFFICE, LOCATION) 3. _____
1. Charles Logan 4. _____
2. _____ 5. _____

PLEASE PREPARE REPLY FOR:

- SECRETARY'S SIGNATURE
- DIV/DIST DIR SIGNATURE
- MY SIGNATURE
- YOUR SIGNATURE
- DUE DATE _____

ACTION/DISPOSITION

- DISCUSS WITH ME
- COMMENTS/ADVISE
- REVIEW AND RETURN
- SET UP MEETING
- FOR YOUR INFORMATION
- HANDLE APPROPRIATELY
- INITIAL AND FORWARD
- SHARE WITH STAFF
- FOR YOUR FILES

COMMENTS:

*For your file!
I put a copy
in permit file.*

FROM: [Signature] DATE: 6/30/97 PHONE: _____



December 20, 1995

RECEIVED

DEC 22 1995

BUREAU OF AIR REGULATION

Mr. John C. Brown (MS 5505)
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Brown:

Re: Phase II Acid Rain Permit Applications

I have enclosed the original and three copies of completed Phase II acid rain permit application forms for Florida Power Corporation's affected units. In addition, a copy of the Certificate of Representation for each affected facility is included. Please note that a Retired Unit Exemption is being requested for Avon Park Unit 2 (ORIS Code 624). This unit was permanently retired on January 1, 1995.

FPC will ensure that it will hold sufficient allowances to account for the sulfur dioxide emissions from its affected units beginning in the year 2000. Please contact Mr. Mike Kennedy at (813) 866-4344 or me at (813) 866-4387 if you have any questions.

Sincerely,

W. Jeffrey Pardue, C.E.P., Director
Designated Representative

cc: J. R. Stitt, FPC
Alternate Designated Representative

This facility does not have any acid rain unit(s) Imp 624

Summary checklist for Title IV, Phase II permit applications

Facility Name FLORIDA POWER CORPORATION

Plant Name: AVON PARK PLANT receipt date 12/22/95

ORIS Code: 624 AIRS ID No.: 0550003 (not required)

- | | | |
|--|--|--|
| a. July 1, 1995 version of application form(s) used? | Y* <input checked="" type="checkbox"/> | N <input type="checkbox"/> |
| b. Four (4) copies of application form(s) submitted? | Y* <input checked="" type="checkbox"/> | N <input type="checkbox"/> |
| c. Certificate of Representation form on file? | Y* <input checked="" type="checkbox"/> | N <input type="checkbox"/> |
| d. Application form(s) signed by Designated Representative (DR) or alternate DR? | Y* <input checked="" type="checkbox"/> | N <input type="checkbox"/> |
| e. Original signature of DR or alternate DR on one of 4 forms? | Y* <input type="checkbox"/> | N <input checked="" type="checkbox"/> |
| f. Modifications made to wording on form(s)? | Y <input type="checkbox"/> | N* <input checked="" type="checkbox"/> |

Reviewer's initials JMC date 12/29/95

Note(s): [*] = mandatory.

Comment(s): RETURN UNIT EXEMPTION FILED.

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8

This submission is: New Revised

STEP 1

Identify the unit that is or will be retired by plant name, State, and ORIS Code and boiler ID# from NADB.

Plant Name <i>Avon Park Plant</i>	State <i>FL</i>	ORIS Code <i>624</i>	Boiler ID# <i>2</i>
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STEP 2

Check one box to indicate the deadline for this application.

- This petition is being submitted on or before the deadline for submitting an Acid Rain part application for Phase II.
- The unit has a Phase II Acid Rain part. This petition is being submitted on or before the deadline for reapplying for the Acid Rain part.

STEP 3

Read the certification and enter the actual or expected date of retirement of the unit.

I certify that this unit is or will be permanently retired on the date specified in this petition and will not emit any sulfur dioxide or nitrogen oxides after such date. The date for the permanent retirement of this unit is or will be:

01/01/95 mm/dd/yy

STEP 4

Indicate that the required information is attached.

- A description of any actions that have been or will be taken and that provide the basis for the certification in Step 3.

STEP 5

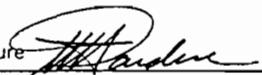
Read the special provisions and the certifications, and sign and date.

Special Provisions

- (1) A unit exempted under 40 CFR 72.8 and Rule 62-214.340(2), F.A.C., shall not emit any sulfur dioxide and nitrogen oxides starting on the date it is exempted.
- (2) The owners and operators of a unit exempted under 40 CFR 72.8 and Rule 62-214.340(2), F.A.C., shall comply with monitoring requirements in accordance with part 75 and will be allocated allowances in accordance with 40 CFR part 73.
- (3) A unit exempted under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits an Acid Rain part application for the unit not less than 24 months prior to the later of January 1, 2000, or the date the unit is to resume operation. On the earlier of the date the written exemption expires or the date an Acid Rain part application is submitted or is required to be submitted under this paragraph (3), the unit shall no longer be exempted and shall be subject to all requirements of 40 CFR part 72.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name <i>W. Jeffrey Pardue, C.E.P., Director, Environmental Services Dept.</i>	
Signature 	Date <i>12/14/95</i>

Avon Park Unit 2 (ORIS Code 624)

Retired Unit Exemption Description

Avon Park Unit 2 was placed into long-term reserve shutdown in July 1984, as shown in the attached letter from Florida Power Corporation (FPC) to the Florida Department of Environmental Protection (DEP). As of January 1, 1995, the unit was permanently retired from service. Avon Park Unit 2 is scheduled to be dismantled in 1996; therefore, no further operation of the unit is possible.

**Florida
Power**
CORPORATION

July 31, 1984

RECEIVED

JUN 12 1984

D. E. R. SO. FLA. DISTRICT


Mr. Philip R. Edwards
District Manager
Department of Environmental Regulation
2269 Bay Street
Fort Myers, FL 33901

Subject: Avon Park Unit #2 (A028-56388)
Avon Park Peaker #1 (A028-47765)
Avon Park Peaker #2 (A028-47770)

Dear Mr. Edwards:

Please be advised that the subject units have been placed in long term standby and are not scheduled to operate in the foreseeable future. When these units are placed back into operation, your office will be notified and the units tested within 30 days of startup.

Should you have any questions, please advise.


J. A. Hancock
Vice President, Fossil Operations

Hancock (M02)C3-1



Certificate of Representation

Page

For more information, see instructions and refer to 40 CFR 72.24

This submission is: New Revised

STEP 1
Identify the source by
plant name, State, and
ORIS code from NADB

Plant Name	Avon Park	State	FL	ORIS Code	624
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STEP 2
Enter requested
information for the
designated
representative

Name	W. Jeffrey Pardue				
Address	Florida Power Corporation 3201 - 34th Street South, MAC H2G St. Petersburg, FL 33711				
Phone Number	(813) 866-4387	Fax Number	(813) 866-4926		

STEP 3
Enter requested
information for the
alternate designated
representative
(optional)

Name					
Address					
Phone Number			Fax Number		

STEP 4
Complete Step 5, read
the certifications and
sign and date

I certify that I was selected as the designated representative or alternate designated representative, as applicable, by an agreement binding on the owners and operators of the affected source and each affected unit at the source.

I certify that I have given notice of the agreement, selecting me as the designated representative or alternate designated representative, as applicable for the affected source and each affected unit at the source identified in this certificate of representation, daily for a period of one week in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice.

