Florida Power & Light Company, Enviromental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

October 3, 2000

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Initial Startup of Fort Myers
Combustion Turbine #2A

Dear Clair:

This correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that FPL first fired combustion turbine #2A on October 3, 2000. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

Please feel free to contact me at (561) 691-7058 if you have any questions.

Very truly yours,

Richard Piper
Licensing Manager
Florida Power & Light

cc:

David Knowles FDEP South District Office
Doug Neeley EPA Region IV

1925 · 2000

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit Modification by:

Mr. William Reichel, General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

DEP File No. 0710002-008-AC
FPL Fort Myers Repowering Project
Steam Blows
Lee County

/

Enclosed is the Final Permit Number 0710002-008-AC for an air construction permit modification to temporarily allow excess nitrogen oxides emissions period during the conversion of the combustion turbines to combined cycle mode. The Fort Myers Plant is near Tice, Lee County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 6-14-00 to the person(s) listed:

William Reichel, FPL*
Richard Piper, FPL
David Knowles, DEP SD
Gregg Worley, EPA
John Bunyak, NPS

Clerk Stamp

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

Kim Joker (Clerk) 6-14-00 (Date)

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. William Reichel
FPL - Ft. Myers Plant
PO Box 430
Ft. Myers, Fl
33905

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 310

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

Z 341 355 310

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to William Reichel	
Street & Number FPL Ft. Myers	
Post Office, State, & ZIP Code Ft. Myers Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 6-14-00	

PS Form **3800**, April 1995

0710002-008-AC

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FINAL DETERMINATION

DEP File No. 0710002-008-AC

FPL Fort Myers Repowering Project- Steam Blows
Lee County, Florida

An Intent to Issue an air construction permit modification to revise some specific conditions and to allow increased NO_X emissions during the conversion of the planned combustion turbines to combined cycle operation at the Fort Myers Plant was distributed on May 2, 2000. The plant is located near Tice, Lee County, Florida.

The Public Notice of Intent to Issue Air Construction Permit was published in the Fort Myers News Press on May 8, 2000. No comments were received as a result of the Public Notice period.

The final action of the Department will be to issue the permit modification as noted during the Public Notice period.

Department of
Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

June 12, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William Reichel
General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

Re: FPL Ft. Myers Repowering Project
Steam Blow Operations
DEP File No. 0710002-008-AC

Dear Mr. Reichel:

The Department reviewed your request dated February 7, 2000 and additional information received on April 3 for a modification of air construction permit number 0710002-004-AC applicable to the Fort Myers Repowering Project. The modification is to allow increased nitrogen oxides emissions from the combustion turbines while they are being converted to combined cycle mode. Several other changes or clarification were requested.

FPL requested modification of Specific Condition 22 to allow correction of volatile organic compound (VOC) emissions concentrations by subtracting background concentrations. The Department already discussed this issue in the Final Determination accompanying the permit for the repowering project. Based on the tests conducted at the Martin Plant, emissions of VOC after tuning were less than 0.5 ppm without subtraction of ambient VOC concentrations. The turbine will destroy ambient VOCs, which are probably comprised of different constituents than the VOCs emitted from the turbine. The emission level agreed to by FPL has already been demonstrated without subtraction of background contribution.

If the units exceed 1.4 ppm, the Department will consider at that time whether subtraction of ambient air concentrations is warranted. We have received no similar requests from the many other applicants proposing the same type of combustion turbines. The Department believes that the combustion technology employed by FPL is representative of the Best Available Control Technology. At such low levels, the difference between two very low numbers will not be accurate or precise. It should be noted that the stack test requirements are only initial performance tests. Although some unspecified amount of air bypasses the combustors, it will still be subjected to temperatures high enough to reduce VOCs to levels required by the permit.

The air construction is hereby modified as follows to reflect the other requests:

PLACARD PAGE

The project also includes a cooling tower for once-through brackish water ~~and a small boiler or~~ six direct-fired heaters with ~~a 30-foot stack~~ 21-foot stacks to heat the natural gas prior to use during simple cycle operation and cold start-ups.

SECTION I, SUBSECTION B. EMISSION UNIT No. 24

~~Natural Gas Boiler or~~ six direct-fired Heater~~(s)~~

SECTION III, SPECIFIC CONDITION No. 19 - Last Paragraph

NO_X emission limit from the six gas heaters~~/ boiler~~ shall not exceed 0.10 lb/mmBtu (at ISO conditions) to be demonstrated by an initial stack test on two of the six heaters.

SECTION III, SPECIFIC CONDITION No. 21 – Add Paragraph

CO emission limit from the six gas heaters shall not exceed 0.15 lb/mmBtu (at ISO conditions) to be demonstrated by an initial stack test on two of the six heaters.

SECTION III, SPECIFIC CONDITION No. 24 – Add Paragraph

The following NO_X excess emissions periods are applicable only at the end of construction and shall not exceed a total of 90 days per combustion turbine:

- Emissions of NO_X from the combustion turbines (CTs), in excess of the BACT limit established in Specific Condition 19, resulting from steam blow activities associated with bringing the heat recovery steam generators into operation shall be permitted provided that best operational practices are adhered to and that the Subpart GG NSPS limit of 75/110 ppmvd @15% O_2 is not exceeded. The period during which such excess emissions are authorized shall not exceed a total of 90 days per combustion turbine. The applicant shall record for each CT unit the periods of startup for each operating mode. Excess emissions during the periods of startup shall be reported to the FDEP South District office within 30 days.
  [Applicant Request (FPL estimates that CT emissions will comply with the NSPS NO_X limit following initial compliance testing, but that low load operation necessary for steam blow activities prior to initial combined cycle operation will result in NO_X emissions above the BACT limit of 9 ppmvd @15 percent O_2. Excess emissions of NO_X resulting from steam blows may occur intermittently over a period of up to 30 days per CT initially, followed by a period of up to 60 days of intermittent steam blows for the piping systems serving the six interconnected combined cycle units)].

SECTION III, SPECIFIC CONDITION No. 27

Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit configuration (i.e., simple cycle

and combined cycle) will be operated, but no later than 180 days following initial operation of ~~the~~ each unit configuration, and annually thereafter.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this AIR CONSTRUCTION PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

William Reichel, FPL*
Richard Piper, FPL
David Knowles, DEP SD
Gregg Worley, EPA
John Bunyak, NPS

Clerk Stamp

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

_____ _____
(Clerk) (Date)

Memorandum

Florida Department of Environmental Protection

TO: Howard L. Rhodes

THRU: C. H. Fancy
A. A. Linero

FROM: Teresa Heron

DATE: June 9, 2000

SUBJECT: FPL Ft. Myers 1500 MW Repowering Project
DEP File No. 0710002-008-AC

Attached is the final permit package for the modification of the Ft. Myers Repowering Project permit. The modification is to revise some conditions and to temporarily allow excess NO_X emissions from the combustion turbines while there are being converted to combined cycle mode.

The original project netted out of PSD and no BACT was required. Although emissions will increase during this limited period, the non-PSD determination of the original review remains unchanged.

We denied a request to subtract background ambient concentrations from those measured at the turbine outlet. They simply did not provide anything to back up their request. Our opinion is that they do not require this correction to pass their VOC compliance test.

We recommend your approval of the attached package.

AAL/th

Attachments

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

May 11, 2000

Mr. Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Modification of Draft Air Construction Permit #0710002-008AC
Public Notice

Dear Mr. Fancy:

Enclosed please find the Affidavit of Publication for the Public Notice of Intent to Issue the Air Construction permit modification for the Fort Myers repowered facility. This notice appeared in the Fort Myers News Press on May 8, 2000.

Please do not hesitate to contact me at (561) 691-7058 if I you have any questions.

Very truly yours,

Richard Piper
Licensing Manager
Florida Power & Light Company

cc: J. Heron
SD
EPA
NPS

LEGAL ADVERTISING NOTICE INVOICE: 1847253 AD NUMBER: 47253

Fort Myers News-Press

A Gannett Newspaper

P.O. Box 10, Ft. Myers, FL. 33902 AFFIDAVIT/TEAR A COPIES 1

Phone (941) 335-0258

ACCOUNT: A362013 P.O. NUMBER: DEP PERMIT TELEPHONE: 561 6917058

ADVERTISER: FPL ENVIRONMENTA L SVC/LEGAL	INCHES	LINE/TIME	COST	OTHER	TOTAL
RICHARD PIPER	31.01	374/1	465.93		465.93
PO BOX 14000					
JUNO BEACH FL 33408					

PUBLICATION DATES PLEASE RETAIN FOR YOUR RECORDS

5/08/00 - 5/08/00

DESCRIPTION: Air Construction Permit Modification

RECEIVED

MAY 18 2000

BUREAU OF AIR REGULATION

NEWS-PRESS

Published every morning — Daily and Sunday

Fort Myers, Florida

Affidavit of Publication

STATE OF FLORIDA
COUNTY OF LEE

Before the undersigned authority, personally appeared

Kieanna Henry

who on oath says that he/she is the

Asst. Legal Coordinator of the News-Press, a daily newspaper, published at Fort Myers, in Lee County, Florida; that the attached copy of advertisement, being a

public notice

in the matter of Air Construction Permit Modification

in the _____ Court

was published in said newspaper in the issues of

May 8, 2000

Affiant further says that the said News-Press is a paper of general circulation daily in Lee, Charlotte, Collier, Glades and Hendry Counties and published at Fort Myers, in said Lee County, Florida and that said newspaper has heretofore been continuously published in said Lee County, Florida, each day, and has been entered as a second class mail matter at the post office in Fort Myers in said Lee County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Kieanna Henry

Sworn to and subscribed before me this

8th day of

May 20 00 by

Kieanna Henry

who is personally known to me or who has produced

_____

as identification, and who did or did not take an oath.

Notary Public Brenda Leighton

Print Name _____

My Commission Expires:

CLASS-16

Brenda Leighton
MY COMMISSION # CC806905 EXPIRES
February 14, 2003
BONDED THRU TROY FAIN INSURANCE INC.

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0710002-008-AC
FPL Fort Myers Repowering Project
Lee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Florida Power & Light Company (FPL). This permit modification is to revise some specific conditions and to allow increased NOx emissions during the conversion of the planned combustion turbines to combined cycle operation at the Fort Myers Plant near Tice, Lee County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Fort Myers Plant, Post Office Box 1430, Fort Myers, Florida 33905.

The approved FPL Fort Myers repowering project is under construction. When complete, the boilers and stacks associated with the existing residual oil-fired units will be dismantled and replaced by six natural gas-fired combustion turbines. Each combustion turbine will generate electrical power via an electrical generator driven directly by a shaft from the combustion turbine. The exhaust from each combustion turbine will be routed through a dedicated waste heat boiler. Steam from the six boilers will drive two existing steam electrical generators that will be retained.

Each combustion turbine will initially be tested for compliance with permit conditions and then operate in simple cycle mode without the steam cycle. Each will then be integrated into the steam cycle. As part of this phase, steam will be used to clean the piping system for each waste heat boiler of dirt and debris accumulated during construction. This steam will be vented rather than used to make electricity. To minimize the water requirements and avoid wastage of steam, the combustion turbines will be operated at a reduced load during the "steam blows." Emissions will be higher because the burners do not operate in full lean premixed mode at low load.

Although greater nitrogen oxides emissions are expected during the steam blows, concentrations will not exceed the NOx limit of 40 CFR, Subpart GG: 75 ppmvd at 15 % O2. Steam blows will occur intermittently during a period of 30 days per combustion turbine and wastes heat boiler combination. Thereafter steam blows will occur intermittently

FPL Ft. Myers

0710002-008-AC

during a period of 60 days for the entire system. It is estimated that the total duration of low load operation will not exceed 288 hours per unit. Additional NOx emissions are estimated to be 49 tons per unit.

The limited excess emissions are not significant compared to the overall reduction in emissions due to the repowering project. Additional air quality reviews were not required.

The Department will issue the FINAL permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of Public Notice of Intent to Issue Air Construction Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 1135, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt orthis notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120-60(3). However, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 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 presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

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 notice. 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 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: Florida Department of Environmental Protection, Bureau of Air Regulation, 111 S. Magnolia Drive, Suite 4, Tallahassee, Florida 32301 Telephone: (850) 488-0114 Fax: (850) 922-6979 and Florida Department of Environmental Protection, South District Office, 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902-2549 Telephone: (941) 332-6975 Fax: (941) 332-6969 The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

May. 8 No. 25027

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

May 8, 2000

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

0710002-001- ?

Re: Notification of Construction Start
FPL Fort Myers Repowering Project

Dear Mr. Linero:

Pursuant to the requirements of 40 CFR 60.7(a)(1), please note that the Fort Myers Repowering construction project commenced construction on July 1, 1999.

Please note also that startup activities for the first combustion turbine are currently scheduled to commence in the October / November 2000 timeframe; I will notify you of the planned startup date more definitively as it approaches.

Thank you and your staff for your assistance with permitting this project. I look forward to working with you in the future.

Very truly yours,

Richard Piper
Licensing Manager
Florida Power & Light Company

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

May 1, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William Reichel, General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

Re: FPL Fort Myers Repowering Project
Steam Blow Operation
DEP File No. 0710002-008-AC

Dear Mr. Reichel:

Enclosed is one copy of the Intent to Issue and Draft Air Construction Permit Modification for the referenced project at the FPL Fort Myers Plant, north of State Road 80, near Tice, Lee County. The Department's Intent to Issue Air Modification Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" must be published one time only, as soon as possible, in the legal advertising section of a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please call Ms. Teresa Heron at 850/921-9529.

Sincerely,

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

CHF/th

Enclosures

BEST AVAILABLE COPY

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:
William Reichel, Gen. Mgr.
FP&L - Ft. Myers Plant
PO Box 14000
[redacted], Fl
Juno Bch
33408

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☑ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 288

PS Form 3811, July 1999 Domestic Return Receipt 5-99-M-1789

Z 341 355 275

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to
Mr. Wm Reichel, Gen Mgr
Street & Number
P.O. Box 430
Post Office, State, & ZIP Code
Ft Myers Fl 33902

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	5/2/01

PS Form **3800**, April 1995

DCP 0710002-008-AC

In the Matter of an
Application for Permit by:

Mr. William Reichel, General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

DEP File No. 0710002-008-AC
FPL Fort Myers Repowering Project
Steam Blows
Lee County

/

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Florida Power & Light Company (FPL), applied on February 7, 2000 to the Department for a modification of their air permit to temporarily allow excess nitrogen oxides emissions period during the conversion of the combustion turbines to combined cycle mode. The Fort Myers Plant is near Tice, Lee County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit modification is required to conduct the work.

The Department intends to issue this air construction permit modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed ""Public Notice of Intent to Issue Air Construction Permit Modification." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). The Department suggests that you publish the notice within thirty days of receipt of this letter. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit or other authorization. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 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 presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

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 notice. 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. Mediation is not available in this proceeding.

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 F.S. 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) F.S., 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 the 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.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 5/2/00 to the person(s) listed:

William Reichel, FPL*
Richard Piper, FPL
David Knowles, DEP SD
Gregg Worley, EPA
John Bunyak, NPS

Clerk Stamp

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

Charlotte J. Hayes 5/2/00
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0710002-008-AC

FPL Fort Myers Repowering Project
Lee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Florida Power & Light Company (FPL). This permit modification is to revise some specific conditions and to allow increased NO_X emissions during the conversion of the planned combustion turbines to combined cycle operation at the Fort Myers Plant near Tice, Lee County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Fort Myers Plant, Post Office Box 430, Fort Myers, Florida 33905.

The approved FPL Fort Myers repowering project is under construction. When complete, the boilers and stacks associated with the existing residual oil-fired units will be dismantled and replaced by six natural gas-fired combustion turbines. Each combustion turbine will generate electrical power via an electrical generator driven directly by a shaft from the combustion turbine. The exhaust from each combustion turbine will be routed through a dedicated waste heat boiler. Steam from the six boilers will drive two existing steam electrical generators that will be retained.

Each combustion turbine will initially be tested for compliance with permit conditions and then operate in simple cycle mode without the steam cycle. Each will then be integrated into the steam cycle. As part of this phase, steam will be used to clean the piping system for each waste heat boiler of dirt and debris accumulated during construction. This steam will be vented rather than used to make electricity. To minimize the water requirements and avoid wastage of steam, the combustion turbines will be operated at a reduced load during the "steam blows." Emissions will be higher because the burners do not operate in full lean premixed mode at low load.

Although greater nitrogen oxides emissions are expected during the steam blows, concentrations will not exceed the NO_X limit of 40 CFR, Subpart GG: 75 ppmvd at 15 % O_2. Steam blows will occur intermittently during a period of 30 days per combustion turbine and wastes heat boiler combination. Thereafter steam blows will occur intermittently during a period of 60 days for the entire system. It is estimated that the total duration of low load operation will not exceed 288 hours per unit. Additional NO_X emissions are estimated to be 49 tons per unit.

The limited excess emissions are not significant compared to the overall reduction in emissions due to the repowering project. Additional air quality reviews were not required.

The Department will issue the FINAL permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 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 presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

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 notice. 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 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:

Florida Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: (850)488-0114
Fax: (850)922-6979

Florida Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902-2549
Telephone: (941)332-6975
Fax: (941)332-6969

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

May XX, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William Reichel
General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

Re: FPL Ft. Myers Repowering Project
Steam Blow Operations
DEP File No. 0710002-008-AC

Dear Mr. Reichel:

The Department reviewed your request dated February 7, 2000 and additional information received on April 3 for a modification of air construction permit number 0710002-004-AC applicable to the Fort Myers Repowering Project. The modification is to allow increased nitrogen oxides emissions from the combustion turbines while they are being converted to combined cycle mode. Several other changes or clarification were requested.

FPL requested modification of Specific Condition 22 to allow correction of volatile organic compound (VOC) emissions concentrations by subtracting background concentrations. The Department already discussed this issue in the Final Determination accompanying the permit for the repowering project. Based on the tests conducted at the Martin Plant, emissions of VOC after tuning were less than 0.5 ppm without subtraction of ambient VOC concentrations. The turbine will destroy ambient VOCs, which are probably comprised of different constituents than the VOCs emitted from the turbine. The emission level agreed to by FPL has already been demonstrated without subtraction of background contribution.

If the units exceed 1.4 ppm, the Department will consider at that time whether subtraction of ambient air concentrations is warranted. We have received no similar requests from the many other applicants proposing the same type of combustion turbines. The Department believes that the combustion technology employed by FPL is representative of the Best Available Control Technology. At such low levels, the difference between two very low numbers will not be accurate or precise. It should be noted that the stack test requirements are only initial performance tests. Although some unspecified amount of air bypasses the combustors, it will still be subjected to temperatures high enough to reduce VOCs to levels required by the permit.

The air construction is hereby modified as follows to reflect the other requests:

PLACARD PAGE

The project also includes a cooling tower for once-through brackish water ~~and a small boiler or~~ six direct-fired heaters with ~~a 30-foot stack~~ 21-foot stacks to heat the natural gas prior to use during simple cycle operation and cold start-ups.

SECTION I, SUBSECTION B. EMISSION UNIT No. 24

~~Natural Gas Boiler or~~ six direct-fired Heater~~(s)~~

SECTION III, SPECIFIC CONDITION No. 19 - Last Paragraph

NO_X emission limit from the six gas heaters~~/ boiler~~ shall not exceed 0.10 lb/mmBtu (at ISO conditions) to be demonstrated by an initial stack test on two of the six heaters.

SECTION III, SPECIFIC CONDITION No. 21 – Add Paragraph

CO emission limit from the six gas heaters shall not exceed 0.15 lb/mmBtu (at ISO conditions) to be demonstrated by an initial stack test on two of the six heaters.

SECTION III, SPECIFIC CONDITION No. 24 – Add Paragraph

The following NO_X excess emissions periods are applicable only at the end of construction and shall not exceed a total of 90 days per construction turbine:

- Emissions of NO_X from the combustion turbines (CTs), in excess of the BACT limit established in Specific Condition 19, resulting from steam blow activities associated with bringing the heat recovery steam generators into operation shall be permitted provided that best operational practices are adhered to and that the Subpart GG NSPS limit of 75/110 ppmvd @15% O_2 is not exceeded. The period during which such excess emissions are authorized shall not exceed a total of 90 days per combustion turbine. The applicant shall record for each CT unit the periods of startup for each operating mode. Excess emissions during the periods of startup shall be reported to the FDEP South District office within 30 days.
  [Applicant Request (FPL estimates that CT emissions will comply with the NSPS NO_X limit following initial compliance testing, but that low load operation necessary for steam blow activities prior to initial combined cycle operation will result in NO_X emissions above the BACT limit of 9 ppmvd @15 percent O_2. Excess emissions of NO_X resulting from steam blows may occur intermittently over a period of up to 30 days per CT initially, followed by a period of up to 60 days of intermittent steam blows for the piping systems serving the six interconnected combined cycle units)].

SECTION III, SPECIFIC CONDITION No. 27

Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit configuration (i.e., simple cycle and combined cycle) will be operated, but no later than 180 days following initial operation of ~~the~~ each unit configuration, and annually thereafter.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this AIR CONSTRUCTION PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

William Reichel, FPL*
Richard Piper, FPL
David Knowles, DEP SD
Gregg Worley, EPA
John Bunyak, NPS

Clerk Stamp

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

_____ _____
(Clerk) (Date)

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

March 28, 2000

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Air Construction Permit #0710002-005AC
Excess Emissions During Steam Blows

Dear Mr. Linero:

Following are responses to the three questions posed in your correspondence of March 13, 2000:

1. *[Provide] the actual estimated total hours and the additional emissions (e.g. in tons) for each unit during the 90 day period of time requested for the steam blows.*

   Response: FPL anticipates that a total of 288 hours per combustion turbine (out of a possible 2,160 hours) will be required to perform all the necessary steam blows during startup of the HRSG's at Fort Myers. This is approximately equivalent to 49 tons of NOx per CT. I would like to reiterate that these values are estimates only, and that the actual times may vary from these numbers. As stated previously, these blows will be undertaken intermittently over an approximate 90-day period for each CT / HRSG combination. FPL will take all reasonable steps to minimize the extent and duration of excess emissions, in accordance with our normal operating practices and with the requirements of rule 62-210.700, F.A.C..

2. *As discussed with you by telephone on March 7, 2000, we need a reconciliation of your letter dated November 6, 1998 to Lee County with the present application.*

   In my letter to Lee County, I stated that the maximum operating duration of existing Units 1 and 2 during 2001 would be 5 and 2 months, respectively, and that the CT's would be operating in simple cycle mode during that year, for varying periods of time. As I stated on our telephone call, FPL's plans have changed somewhat, in that we now project the steam units to operate for a longer period of time that year; however, the basic conclusion regarding PSD applicability remains the same; i.e. PSD would not be applicable. I have attached a matrix demonstrating that for your reference. As you can see, all pollutant emissions decrease during 2001 with the exception of VOC emissions, which are projected to increase by 21 tons, which is less than the PSD applicability limit of 40 tons.

3. *As discussed with you and source testing staff on March 10, we need some test data to verify that emissions of VOC are likely to be greater than the permitted limit as a result of contribution of ambient VOC before we can consider allowing a correction. We also need to know the amount of bypass or cooling air that is not subjected to high enough temperature to destroy incoming VOC.*

   FPL does not currently possess test data that supports the premise that ambient VOC's would definitely cause us to be unable to meet our VOC limit. What we do have, however, is the GE Standard Field Testing Procedure for Emission Compliance (attached) which is part of the guarantee package for the 7FA combustion turbines. In that document, please note that in Section II.A. Emission Testing – General, GE states that "GE guarantees apply to the **net** increase of these pollutant emissions". Therefore, FPL would have no contractual recourse with GE, should ambient VOC concentrations cause FPL to exceed what even you have conceded is an extremely low VOC limit of 1.4 ppmvd.

   With respect to the amount of cooling air that bypasses the combustion zone, I have been told this is GE proprietary information. I would suggest you contact Joel Chalfin at GE [(518) 385 4698], whom I believe you know, for additional information regarding the bypass air and VOC issue.

   Based on our GE guarantee verbiage, I feel compelled to reiterate the request for a change in the permit language to allow for subtraction of ambient VOC levels. I would be willing to report both the "raw" and "ambient-subtracted" data, if that would make the Department more comfortable.

I am hopeful that the information provided is responsive to your questions. If you should have additional questions or wish to discuss this further, please don't hesitate to contact me at (561) 691-7058.

Very truly yours,

Rich Piper
Repowering Licensing Manager
Florida Power & Light Company

CC: T. Idelson, BAR
SD
EPA
NPS

Table 1a. Comparison of Representative Future Actual Emissions During 2001 versus Past Actual Emissions for Fort Myers Repowering Project

	Annual Capacity Factor	Particulate[a]	Nitrogen Oxides[b]	Sulfur Dioxides[b]	Carbon Monoxide[a]	Volatile Organic Compounds[c]
Representative Actual Annual Emissions						
Unit 1	100%	577	3,301	20,356	888	37
Unit 2	100%	929	14,489	48,180	2,628	87
Simple Cycle Operation	100%	267	1,845	137	1,267	82
Representative Future Actual Emissions During 2001						
Unit 1	28.00%	162	924	5,700	249	10
Unit 2	28.00%	260	4,057	13,490	736	24
Simple Cycle Operation[d]	39.58%	105	730	54	502	33
Total:		527	5,712	19,244	1,486	67
Past Actual Emissions		607	7,095	20,561	1,507	47
Net Emissions Change		-80	-1,383	-1,317	-21	21

Notes:

a - based on stack test data for Units 1 and 2 for PM and stack test data for similar units for CO.

b - based on CEM data for Units 1 and 2

c - based on AP-42 for Units 1 and 2

d - months of maximum potential operation for CTs; CT2A - 11 months, CT2B -11 months, CT2C - 10 months, CT2D - 9 months, CT2E - 8 months and CT2F - 8 months; 57 months/6 CTs = 9.5 months assume 50% capacity for 9.5 months for all 6 CTs; 9.5/12 x 50% = 39.58

GEK 28172F
Revised, March 1999

GE Power Systems
Gas Turbine

U.S. Standard Field Testing Procedure for Emission Compliance

I. TEST PHILOSOPHY

Testing to demonstrate emission guarantees and for adjustment of the NOx reduction system (if required) will be performed using procedures which are mutually agreed between GE and the Purchaser. GE engineers and/or technical advisors may be present at the tests for procedural direction. Test methods chosen are EPA methods which yield data on site immediately, wherever possible.

II. EMISSION TESTING

A. General

Emission testing identified herein shall be within [GE's] or [Customer's] scope of supply using procedures which are mutually agreed. Sampling for inlet concentrations may be required, at the sole discretion of GE, in order to demonstrate compliance with emission guarantees. GE guarantees apply to the net increase of these pollutant emissions.

B. Nitrogen Oxides Emissions

Before the official compliance testing is begun, the NOx reduction system will be adjusted to verify compliance with NOx emission limits. The gas turbine control system contains a pre-programmed schedule for either water or steam injection, this schedule may be adjusted to achieve an appropriate emission level approximately 5% to 10% below emission limits, and minimize the supply requirements. Once the proper injection schedule has been established, this schedule is maintained throughout the testing, and it is programmed into the control system.

The NOx emission testing and related oxygen testing will be in accordance with U.S. EPA Method 20 presented in the Code of Federal Regulations. Title 40, Part 60 (40CFR60 Appendix A and 40CFR60 Subpart GG - Standards of Performance for Stationary Gas Turbines), with the following modifications, limitations and additions:

1. The NOx instrument will be limited to a chemiluminescent type which meets 40CFR60 Appendix A, Method 7E.

Florida Power & Light Company. Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

RECEIVED

FEB 14 2000

BUREAU OF AIR REGULATION

February 7, 2000

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Repowering Project
Revision to Air Construction Permit No. 0710002-004-AC

Dear Al: 0710002-008-AC

As you are aware, FPL has begun construction of it's repowering project at its Fort Myers Plant. I am writing regarding the possibility that excess emissions will occur during the steam blows necessary during startup of the combined cycle plant. While steam blows are a normal and essential part of the startup process for such facilities, unique aspects of the Fort Myers project configuration and schedule may require temporary relief from certain emission limits over finite periods of time. Following is some information about the steam blows, the regulatory framework, and a suggested course of action. We are also requesting several other unrelated minor changes to the permit language.

Fort Myers Combined cycle Startup

The Fort Myers combined cycle facility, once constructed, will be a unique configuration that does not exist anywhere else in the world, as far as FPL is aware. Six combustion turbine (CT)/ heat recovery steam generators (HRSG) will generate power and produce sufficient steam to drive two steam turbine-generators in series (see Figure 1). Effectively, eight electric generators will be tied together as one unit, when operating in combined-cycle mode.

The startup schedule for the repowered Fort Myers plant/units calls for initial operation in simple cycle mode (i.e. CTs only, with no heat recovery steam generators in service), beginning in November 2000, to provide additional reserve margin during the winter 2000-01 and summer 2001 peak demand periods. A shift to combined cycle operation will occur in April / May 2002. (see Figure 2).

The individual combustion turbine units will undergo the NSPS performance testing in early 2001, and be in commercial operation after that time. Later, beginning in August 2001, steam blows of the HRSG's and HRSG piping will begin.

Steam Blows

Steam is used to clean the piping system for each HRSG of dirt and debris which may have been deposited during or prior to construction. In order to generate the steam, the "blanking plate" which is used to block the CT exhaust gases from entering the HRSG

during simple cycle operation, will be removed, and the hot (~1,100 °F) CT exhaust gases will be allowed to enter the HRSG which will then produce steam. The steam will be directed through the piping system(s) to be cleaned, and then vented in a number of areas around the plant site. The locations of the steam vents will be dictated by the configuration of the particular piping systems being cleaned and available space.

As may be expected, the venting of this steam necessitates the production of significant quantities of makeup water to the system. FPL estimates that, at times, the quantity of water that will need to be provided to the HRSG(s) during steam blows will approach 800 gallons per minute. This challenges FPL's ability to make up water fast enough to keep up with the losses.

In order to minimize the amount of steam produced, the combustion turbine will be operated at reduced load (less than 50% load) during the blows. This will allow for the optimizing of steam blows, to ensure that the correct Cleaning Force Ratio (CFR) is achieved. This also will enable the blows to occur for longer periods of time without running out of makeup water.

Cleaning Force Ratio (CFR) is the ratio of steam blow conditions versus design operating conditions. The ratio combines aspects of pressure, temperature and flow of steam required to clean the inside of the steam systems prior to their operation. A CFR of greater than 1 is required (1 being equal to normal operating conditions). A CFR of 1.5 will be targeted, thus ensuring that all debris inside the piping systems is removed prior to the start of normal operation.

General Electric guarantees that emissions from its Frame 7FA combustion turbines will remain in compliance at loads above 50% (see Figure 3). Operating the combustion turbines during steam blows at reduced loads in combined cycle configuration will potentially result in emissions of NOx in excess of the BACT limit of 9 ppm established in Specific Conditions 18 and 19 of the permit.

From a regulatory perspective, the CT's in simple-cycle mode will have demonstrated compliance well within the usual 180-day window of time granted for initial startup and shakedown of the equipment. Therefore allowance for temporary excess emissions associated with the steam blows needs to be provided for in another fashion.

In most combined cycle startup schedules, the steam blows and associated excess emissions would be completed within the 180 days afforded for this activity; the activity would take place anyway, the timing of the activity is the unusual aspect of this project.

FPL believes we can manage the steam blows in such a fashion as to remain in compliance with NSPS Subpart GG limits for NOx emissions (i.e. 110 ppmvd or 753.7 lb. / hour corrected to 15% oxygen); however NOx emissions during the steam blows may be in excess of the BACT limit (9 ppm) for this facility.

The period during which the steam blows may occur is estimated to be up to 30 days (intermittently) per combustion turbine initially, followed by a period of up to 60 days of intermittent steam blows for the piping systems as they are tied together.

Regulatory Background

The NSPS rules [40 CFR 60.8(a)] require that the performance test (actually initial emissions compliance testing) be conducted within 180 days of initial startup, or within 60 days of achieving the maximum production rate, whichever comes first.

The intent of this rule, FPL believes, is to provide sufficient time to start up a new emissions source, "debug" it, and conduct the initial testing within a reasonable length of time.

Suggested Course of Action

While the steam blows are essentially a startup event for the CT's in combined cycle mode, the Fort Myers project configuration and schedule require that this activity occur after the initial 180-day startup window has elapsed. To accommodate this unique circumstance FPL requests that the Department exercise its discretion under FAC Rule 62-210.700(1) and (5) to authorize excess NOx emissions during these steam blows. This authorization could be accomplished by revision of the project's air construction permit, with appropriate constraints on the duration and magnitude of the excess emissions.

Accordingly, the following language is suggested:

24. Excess Emissions Requirements:

- Excess emissions resulting from startup, shutdown or malfunction of *the combustion turbines and heat recovery steam generators* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emission occurrences shall in no case exceed two hours in any 24-hour period except during both "cold startup" to or shutdown s from combined cycle operation. During cold start-up to combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours.

- Excess emissions from the combustion turbines resulting from startup of *the steam turbines system* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed 12 hours per cold startup of the steam turbine system.

  [Applicant Request (FPL estimates that, on average there will be approximately 12 startups to combined-cycle operation per year), G.E. Combined Cycle Startup Curves Data and Rules 62-210.700, 62-4.130 F.A.C.]

- **Emissions of NOx from the combustion turbines, in excess of the BACT limit established in Specific Condition 19, resulting from steam blow activities associated with bringing the heat recovery steam generators into operation shall be permitted provided that best operational practices are adhered to and that the Subpart GG NSPS limit of 75/110 ppm is not exceeded. The period during which such excess emissions are authorized shall not exceed a total of 90 days per combustion turbine. The applicant shall record for each CT unit the periods of startup for each operating mode. Excess emissions during the periods of startup shall be reported to the FDEP South District office within 30 days.**

[Applicant Request (FPL estimates that CT emissions will comply with the NSPS NOx limit following initial compliance testing, but that low load operation necessary for steam blow activities prior to initial combined cycle operation will result in NOx emissions above the BACT limit of 9 ppm; excess emissions of NOx resulting from steam blows may occur intermittently over a period of up to 30 days per CT initially, followed by a period of up to 60 days of intermittent steam blows for the piping systems), G.E. Combined Cycle Startup Curves Data and Rule 62-210.700, F.A.C.]

27. Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each **unit configuration (i.e., simple cycle and combined cycle)** will be operated, but no later than 180 days following initial operation of ~~the~~ each unit **configuration**, and annually thereafter...

Additional requested changes

A couple of other relatively minor changes to the Air Construction permit are requested, as a result of further evaluation of the combined cycle facility.

First, Specific Condition 22 is requested to be amended as follows, in order to account for the presence of any background volatile organic compounds:

22. Volatile Organic Compounds (VOC) Emissions: The concentrations of VOC in the exhaust gas shall not exceed 1.4 ppmvd **(exclusive of background concentration)** as determined by EPA Method 18 or 25A. VOC emissions (at ISO conditions) shall not exceed 2.9 lb./hr per CT **(exclusive of background concentration)** to be demonstrated by initial stack test.

The Project and Location section on the placard page incorrectly describes "one 30 foot stack" for the fuel gas heaters. There will actually be six, 21-foot stacks. Also, FPL has elected to install direct-fired heaters, rather than a boiler for this purpose. Therefore, we suggest the following language change to the last sentence:

"The project also includes a cooling tower for once-through brackish water ~~and a small boiler or~~ **six direct-fired** heaters with ~~a 30-foot stack~~ **21-foot stacks** to heat the natural gas prior to use during simple cycle operation and cold start-ups".

The Emission Units section on page 2 of the permit describes emission unit 024 as "Natural Gas Boiler or Heater(s)". We request that the description be modified to "Six direct-fired heaters".

The final bullet under Specific Condition 19 requires that the NOx emission limit for the gas heaters / boiler to be demonstrated by stack test. FPL requests that an initial stack test should be sufficient to demonstrate compliance, and additionally that two of the heaters should be representative of the six. Therefore the following language is suggested:

"NOx emission limit from the **six** gas heaters ~~/ boiler~~ shall not exceed 0.10 lb. / mmBtu (at ISO conditions) to be demonstrated by **an initial** stack test **on two of the six heaters**."

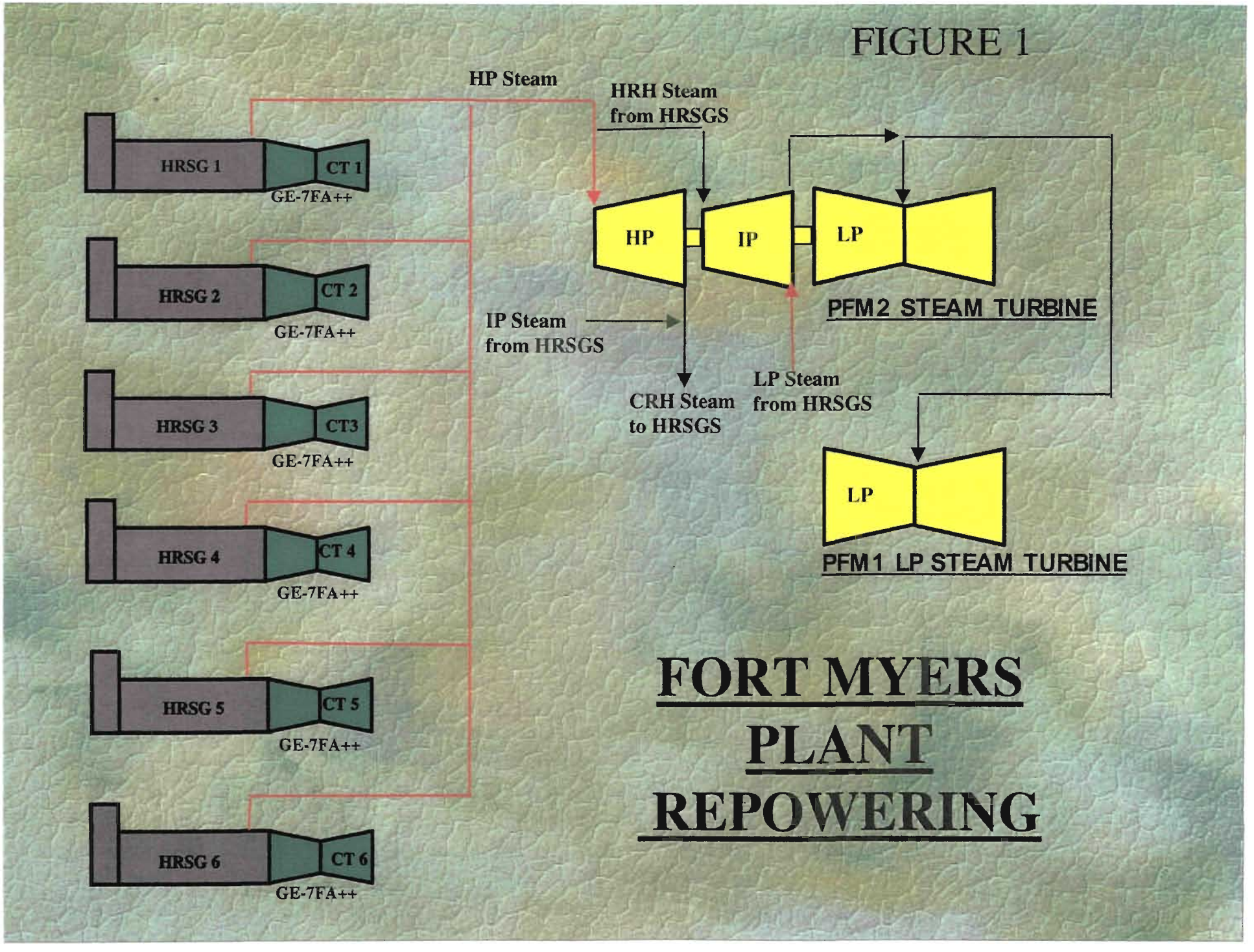
I would be pleased to answer any questions you may have. At your convenience, please feel free to contact me at (561) 691-7058 or via email at rich_piper@fpl.com.