I certify that I have all necessary authority to carry out my duties and responsibilities under the Acid Rain Program on behalf of the owners and operators of the affected source and of each affected unit at the source and that each such owner and operator shall be fully bound by my actions, inactions, or submissions.

I certify that I shall abide by any fiduciary responsibilities imposed by the agreement by which I was selected as designated representative or alternate designated representative, as applicable.

I certify that the owners and operators of the affected source and of each affected unit at the source shall be bound by any order issued to me by the Administrator, the permitting authority, or a court regarding the source or unit.

Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, an affected unit, or where a utility or industrial customer purchases power from an affected unit under life-of-the-unit, firm power contractual arrangements, I certify that:

I have given a written notice of my selection as the designated representative or alternate designated representative, as applicable, and of the agreement by which I was selected to each owner and operator of the affected source and of each affected unit at the source; and

Allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement or, if such multiple holders have expressly provided for a different distribution of allowances contract, that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in accordance with the contract.

The agreement by which I was selected as the alternate designated representative includes a procedure for the owners and operators of the source and affected units at the source to authorize the alternate designated representative to act in lieu of the designated representative.

Plant Name (from Step 1) Avon Park

Certification

I am authorized to make this submission on behalf of the owners and operators of the effected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Signature (designated representative) <i>[Signature]</i>	Date 11/8/94
Signature (alternate)	Date

STEP 5
Provide the name of every owner and operator of the source and each affected unit at the source. Identify the units they own and/or operate by boiler ID# from NADB. For owners only, identify each state or local utility regulatory authority with jurisdiction over each owner

Name Florida Power Corporation						<input checked="" type="checkbox"/> Owner	<input checked="" type="checkbox"/> Operator
ID# 2	ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#	ID#
Regulatory Authorities Florida Public Service Commission							

Name						<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#	ID#
Regulatory Authorities							

Name						<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#	ID#
Regulatory Authorities							

Name						<input type="checkbox"/> Owner	<input type="checkbox"/> Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#	ID#
Regulatory Authorities							

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Joseph W. Landers, Jr.

FROM: J.P. Subramani *J.P. Subramani*

DATE: November 3, 1978

SUBJECT: BACT Application for Four Florida Power Corporation Gas Turbines, Avon Park Plant Site, Highlands County

Facility: Four 63,000 KW gas turbine electric generating units to be located at Florida Power Corporation's Avon Park Plant. The units, scheduled for commercial operation in October, 1981, will be known as the Avon Park Peaking Units #3 through #6.

At a peak power level of 63,000 KW, each unit will burn approximately 37,910 pounds of distillate fuel per hour which constitutes a heat input rate of 739 million BTU/hr.

BACT Determination Requested by the Applicant:

- Nitrogen Dioxide: 75 ppm by volume, achievable through wet or dry method.
- Sulfur Dioxide: 95 ppm by volume, achievable through use of distillate fuel oil with maximum sulfur content .5% by weight.
- Opacity: Less than 20%

Date Receipt of a Complete BACT Application:

September 27, 1978

Date of Publication in the Florida Administrative Weekly:

October 6, 1978

Date of Publication in a Newspaper of General Circulation:

October 13, 1978, Tampa Tribune

MEMORANDUM

JOSEPH W. LANDERS, JR.

November 3, 1978

page 2

Other State and Local Emission Standards Applicable to Gas Turbines*:

Pollutant	Fuel	Typical	Most Stringent
NO _x	Gas	75 ppm @ 15% O ₂ 0.3 lb NO _x /MMBTU	42 ppm @ 15% O ₂ 125 ppm @ 3% O ₂
	Oil	75 ppm @ 15% O ₂ 0.3 lb NO _x /MMBTU	75 ppm @ 15% O ₂ 0.3 lb NO _x /MMBTU
SO ₂	Oil	187 ppm 1% by Weight 1 lb SO ₂ /MMBTU	56 ppm 0.3% Sulfur by Weight 0.3 lb SO ₂ /MMBTU
CO	All	None	None
Visible Emissions	All	20%	0%

*From the EPA's SSIES document, EPA-450/2-77-017a

EPA's Proposed New Source Performance Standards for Gas Turbines:

The proposed standards were published in the Federal Register October 3, 1977, and are expected to be promulgated January, 1979, as follows:

Nitrogen Dioxide: 75 ppm by volume at 15 percent oxygen on a dry basis.

The standard would include an adjustment factor (see attachment) for gas turbine with thermal efficiencies greater than 25 percent, and also an adjustment factor (see attachment) for turbines burning fuels with fuel bound nitrogen content greater than 0.15 percent by weight. Each factor would result in a larger number. Measured NO_x levels would be adjusted to the International Standards Organization (ISO) reference conditions of 15°C and 60% R.H., 101.3 kilopascals pressure.

Sulfur Dioxide: 150 ppm by volume corrected to 15 percent oxygen,
or

0.8% Sulfur by weight in fuel.

BACT Determination by Florida Department of Environmental Regulation:

Nitrogen Dioxide: 75 ppm by volume at 15 percent oxygen on a dry basis, adjusted to ISO.

The proposed standard would be EPA's proposed New Source Performance Standard. NO_x emissions from gas turbines, therefore, would be limited according to the following equation:

MEMORANDUM

JOSEPH W. LANDERS, JR.

November 3, 1978

page 3

$$STD = (.0075 E) + F$$

Where:

STD = allowable NO_x emission (percent by volume at 15 percent oxygen)

E = efficiency adjustment factor: $\frac{14.4 \text{ kilojoules/watt}\cdot\text{hr}}{\text{Actual ISO heat rate}}$

F = fuel-bound nitrogen allowance:

<u>Fuel-Bound Nitrogen</u> <u>percent by weight (N)</u>	<u>F</u> <u>(NO_x-percent by volume)</u>
(N) less than 0.015 percent	0
(N) between 0.015 and 0.1 percent	0.04 (N)
(N) between 0.1 and 0.25 percent	0.004 + 0.0067 (N-0.1)
(N) greater than 0.25 percent	0.005

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

$$NO_x = (NO_{x_{obs}}) \left(\frac{P_{ref}}{P_{obs}} \right)^{0.5} e^{19(H_{obs} - 0.00633)}$$

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

H_{obs} = Specific humidity of ambient air

e = Transcendental constant (2.718)

Sulfur Dioxide: 95 ppm by volume corrected to 15 percent oxygen on a dry basis, or

0.5% Sulfur by weight in fuel

Hydrocarbons: No standard

Carbon Monoxide: No standard

MEMORANDUM

JOSEPH W. LANDERS, JR.

November 3, 1978

page 4

Particulate: No standard

Opacity: Less than 20%

Justification of DER Determination:

A previous BACT determination by DER, August 11, 1978, for an identical source to be located in Suwannee County (see attachment).

Details of Analysis May be Obtained by Contacting:

Victoria Martinez
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Recommendation from: Bureau of Air Quality Management

by: J.P. Subramani
J.P. Subramani

Date: NOVEMBER 7, 1978

Approved by:

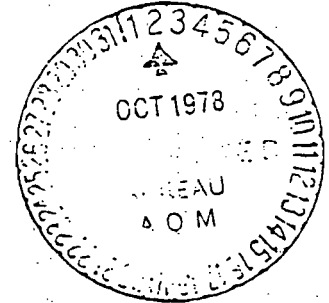
J.W. Landers, Jr.
J.W. Landers, Jr.
Secretary

Date: November 13, 1978

Best Available Copy

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION
INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____



TO: Victoria Martinez
 THRU: J. P. Subramani
 THRU: Philip R. Edwards *PBE*
 FROM: Tom Davis *TWD*
 DATE: September 27, 1978

SUBJECT: BACT Application, Florida Power Corporation, Gas Turbine Peaking Units #3 thru #6 - Avon Park

In accordance with current review procedures, please find enclosed a copy of a BACT application for the subject project.

The BACT application was received on July 18, 1978. Additional information requested was received on September 15, 1978. The construction permit application (including a PSD analysis) was received on August 30, 1978 and considered complete on that date. Accordingly, based upon discussions with BAQM staff, it is my understanding the construction permit application - which includes the BACT and PSD information - would be considered complete as of September 15, 1978. Therefore, the ninety day deadline would be December 15, 1978. We have requested the source to publish the BACT public notice in a local paper on this date. We have also written to the Florida Administrative Weekly to have this same notice published in the next issue.

If there are any questions concerning this matter, please contact me.

TWD/lms

ENCLOSURE

CC:

James Wm. Estler

RECEIVED

JUL 11 1978

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION FOR DETERMINATION OF BEST
AVAILABLE CONTROL TECHNOLOGY FOR AIR POLLUTION SOURCES

SOURCE STATUS: (X) New () Modification
Company Name: FLORIDA POWER CORPORATION County: Highlands
Source Identification: Avon Park Peaking Unit Addition
Source Location: Street: Avon Park Plant Site City:
UTM: East: See Below North: See Below
Appl. Name and Title: J. T. Rodgers, Assistant Vice President
Appl. Address: P. O. Box 14042, St. Petersburg, FL 33733
Appl. Phone: 813/866-4765

DEPARTMENT USE ONLY

Date Appl. Received:
Notice of Receipt:
Newspaper: Date:
Florida Administrative Weekly Date:
BACT Determination:
Declared by Secretary: Date:
BACT:

NOTICE OF DETERMINATION

Newspaper: Date:
Florida Administrative Weekly Date:

UTM: EAST NORTH
451458.565 3050625.774
451428.203 3050625.772
451397.741 3050625.770
451367.251 3050625.768

NOTE: All data is for one (1) gas turbine unit operating at a peak load of 63,000 MW at an ambient temperature of 59°F.

I. DETAILED DESCRIPTION OF SOURCE

A. Describe The Manufacturing Process at the Facility and the Unit Operation to be Controlled. Discuss the Source of Emissions, Existing Control Devices, the Expected Improvement in Performance With Ambient Air Quality Standards or Applicable PSD Increments. Attach Additional Sheet If Necessary.

See attached Exhibit A

B. For This Source Indicate Any Previous CER Permits, Order and Notices; Including Issuance Dates and Expiration Dates.
None

C. Raw Materials, Fuels, and Chemicals Used:

DESCRIPTION	HOURLY USE	CONTAMINANT		RELATION TO FLOW DIAGRAM
		TYPE	%WT.	
Distillate Fuel Oil	37,910#/hr	Ash	0.1% Max	(2)
		Sulfur	0.5% Max	
Air	2,196,000#/hr			(1)

D. Process Rate

- Total Process Input Rate: 2,235,000#/hr (Air and Fuel)
- Produce Output Rate: 2,235,000#/hr (Exhaust Gas)
- Operation Time: 1,500 Hrs/yr

a. ~~XXXXXXXX~~ b. ~~XXXXXXXX~~ c. ~~XXXXXXXX~~

d. Seasons: Operate daytime and early evenings to supply power during periods of high system electrical load for an average of 4 hours per run and during emergency conditions.

II. BEST AVAILABLE CONTROL TECHNOLOGY DATA

A. Emission Limitations For Any Pollutants Emitted From The Source Pursuant To 17-2, F.A.C.?

Yes (<input checked="" type="checkbox"/>)	No (<input type="checkbox"/>)	FOR CLASS II AREA MAXIMUM ALLOWABLE INCREASE IN CONCENTRATIONS RATE OR CONCENTRATION	
CONTAMINANT			
		Annual geometric mean: 19 ug/m ³	24 hr max 37 ug/m ³
		Annual arithmetic mean: 20 ug/m ³	
		24 hr max: 91 ug/m ³	3 hr max: 512 ug/m ³
		NO _x as NO ₂	-----
		HC as (H ₄)	-----
		CO	-----
		Visible emissions & opacity	Less than 20%

B. Are Standards Of Performance For New Stationary Sources Pursuant To 40 C.F.R. Part 60 Applicable To The Source?

Yes () No () However standards are proposed for SO_x and NO_x see below and footnote.

CONTAMINANT	RATE OR CONCENTRATION
Particulate	*Not Applicable
SO _x as SO ₂	*150 ppm by volume
NO _x as NO ₂	** 75 ppm by volume STD (Allowable emission)
HC as (H ₄)	*Not Applicable
CO	*Not Applicable

C. Has EPA Declared The Best Available Control Technology For This Class Of Sources? (If Yes Attach Copy)

Yes () No ()

CONTAMINANT	RATE OR CONCENTRATION
_____	_____
_____	_____
_____	_____
_____	_____

*Reference is made to page 53783, Selection of Pollutants, Federal Register, Vol. 42, No. 191, Monday, October 3, 1977.

** The actual NO_x Emission Rate is adjusted according to the requirements on Page 53789 of the above referenced Federal Register.

D. What Emission Levels Do You Propose As Best Available Control Technology? Also see D continued at bottom of page.

CONTAMINANT	(ACTUAL ESTIMATED EMISSIONS) RATE OR CONCENTRATION	
	<u>Lbs/Hr</u>	<u>T/Yr</u>
Particulate	33	24.75
SO _x as SO ₂	379	284
NO _x as NO ₂	250	187.5
HC as (H ₄)	9	6.75
CO	86	64.5

E. Describe The Existing Control and Treatment Technology (If Any) N/A

1. Control Device:

2. Operating Principles:

3. Efficiency*:

4. Capital Costs:

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

CONTAMINANT	RATE OR CONCENTRATION	
	<u>Before Device</u>	<u>After Device</u>

10. Stack Parameters

a. Height: Ft.

b. Diameter: Ft.

c. Flow Rate: ACFM

d. Temperature: °F

e. Velocity: FPS

D. (Continued)

CONTAMINATE	RATE OR CONCENTRATION
SO _x as SO ₂	95 ppm by volume
NO _x as NO ₂	**75 ppm by volume STD (Allowable Emission)
Opacity	Less than 20%

F. Describe The Control and Treatment Technology Available
(As Many Types As Applicable Use Additional Pages If Necessary)

1. NO₂ Control and Treatment Technology (Wet Method) See Exhibit 8
 - a. Control Device:
 - b. Operating Principles:
 - (See
 - c. Efficiency: Footnote
 - d. Capital Cost: \$945,000.
 - e. Life: 20 years
 - f. Operating Cost: \$759,000 per year
 - g. *Energy: 375,000 KWH
 - h. Maintenance Cost: Significant information is presently unavailable to determine maintenance Cost
 - i. Availability of Construction Material and Process Chemicals: Equipment is available and demineralized water will be used for the control process
 - j. Applicability to Manufacturing Processes: The control strategy is well adapted to the process and is currently available
 - k. Ability to Construct with Control Device, Install In Available Space, and Operate within Proposed Levels: The plant site has adequate space to install the necessary water treatment and storage facility for the NO_x control.