Very truly yours,

Richard Piper
Licensing Manager
Florida Power & Light Company

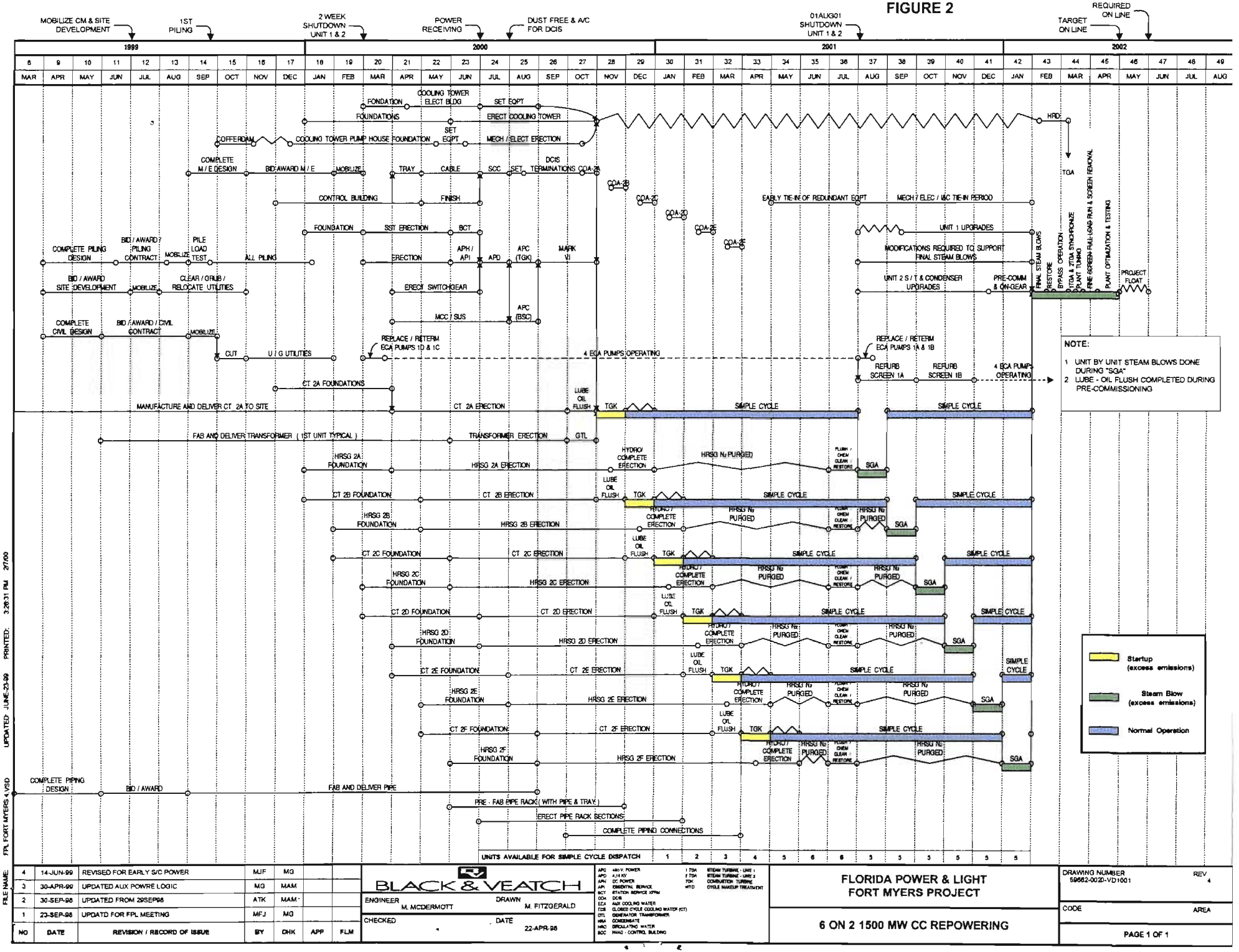
cc: SD
M. Halpin, BAR
T. Heron, BAR

FIGURE 1



FORT MYERS PLANT REPOWERING

FIGURE 2



NO	DATE	REVISION / RECORD OF ISSUE	BY	CHK	APP	FLM
4	14-JUN-99	REVISED FOR EARLY S/C POWER	MJF	MG		
3	30-APR-99	UPDATED AUX POWRE LOGIC	MG	MAM		
2	30-SEP-98	UPDATED FROM 29SEP98	ATK	MAM		
1	23-SEP-98	UPDATD FOR FPL MEETING	MFJ	MG		

BLACK & VEATCH

ENGINEER M. MCDERMOTT DRAWN M. FITZGERALD

CHECKED DATE 22-APR-98

APC 480 V. POWER
APD A.H.H.V.
APK DC POWER
API ESSENTIAL SERVICE
BCT STATION SERVICE APPN
DCIS
ECA AUX COOLING WATER
TGK CLOSED CYCLE COOLING WATER (CT)
GTL GENERATOR TRANSFORMER
MKA CONDENSATE
MKC CIRCULATING WATER
SCC MAIN - CONTROL BUILDING
STA STEAM TURBINE - UNIT 1
STB STEAM TURBINE - UNIT 2
TGK COMBUSTION TURBINE
WTD CYCLE MAKEUP TREATMENT

FLORIDA POWER & LIGHT
FORT MYERS PROJECT

6 ON 2 1500 MW CC REPOWERING

DRAWING NUMBER 59662-002D-VD1001 REV 4

CODE AREA

PAGE 1 OF 1

Florida Department of Environmental Protection

Memorandum

TO: C. H. Fancy

THRU: A. A. Linero aal 4/26

FROM: Teresa Heron

DATE: April 26, 2000

SUBJECT: FPL Ft. Myers 1500 MW Repowering Project
DEP File No. 0710002-008-AC

Attached is the draft public notice package including the draft letter for the modification of the Ft. Myers Repowering Project permit. The modification is to revise some conditions and to temporarily allow excess NO_X emissions from the combustion turbines while there are being converted to combined cycle mode.

The original project netted out of PSD and no BACT was required. Although emissions will increase during this limited period, the non-PSD determination of the original review remains unchanged.

We denied a request to subtract background ambient concentrations from those measured at the turbine outlet. They simply did not provide anything to back up their request. Our opinion is that they do not require this correction to pass their VOC compliance test.

We recommend your approval of the attached package.

AAL/th

Attachments

We are on ~ day 230 today.
Received application date 2/7 on 2/14
Additional info to date 3/29 on 4/3

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

March 28, 2000

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Air Construction Permit #0710002-005AC
Excess Emissions During Steam Blows

Dear Mr. Linero:

Following are responses to the three questions posed in your correspondence of March 13, 2000:

1. *[Provide] the actual estimated total hours and the additional emissions (e.g. in tons) for each unit during the 90 day period of time requested for the steam blows.*

   Response: FPL anticipates that a total of 288 hours per combustion turbine (out of a possible 2,160 hours) will be required to perform all the necessary steam blows during startup of the HRSG's at Fort Myers. This is approximately equivalent to 49 tons of NOx per CT. I would like to reiterate that these values are estimates only, and that the actual times may vary from these numbers. As stated previously, these blows will be undertaken intermittently over an approximate 90-day period for each CT / HRSG combination. FPL will take all reasonable steps to minimize the extent and duration of excess emissions, in accordance with our normal operating practices and with the requirements of rule 62-210.700, F.A.C..

2. *As discussed with you by telephone on March 7, 2000, we need a reconciliation of your letter dated November 6, 1998 to Lee County with the present application.*

   In my letter to Lee County, I stated that the maximum operating duration of existing Units 1 and 2 during 2001 would be 5 and 2 months, respectively, and that the CT's would be operating in simple cycle mode during that year, for varying periods of time. As I stated on our telephone call, FPL's plans have changed somewhat, in that we now project the steam units to operate for a longer period of time that year; however, the basic conclusion regarding PSD applicability remains the same; i.e. PSD would not be applicable. I have attached a matrix demonstrating that for your reference. As you can see, all pollutant emissions decrease during 2001 with the exception of VOC emissions, which are projected to increase by 21 tons, which is less than the PSD applicability limit of 40 tons.

3. *As discussed with you and source testing staff on March 10, we need some test data to verify that emissions of VOC are likely to be greater than the permitted limit as a result of contribution of ambient VOC before we can consider allowing a correction. We also need to know the amount of bypass or cooling air that is not subjected to high enough temperature to destroy incoming VOC.*

   FPL does not currently possess test data that supports the premise that ambient VOC's would definitely cause us to be unable to meet our VOC limit. What we do have, however, is the GE Standard Field Testing Procedure for Emission Compliance (attached) which is part of the guarantee package for the 7FA combustion turbines. In that document, please note that in Section II.A. Emission Testing – General, GE states that "GE guarantees apply to the **net** increase of these pollutant emissions". Therefore, FPL would have no contractual recourse with GE, should ambient VOC concentrations cause FPL to exceed what even you have conceded is an extremely low VOC limit of 1.4 ppmvd.

   With respect to the amount of cooling air that bypasses the combustion zone, I have been told this is GE proprietary information. I would suggest you contact Joel Chalfin at GE [(518) 385 4698], whom I believe you know, for additional information regarding the bypass air and VOC issue.

   Based on our GE guarantee verbiage, I feel compelled to reiterate the request for a change in the permit language to allow for subtraction of ambient VOC levels. I would be willing to report both the "raw" and "ambient-subtracted" data, if that would make the Department more comfortable.

I am hopeful that the information provided is responsive to your questions. If you should have additional questions or wish to discuss this further, please don't hesitate to contact me at (561) 691-7058.

Very truly yours,

Rich Piper
Repowering Licensing Manager
Florida Power & Light Company

cc: T. Idemoto, BAR
SD
EPA
NPS

Table 1a. Comparison of Representative Future Actual Emissions During 2001 versus Past Actual Emissions for Fort Myers Repowering Project

	Annual Capacity Factor	Particulate[a]	Nitrogen Oxides[b]	Sulfur Dioxides[b]	Carbon Monoxide[a]	Volatile Organic Compounds[c]
Representative Actual Annual Emissions						
Unit 1	100%	577	3,301	20,356	888	37
Unit 2	100%	929	14,489	48,180	2,628	87
Simple Cycle Operation	100%	267	1,845	137	1,267	82
Representative Future Actual Emissions During 2001						
Unit 1	28.00%	162	924	5,700	249	10
Unit 2	28.00%	260	4,057	13,490	736	24
Simple Cycle Operation[d]	39.58%	105	730	54	502	33
Total:		527	5,712	19,244	1,486	67
Past Actual Emissions		607	7,095	20,561	1,507	47
Net Emissions Change		-80	-1,383	-1,317	-21	21

Notes:

a - based on stack test data for Units 1 and 2 for PM and stack test data for similar units for CO.

b - based on CEM data for Units 1 and 2

c - based on AP-42 for Units 1 and 2

d - months of maximum potential operation for CTs; CT2A - 11 months, CT2B -11 months, CT2C - 10 months, CT2D - 9 months, CT2E - 8 months and CT2F - 8 months; 57 months/6 CTs = 9.5 months assume 50% capacity for 9.5 months for all 6 CTs; 9.5/12 x 50% = 39.58

GEK 28172F
Revised, March 1999

GE Power Systems
Gas Turbine

U.S. Standard Field Testing Procedure for Emission Compliance

I. TEST PHILOSOPHY

Testing to demonstrate emission guarantees and for adjustment of the NOx reduction system (if required) will be performed using procedures which are mutually agreed between GE and the Purchaser. GE engineers and/or technical advisors may be present at the tests for procedural direction. Test methods chosen are EPA methods which yield data on site immediately, wherever possible.

II. EMISSION TESTING

A. General

Emission testing identified herein shall be within [GE's] or [Customer's] scope of supply using procedures which are mutually agreed. Sampling for inlet concentrations may be required, at the sole discretion of GE, in order to demonstrate compliance with emission guarantees. GE guarantees apply to the net increase of these pollutant emissions.

B. Nitrogen Oxides Emissions

Before the official compliance testing is begun, the NOx reduction system will be adjusted to verify compliance with NOx emission limits. The gas turbine control system contains a pre-programmed schedule for either water or steam injection, this schedule may be adjusted to achieve an appropriate emission level approximately 5% to 10% below emission limits, and minimize the supply requirements. Once the proper injection schedule has been established, this schedule is maintained throughout the testing, and it is programmed into the control system.

The NOx emission testing and related oxygen testing will be in accordance with U.S. EPA Method 20 presented in the Code of Federal Regulations. Title 40, Part 60 (40CFR60 Appendix A and 40CFR60 Subpart GG - Standards of Performance for Stationary Gas Turbines), with the following modifications, limitations and additions:

1. The NOx instrument will be limited to a chemiluminescent type which meets 40CFR60 Appendix A, Method 7E.

2. The span of the NOx analyzer will be set for appropriate spread of the expected NOx readings, rather than the specified 300 ppm.

3. Oxygen will be sampled simultaneously with all NOx readings since Subpart GG of 40CFR60 requires corrections to 15% O_2. Method 3A from 40CFR60 Appendix A is used for the oxygen analysis.

4. Section 60.335(c)(1) of Subpart GG has been replaced by U.S. EPA Memorandum dated June 2, 1997 for GE gas turbines using either water or steam for NOx reduction. The EPA memorandum approves the GE injection control algorithm in lieu of the Subpart GG ISO correction equation.

5. Section 60.335(c)(1) is not applicable to gas turbines with dry low NOx combustors.

C. Carbon Monoxide Emissions (If Required)

Sampling is the same as for NOx normally with the same line feeding the different instruments. Method 10 per 40CFR60 Appendix A is used, but only the continuous sample method per Section 5.1 is acceptable to GE. A recorder is mandatory, not optional as per 5.3.9, with a span which gives an appropriate spread of the expected readings.

D. Unburned Hydrocarbon Emissions (If Required)

Sampling and analysis must be on a wet basis to avoid condensing out the higher hydrocarbons. Moisture determination by Method 4 (or Method 5) is necessary to convert results to dry basis. Method 25A per 40CFR60 Appendix A is used for unburned hydrocarbons. Results are presented as methane (CH_4). This method uses a flame ionization detector or analyzer.

E. Volatile Organic Emissions (If Required)

When volatile organic emissions (non-methane, non-ethane hydrocarbons) are required, Method 18 per Section 7.2 is used. This requires a gas chromatograph at the site. GE requires calibration of the measurement train at the sampling probe.

F. Sulfur Emissions (If Required)

Sulfur emissions will be determined by use of fuel flow data and fuel analysis for sulfur content.

G. Particulate Matter Emissions - Front-Half Filterable Solids Only (If Required)

Particulate matter emissions are determined by sampling, analysis and calculation in accordance with U.S. EPA Methods 5 and 5B with traversing per Methods 1 and 2, all from 40CFR60 Appendix A. The following modifications and limitations on choices within the methods apply:

1. Sampling probe internal surfaces must be made of chemically inert and non-catalytic material such as quartz.

2. The filter material shall be quartz.

3. Nozzle, probe and filter must be heated to 248°–273°F per Method 5, or at least 10°F higher than the dew point of sulfuric acid in the exhaust duct. Use of Method 5B requires nozzle, probe and filter to be heated to 320° to 345°F.

4. Probe wash shall be acetone per Method 5.

5. Sampling technique shall provide a fairly large exhaust gas sample, with an objective of 100 SCF.

6. Sulfates are excluded from the GE guarantees for particulates.

H. PM10 Emissions (If Required)

PM10 emissions are determined by sampling, analysis and calculation in accordance with U.S. EPA Methods 5 for front half filterable particulate matter and Method 202 for back half condensible particulate matter with traversing per Methods 1 and 2, all from 40CFR60, Appendix A except for Method 202. Method 202 is from 40CFR51, Appendix M. The following modifications and limitations within the methods apply:

1. Sampling probe internal surfaces must be made of chemically inert and non-catalytic material such as quartz.

2. The filter material shall be quartz.

3. Nozzle, probe and filter must be heated to 248° to 273°F per Method 5, or at least 10°F higher than the dew point of sulfuric acid in the exhaust duct.

4. Probe wash shall be acetone per Method 5.

5. Sampling technique shall provide a fairly large exhaust gas sample, with an objective of 100 SCF.

6. Impinger solution shall be extracted with ACS grade methylene chloride per Method 202.

J. Opacity (If Required)

Opacity shall be measured in accordance with EPA Method 9 from 40CFR60, Appendix A.

K. Ammonia Slip (If Required)

Required EPA methods for measuring ammonia slip have not been published. GE has established in the interim a preference for the determination of ammonia slip. The ammonia slip emissions will be determined by on-site sampling and analysis plus calculations in accordance with the on-site industry procedure of Indophenol Absorptiometrics. This procedure requires the use of reactant solutions and a photoelectric spectrophotometer at the plant site..

Sample collection procedures should include Item G(1)-(5) above (Particulate Matter Emissions - Front-Half Filterable Solids Only).

L. Certification of Calibration Gases

All gases used in certification of instruments or performance of emissions guarantee demonstrations shall be analyzed and certified in a manner and by a laboratory mutually agreeable to GE and Purchaser. Examples of acceptable certification are:

1. U.S. EPA Standard Methods

2. U.S. EPA Protocols

3. U.S. National Bureau of Standards Certification Procedures

M. Exhaust Gas Flow Determination

GE has established preferences for the determination of exhaust flow based on accuracy of the determination. GE prefers the following:

The primary exhaust flow determination shall be by the F-factor method per 40CFR60, Appendix A, Method 19 (as specified in Method 20 for gas turbine emissions). The F-factor constants from Table 19–1 shall be applied in all cases where possible per Paragraph 3.1.

Where available, the compressor inlet air flow signal shall also be used to compute exhaust flow. Exhaust flow on a dry basis is the turbine inlet air flow minus the water vapor plus the fuel flow minus the water formed from the combustion of hydrogen in the fuel. Gas turbine inlet air is measured using the compressor inlet air scroll as a flow element. The inlet scroll is calibrated during the factory tests of the gas turbine.

Flow measurements by Velocity Traverse, per 40CFR60, Appendix A, Methods 1 and 2, can result in errors of 25% or more in this application, and is not acceptable.

N. Fuel Bound Nitrogen Determination

Prior to emission testing, analyses for fuel bound nitrogen must be determined in accordance with ASTM D4629 which is based on a combustion/chemiluminescence method.

O. Reporting Preliminary Test Results

Vendor must use the attached spreadsheets as applicable for reporting preliminary test results prior to test site demobilization or make provisions to complete prior to site demobilization.