2. NO₂ Control and Treatment Technology (Dry Method) See Exhibit 8
 - a. Control Device: [Insufficient information is available from manufacturers on dry NO_x control to complete
 - b. Operating Principles: this section, since the equipment is not commercially available at the present time. The Company cannot indicate that dry NO_x control is a practical control method at
 - c. Efficiency: d. Capital Cost: the present time. However, the Company is leaving the option
 - e. Life: f. Operating Cost: open in that this control methodology may be demonstrated soon
 - g. Energy: h. Maintenance Cost: by manufacturer's test programs.
 - i. Availability of Construction Materials and Process Chemicals:
 - j. Applicability to Manufacturing Processes:
 - k. Ability to Construct with Control Device, Install In Available Space, and Operate within Proposed Levels:

* Energy to be Reported in Units of Electrical Power - KWH
Design Rate.

- F. 1. (c) Efficiency: Description of NO_x control will be in accordance with specifications of a particular manufacturer. Use of steam is not contemplated since boilers will not be installed on site. Water injection will be used with expected efficiency - adequate to reduce the NO_x emission level to 75 ppm by volume (Standard) (Allowable Emission)**

3. SO₂ Control and Treatment Technology.

a. Control Device: Distillate fuel will not exceed .5% sulfur by weight

b. Operating Principles:

(See Footnote Below) c. Efficiency: d. Capital Cost: when using distillate fuel when compared to a higher sulfur fuel. The capital cost is lower.

e. Life: f. Operating Cost: sulfur less expensive fuel.

g. Energy: h. Maintenance Cost:

i. Availability of Construction Materials and Process Chemicals:

j. Applicability to Manufacturing Processes:

The control strategy is well suited to the process.

k. Ability to Construct with Control Device, Install In Available Space, and Operate within Proposed Levels:

It is anticipated that no difficulties will be realized in acquiring the low sulfur fuel to meet the aforementioned control technology for SO₂. Appropriate contract(s) would be secured subsequent to acquiring all necessary governmental licensing for the project.

4.

a. Control Device:

b. Operating Principles:

c. Efficiency: d. Capital Cost:

e. Life: f. Operating Cost:

g. Energy: h. Maintenance Cost:

i. Availability of Construction Materials and Process Chemicals:

j. Applicability to Manufacturing Processes:

k. Ability to Construct with Control Device, Install in Available Space, and Operate within Proposed Levels:

3 (c). Efficiency: For peaking unit installations, low sulfur distillate fuel is normally used to provide maximum reliability. There is no feasible control device for removing SO₂ from a combustion turbine exhaust gas when high sulfur fuel is used. (High sulfur fuel is defined as that with a sulfur content over 0.8% which would exceed the EPA proposed emission limits).

G. Describe the Control Technology Selected: SO₂ Control will be Distillate Fuel Oil, NO_x Control: Wet or Dry Method. See Para. 10, REASONS FOR SELECTION.

1. Control Device: AND DESCRIPTION OF SYSTEMS and attached Exhibit 9. Also refer to F1, 2, & 3 on the preceding two pages.

2. Efficiency: 3. Capital Cost:

4. Life: 5. Operating Cost:

6. Energy: 7. Maintenance Cost:

8. Manufacturer: General Electric Co., Westinghouse Corp., Brown Boveri, United Technologies.

9. Other locations Where Employed on Similar Processes: Presently is not employed at any FPC facility

a.

(1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:

CONTAMINANT

RATE OR CONCENTRATION

CONTAMINANT	RATE OR CONCENTRATION

(8) Process Rate:

b.

(1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:

CONTAMINANT

RATE OR CONCENTRATION

(8) Process Rate:

c.

- (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:

CONTAMINANT

RATE OR CONCENTRATION

(8) Process Rate:

d.

- (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:

CONTAMINANT

RATE OR CONCENTRATION

d. (7) Emissions: (continued)

CONTAMINANT	RATE OR CONCENTRATION

(8) Process Rate:

c.

- (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:

CONTAMINANT	RATE OR CONCENTRATION

(8) Process Rate:

- 10. Reason For Selection and Description of Systems: NO_x Control - recommendation from manufacturer to be requested in Specs. Methodology available Wet & Dry Method. See Exhibit B. Specifications will require compliance with Federal and State regulations on NO_x Control.
- SO₂ Control - Fuel - Reason: Only existing feasible control technology available for SO₂.
- 11. Emissions:

CONTAMINANT	ACTUAL ESTIMATED MAXIMUM DISCHARGE RATE OR CONCENTRATION	
	Lbs/Hr	Tons/Yr
Particulate	33	24.75
SO _x as SO ₂	379	284
NO _x as NO ₂	250	187.5
HC as (H _d)	9	6.75
CO	86	64.5

12. Stack Parameters:**

- a. HEIGHT: 22 Ft. Minimum
- b. Cross sectional area 130 sq. ft. (Rectangular)
- c. Gas Flow Rate: 1,255,500 ACFM
- d. Gas Exit Temperature: 726°F to 800°F
- e. Velocity: 153 FPS

** Depending on the selection of a manufacturer, there will be one or two stacks per unit.

13. Fuels:

TYPE	HOURLY USE*		HOURLY HEAT INPUT MILLION BTU/HR.	
	AVG.	MAX.	AVG.	MAX.
Distillate Fuel Oil	Varies	37,910	Varies	739 X 10 ⁶ BTU/HR.

NOTE: Fuel consumption will vary with load and ambient temperature. The consumption listed is for one (1) gas turbine unit operating at peak load at 59°F ambient temperature.

TYPE	DENSITY	% S Maximum by % Weight	% N	% ASH Maximum
Distillate Fuel Oil	6.8 Lb/Gal	0.5%		0.1%

*Gaseous Cu. Ft./Hr. Liquid & Solid: Lbs./Hr.

14. Wates Generated, Disposal Method, Cost of Disposal: Waste water due to water demineralization plant may be disposed of in existing percolation pond. Appropriate licensing will be acquired from the DER if wet method of NO_x Control is chosen.

H. Discuss the Social Impact of the Selected Technology Versus Other Applicable Technologies. (i.e. Jobs, Payroll, Production, Taxes, Energy, Etc.)
Include Assessment of the Environmental Impact of the Sources

Social Impacts: See Exhibit C

Environmental Impacts: See Exhibit D

III. ADDITIONAL ATTACHED INFORMATION.

- A. Show Derivation of Total Process Input Rate and Product Weight.
- B. Show Derivation of Efficiency Estimation. See 8 below.
- C. An 8 1/2" x 11" Flow Diagram Which Will, Without Revealing Trade Secrets, Identify the Individual Operations and/or Processes. Indicate Where Raw Materials Enter, Where Solid and Liquid Waste Exist, Where Gaseous Emissions and/or Airborne Particles Are Evolved and Where Finished Products Are Obtained.
See Dwg. APP-L3-A-0
- D. An 8 1/2" x 11" Plot Plan Showing the Exact Location of Manufacturing Processes and Outlets for Airborne Emissions. Relate All Flows to the Flow Diagram. See Dwg. APP-L2-8-0
- E. An 8 1/2" x 11" Plot Plan Showing the Exact Location of the Establishment, and Points of Airborne Emissions in Relation to the Surrounding Area, Residences and Other Permanent Structures and Roadways. See Dwg. APP-L1-A-0
- F. Attach All Scientific, Engineering, and Technical Material, Reports, Publications, Journals, and Other Competent Relevant Information Describing the Theory and Application of the Requested Best Available Control Technology.