Summary Table for Reporting Preliminary Test Results Prior to Demobilization

Revise as necessary based on what is applicable to the testing project. Simple Cycle or Combined Cycle without duct firing.

Project Name _____

Site Location _____

Date				
Test Number	1	2	3	Average
Start and End Time of Test				
Test Condition				
TURBINE OPERATING CONDITIONS				
Compressor Discharge Pressure(psig) (CPD)				
Compressor Inlet Temperature(°F) (CTIM)				
Fuel Flow (lbs/sec) (FQG, FQLM1)				
Steam or Water Injection Flowrate (lbs/sec) (WQJ)				
Power Augmentation Steam (lbs/sec) (WQJA)				
Steam or Water Flow/Fuel Flow Ratio (WXJ)				
Generator Output (MW) (DWATT)				
Heat Input (million Btu/hr)				
Inlet Guide Vane Setting (CSGV)				
Mean Turbine Exhaust Temperature (°F) (TTXM)				
Specific Humidity lbs H2O/lb Dry Air (CMHUM)				
Barometric Pressure, in Hg (AFPAP)				
Stack Exhaust Temperature (°F)				
DLN Split Percent (FSRXSR)				
AMBIENT DATA				
Wet Bulb Temperature (°F)				
Dry Bulb Temperature (°F)				
Barometric Pressure, in Hg				
Specific Humidity lbs H2O/lb Dry Air				
FUEL ANALYSIS				
Heating Value Btu/lb				
Fd factor (dscf/million Btu)				
Fc factor (dscf/million Btu)				
EMISSION DATA				
NOx ppmvd				
NOx ppmvd @ 15% O2				
O2 % by volume, dry basis				
CO2 % by volume, dry basis				
CO ppmvd				
Moisture (% by volume)				
UHC ppmvw, ppmvd				
VOC ppmvw, ppmvd				
SO2 ppmvd @ 15% O2				
NOx lb/hr, lb/mm Btu				
CO lb/hr, lb/mm Btu				
SO2 lb/hr				
UHC lb/hr, lb/mm Btu				
VOC lb/hr, lb/mm Btu				
Fo				
Exhaust Flow, dscfm (by Fd factor)				
Exhaust Flow, dscfm (by Fc factor)				

Summary Table for Reporting Preliminary Test Results Prior to Demobilization

Revise as necessary based on what is applicable to the testing project.

Combined Cycle with duct firing.

Project Name _____

Site Location _____

Date				
Test Number	1	2	3	Average
Start and End Time of Test				
Test Condition				
TURBINE OPERATING CONDITIONS				
Compressor Discharge Pressure(psig) (CPD)				
Compressor Inlet Temperature(°F) (CTIM)				
Turbine Fuel Flow (lbs/sec) (FQG, FQLM1)				
Steam or Water Injection Flowrate (lbs/sec) (WQJ)				
Power Augmentation Steam (lbs/sec) (WQJA)				
Steam or Water Flow/Fuel Flow Ratio (WXJ)				
Generator Output (MW) (DWATT)				
Turbine Heat Input (million Btu/hr)				
Inlet Guide Vane Setting (CSGV)				
Mean Turbine Exhaust Temperature (°F) (TTXM)				
Specific Humidity lbs H2O/lb Dry Air (CMHUM)				
Barometric Pressure, in Hg (AFPAP)				
Stack Exhaust Temperature (°F)				
DLN Split Percent (FSRXSR)				
Duct Burner Fuel Flow				
Duct Burner Heat Input (million Btu/hr)				
AMBIENT DATA				
Wet Bulb Temperature (°F)				
Dry Bulb Temperature (°F)				
Barometric Pressure, in Hg				
Specific Humidity lbs H2O/lb Dry Air				
TURBINE FUEL ANALYSIS				
Heating Value Btu/lb				
Fd factor (dscf/million Btu)				
Fc factor (dscf/million Btu)				
DUCT BURNER FUEL ANALYSIS				
Heating Value Btu/lb				
Fd factor (dscf/million Btu)				
Fc factor (dscf/million Btu)				
JOINT FIRE CONCENTRATIONS				
NOx ppmvd				
NOx ppmvd @ 15% O2				
O2 % by volume, dry basis				
CO2 % by volume, dry basis				
CO ppmvd				
SO2 ppmvd @ 15% O2				
Fo				
TURBINE ONLY CONCENTRATIONS				
NOx ppmvd				
NOx ppmvd @ 15% O2				
O2 % by volume, dry basis				
CO2 % by volume, dry basis				
CO ppmvd				
JOINT FIRE EXHAUST FLOW & MASS EMISSION RATES				
HRSG Exhaust Flow, dscfm (by Fd factor)				
HRSG Exhaust Flow, dscfm (by Fc factor)				
NOx (lb/hr, lb/mm Btu)				
CO (lb/hr, lb/mm Btu)				
TURBINE ONLY EXHAUST FLOW & MASS EMISSION RATES				
Transition Duct Exhaust Flow, dscfm (by Fd factor)				
Transition Duct Exhaust Flow, dscfm (by Fc factor)				
NOx (lb/hr, lb/mm Btu)				
CO (lb/hr, lb/mm Btu)				
DUCT BURNER MASS EMISSION RATES				
NOx (lb/hr, lb/mm Btu)				
CO (lb/hr, lb/mm Btu)				

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GE Power Systems

General Electric Company
One River Road, Schenectady, NY 12345
518 • 385 • 2211 TX: 145354

Summary Table for Reporting Preliminary Test Results Prior to Demobilization

Revise as necessary based on what is applicable to the testing project. Simple Cycle or Combined Cycle without duct firing.

Project Name _____

Site Location _____

Date				
Test Number	1	2	3	Average
Start and End Time of Test				
Test Condition				
TURBINE OPERATING CONDITIONS				
Compressor Discharge Pressure(psig) (CPD)				
Compressor Inlet Temperature(°F) (CTIM)				
Fuel Flow (lbs/sec) (FQG, FQLM1)				
Steam or Water Injection Flowrate (lbs/sec) (WQJ)				
Power Augmentation Steam (lbs/sec) (WQJA)				
Steam or Water Flow/Fuel Flow Ratio (WXJ)				
Generator Output (MW) (DWATT)				
Heat Input (million Btu/hr)				
Inlet Guide Vane Setting (CSGV)				
Mean Turbine Exhaust Temperature (°F) (TTXM)				
Specific Humidity lbs H2O/lb Dry Air (CMHUM)				
Barometric Pressure, in Hg (AFPAP)				
Stack Exhaust Temperature (°F)				
DLN Split Percent (FSRXSR)				
AMBIENT DATA				
Wet Bulb Temperature (°F)				
Dry Bulb Temperature (°F)				
Barometric Pressure, in Hg				
Specific Humidity lbs H2O/lb Dry Air				
FUEL ANALYSIS				
Heating Value Btu/lb				
Fd factor (dscf/million Btu)				
Fc factor (dscf/million Btu)				
EMISSION DATA				
NOx ppmvd				
NOx ppmvd @ 15% O2				
O2 % by volume, dry basis				
CO2 % by volume, dry basis				
CO ppmvd				
Moisture (% by volume)				
UHC ppmvw, ppmvd				
VOC ppmvw, ppmvd				
SO2 ppmvd @ 15% O2				
NOx lb/hr, lb/mm Btu				
CO lb/hr, lb/mm Btu				
SO2 lb/hr				
UHC lb/hr, lb/mm Btu				
VOC lb/hr, lb/mm Btu				
Fo				
Exhaust Flow, dscfm (by Fd factor)				
Exhaust Flow, dscfm (by Fc factor)				

Summary Table for Reporting Preliminary Test Results Prior to Demobilization

Revise as necessary based on what is applicable to the testing project.

Combined Cycle with duct firing.

Project Name _____

Site Location _____

Date				
Test Number	1	2	3	Average
Start and End Time of Test				
Test Condition				
TURBINE OPERATING CONDITIONS				
Compressor Discharge Pressure(psig) (CPD)				
Compressor Inlet Temperature(°F) (CTIM)				
Turbine Fuel Flow (lbs/sec) (FQG, FQLM1)				
Steam or Water Injection Flowrate (lbs/sec) (WQJ)				
Power Augmentation Steam (lbs/sec) (WQJA)				
Steam or Water Flow/Fuel Flow Ratio (WXJ)				
Generator Output (MW) (DWATT)				
Turbine Heat Input (million Btu/hr)				
Inlet Guide Vane Setting (CSGV)				
Mean Turbine Exhaust Temperature (°F) (TTXM)				
Specific Humidity lbs H2O/lb Dry Air (CMHUM)				
Barometric Pressure, in Hg (AFPAP)				
Stack Exhaust Temperature (°F)				
DLN Split Percent (FSRXSR)				
Duct Burner Fuel Flow				
Duct Burner Heat Input (million Btu/hr)				
AMBIENT DATA				
Wet Bulb Temperature (°F)				
Dry Bulb Temperature (°F)				
Barometric Pressure, in Hg				
Specific Humidity lbs H2O/lb Dry Air				
TURBINE FUEL ANALYSIS				
Heating Value Btu/lb				
Fd factor (dscf/million Btu)				
Fc factor (dscf/million Btu)				
DUCT BURNER FUEL ANALYSIS				
Heating Value Btu/lb				
Fd factor (dscf/million Btu)				
Fc factor (dscf/million Btu)				
JOINT FIRE CONCENTRATIONS				
NOx ppmvd				
NOx ppmvd @ 15% O2				
O2 % by volume, dry basis				
CO2 % by volume, dry basis				
CO ppmvd				
SO2 ppmvd @ 15% O2				
Fo				
TURBINE ONLY CONCENTRATIONS				
NOx ppmvd				
NOx ppmvd @ 15% O2				
O2 % by volume, dry basis				
CO2 % by volume, dry basis				
CO ppmvd				
JOINT FIRE EXHAUST FLOW & MASS EMISSION RATES				
HRSG Exhaust Flow, dscfm (by Fd factor)				
HRSG Exhaust Flow, dscfm (by Fc factor)				
NOx (lb/hr, lb/mm Btu)				
CO (lb/hr, lb/mm Btu)				
TURBINE ONLY EXHAUST FLOW & MASS EMISSION RATES				
Transition Duct Exhaust Flow, dscfm (by Fd factor)				
Transition Duct Exhaust Flow, dscfm (by Fc factor)				
NOx (lb/hr, lb/mm Btu)				
CO (lb/hr, lb/mm Btu)				
DUCT BURNER MASS EMISSION RATES				
NOx (lb/hr, lb/mm Btu)				
CO (lb/hr, lb/mm Btu)				

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

March 13, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Piper, Licensing Manager
Environmental Services
Post Office Box 14000
~~Fort Myers~~, Florida 33408
Juno Beach

Re: DEP File No. 0710002-008-AC
FPL Fort Myers Plant Gas Repowering Project
Excess Emissions during Steam Blows

Dear Mr. Piper:

On February 14, 2000, the Department received your letter for a revision to the air construction permit for the repowering project to be located in Ft Myers, Lee County, Florida. This letter essentially requests the Department's authorization for the combustion turbines to emit NO_x in excess of the permit limit (at the NSPS level) during steam blows for a period of 90 days per turbine. This period will occur as part of the testing associated with conversion of the units from simple to combined cycle operation.

Based on the schedule submitted, it appears that FPL plans to operate the combustion turbines in simple cycle mode concurrently with continued operation of the existing steam boiler Units 1 & 2 for approximately 8 months. According to previous correspondence, we had understood that this period of time would be between 2 and 5 months. In order to complete the application please provide the following information:

- The actual estimated total hours and the additional emissions (e.g. in tons) for each unit during the 90 day period of time requested for the steam blows.
- As discussed with you by telephone on March 7, 2000, we need a reconciliation of your letter dated November 6, 1998 to Lee County with the present application.
- As discussed with you and source testing staff on March 10, we need some test data to verify that emissions of VOC are likely to be greater than the permitted limit as a result of contribution of ambient VOC before we can consider allowing a correction. We also need to know the amount of bypass or cooling air that is not subjected to high enough temperature to destroy incoming VOC.

We look forward to receiving the requested information soon so that processing is not delayed due to incompleteness on these issues. If you have any questions regarding this matter, please call or e-mail Teresa Heron at 850/921-9529 (teresa.heron@dep.state.fl.us) or A.A. Linero 850/921-9523 (alvaro.linero@dep.state.fl.us).

Sincerely

3/13

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

CC: William Reichel, FP&L
John Bunyak, NPS
Gregg Worley, EPA
Phil Barbaccia, DEP SD

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Richard Piper, Lic. Mgr.
Fla. Power & Light
PO Box 14000
Ft. Myers, Fl
33908

4a. Article Number
Z 031 391 880

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

7. Date of Delivery MAR 20

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X

PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 031 391 880

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Richard Piper	
Street & Number FP&L	
Post Office, State, & ZIP Code Ft. Myers Plant	
Postage Juno Beach FL	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 071 0002-008-AC	3-13-00

PS Form **3800**, April 1995

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

AL – FOR the 4PM Conference Call Pat

FAX TRANSMITTAL COVER SHEET

TO: Pat Kennedy

FAX#: 2-6979 PHONE#:

DATE: 3-1-2000 PAGES: X 3
(INCLUDING COVER SHEET)

MESSAGE: Sorry for the delay!

FROM: Bobbie Redwine

KIRBY B. GREEN, III
DEPUTY SECRETARY
PHONE #850-488-7131 FAX # 850-922-1432
SC 278-7131 SC292-1432

2 pages

2-6979

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING PO BOX 30473, LANSING MI 48909-7973

INTERNET www.deq.state.mi.us

RUSSELL J. HARDING, Director

February 25, 2000

Time Sensitive Telefax

TO:		**Telefax Number**
	Jim Warr, Alabama	334-279-3043 – Tim Owen
	Michele Brown, Alaska	907-465-5070 –
	Jacqueline Schafer, Arizona	602-207-2218
	Jane E. Norton, Colorado	303-691-7702 –
	David Struhs, Florida	850-488-7093 –
	Thomas Skinner, Illinois	217-782-9039 – Don Sutton
	Lori F. Kaplan, Indiana	317-233-6647
	James Bickford, Kentucky	502-564-3354
	John P. Cahill, New York	518-457-7744
	William Holman, North Carolina	919-715-3060
	Christopher Jones, Ohio	614-644-3184
	James Seif, Pennsylvania	717-705-4980
	R. Lewis Shaw, South Carolina	803-898-3942
	Robert Huston, Texas	512-239-5533
	Dennis Treacy, Virginia	804-698-4019 – John Daniel
	Michael C. Castle, West Virginia	304-759-0526 –
(7)	George E. Meyer, Wisconsin	608-266-6983 –

FROM: Russell J. Harding, Director

George Welch
Dizna Ambrows
Don Welch
Penn SC Paul Richardson

SUBJECT: Conference Call on Clean Air Issues

I invite you to participate in a conference call on Thursday, March 2, 4:00 p.m. EST. The purpose of the call is to discuss whether you would be willing to participate in discussions with other states, and representatives of the utility industry, on ways to reform the federal air New Source Review (NSR) permitting program, including especially the federal Prevention of Significant Deterioration (PSD) program.

In my view, there is a crying need to simplify the entire air permitting process. It has developed into an exhaustive analysis just to determine whether a new facility, or modification of an existing facility, is subject to PSD, let alone determining what constitutes the Best Available Control Technology (BACT) that is required under PSD. While EPA has talked of reforming the NSR and PSD programs, these talks have been going on for over 10 years, with no meaningful reform having been accomplished. There are indications that any future proposal by EPA will not result in the needed simplification of the process.

EQP 1000
(Rev. 1/96)

It is also my view that the EPA has further complicated this issue by their enforcement initiatives against alleged violators of PSD, without coordinating these actions with the states. There has also been an increasing level of "second-guessing" of the permit decisions and BACT determinations that are being made by states that have been delegated the PSD program.

As a result, I am hoping that a smaller group of states and industry representatives may be able to meet over the next several months and develop an NSR reform proposal. It would be my hope that a proposal could be developed in time to be considered by the next EPA Administration and/or the next Congress. During the conference call on March 2, 2000, I would like to discuss whether you would be interested in this effort, and hopefully set a date and location for our first meeting.

The call-in number for the March 2, 2000, 4:00 p.m. EST conference call is 816-650-0754. The password is 789. Please confirm with my assistant, Mary Beth Thelen, at 517-373-7917, if you are able to join in on this call, or fax her your confirmation at 517-241-7401. Thank you for participating.

cc: Bryan Roosa, Governor's Washington Office
Dennis Drake, Michigan Department of Environmental Quality

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

RECEIVED
FEB 14 2000
BUREAU OF AIR REGULATION

February 7, 2000

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Repowering Project
Revision to Air Construction Permit No. 0710002-004-AC

Dear Al: 0710002-008-AC

As you are aware, FPL has begun construction of it's repowering project at its Fort Myers Plant. I am writing regarding the possibility that excess emissions will occur during the steam blows necessary during startup of the combined cycle plant. While steam blows are a normal and essential part of the startup process for such facilities, unique aspects of the Fort Myers project configuration and schedule may require temporary relief from certain emission limits over finite periods of time. Following is some information about the steam blows, the regulatory framework, and a suggested course of action. We are also requesting several other unrelated minor changes to the permit language.

Fort Myers Combined cycle Startup
The Fort Myers combined cycle facility, once constructed, will be a unique configuration that does not exist anywhere else in the world, as far as FPL is aware. Six combustion turbine (CT)/ heat recovery steam generators (HRSG) will generate power and produce sufficient steam to drive two steam turbine-generators in series (see Figure 1). Effectively, eight electric generators will be tied together as one unit, when operating in combined-cycle mode.

The startup schedule for the repowered Fort Myers plant/units calls for initial operation in simple cycle mode (i.e. CTs only, with no heat recovery steam generators in service), beginning in November 2000, to provide additional reserve margin during the winter 2000-01 and summer 2001 peak demand periods. A shift to combined cycle operation will occur in April / May 2002. (see Figure 2).

The individual combustion turbine units will undergo the NSPS performance testing in early 2001, and be in commercial operation after that time. Later, beginning in August 2001, steam blows of the HRSG's and HRSG piping will begin.

Steam Blows
Steam is used to clean the piping system for each HRSG of dirt and debris which may have been deposited during or prior to construction. In order to generate the steam, the "blanking plate" which is used to block the CT exhaust gases from entering the HRSG

during simple cycle operation, will be removed, and the hot (~1,100 °F) CT exhaust gases will be allowed to enter the HRSG which will then produce steam. The steam will be directed through the piping system(s) to be cleaned, and then vented in a number of areas around the plant site. The locations of the steam vents will be dictated by the configuration of the particular piping systems being cleaned and available space.

As may be expected, the venting of this steam necessitates the production of significant quantities of makeup water to the system. FPL estimates that, at times, the quantity of water that will need to be provided to the HRSG(s) during steam blows will approach 800 gallons per minute. This challenges FPL's ability to make up water fast enough to keep up with the losses.

In order to minimize the amount of steam produced, the combustion turbine will be operated at reduced load (less than 50% load) during the blows. This will allow for the optimizing of steam blows, to ensure that the correct Cleaning Force Ratio (CFR) is achieved. This also will enable the blows to occur for longer periods of time without running out of makeup water.

Cleaning Force Ratio (CFR) is the ratio of steam blow conditions versus design operating conditions. The ratio combines aspects of pressure, temperature and flow of steam required to clean the inside of the steam systems prior to their operation. A CFR of greater than 1 is required (1 being equal to normal operating conditions). A CFR of 1.5 will be targeted, thus ensuring that all debris inside the piping systems is removed prior to the start of normal operation.