8. Heat Rate 11,734 BTU/KW-HR. (Higher Heating Value)

$$1 \text{ KW-HR} = 3413 \text{ BTU}$$

$$\frac{3413}{11,734} = 29\%$$

DESCRIPTION OF FLORIDA POWER CORPORATION
GAS TURBINE GENERATING UNITS TO BE LOCATED
AT THE COMPANY AVON PARK POWER PLANT SITE

Four (4) 63,000 KW gas turbine electric generating units are intended to be constructed for Florida Power Corporation. The units are planned for installation at the Florida Power Corporation Avon Park Power Plant site. The units are scheduled for commercial operation in October 1981, and will be known as Avon Park Peaking Units #3 through #6.

The gas turbine electric generating units are individually housed and are completely automated facilities. The units will be operated by remote control and no water is utilized for cooling purposes.

The plants are to be used for peaking purposes (intermittent operation) and will normally be run in the daytime and early evening during periods of peak electrical load. These units will be run at night only during emergencies.

At the peak power level of 63,000 KW, occurring at an ambient air temperature of 59°F, each unit will burn approximately 632 pounds of liquid fuel per minute. The exhaust gas flow at this rating will be 1,255,500 ACFM at an approximate temperature of 726°F. Clean burning fuel which will have a maximum sulfur content of 0.5% will be used. The output of the gas turbines will vary with the ambient air temperature and the maximum plant electrical output will vary accordingly.

Since the gas turbines utilize low sulfur fuel oil, causing an essentially clear exhaust discharge, the process is considered to be an extremely low pollution source. The smoke density is less than a Ringleman #1 during all modes of operation and the visible emissions shall be less than 20% opacity.

WET METHOD

The present day available (state of the art) control device for reducing NO_x emissions formed in combustion turbines is injection of water with the fuel in the gas turbine burner chambers. Various types of burners are used by the major manufacturers and therefore the quantity of water injected will vary according to the particular manufacturer. In general the amount of water injection required to meet the allowable emission level (75 PPM NO_x by volume) will run from 50% to 100% of the total weight of fuel burned.

The water injection cools the flame which lowers the temperature which is the mechanism by which NO_x is formed in the combustion process.

To prevent high temperature corrosion of the turbine blades, only demineralized water can be used for the water injection (with Sodium content of 1 PPM or less). There is an efficiency loss in the combustion turbine due to water injection as follows:

Assume 1# of water need per 1# of fuel fired.

$$\Delta h \left(\begin{array}{l} \text{Heat required to vaporize 1\# of water at } 70^{\circ}\text{F} \\ \text{to } 726^{\circ}\text{F exhaust temperature} \end{array} \right) = 1,356 \text{ BTU/\#}$$

Heating Value of fuel = 19,500 BTU/#

$$\text{Gross Loss in Thermal Efficiency} = \frac{\Delta h \text{ injection water}}{19,500} = \frac{1,356}{19,500} = 6.95\%$$

This example considers worst case and it is expected that the actual water consumed will be a lesser quantity.

DRY METHOD

As an alternate, most manufacturers are developing burner chambers that will reduce NO_x emissions to the allowable level by staging the fuel combustion in various zones of the burner chambers to lower the overall burner temperatures and NO_x formation conditions. Presently this type of control is not available commercially for a gas turbine plant, but it is possible that due to rapid development, the "dry" NO_x burner chambers will be available in the future after the new generating units will be operational.

There is no loss in thermal efficiency when using the dry type emission control method and consequently it is the preferred method.

SOCIAL ECONOMIC IMPACT

A fundamental social economic benefit is derived from the adequacy of electric supply to meet society's demand for energy. The proposed installation of 200 MW of gas turbine capability at Avon Park Plant is part of a strategic generation expansion plan that has been evaluated as the economic optimum choice from a set of alternative plans. This selected strategy considers state wide coordination, including purchase power agreements and joint venture projects.

The construction of a four unit project will employ a peak construction work force and supervisory staff of approximately 125 people. Capitalized construction costs of each individual unit is estimated at approximately \$10.5 million, including state sales taxes of approximately \$275,000. Construction payroll will impact the local community with expected average monthly payroll for the project of \$100,000 over the 18 month period. This represents a benefit to employment and the local economy relative to the subsistence needs of these local and transient workers. In addition to labor payroll, construction materials and supplies will be purchased from local businesses. Additional sales taxes will be derived from partial expenditure of this payroll by the construction labor force.

The unit will become operational in October 1981. The social economic impact of the operation of the plant can be best analyzed on a total project basis, as opposed to individual unit price and the resulting economic benefit could theoretically be allocated in proportionate shares to each unit. This project will create an estimated eleven new permanent jobs to operate, maintain and manage the facilities, with an estimated new annual payroll of \$275,000. These people will be residents of the local area and their income will stimulate the local economy, by the construction of homes and the consumption of goods and services to meet their living needs. State sales taxes and local property taxes will also be impacted by the presence of these plant personnel.

Production of energy from this plant will represent a vital part of the state's energy needs during peak load requirements. The role of these facilities in the overall configuration of Florida Power's generation plans is expected not to exceed 1500 hours per year, to supply peak load requirements. The characteristic low capital cost of these facilities, in spite of their higher fuel costs, results in an economic contribution to the energy supply for our system and for the state. The fuel oil consumed by these units is minimal because of the limited hours a year of operation during peak load requirements only.

The supply of fuel and the supply of outside materials and services to operate and maintain these facilities represents additional social economic benefit. The social economic costs of the presence of these facilities is represented by the added stress on socio-ecosystems, including traffic congestion and other problems associated with higher population density - particularly during the construction phase.

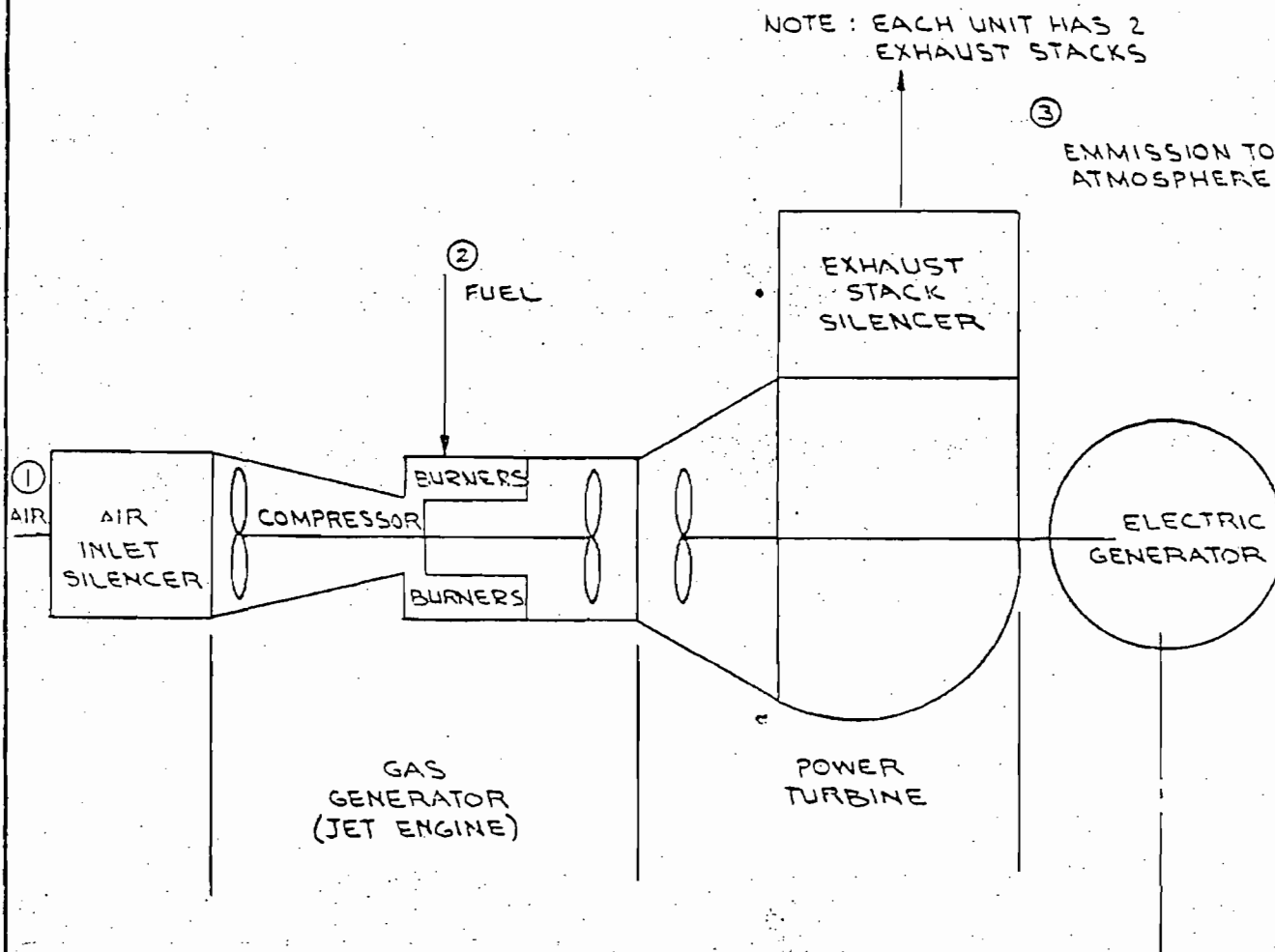
ASSESSMENT OF THE ENVIRONMENTAL IMPACT OF THE SOURCES

The site selected for the proposed gas turbines is located north of the Avon Park generating facility on existing property. These gas turbine units will be built on previously cleared land and no impact to natural vegetation or wildlife is expected. No alteration of the hydrological regime is anticipated and storm water runoff patterns will not be altered.

Waste waters generated by the new facilities will be conveyed to the existing evaporation/percolation ponds. The impact of noise generated by these units will be limited to meet the local and county sound level standards at the plant property lines.

The environmental impact of the ambient air quality is given in the Prevention of Significant Deterioration permit application.

FLORIDA POWER CORPORATION
SYSTEM ENGINEERING DEPARTMENT



NOTE: EACH UNIT CONSISTS OF
1 ELECTRIC GENERATOR
AND 2 JET ENGINES

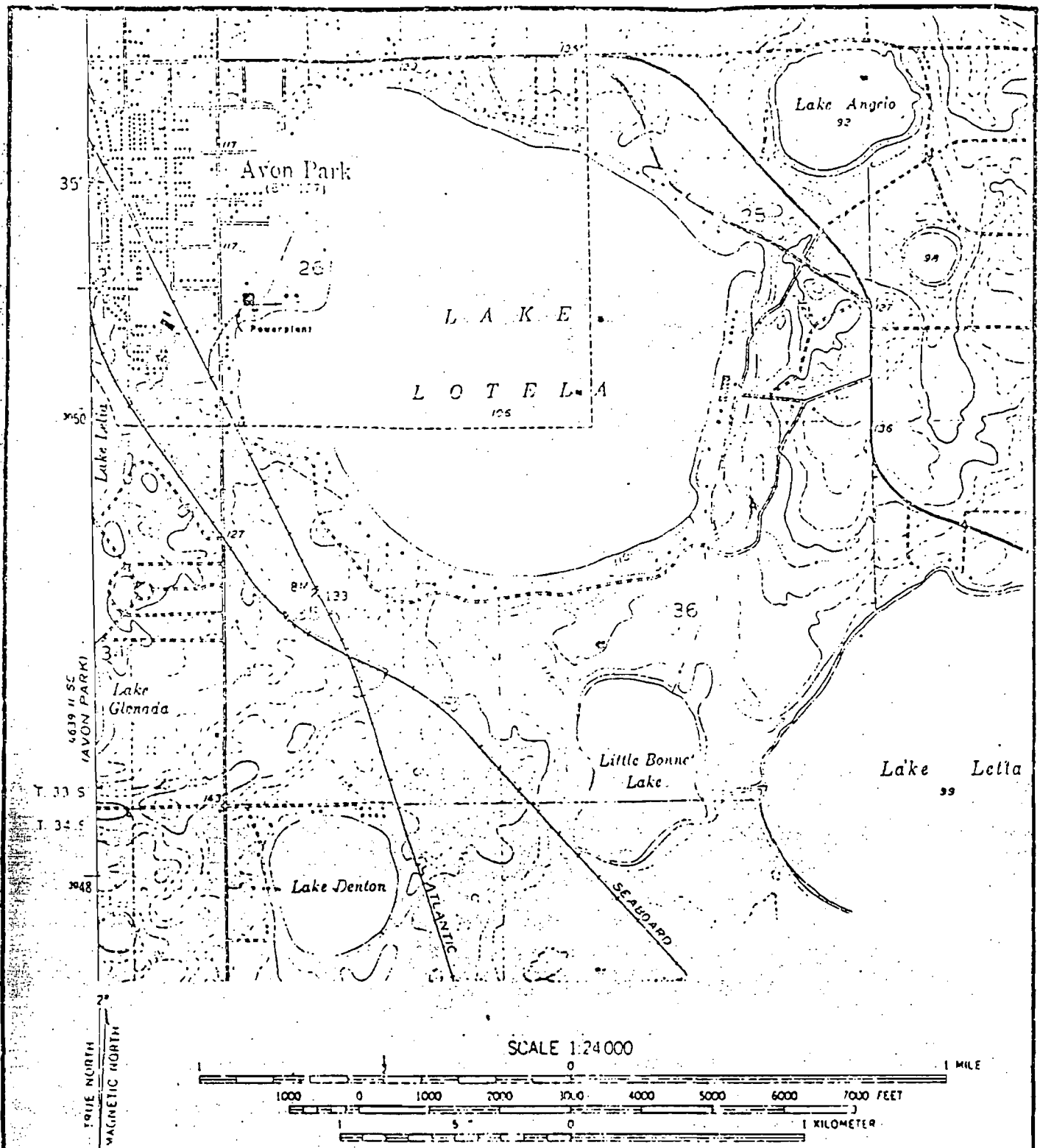
NOTE: UNIT IS SYMETRICAL
ABOUT E

REVISIONS	
NO	DATE

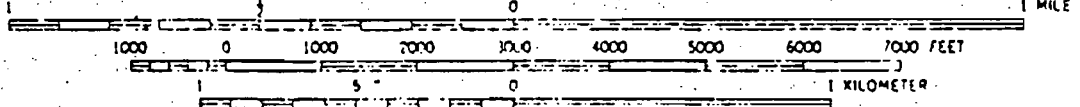
FLOW DIAGRAM
AVON PARK PEAKERS

DRAWN BY: LRS
DATE: 7-6-78
CHECKED: CHF
APPROVED: [Signature]
SCALE: 1"

DWG. NO. APP-L3-A-C



SCALE 1:24000



CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

APPROXIMATE MEAN DECIAMATION, 1953

NO.	DATE	REVISION	BY	CK.	APP.