General Electric guarantees that emissions from its Frame 7FA combustion turbines will remain in compliance at loads above 50% (see Figure 3). Operating the combustion turbines during steam blows at reduced loads in combined cycle configuration will potentially result in emissions of NOx in excess of the BACT limit of 9 ppm established in Specific Conditions 18 and 19 of the permit.

From a regulatory perspective, the CT's in simple-cycle mode will have demonstrated compliance well within the usual 180-day window of time granted for initial startup and shakedown of the equipment. Therefore allowance for temporary excess emissions associated with the steam blows needs to be provided for in another fashion.

In most combined cycle startup schedules, the steam blows and associated excess emissions would be completed within the 180 days afforded for this activity; the activity would take place anyway, the timing of the activity is the unusual aspect of this project.

FPL believes we can manage the steam blows in such a fashion as to remain in compliance with NSPS Subpart GG limits for NOx emissions (i.e. 110 ppmvd or 753.7 lb. / hour corrected to 15% oxygen); however NOx emissions during the steam blows may be in excess of the BACT limit (9 ppm) for this facility.

The period during which the steam blows may occur is estimated to be up to 30 days (intermittently) per combustion turbine initially, followed by a period of up to 60 days of intermittent steam blows for the piping systems as they are tied together.

Regulatory Background

The NSPS rules [40 CFR 60.8(a)] require that the performance test (actually initial emissions compliance testing) be conducted within 180 days of initial startup, or within 60 days of achieving the maximum production rate, whichever comes first.

The intent of this rule, FPL believes, is to provide sufficient time to start up a new emissions source, "debug" it, and conduct the initial testing within a reasonable length of time.

Suggested Course of Action

While the steam blows are essentially a startup event for the CT's in combined cycle mode, the Fort Myers project configuration and schedule require that this activity occur after the initial 180-day startup window has elapsed. To accommodate this unique circumstance FPL requests that the Department exercise its discretion under FAC Rule 62-210.700(1) and (5) to authorize excess NOx emissions during these steam blows. This authorization could be accomplished by revision of the project's air construction permit, with appropriate constraints on the duration and magnitude of the excess emissions.

Accordingly, the following language is suggested:

24. Excess Emissions Requirements:

- Excess emissions resulting from startup, shutdown or malfunction of *the combustion turbines and heat recovery steam generators* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emission occurrences shall in no case exceed two hours in any 24-hour period except during both "cold startup" to or shutdown s from combined cycle operation. During cold start-up to combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours.

- Excess emissions from the combustion turbines resulting from startup of *the steam turbines system* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed 12 hours per cold startup of the steam turbine system.

  [Applicant Request (FPL estimates that, on average there will be approximately 12 startups to combined-cycle operation per year), G.E. Combined Cycle Startup Curves Data and Rules 62-210.700, 62-4.130 F.A.C.]

- **Emissions of NOx from the combustion turbines, in excess of the BACT limit established in Specific Condition 19, resulting from steam blow activities associated with bringing the heat recovery steam generators into operation shall be permitted provided that best operational practices are adhered to and that the Subpart GG NSPS limit of 75/110 ppm is not exceeded. The period during which such excess emissions are authorized shall not exceed a total of 90 days per combustion turbine. The applicant shall record for each CT unit the periods of startup for each operating mode. Excess emissions during the periods of startup shall be reported to the FDEP South District office within 30 days.**

[Applicant Request (FPL estimates that CT emissions will comply with the NSPS NOx limit following initial compliance testing, but that low load operation necessary for steam blow activities prior to initial combined cycle operation will result in NOx emissions above the BACT limit of 9 ppm; excess emissions of NOx resulting from steam blows may occur intermittently over a period of up to 30 days per CT initially, followed by a period of up to 60 days of intermittent steam blows for the piping systems), G.E. Combined Cycle Startup Curves Data and Rule 62-210.700, F.A.C.]

27. Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each **unit configuration (i.e., simple cycle and combined cycle)** will be operated, but no later than 180 days following initial operation of ~~the~~ each unit **configuration**, and annually thereafter...

Additional requested changes

A couple of other relatively minor changes to the Air Construction permit are requested, as a result of further evaluation of the combined cycle facility.

First, Specific Condition 22 is requested to be amended as follows, in order to account for the presence of any background volatile organic compounds:

22. Volatile Organic Compounds (VOC) Emissions: The concentrations of VOC in the exhaust gas shall not exceed 1.4 ppmvd **(exclusive of background concentration)** as determined by EPA Method 18 or 25A. VOC emissions (at ISO conditions) shall not exceed 2.9 lb./hr per CT **(exclusive of background concentration)** to be demonstrated by initial stack test.

The Project and Location section on the placard page incorrectly describes "one 30 foot stack" for the fuel gas heaters. There will actually be six, 21-foot stacks. Also, FPL has elected to install direct-fired heaters, rather than a boiler for this purpose. Therefore, we suggest the following language change to the last sentence:

"The project also includes a cooling tower for once-through brackish water ~~and a small boiler or~~ **six direct-fired** heaters with ~~a 30-foot stack~~ **21-foot stacks** to heat the natural gas prior to use during simple cycle operation and cold start-ups".

The Emission Units section on page 2 of the permit describes emission unit 024 as "Natural Gas Boiler or Heater(s)". We request that the description be modified to "Six direct-fired heaters".

The final bullet under Specific Condition 19 requires that the NOx emission limit for the gas heaters / boiler to be demonstrated by stack test. FPL requests that an initial stack test should be sufficient to demonstrate compliance, and additionally that two of the heaters should be representative of the six. Therefore the following language is suggested:

"NOx emission limit from the **six** gas heaters ~~/ boiler~~ shall not exceed 0.10 lb. / mmBtu (at ISO conditions) to be demonstrated by **an initial** stack test **on two of the six heaters**."

I would be pleased to answer any questions you may have. At your convenience, please feel free to contact me at (561) 691-7058 or via email at rich_piper@fpl.com.

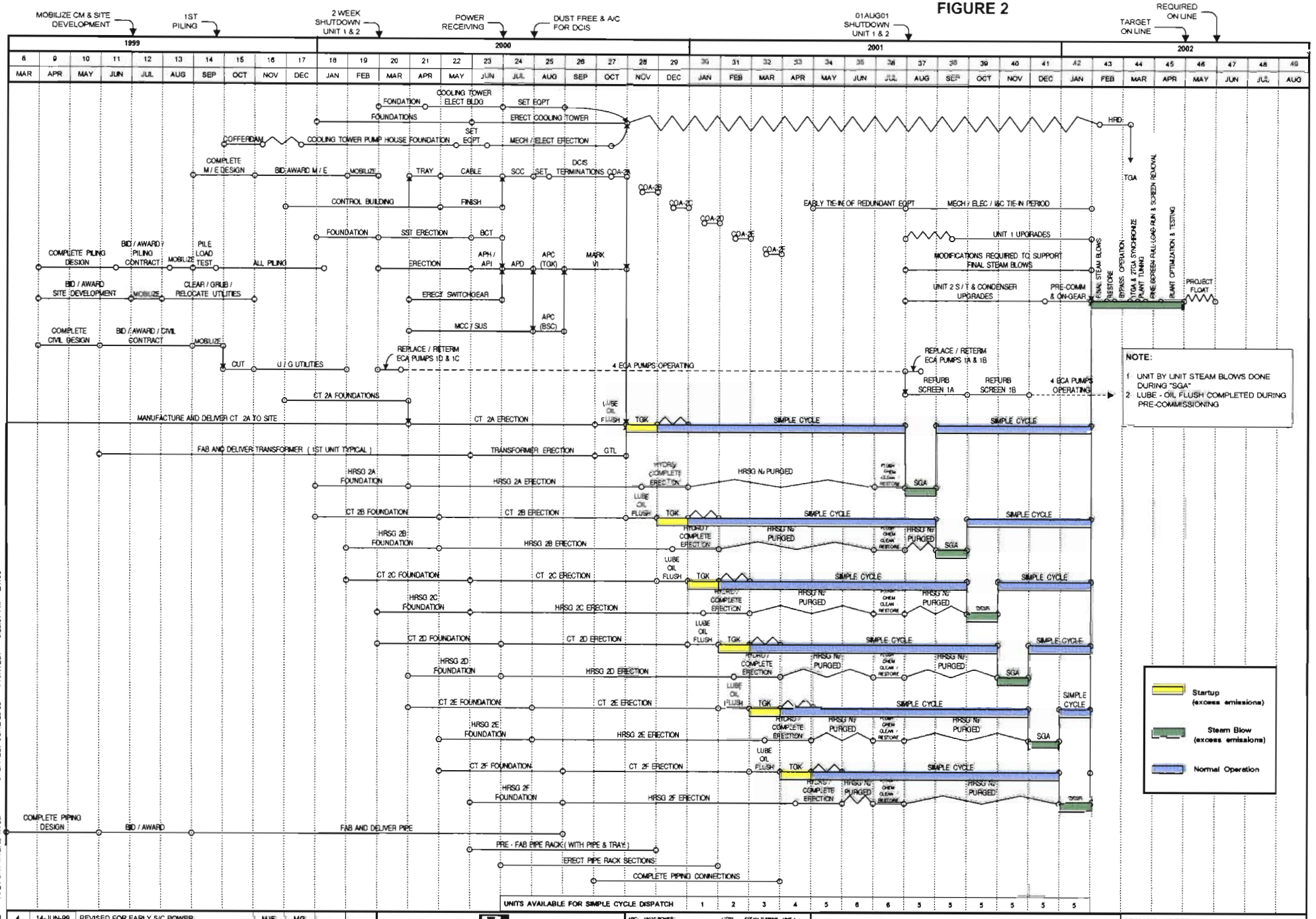
Very truly yours,

Richard Piper

Richard Piper
Licensing Manager
Florida Power & Light Company

cc: SD
M. Halpin, BAR
T. Heron, BAR

FIGURE 2



FPL FORT MYERS & VSD
FILE NAME:
UPDATED: JUNE-23-99
PRINTED: 3:26:31 PM 27/00

NO	DATE	REVISION / RECORD OF ISSUE	BY	CHK	APP	FLM
4	14-JUN-99	REVISED FOR EARLY S/C POWER	MJF	MG		
3	30-APR-99	UPDATED AUX POWRE LOGIC	MG	MAM		
2	30-SEP-98	UPDATED FROM 29SEP98	ATK	MAM		
1	23-SEP-98	UPDATD FOR FPL MEETING	MFJ	MG		

BLACK & VEATCH

ENGINEER M. MCDERMOTT
DRAWN M. FITZGERALD
CHECKED
DATE 22-APR-98

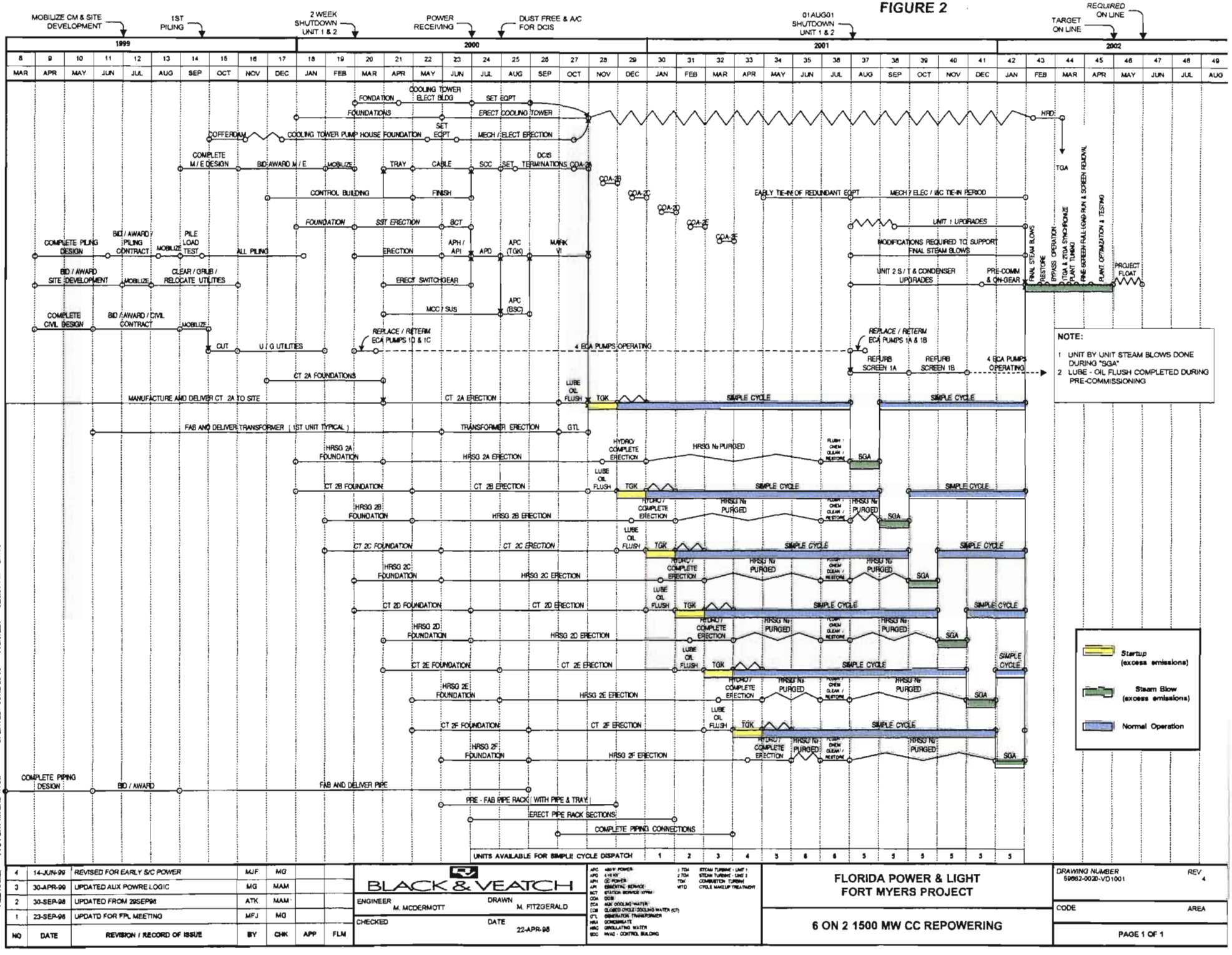
APC 480V POWER
APD 4160V
API DISTRIBUTED
APP ESSENTIAL SERVICE
APS STATION SERVICE
CGA CGA
ESA AUX COOLING WATER
ESW CLOSED CYCLE COOLING WATER (CT)
GTL GENERATOR FROM SPOTTER
HRA CONDENSATE
HRC CIRCULATING WATER
SCC HVAC - CONTROL BUILDING
STA STEAM TURBINE - UNIT 1
STB STEAM TURBINE - UNIT 2
TGK COMBUSTION TURBINE
WTO CYCLE MAKEUP TREATMENT

FLORIDA POWER & LIGHT
FORT MYERS PROJECT

6 ON 2 1500 MW CC REPOWERING

DRAWING NUMBER 59662-0020-VD1001 REV 4
CODE AREA
PAGE 1 OF 1

FIGURE 2



NO	DATE	REVISION / RECORD OF ISSUE	BY	CHK	APP	FLM
4	14-JUN-99	REVISED FOR EARLY S/C POWER	MJF	MG		
3	30-APR-99	UPDATED AUX POWRE LOGIC	MG	MAM		
2	30-SEP-98	UPDATED FROM 29SEP98	ATK	MAM		
1	23-SEP-98	UPDATD FOR FPL MEETING	MFJ	MG		

FILE NAME: FPL FORT MYERS 4.VSD UPDATED: JUNE-23-99 PRINTED: 3:26:31 PM 27/99

BLACK & VEATCH

ENGINEER M. MCDERMOTT DRAWN M. FITZGERALD

CHECKED DATE 22-APR-98

APC 480-V POWER
APD 4.16 KV
APH QC POWER
API ESSENTIAL SERVICE
BCT STATION SERVICE XFMR
CDA DCIS
CDB ADC COOLING WATER
CTA CLOSED CYCLE COOLING WATER (CT)
CTB GENERATOR TRANSFORMER
GTL CONDENSATE
HRA CIRCULATING WATER
HRC HVAC - CONTROL BUILDING
1 TGA STEAM TURBINE - UNIT 1
2 TGA STEAM TURBINE - UNIT 2
TGK COMBUSTION TURBINE
WTD CYCLE MAKEUP TREATMENT

FLORIDA POWER & LIGHT
FORT MYERS PROJECT

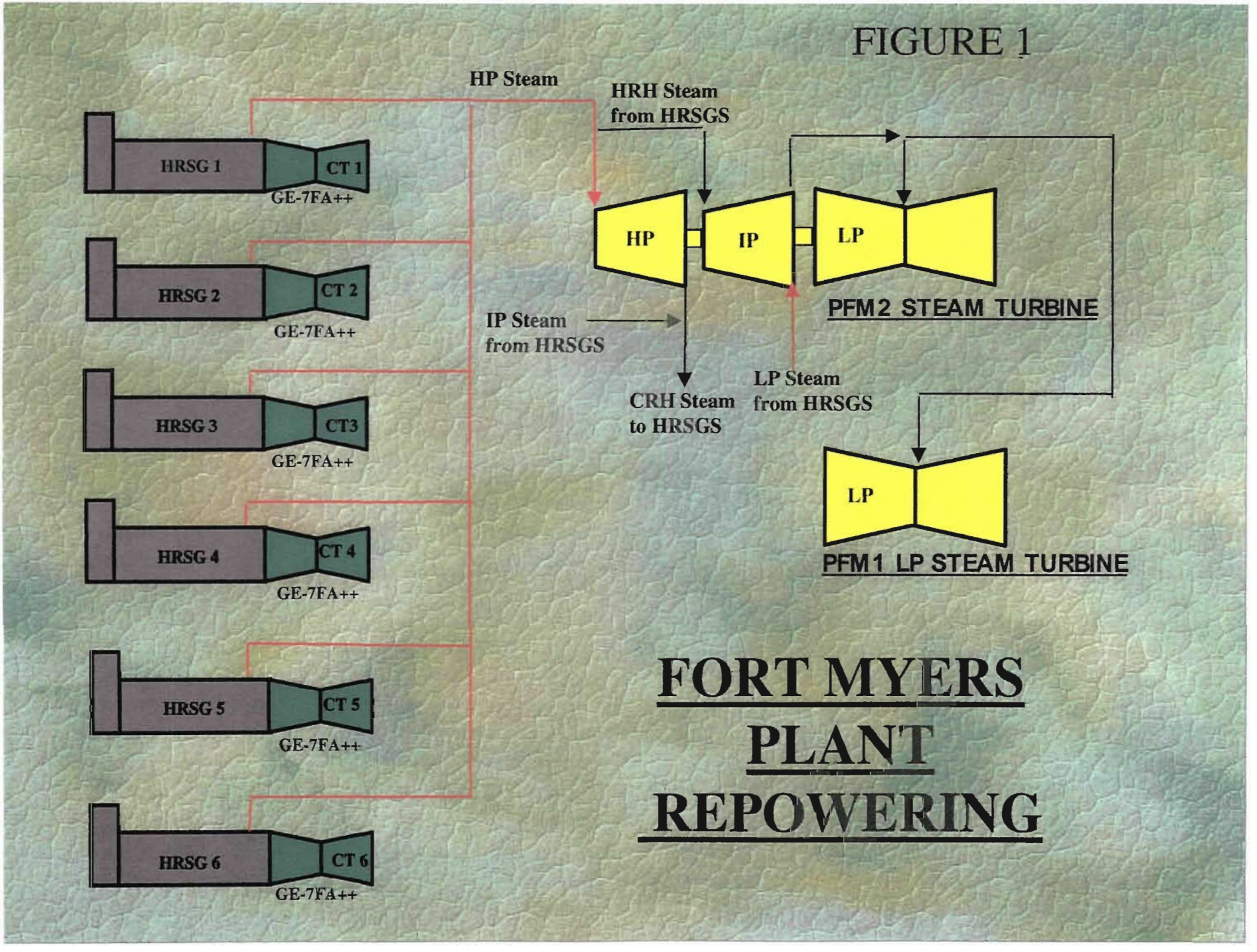
6 ON 2 1500 MW CC REPOWERING

DRAWING NUMBER 59862-0020-VD1001 REV 4

CODE AREA

PAGE 1 OF 1

FIGURE 1



FORT MYERS PLANT REPOWERING

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

October 14, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Piper
Repowering Licensing Manager
Florida Power & Light
Post Office Box 14000
Juno Beach, Florida 33408

RE: FPL Ft. Myers Plant
Facility No. 0710002-006-AC

Dear Mr. Piper:

The Department reviewed your request dated September 15, 1999 to modify the above mentioned construction permit. The request is acceptable and the referenced permit is hereby modified as follows:

SPECIFIC CONDITION 10

The test method for visible emissions shall be EPA Method *9 and the test method for nitrogen oxides shall be EPA Method 7 or 7E,* adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 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 presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

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 notice. 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.

Mediation is not available in this proceeding.

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 F.S. 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) F.S., 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 the 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 permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

Any party to this permitting decision (order) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Howard L. Rhodes, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10/15/99 to the person(s) listed:

Mr. Richard Piper, FPL*

Phil Barbaccia DEP SD

Clerk Stamp

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

Charlotte J. Hayes (Clerk) 10/15/99 (Date)

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Richard Piper
Repowering Licensing Mgr.
FPL
P.O. Box 14000
Juno Beach, Fl 33408

4a. Article Number
Z 031 391 961

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

7. Date of Delivery

WEST PALM BEACH FL BRANCH OCT USPS

5. Received By: *(Print Name)*

6. Signature: *(Addressee or Agent)*
X

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

PS Form 381[illegible] [illegible]ember 1994 102595-98-B-022[illegible] [illegible]eceipt

Thank you for using Return Receipt Service.

Z 031 391 961

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Richard Piper, FPL	
Street & Number P.O. Box 14000	
Post Office, State, & ZIP Code Juno Bch Fl 33408	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date FPL 10/15/99	

PS Form **3800**, April 1995

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

September 15, 1999

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

0710002-006 -AC

Re: FPL Fort Myers Plant
Air Construction Permit #0710002-004AC
Specific Condition 10

Dear Mr. Linero:

Pursuant to our telephone conversation of this morning, please modify the subject permit condition to allow the use of EPA Method 7E as an alternate to EPA Method 7. These methods are both approved for use on combustion turbines and have been used at other similar FPL facilities. Thank you in advance for your help.

Please do not hesitate to contact me at (561) 691-7058 if I you have any questions.

Very truly yours,

Rich Piper
Repowering Licensing Manager
Florida Power & Light Company

Monitoring of Operations

9. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

10. The test method for visible emissions shall be EPA Method *9 and the test method for nitrogen oxides shall be EPA Method 7*, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

11. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2), F.A.C.]

12. Applicable Test Procedures.
(a) Required Sampling Time.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

FPL ENVIRONMENTAL SERVICES DEPARTMENT
PO BOX 14000
JUNO BEACH, FL 33408

DATE: September 15, 1999

Teresa - do a "one stop" permitting action w/o public notice. Use std standard language.

SEND TO:
NAME: AL LINERO
COMPANY: FDEP
FAX NUMBER: 850 922 6979

FROM: RICHARD PIPER
FPL ENVIRONMENTAL SERVICES
PHONE: (561) 691-7058
FAX: (561) 691-7070
rich_piper@fpl.com

0710002-006-AC

NUMBER OF PAGES INCLUDING FAX COVER: 3

MESSAGE:

AL -

Per our discussion this morning. Hard copy is in the mail. I've also ginned up a letter on that other matter we discussed.

Best Regards -

Rich Piper

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

September 15, 1999

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Air Construction Permit #0710002-004AC
Specific Condition 10

Dear Mr. Linero:

Pursuant to our telephone conversation of this morning, please modify the subject permit condition to allow the use of EPA Method 7E as an alternate to EPA Method 7. These methods are both approved for use on combustion turbines and have been used at other similar FPL facilities. Thank you in advance for your help.

Please do not hesitate to contact me at (561) 691-7058 if I you have any questions.

Very truly yours,

Rich Piper
Repowering Licensing Manager
Florida Power & Light Company

Monitoring of Operations

9. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

~~From~~ SPECIFIC CONDITION NO 10

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[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

7A

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[Rules 62-297.310(2), F.A.C.]

12. Applicable Test Procedures.
(a) Required Sampling Time.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

July 30, 1999

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Chairman
Lee County Board of County Commissioners
Post Office Box 398
Fort Myers, Florida 34219

Dear Mr. Chairman:

We received a letter from David M. Owen, Assistant County Attorney requesting that the Department "provide actual notice to Lee County of any proposed agency actions concerning FDEP permits affecting all aspects of FPL's repowering of the Fort Myers Plant."

The Division of Air Management's Bureau of Air Regulation in Tallahassee issued the attached Notice of (Final Air Construction) Permit on November 25, 1998 for the repowering project. We will advise you of any future applications and FDEP actions should FPL request amendments to or modifications of the issued air construction permit.

For reference, we did have a number of conversations with consultants working on behalf of the County. Their specific interest regarded the precise sequence in which the new units are to be installed and phased into combined cycle operation as well as the retirement dates for the existing boilers. FPL subsequently prepared a letter to the County's Environmental Services Department detailing the sequence and the impacts on emissions.

If you have any questions regarding this matter, please call me or Al Linero at 850/488-0114.

Sincerely,

A. A. Linero, PE 7/30

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

CHF/al

Peggy Highsmith, DEP SD
Perry Odom, DEP OGC
David M. Owen, Esq., Lee County

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an Application for Permit by:

Mr. William Reichel, General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

DEP File No. 0710002-004-AC
1500 MW Gas Repowering Project
Lee County

/

Enclosed is the Final Permit Number 0710002 -004AC to construct six (6) 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generators with unfired heat recovery steam generators (HRSG) that will raise sufficient steam to produce approximately another 480 MW via the existing steam-driven electrical generators at the FPL Fort Myers Plant near Tice, Lee County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 11-25-98 to the person(s) listed:

Mr. William Reichel, FPL*
Mr. Richard Piper, FPL
Ms. Peggy Highsmith, SD
Mr. Doug Neeley, EPA
Mr. John Bunyak, NPS
Mr. Ken Kosky, P.E., Golder Associates
Mr. Peter Cunningham, Esq., HGSS

Clerk Stamp

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

Kuri Joker (Clerk) 11-25-98 (Date)

BEST AVAILABLE COPY

Fold at line over top of envelope to the right of the return address

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

...h to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Chairman
Lee Co Board of
Co. Comm's
PO Box 398
Ft. Myers, Fl
33902

4a. Article Number
Z 333 618 120

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

7. Date of Delivery
8/5/99

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X

PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 333 618 120

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Chairman	
Street & Number Lee Co. Bd CC	
Post Office, State, & ZIP Code Ft. Myers, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	FPL
Return Receipt Showing to Whom & Date Delivered	Ft. Myers
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	8-3-99

PS Form **3800,** April 1995

Al Liners
Pls handle or
be prepared to
the How 7/29

LEE COUNTY
SOUTHWEST FLORIDA

Writer's Direct Dial Number: (941) 335-2236

July 16, 1999

Perry Odom, Esq.
General Counsel
Florida Department of Environmental Protection
3900 Commonwealth Boulevard
Tallahassee, Florida 32399

RE: REPOWERING PROJECT FOR FLORIDA POWER & LIGHT (FPL) COMPANY'S FORT MYERS ELECTRIC POWER PLANT

Dear Mr. Odom:

As you are likely aware at this time, Florida Power & Light Company (FPL) currently owns and operates an electrical power plant in Fort Myers, Florida which is being considered for repowering. It is our understanding that the Florida Department of Environmental Protection (FDEP) is, or will be in the near future, evaluating several applications from FPL for the modifications to this plant in order to operate its boilers on natural gas rather than fuel oil. Since this electric power facility directly affects the environment of Lee County, Lee County would like to be kept informed with respect to the issuance of the "repowering" permits from the FDEP for the FPL Fort Myers facility.

On behalf of the Board of County Commissioners of Lee County, I am respectfully requesting that the Department provide actual notice to Lee County of any proposed agency actions concerning FDEP permits affecting all aspects of FPL's repowering of the Fort Myers electric power plant. You may address such notice(s) to the Chairman of the Lee County Board of County Commissioners, with a copy to me, as follows:

FPL REPOWERING REQ.odom.wpd

RE: REPOWERING PROJECT FOR FLORIDA POWER & LIGHT (FPL) COMPANY'S FORT MYERS ELECTRIC POWER PLANT .

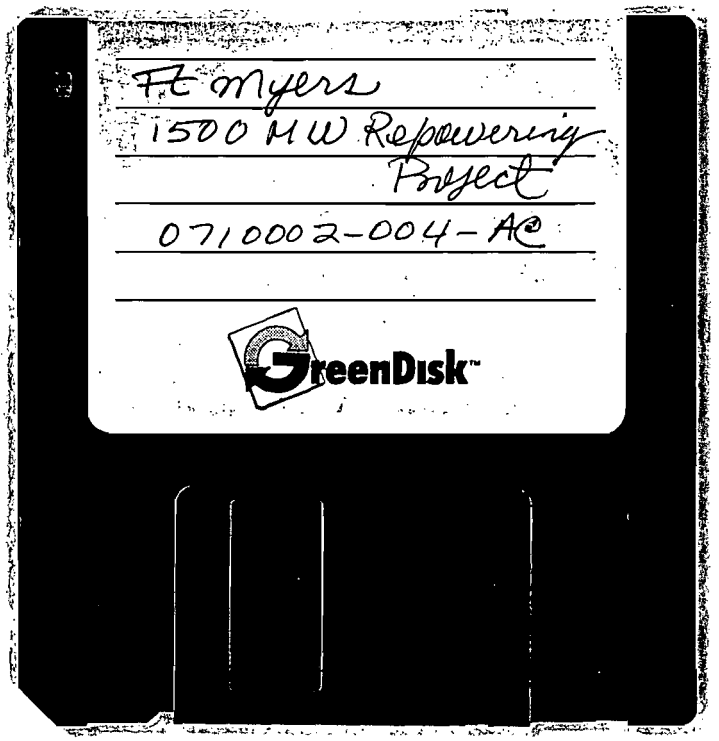
Chairman, Lee County Board of County Commissioners
Post Office Box 398
Fort Myers, Florida 33902

Thank you for your assistance with this request, and please feel free to call me at your convenience if you have any questions about our need to be kept notified of FPL's progress with the facility repowering.

Cordially,

David M. Owen
Assistant County Attorney

DMO:dm
xc: Board of County Commissioners
James G. Yaeger, County Attorney
Howard Rhodes, Director, Division of Air Resource Management, FDEP
David York, P.E., FDEP
Mimi Drew, Director, Division of Water Facilities, FDEP
Peggy Highsmith, Director of District Management, FDEP (Fort Myers)
Jan Mandrup-Poulson, Water Quality Assessment Administrator, FDEP
J.W. French, P.E., Director, Public Works Administration
Larry Johnson, P.E., Director, Environmental Services
Lindsey Sampson, P.E., Director, Solid Waste Management
David S. Dee, Esq., Landers & Parsons, P.A.
Douglas S. Roberts, Esq., Hopping, Green, Sams & Smith, P.A.
Neale Montgomery, Esq., Pavese, Garner, et al.


Ft Myers
1500 MW Repowering
Project
071002-004-AC
GreenDisk™

NDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. William Reichel
FPL- Ft. Myers Plant
PO Box 430
Ft. Myers, Fl
33905

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 310

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

Z 341 355 310

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to William Reichel	
Street & Number FPL Ft. Myers	
Post Office, State, & ZIP Code Ft. Myers Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 6-14-00	
0710002-008-AC	

PS Form **3800**, April 1995

RECEIVED

MAY 18 2000

BUREAU OF AIR REGULATION

NEWS-PRESS
Published every morning — Daily and Sunday
Fort Myers, Florida

Affidavit of Publication

STATE OF FLORIDA
COUNTY OF LEE

Before the undersigned authority, personally appeared

Kieanna Henry

who on oath says that he/she is the

Asst. Legal Coordinator of the News-Press, a daily newspaper, published at Fort Myers, in Lee County, Florida; that the attached copy of advertisement, being a

public notice

in the matter of Air Construction Permit Modification

in the _____ Court

was published in said newspaper in the issues of

May 8, 2000

Affiant further says that the said News-Press is a paper of general circulation daily in Lee, Charlotte, Collier, Glades and Hendry Counties and published at Fort Myers, in said Lee County, Florida and that said newspaper has heretofore been continuously published in said Lee County, Florida, each day, and has been entered as a second class mail matter at the post office in Fort Myers in said Lee County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Kieanna Henry

Sworn to and subscribed before me this

8th day of May, 20 00 by

Kieanna Henry

who is personally known to me or who has produced

_____

as identification, and who did or did not take an oath.

Notary Public Brenda Leighton

Print Name _____

My Commission Expires:

CLASS-16

Brenda Leighton
MY COMMISSION # CC808905 EXPIRES
February 14, 2003
BONDED THRU TROY FAIN INSURANCE INC.

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0710002-008-AC
FPL Fort Myers Repowering Project
Lee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Florida Power & Light Company (FPL). This permit modification is to revise some specific conditions and to allow increased NOx emissions during the conversion of the planned combustion turbines to combined cycle operation at the Fort Myers Plant near Tice, Lee County.

A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Fort Myers Plant, Post Office Box 430, Fort Myers, Florida 33905.

The approved FPL Fort Myers repowering project is under construction. When complete, the boilers and stacks associated with the existing residual oil-fired units will be dismantled and replaced by six natural gas-fired combustion turbines. Each combustion turbine will generate electrical power via an electrical generator driven directly by a shaft from the combustion turbine. The exhaust from each combustion turbine will be routed through a dedicated waste heat boiler. Steam from the six boilers will drive two existing steam electrical generators that will be retained.

Each combustion turbine will initially be tested for compliance with permit conditions and then operate in simple cycle mode without the steam cycle. Each will then be integrated into the steam cycle. As part or this phase, steam will be used to clean the piping system for each waste heat boiler of dirt and debris accumulated during construction. This steam will be vented rather than used to make electricity. To minimize the water requirements and avoid wastage of steam, the combustion turbines will be operated at a reduced load during the "steam blows." Emissions will be higher because the burners do not operate in full lean premixed mode at low load.

Although greater nitrogen oxides emissions are expected during the steam blows, concentrations will not exceed the NOx limit of 40 CFR, Subpart GG: 75 ppmvd at 15 % O2. Steam blows will occur intermittently during a period of 30 days per combustion turbine and wastes heat boiler combination. Thereafter steam blows will occur intermittently

AFFIDAVIT OF PUBLICATION

NEWS-PRESS
"Serving Southwest Florida Since 1884"

during a period of 60 days for the entire system. It is estimated that the total duration of low load operation will not exceed 288 hours per unit. Additional NOx, emissions are estimated to be 49 tons per unit.

The limited excess emissions are not significant compared to the overall reduction in emissions due to the repowering project. Additional air quality reviews were not required.

The Department will issue the FINAL permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 1135, Tallahassee, Florida, 32399-3000 Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt orthis notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120-60(3). However, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 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 presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course or the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

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 notice 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 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:
Florida Department of Environmental Protection, Bureau of Air Regulation, 111 S. Magnolia Drive, Suite 4, Tallahassee, Florida, 32301 Telephone: (850) 488-0114 Fax: (850) 922-6979
Florida Department of Environmental Protection, South District Office, 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902-2549 Telephone: (941) 332-6975 Fax: (941) 332-6969

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

May, 8 No. 25027

FPL Ft. Myers

0710002-008-AC

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:
William Reichel, Gen-Mgr
FP&L - Ft. Myers Plant
PO Box 14000
[redacted], Fl
Juno Bch
[redacted]
33408

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☑ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* Z 341 355 288

PS Form 3811, July 1999 Domestic Return Receipt 5-99-M-1789

Z 341 355 275

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Mr. Wm Reichel, Gen Mgr	
Street & Number P.O. Box 430	
Post Office, State, & ZIP Code Ft Myers Fl 33902	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 5/2/01 DCP 0710002-008-AC	

PS Form **3800**, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Richard Piper, Lic. Mgr.
Fla. Power & Light
PO Box 14000
Ft. Myers, Fl 33908

4a. Article Number
Z 031 391 880

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

7. Date of Delivery MAR 20

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 031 391 880

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Richard Piper	
Street & Number FP&L	
Post Office, State, & ZIP Code Ft. Myers Plant	
Postage Juno Beach FL	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 071 0002-008-AC	3-13-00

PS Form **3800**, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Richard Piper
Refavering Licensing Mgr.
7PL
P.O. Box 14000
Juno Beach, Fl 33408

4a. Article Number
Z 031 391 961

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

Date of Delivery

5. Received By: *(Print Name)*

6. Signature: *(Addressee or Agent)*
X

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

WEST PALM BEACH FL OCT 1999 USPS

PS Form 381[illegible] ember 1994 102595-98-B [illegible] ceipt

Thank you for using Return Receipt Service.

Z 031 391 961

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to: Richard Piper, 7PL	
Street & Number: P.O. Box 14000	
Post Office, State, & ZIP Code: Juno Bch. Fl 33408	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date: 7PL 10/15/99	

PS Form **3800**, April 1995

BEST AVAILABLE COPY

Fold at line over top of envelope to the right of the return address

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

...sh to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Chairman
Lee Co Board of
Co. Comm's
PO Box 398
Ft. Myers, Fl 33902

4a. Article Number
Z 333 618 120

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

7. Date of Delivery
8/5/99

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X

PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 333 618 120

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Chairman	
Street & Number Lee Co. Bd CC	
Post Office, State, & ZIP Code Ft. Myers, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	FPL
Return Receipt Showing to Whom & Date Delivered	Ft. Myers
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	8-3-99

PS Form **3800**, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. William Reichel, Gen. Mgr.
FPL Ft. Myers Plant
PO BOX 430
Ft. Myers, Fl
33905

4a. Article Number
Z 333 612 560

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

7. Date of Delivery
12-18-98

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X [signature]

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 333 612 560

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to William Reichel	
Street & Number FPL Ft Myers	
Post Office, State, & ZIP Code Ft Myers, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 11-25-98 0710002-004-AC	

PS Form **3800**, April 1995

NEWS-PRESS

Published every morning — Daily and Sunday
Fort Myers, Florida

Affidavit of Publication

STATE OF FLORIDA
COUNTY OF LEE

Before the undersigned authority, personally appeared Brenda Leighton

who on oath says that he/she is the Legal Coordinator of the News-Press, a daily newspaper, published at Fort Myers, in Lee County, Florida; that the attached copy of advertisement, being a display

in the matter of Notice of Intent to Issue Air Construction Permit

in the _____ Court

was published in said newspaper in the issues of September 30, 1998

Affiant further says that the said News-Press is a paper of general circulation daily in Lee, Charlotte, Collier, Glades and Hendry Counties and published at Fort Myers, in said Lee County, Florida and that said newspaper has heretofore been continuously published in said Lee County; Florida, each day, and has been entered as a second class mail matter at the post office in Fort Myers in said Lee County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Brenda Leighton

Sworn to and subscribed before me this 30th day of September, 19 98 by Brenda Leighton

who is personally known to me or who has produced _____ as identification, and who did or did not take an oath.