DATE 7-5-78 SCALE AS NOTED BY PMS CK. APP.

GENERAL AREA LOCATION MAP

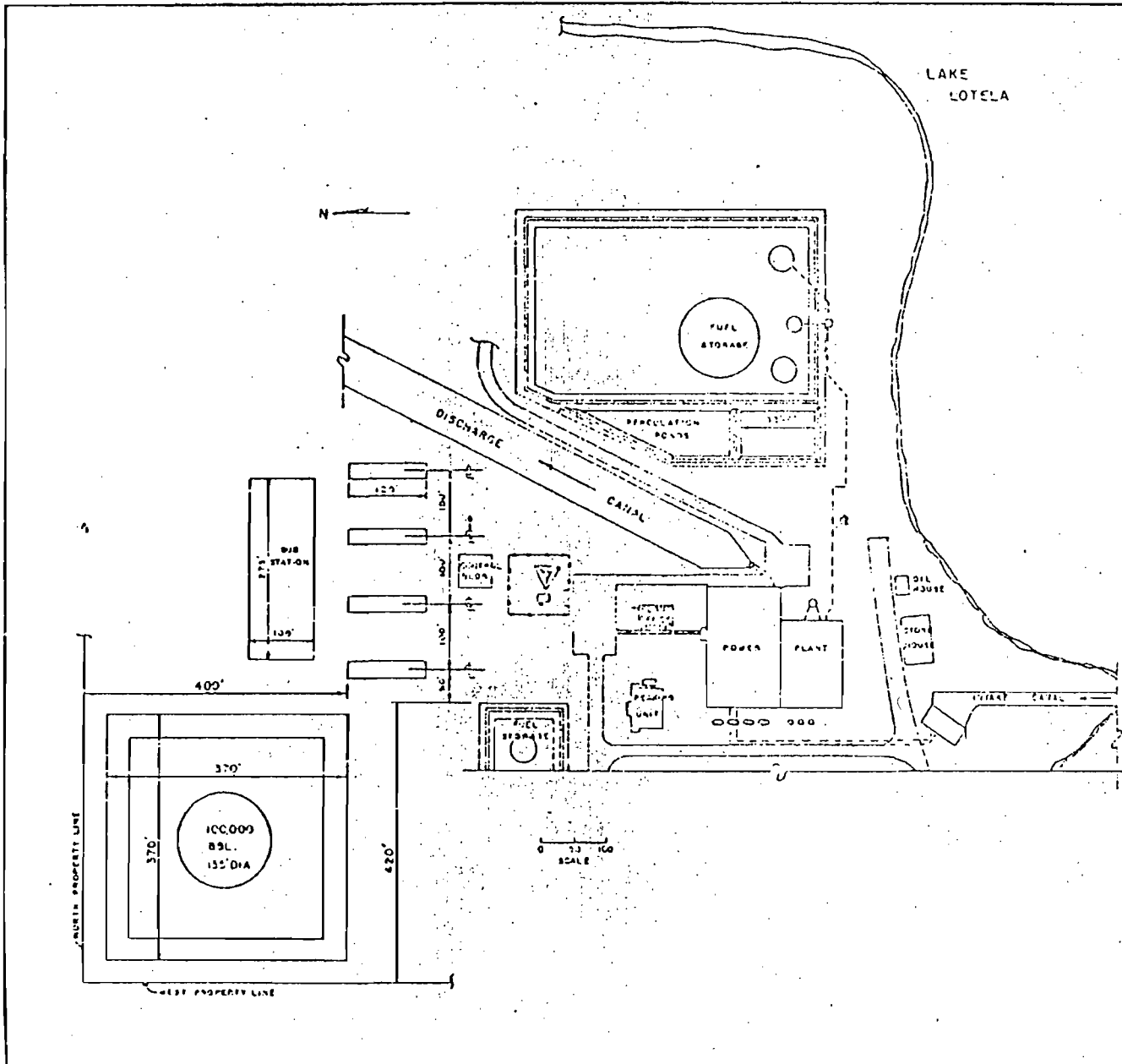
PROJECT *GAS TURBINES*

FLORIDA POWER CORPORATION
ST. PETERSBURG, FLORIDA

DRAWING NO. APP-LI-A-0

BEST AVAILABLE COPY

4-66 10:00 AM MCM:PL



NO.	DESCRIPTION	BY	DATE	APP.
REVISIONS				
FLORIDA POWER CORPORATION SYSTEM ENGINEERING DEPARTMENT SECTION				
SITE PLAN FOR PROPOSED GAS TURBINES AT AVON PARK				
SCALE AS SHOWN DATE 6-20-75 DRAWN HWS				
CHECKED.....				
APPROVED.....				

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO : Joseph W. Landers, Jr.

FROM: J. P. Subramani *J. Subramani*

DATE: August 11, 1978

SUBJ: BACT Application for Four Florida Power Corporation Gas Turbines, Suwannee River Plant Site, Suwannee County

Facility: Four 63,000 KW gas turbine electric generating units to be located at Florida Power Corporation's Suwannee River Plant. The units, scheduled for commercial operation in October 1980, will be known as Suwannee River Peaking Units 1 through 4.

At a peak power level of 63,000 KW, each unit will burn approximately 37,910 pounds of distillate fuel per hour which constitutes a heat input rate of 739 million BTU/hr.

BACT Determination Requested by the Applicant

Nitrogen Dioxide: 75 ppm by volume, achievable through wet or dry method

Sulfur Dioxide: 95 ppm by volume, achievable through the use of .5% distillate fuel oil

Opacity: Less than 20%

Date Receipt of a Complete BACT Application:

May 12, 1978

Date of Publication in the Florida Administrative Weekly:

June 23, 1978

Date of Publication in a Newspaper of General Circulation:

June 30, 1978 - Florida Times Union

Mr. Joseph W. Landers, Jr.
 August 11, 1978
 Page Two

Study Group Members:

Steve Smallwood, Bureau of Air Quality Management, DER
 Albert Townsend, South Florida District, DER
 Robert Kapplemann, City of Jacksonville,
 Department of Health
 Frank Darabi, St. John River Subdistrict, DER
 Victoria Martinez, BACT Coordinator, DER

Study Group Recommendations:

	*Albert Townsend	Robert Kapplemann	Steve Smallwood	Frank Darabi
Ash Content of Fuel		.01%		Low
Particulates				.08 lb/BTU
NO ₂	Wet Method	50 ppmv-water or steam to fuel ratio of about 1.4	±75 ppmv with EPA's upward corrections for efficiency and fuel bound nitrogen	75 ppmv
SO ₂	Low Sulfur Oil	±.3% S Oil	±100 ppmv	.3% S Fuel
Opacity		10% except for start-up	±20%	20%
HC				
CO				
Noise				Minimized at property line.

*Albert Townsend felt the data provided by the applicant was insufficient to establish specific emission limits.

**Steve Smallwood considered 60 ppmv NO₂ 80 ppm SO₂ and 10% opacity to be a reasonable alternative. However, he felt sufficient information was not provided by the applicant to analyze the economic impact of this alternative.