Notary Public Janet E. Cobb

Print Name _____

My Commission Expires:

CLASS-16

Janet E. Cobb
MY COMMISSION # CC602535 EXPIRES
November 19, 2000
BONDED THRU TROY FAIN INSURANCE, INC.

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP FILE NO. 0710002-004-AC
Florida Power & Light Fort Myers Plant
1500 Megawatt Repowering Project
Lee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Florida Power & Light Company (FPL). The permit is to install six combined cycle units to replace two (2) residual oil-fired steam generators at the Fort Myers Plant near Tice, Lee County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Fort Myers Plant, Post Office Box 430, Fort Myers, Florida 33905.

Each unit is a nominal 170 Megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce approximately another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with existing residual oil-fired units (593 MW total capacity) will be dismantled. The project is in-effect a "gas repowering of existing fossil-fuel fired units." The project also includes: a cooling tower for once-through brackish water; a small boiler or heaters to heat the natural gas prior to use; and two relatively short stacks per unit for simple and combined (with HRSG) operation.

Nitrogen Oxides (NO$_x$) emissions will be controlled by Dry Low NO$_x$ (DLN-2.6) combustors capable of achieving emissions of 9 parts per million (ppm) by volume at 15 percent oxygen. Emissions of carbon monoxide (CO) will be controlled to 12 ppm, while emissions of volatile organic compounds (VOC) will be less than 1.4 ppm. Emissions of sulfur dioxide (SO_2), sulfuric acid mist (SAM), and particulate matter (PM/PM$_{10}$) will be very low because of the switch to inherently clean pipeline quality natural gas. There will be no provisions for firing fuel oil.

Although a BACT determination was not required, the proven capabilities of the selected units and the limits that FPL has accepted are more stringent than the requirements to-date for any combustion turbine project in Florida. There will be very substantial decreases in regulated air pollutants except for an insignificant increase in VOC emissions. The maximum potential annual emissions in tons per year are summarized below for comparison with recent annual emissions from Units 1 and 2 slated for retirement.

Pollutants	Units 1/2 Emissions	After Repowering	Increase (decrease)
PM/PM$_{10}$	607	313	(294)
SAM	915	21	(894)
SO_2	20,561	137	(20,424)
NO$_x$	7,095	1,845	(5,250)
VOC	47	82	35
CO	1,507	1,267	(240)

The lower NO$_x$ emissions will reduce ozone (smog) formation potential and nitrate fallout. The lower PM/PM$_{10}$, SO_2 and SAM emissions will reduce visible emissions, fine particulate generation, and acid smut fallout. An air quality impact analysis was conducted. Impacts due to the proposed project emissions are all favorable and the net effect is a "creation of available increment" in the PSD Class I (Everglades) and Class II areas.

The Department will issue the FINAL permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Fort Myers Repowering Project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever comes first.. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition 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 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 presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

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 notice. 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 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:

Florida Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: (850) 488-1344
Fax: (850) 922-6979

Florida Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902-2549
Telephone: (941) 332-6975
Fax: (941) 332-6969

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111,F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-0114, for additional information.

AFFIDAVIT OF PUBLICATION

NEWS-PRESS
"Serving Southwest Florida Since 1884"

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

D. Neeley
Mr. ~~Brian Beals~~, Section Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
U.S. EPA - Region IV
61 Forsyth Street
Atlanta, GA 30303

4a. Article Number: Z333 612 516

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

7. Date of Delivery: 9-24-98

5. Received By: *(Print Name)* Bruce Hoke

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

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 333 612 516

Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to D. Neeley	
Street & Number EPA	
Post Office, State, & ZIP Code Atlanta	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 9-22-98	

PS Form **3800**, April 1995

071000 2-004-AC

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. William Reichel
FPL Ft. Myers Plant
P O Box 430
Ft. Myers, Fl 33905

4a. Article Number
Z 333 612 512

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

7. Date of Delivery
10-5-98

5. Received By: (Print Name)
JOHN J. MACK JR

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

6. Signature: (Addressee or Agent)
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 333 612 512

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Will. Reichel	
Street & Number FPL - Ft. Myers Plant	
Post Office, State, & ZIP Code Ft. Myers, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0710002-004-AC 9-[redacted]-98 22	

PS Form **3800**, April 1995

SHARING OUR project plans

We are committed to building and operating an efficient, environmentally sound plant that meets the safety, environmental and economic objectives of FPL and our neighbors in Fort Myers.

The employees at FPL are proud to have been part of Florida's growth for more than 70 years. We promote energy conservation so natural resources are used wisely. It's also our responsibility to anticipate and plan for the future by adding new power resources to keep pace with new residents and a greater use of electricity.

In announcing plans to repower the Fort Myers plant, FPL President Paul Evanson promised to "establish a process to work with the community and to develop a mutually beneficial plan that incorporates citizens' interests and priorities with the technical requirements of providing additional electricity to the region."

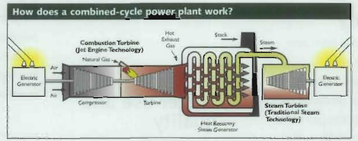
As part of that commitment, we hosted an open house on the repowering project at the convention center. We placed a newsletter on the project in the Fort Myers News Press. We made a number of presentations to neighbors and community groups. And we established a Web site where visitors can get project updates. A community advisory panel provided guidance on how the benefits of the project could be maximized for the community. Independent research also helped find the best way to provide community dialogue opportunities that would address local citizens' interests.

Seeking approval for the repowering project

Even though the existing Fort Myers power plant has operating permits, FPL must seek approval from several government agencies to make changes associated with replacing 1950s oil-burning technology.

Among the agencies we will work with are the Florida Department of Environmental Protection, the South Florida Water Management District, Lee County, the Florida Department of Transportation, U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers.

How does a combined-cycle power plant work?



Energy is produced two ways:
- One, by combustion of natural gas in a turbine — much like a jet engine.
- Two, by using the hot, jet engine exhaust to make steam.
- Both sources of energy then drive turbine generators.
- The generators produce electricity.

Our repowering project will be highly efficient:
- It uses clean natural gas.
- It makes use of the existing plant's steam turbine generators.
- It produces more energy per unit of fuel burned.
- It enables us to produce more electricity.

We will provide information on many features of the project noted here. We'll include how the repowered plant may affect emissions to the air and water. We'll also outline what new equipment and facilities will be associated with the project. Short-term issues such as the impact construction could have on our neighbors also will be part of these discussions.

Project Timeline

Full Operation January 2002

LISTENING & responding

Our goal is to continue an on-going dialogue with the community. What we do know, we'll share as we go. What we don't know now, we'll share when we do.

Like many projects with a long lead time and many engineering challenges, not every aspect of our repowering proposal has been fully developed. Here are some topics that have come up so far in our discussions with Fort Myers residents. If you have others you'd like us to address in the future, please note the various ways you can reach us. We look forward to your comments and suggestions.

■ Will construction disrupt the neighborhood?

We will minimize the effects of construction on our plant neighbors and the Fort Myers community. For example, we're planning longer turn lanes into our site on State Road 80, so that workers can get to-and-from work safely, and local traffic can move along with minimal inconvenience. We'll check with our neighbors regularly to make sure that we are minimizing any disruptions.

■ How will you assure the safety and reliability of electricity supply using natural gas?

Natural gas will be supplied to the repowered Fort Myers plant by a carefully designed and controlled underground pipeline. The pipeline will meet strict engineering and safety requirements. We will work closely with the gas pipeline company to ensure its operations meet high standards for safety and performance. FPL has safely and reliably operated natural-gas-fueled generating units for 30 years.

To meet peak demand, we also will continue to use the 12 existing, small combustion turbines fueled by light oil. Light oil is similar to diesel fuel used in some cars. It typically will be delivered to the site by trucks driven by professional drivers using approved trucking routes.

■ Can you avoid service interruptions when you repower?

We will do everything possible to avoid service interruptions. Electricity will be supplied from other FPL plants and power resources during construction as needed. Having multiple power plants on an interconnected electric grid helps us maintain service reliability and flexibility. We also plan to start phasing in portions of the repowered units early in 2001. Repowering should be complete, and the new plant fully operational, by the end of the year.

■ Will the addition of a cooling system to moderate water temperatures still protect the manatees?

Yes. Manatees should continue to find the winter water temperatures near the plant a refuge from colder river and Gulf waters. The primary benefit of the proposed cooling system is that it would moderate discharge water temperatures during the summer. We also believe the cooling system will help contribute to a more stable environment for aquatic life.

Learning More and Getting Involved

We'd love to hear from you. Here's how to contact us:

- **Visit our Web site** - About FPL - Repowering Fort Myers at www.fpl.com
- **Call us at 1-800-DIAL FPL** if you'd like to be on a mailing list for periodic updates. Take an online tour of the project exhibits at the Community Activities section of the FPL/Repowering Web site.
- **Call us at 941-332-9130** if you'd like an FPL employee to give a presentation on repowering to your club or civic association.
- For a summary of our project plans and permit requirements, write or call Grover Whidden at 941-332-9130. To look over copies of our permit applications, stop by the Fort Myers public library or drop into our Fort Myers office at 1926 Victoria Avenue.
- **Send your project comments or suggestions to:** Grover Whidden, FPL Community Affairs Manager, 1926 Victoria Avenue, Fort Myers, FL 33901 or to Bill Reichel, FPL Plant Manager, at P.O. Box 430, Fort Myers, FL 33902.
- **We welcome your comments and suggestions.** Drop us a note or email: grover_whidden@fpl.com or bill_reichel@fpl.com

REPOWERING Fort Myers

an opportunity for the Fort Myers community

Meeting the community's growing electricity needs

We've been talking with residents and neighbors in recent months about Florida Power & Light's plans to repower our Fort Myers plant. Repowering means adding new equipment at the site to increase the amount of electricity we produce. What we've heard is that people like our proposal for more and cleaner electricity, using new technology and natural gas instead of oil.

This month we begin meeting with local, state and federal agencies to discuss the approvals needed to upgrade our plant. These agencies will review the environmental and technical merits of the project. As part of their review, they also will be interested in how people in the community feel about the project.

We hope this brochure provides an overview of the project and a summary of what we will be providing to the various government agencies. If you would like more information, please contact us. See the back page for details.

Addressing the need for power

Residents or visitors to Southwest Florida won't find it hard to believe this region is growing 40 percent faster than the rest of FPL's service territory. However, for FPL, repowering Fort Myers is about more than just meeting Southwest Florida's growth and future needs. It's also about recognizing that communities clearly expect more from us. And we're listening.

For example, our customers expect more efficient and reliable electric service. We're proposing to triple the amount of electricity the Fort Myers plant can generate. We know that customers expect us to improve air quality, and to use water conservatively. Both of these environmental improvements are part of our repowering plan.

People also strongly believe that any new project proposed to meet future needs should be cost-effective. It should help keep electric rates from going up.

Our proposal helps us meet these objectives and offers some additional benefits. For example, repowering the Fort Myers plant means using an existing site rather than new land, which is important to environmentally conscious Floridians. Plus, some existing plant equipment can be re-used, which will generate even greater cost-savings and efficiency.

Increasing plant output locally means we can avoid the current need to build a cross-Florida transmission line to import power. That strengthens the region's opportunity to become more self-sufficient. Increasing generation in Southwest Florida also helps balance the entire FPL electrical grid.

FPL's grid of interconnected power lines collects and moves power from all 13 of our plant sites to homes and businesses in the Fort Myers area and elsewhere. It's important that all our power resources work together to supply continuous, safe, reliable electric service, and backup, for our seven million FPL customers today — and those in the future — in each of the 35 Florida counties we serve.

Repowering Project Facts

- $500 million power plant upgrade.
- First of three projects to meet future customer needs.
- Phased start up beginning in early 2001.
- Addresses regional power supply shortfall.
- Two-year construction schedule starting mid-1999.
- Uses existing plant site and some equipment.

Compared to the current plant:
- Natural gas instead of oil.
- 1990s technology instead of 1950s.
- Generation that's 40 percent more efficient.
- More power produced per unit of fuel consumed.
- Almost three times the generating capacity of the existing plant — 540 to 1400 megawatts.
- More than nine times the tax revenue for Lee County — $5 million in 2002.

We at FPL want to help improve the environment in the region, while working to meet the future energy needs of our Southwest Florida customers.

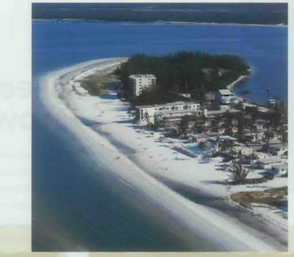
When we asked people about how we should communicate about our repowering proposal, Fort Myers residents told us:

"People are more likely to accept change if they know what the future holds."

TODAY

Power

- 1950s era generating technology using boilers.
- A small, but serviceable plant.
- 540 megawatt output from primary generators, enough for 125,000 homes and businesses.
- Only operates about 50 percent of the time due to inefficiencies.
- Site also includes 12 small, light-oil-fueled combustion turbines used to meet summer and winter peaks.



Air quality

- A visible plume.
- Emissions maintained well within permitted levels for the plant's fuel, age and technology.

Land and habitat

- 460-acre site in primarily rural area.
- Natural habitat changed in 1950's when plant was built.
- Onsite storage of oil by-products (ash).
- Boca Grande terminal used for fuel storage and shipping.

Fuel and fuel transportation

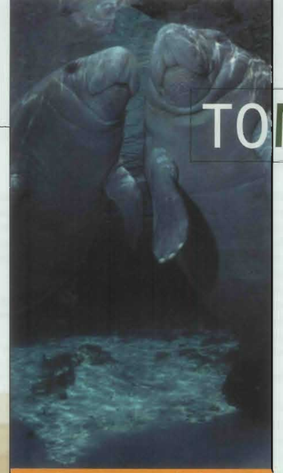
- Fuel oil delivered by ocean-going tankers and river barges.
- Light oil (distillate) for 12 small turbines delivered by barge and truck.

Water use and quality

- Well water used for operating purposes.
- Variable temperature discharges to the Orange River.
- Special measures taken for manatees in winter when it's not economical to run the plant.

Aesthetics

- Two plant stacks, 400 and 300 feet tall.
- Two 160 foot tall boiler structures and several support buildings.
- Planted palm tree farm.



Achieving an ecobalance*

The challenge of providing more electricity should be accomplished with the goal of creating an ecological balance that contributes to a better quality of life.

- Generation capability → 3 times more
- Nitrogen oxide → 4 times less
- Particulate matter → 2 times less
- Sulfur dioxide → 158 times less
- Carbon monoxide → 1.35 times less
- Volatile organic compounds → 1.75 times more
- Carbon dioxide → 3 times more locally
- Carbon dioxide → statewide reduction
- Discharge water temperature highs → moderated
- Oil-ash → eliminated as a solid-waste by-product

**Compared to historical plant performance, these are the estimated changes we expect with a repowered Fort Myers plant.*

TOMORROW

Power

- 1990s combined-cycle technology.
- One of the most efficient plants in the state.
- 1400 megawatt repowered output, enough for more than 300,000 homes and businesses.
- Expected to run close to 90 percent of the time.
- Better match of regional power supply with customer demand.
- Continuing use of 12 small, light-oil-fueled combustion turbines to meet summer and winter peaks.

Fuel and fuel transportation

- Clean-burning natural gas.
- Underground pipeline delivery.
- A safe, reliable gas supply route.
- Potential of natural gas for other energy uses in Southwest Florida.
- No solid-waste fuel by-products.
- Light oil for small turbines delivered primarily by truck.

Air quality

- No visible plume from new combined-cycle units.
- Significantly reduced emissions levels over those produced currently, including nitrogen oxide, fine particulates (soot), sulfur dioxide and carbon monoxide, thus contributing to cleaner air.
- Slight increase in "unburned" fuel or VOCs (volatile organic compounds).
- Some increases in carbon dioxide locally, but a statewide reduction of about 13 percent.

Water use and quality

- Essentially the same use of city, county and well water.
- Cooling systems added to reduce significant temperature fluctuations.
- More constant water discharge temperatures.

ECOBALANCE

Land and habitat

- Land provided for Manatee Park remains dedicated to public use.
- Boca Grande no longer needed for fuel terminal.
- Some temporary construction noise and traffic.
- Nuisance plant species removed in area of construction.
- Warm-water manatee refuge maintained in winter.
- Landscaping and native vegetation replaced and enhanced after construction.

Aesthetics

- Lower profile plant; 12 smaller stacks, about 100 and 125 feet tall.
- Water vapor or mist from cooling systems sometimes visible.
- More structures and equipment to support larger plant processes.
- Electrical substation expansion.
- Transmission line additions in existing rights-of-way.

Residents also told us: "People live here and tourists are drawn to this area, in part, because of this commitment to keep the environment ecologically sound."