Mr. Joseph W. Landers, Jr.
August 11, 1978
Page Three

Other State and Local Emission Standard Applicable to Gas Turbines*:

<u>Pollutant</u>	<u>Fuel</u>	<u>Typical</u>	<u>Most Stringent</u>
NO _x	Gas	75 ppm @ 15% O ₂ 0.3 lb NO _x /MMBTU	42 ppm @ 15% O ₂ 125 ppm @ 3% O ₂
	Oil	75 ppm @ 15% O ₂ 0.3 lb NO _x /MMBTU	75 ppm @ 15% O ₂ 0.3 lb NO _x /MMBTU
SO ₂	Oil	187 ppm 1% Sulfur by Weight 1 lb SO ₂ /MMBTU	56 ppm 0.3% Sulfur by Weight 0.3 lb SO ₂ /MMBTU
CO	All	None	None
Visible Emissions	All	20%	0%

*From the EPA's SSEIS document, EPA/450/2-77-017a

EPA's Proposed New Source Performance Standards for Gas Turbines:

The proposed standards were published in the Federal Register October 3, 1977 and are expected to be promulgated January, 1979.

Nitrogen Dioxide: 75 ppm by volume at 15 percent oxygen on a dry basis.

The standard would include an adjustment factor (see attachment) for gas turbine with thermal efficiencies greater than 25 percent, and also an adjustment factor (see attachment) for turbines burning fuels with fuel bound nitrogen content greater than 0.15 percent by weight. Each factor would result in a larger number. Measured NO_x levels would be adjusted to ISO reference conditions.

Sulfur Dioxide: 150 ppm by volume corrected to 15 percent oxygen. or
0.8% Sulfur by weight in fuel.

Mr. Joseph W. Landers, Jr.
 August 11, 1978
 Page Four

BACT Determination by Florida Department of Environmental Regulation:

Nitrogen Dioxide: 75 ppm by volume at 15 percent oxygen on a dry basis, adjusted to ISO.

The proposed standard would be EPA's proposed New Source Performance Standard. NO_x emissions from gas turbines, therefore, would be limited according to the following equation:

$$STD = (.0075 E) + F$$

Where:

STD = allowable NO_x emission (percent by volume at 15 percent oxygen)

E = efficiency adjustment factor: $\frac{14.4 \text{ kilojoules/watt}\cdot\text{hr}}{\text{Actual ISO heat rate}}$

F = fuel-bound nitrogen allowance:

<u>Fuel-Bound Nitrogen</u> <u>percent by weight (N)</u>	<u>F</u> <u>(NO_x - percent by volume)</u>
(N) less than 0.015 percent	0
(N) between 0.015 and 0.1 percent	0.04 (N)
(N) between 0.1 and 0.25 percent	0.004 + 0.0067 (N-0.1)
(N) greater than 0.25 percent	0.005

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

$$NO_x = (NO_{x_{obs}}) \left(\frac{P_{ref}}{P_{obs}} \right)^{0.5} e^{19 (H_{obs} - 0.00633)}$$

Where:

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

Mr. Joseph W. Landers, Jr.
August 11, 1978
Page Five

$NO_{x_{obs}}$ = 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
 H_{obs} = Specific humidity of ambient air
 e = Transcendental constant (2.718)

Sulfur Dioxide: 95 ppm by volume corrected to 15 percent oxygen on a dry basis. or 0.5% Sulfur by weight in fuel.

Hydrocarbons: No standard

Carbon Monoxide: No standard

Particulates: No standard

Opacity: Less than 20%

Justification of DER Determination:

Nitrogen Dioxide

The proposed standard was selected after carefully examining the recommendations of the study group and the SSIES document for EPA's proposed standard. The SSIES document showed test data on 8 simple cycle peaking gas turbines. Of these, only 6 were fired with distillate fuel. Tests for controlled emissions were available for 4 of these 6 turbines. Test results showed a range in emission of 55 to 80 ppmv (after EPA's proposed upward correction for turbine efficiencies above 25%). Although three of these four turbines had emissions below or at the 60 ppmv level, the EPA's 75 ppmv standard was preferred because it allowed for the uncertain validity of the limited test data available.

SO₂

The only available and economically feasible technique for sulfur dioxide emission control is low sulfur oil. Other techniques for tail gas cleanup cost two to three times as much as the turbine itself.

In selecting the 0.5% S fuel by weight as the standard, the availability of this fuel and the relative economic advantage of its use were considered.

Mr. Joseph W. Landers, Jr.
August 11, 1978
Page Six

The lower 0.3% S by weight proposed by two members of the study group would result in an increase in fuel cost of 1.8% or about \$53,500/unit per year - a conservative estimate. Increases in ambient air concentrations expected to result from the operation of the turbines do not justify the need for the more stringent standard and increased cost of production.

HC, CO, Particulates:

The SSEIS document shows insignificant impact on ambient air from the limited gas turbines emissions.

Opacity:

The proposed standard is consistent with the SSEIS document and agrees with the recommendation of two of the three members of the group proposing an opacity standard.

Details of Analysis May be Obtained by Contacting:

Victoria Martinez
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Recommendation from: Bureau of Air Quality Management

by: J. P. Subramani
J. P. Subramani

DATE: AUGUST 11, 1978

Approved by:

Victoria Landers, Jr.
J. W. Landers, Jr.
Secretary

DATE: August 16, 1978

State of Florida summary checklist for initial Title V permit applications for 'existing' Title V Sources

Facility Owner/Operator Name: Florida Power Corporation
Facility ID No.: 0550003 Site Name: Avon Park Facility
County: Highlands
application receipt date 6/14/96

I. Preliminary scanning of application submitted.

- a. Was application submitted to correct permitting authority? Y N
- b. Was an application filed? Y* N
- c. Was the application filed timely? Y* N

- d. Application format filed [check one].
Hard copy of official version of form? ELSA? No
A facsimile of official version of form? Some combination?

- e. 4 copies (paper/electronic) submitted? Y N

- f. Electronic diskettes protected/virus scanned/checked? Y N N/A
See Note: by YKZ date 6/27/96

- g. Entire hard copy of Section I. provided (Pages 1-8 of form)? Y N
Facility identified (Page 1)? [if not complete a Page 1] Y* [Attached
R.O. certification signed and dated (Page 2)? Y* N
P.E. certification signed and dated (Page 7)? Y* N

- h. Any confidential information submitted? Y N
If yes, R.O. provided hard copy to us and EPA? Y* N
If yes, hard copy locked up and note filed with application? Y* N

- i. Type of application filed.
TV application for 'existing' Title V Source only? Y N
Any units subject to acid rain? Y N

Note(s): [*] = mandatory.

Comment(s): No ELSA submittal due to problems
Note: New ELSA discs rec'd 6-27-96 and virus v'd on 6-27-96 by YKZ. jz

Reviewer's initials RW date 6/17/96 Concurrence initials _____ date ____/____/____

State of Florida summary checklist for initial Title V permit applications for 'existing' Title V Sources (cont'd)

II. Application logging.

ARMS Permit Number assigned _____ - _____ - _____
logged into ARMS by initials _____ date ____/____/____

III. Initial distribution of application.

a. Disposition of 4 paper/electronic copies submitted:

- 1- Clean originals to file? Y____ N____
- 1- ____ District Y____ N____
- 1- _____ County [affected local program]? Y____ N____
- 1- Permit engineer(s) _____, _____

b. Disposition of electronic files submitted:

copy placed onto PC? Y____ N____

c. Disposition of ELSA submitted:

version used [circle]: 1.0 1.1 1.2.1 1.3 1.3a 1.3b
Uploaded to EARS? Y____ N____
by _____ date ____/____/____

d. Electronic information submitted previewed? Y____ N____ N/A____

Comment(s): _____

{this checklist was developed from Rule 62-213.420(1)(b)2., F.A.C. and DARM policy}