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William M. Reichel
Plant General Manager

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Diana Davis
Attorney
Law Department

an FPL Group company

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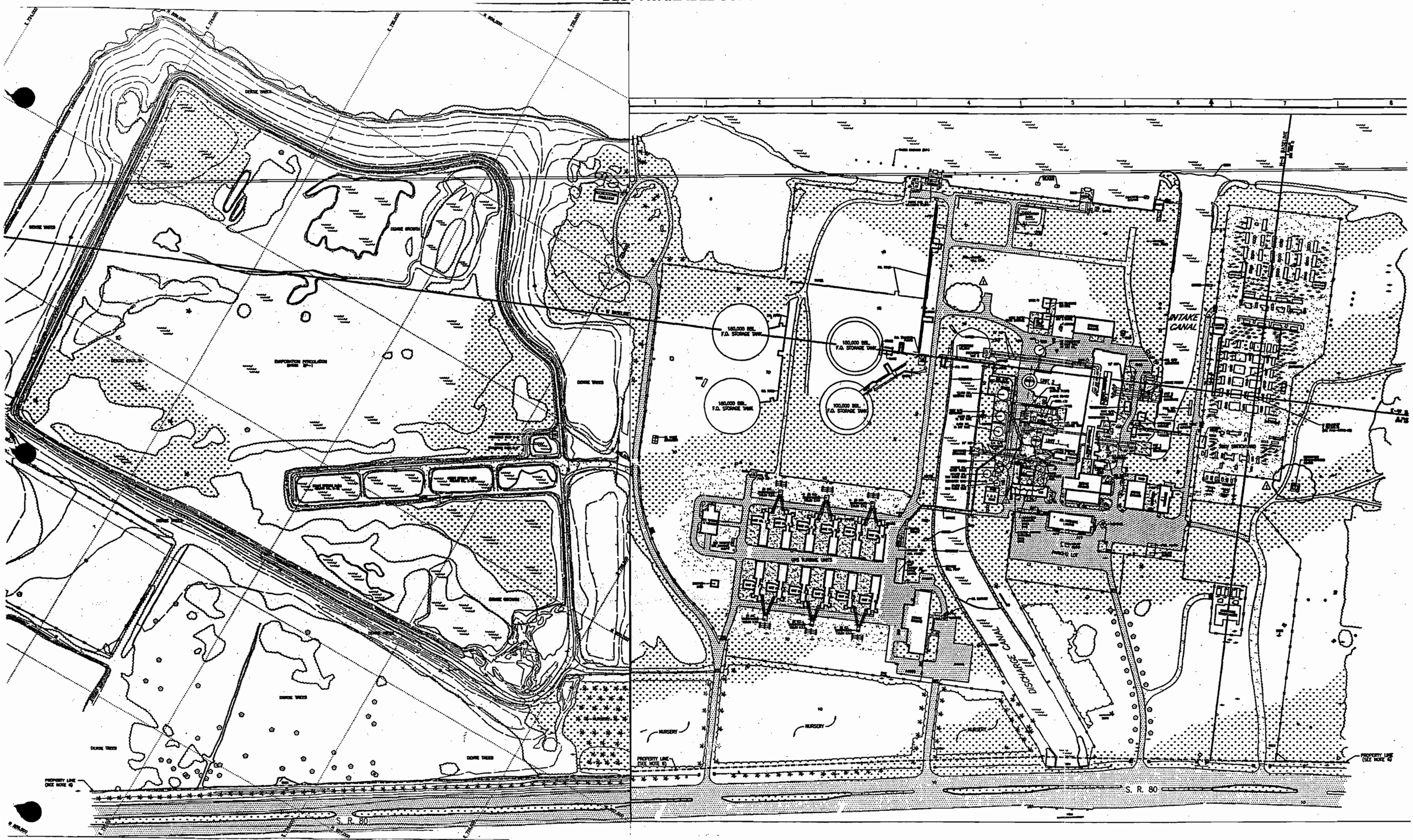

EXISTING FACILITY LAYOUT

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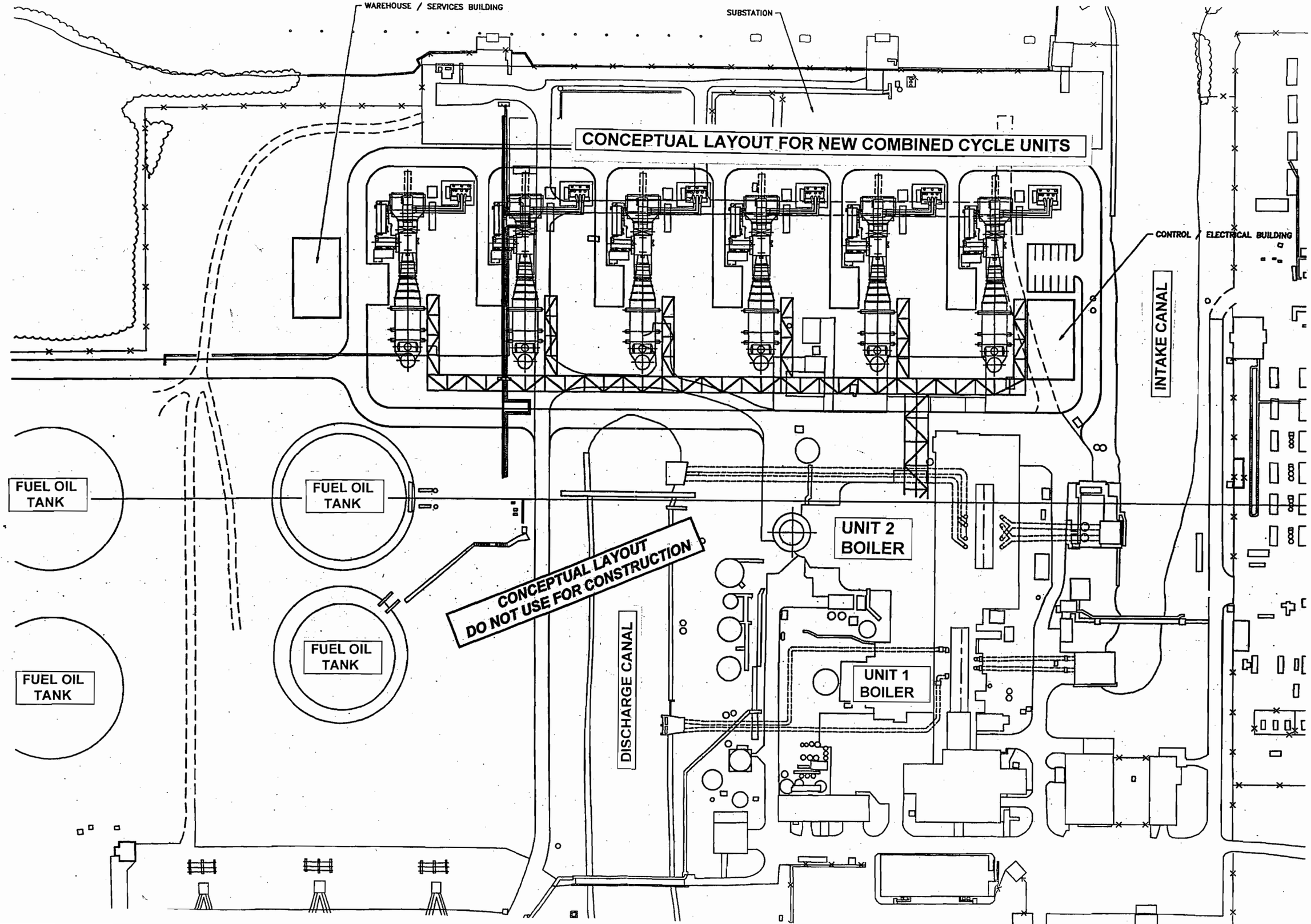
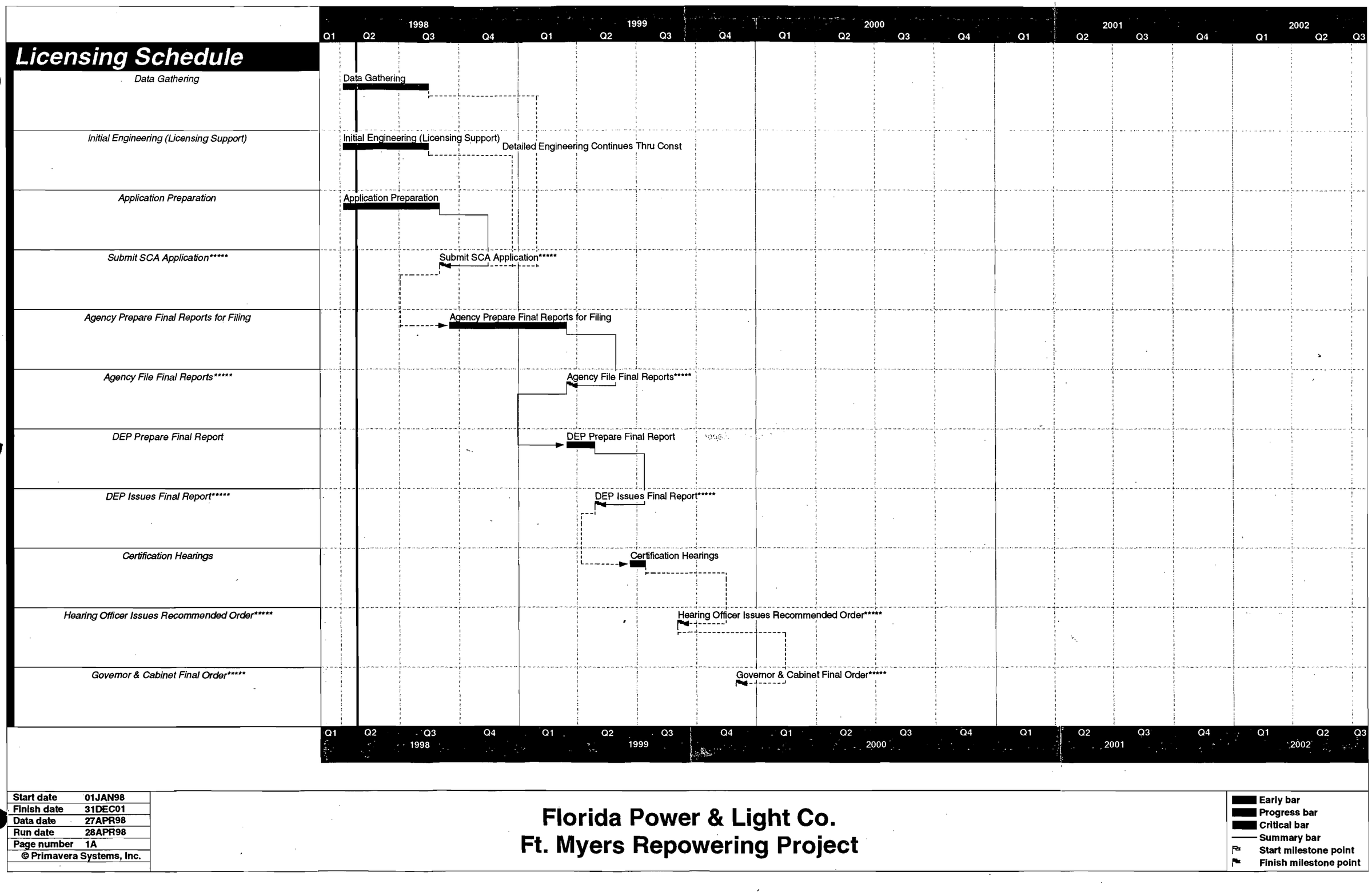


Licensing Schedule



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Finish date	31DEC01
Data date	27APR98
Run date	28APR98
Page number	1A
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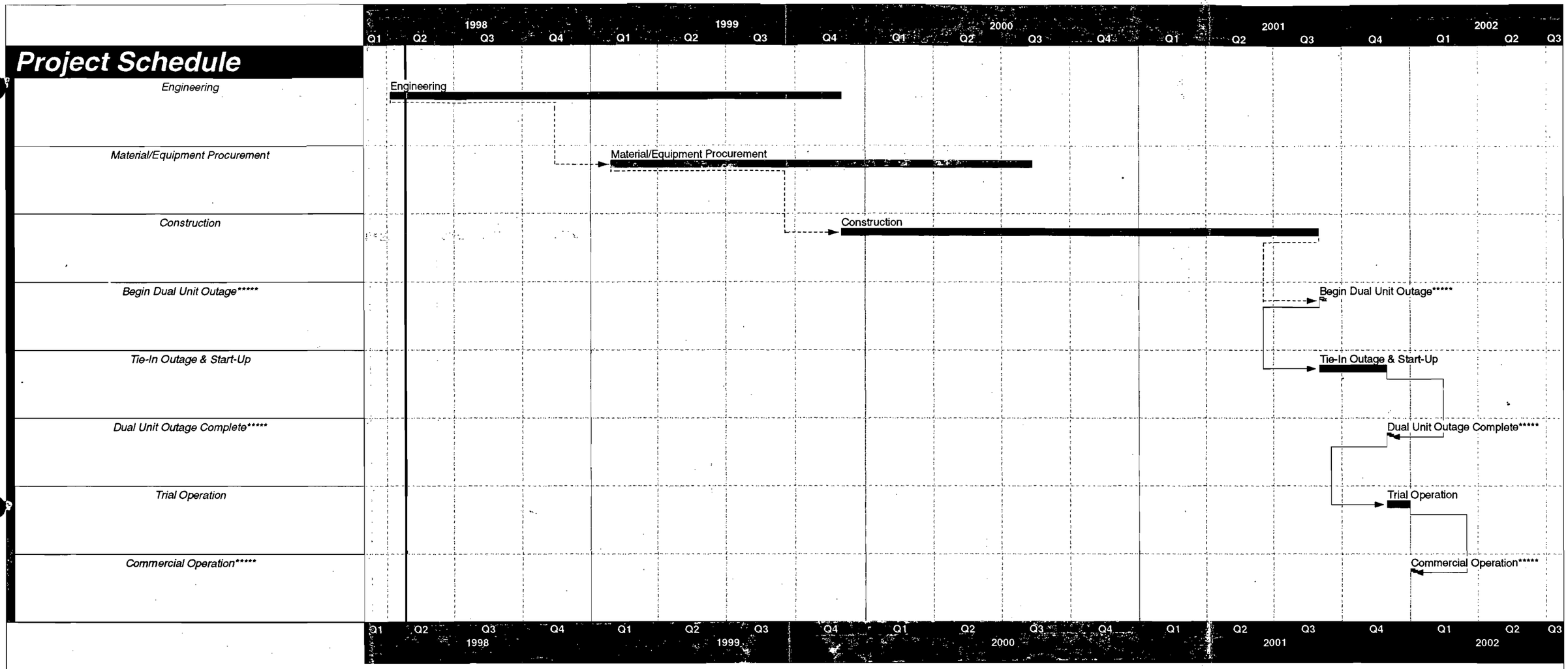
Florida Power & Light Co.
Ft. Myers Repowering Project

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point
- Finish milestone point

Project Schedule



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Page number	2A

Florida Power & Light Co.
Ft. Myers Repowering Project

- Early bar
- Progress bar
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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an Application for Permit by:

Mr. William Reichel, General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

DEP File No. 0710002-004-AC
1500 MW Gas Repowering Project
Lee County

/

Enclosed is the Final Permit Number 0710002 -004AC to construct six (6) 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generators with unfired heat recovery steam generators (HRSG) that will raise sufficient steam to produce approximately another 480 MW via the existing steam-driven electrical generators at the FPL Fort Myers Plant near Tice, Lee County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 11-25-98 to the person(s) listed:

Mr. William Reichel, FPL*
Mr. Richard Piper, FPL
Ms. Peggy Highsmith, SD
Mr. Doug Neeley, EPA
Mr. John Bunyak, NPS
Mr. Ken Kosky, P.E., Golder Associates
Mr. Peter Cunningham, Esq., HGSS

Clerk Stamp

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

Kuri Joker (Clerk) 11-25-98 (Date)

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. William Reichel, Gen. Mgr.
FPL Ft. Myers Plant
PO BOX 430
Ft. Myers, Fl
33905

4a. Article Number
Z 333 612 560

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

7. Date of Delivery
12-8-98

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
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PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

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No Insurance Coverage Provided.
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0710002-004-AC	

PS Form **3800**, April 1995

FINAL DETERMINATION
Florida Power & Light Company
Fort Myers Power Plant
1500 Megawatt Repowering Project

The Department distributed a public notice package on September 22, 1998 for the project to construct/install six combined cycle units to replace two (2) residual oil-fired steam generators at the Florida Power & Light (FPL) Fort Myers Plant near Tice, Lee County. The Public Notice of Intent to Issue was published in Fort Myers News-Press on September 30, 1998.

No comments were received by the Department from the public.

Comments were received from EPA by letter dated November 3, 1998 and FPL by letters and electronic correspondence dated October 28, November 2, and November 18, 1998. A meeting was held October 28, 1998 between the Department, FPL's representatives and its consultant, Ken Kosky of Golder Associates.

EPA and FPL commented only on the draft permit and not on the Technical Evaluation and Preliminary Determination. EPA and FPL's comments are keyed to the draft permit and to the Specific Conditions contained therein. The Department's responses are included following each comment. All comments are referenced to Section III - Emissions Units Specific Conditions.

Specific Condition 5 NSPS Subpart Db Applicability: SubPart Db will not apply if FPL opts to install direct fired heaters instead of a steam boiler to preheat the fuel used in the combustion turbines. FPL suggests that language to that effect be inserted.

The Department will revise the condition to reflect that Db will not apply if FPL actually installs direct fired heaters instead of a steam boiler to preheat fuel for the gas turbines.

Specific Condition 9 Turbine Capacity: FPL requests to include the term "compressor inlet temperature" instead of ambient temperature. FPL states that since inlet foggers will be used as part of this project, it is appropriate to reflect the "fogged" condition in the correction to ISO conditions. Using the compressor inlet temperature, rather than ambient, will accomplish this. In addition, FPL also requests to increase the heat input limitation in this condition to 1,760 mmBtu/hour, FPL rationale is that this would allow for degradation of combustion turbine components. There will be no impact on the environment, since the 9 ppm and 65 lb/hour NO_X limitations will still apply.

The Department concurs with the rationale regarding the specification of compressor inlet temperature. No information was received from the manufacturer regarding the ultimate heat input requirements necessary to maintain the rated power output of the units. However, the Department accepts the professional opinion of W.L. Yeager, General Manager of Combustion Turbines at FPL. FPL has more experience with these types of units based on installations of the Westinghouse 501 F units at Fort Lauderdale and the GE 7FA units at the Martin Power Plant.

Specific Condition 10 Steam Boiler: FPL requests addition of the term "or Direct Fired Heaters" to the description. FPL may install as many as six of these heaters, but the combined heat input and emissions will be enveloped by the information that was provided to the Department on the boiler.

The Department concurs and will revise the condition to reflect that condition 10 applies to "Steam Boiler or Direct-Fired Heaters."

Specific Condition 18 Steam Boiler: The table lists "Gas Heater/Boiler". "Gas Heater" needs to be plural (see comment above on Specific Condition 10).

The Department concurs and will revise the condition to reflect "Gas Heaters."

Specific Condition 22 Volatile Organic Compounds (VOC) Emissions: FPL believes that the background concentrations of VOC in the ambient air should be subtracted from the measured VOC in the exhaust stream.

Based on the tests conducted at the Martin Plant, emissions of VOC after tuning were below 0.5 ppm without subtraction of ambient concentrations. The turbine will destroy ambient VOCs which are probably comprised of different constituents than the VOCs emitted from the turbine. The emission level agreed to by FPL has been demonstrated and is apparently guaranteed by GE. Both the emission limit and the DLN2.6 are clearly representative of Best Available Control Technology (BACT) for VOC while firing gas. It should be noted that the stack test requirements are only initial performance tests. If the units exceed 1.4 ppm, the Department will consider at that time whether subtraction of ambient air concentrations is warranted. At such low levels, however, the accuracy of the tests for measuring VOC from the stacks and the ambient air are questionable. The difference between two very low numbers will be even less accurate.

Specific Condition 24 Excess Emissions: FPL states that they and their design-engineering firm, Black & Veatch, have identified a requirement for extended startup excess emission allowances during startups to combined-cycle operation. FPL affirms that because of the unique configuration of the Fort Myers repowered plant, [i.e. 2,400 lb. HRSGs and a large heavy-framed steam turbine (400MW nominal)], FPL, Black & Veatch, Foster Wheeler and GE are concerned about the limitations of both the HRSGs and the 430 MW steam turbine with respect to the "ramp rate" for both steam turbine and HRSG metal temperatures. FPL believes that the suggested language allows FPL the flexibility to start up and operate the new facility and to gain operational experience with this new configuration. FPL adds that Rule 62-210.700(5) provides a basis for this flexibility: " Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest." FPL states that "It is estimated that, on average, there will be approximately 12 startups to combined-cycle operation per year."

The Department will allow excess emissions for a 12 hour duration associated with a cold start-up of the steam turbine system. When the steam turbine is already in operation, the Department's excess emission limitations given in the draft permit apply with respect to hot, warm, and cold startups of combustion turbine/heat recovery steam generator combinations.

Specific Condition 28. FPL suggests that the following should be added: EPA Method 19. "Determination of Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates". Method 19 shall be used for the calculation of lb/mmBtu and 40 CFR 75 shall be used to calculate mmBtu/hour and lb hour emission rates from stack tests. FPL believes that this clarifies the procedure for calculating lb/hour, so that in the future, no ambiguity exists during compliance testing.

The Department concurs with FPL and this condition is revised as requested.

Specific Condition 31. FPL states that the requirement for three, one-hour runs for the NOx test appears to reflect the requirements of EPA Method 7E rather than Method 20. FPL notes that Method 20 is specified as the NOx test method in Specific Condition 28. Method 20 requires an O_2-CO_2 traverse, then the 8 points with the lowest $\%O_2$ are sampled for only about 1 minute each (rather than 1 hour); and that 40 CFR 60.335 requires Method 20 to be used; but Method 20 doesn't require 1-hour test runs. The same section of the CFR requires a NOx analyzer span of 0-300 ppm; however FPL wishes to retain the right to use smaller spans, such as 0-250 or even 0-25 ppm, either of which are inherently more accurate than 0-300 ppm.

The Department agrees with FPL comment and revise this condition as requested.

Specific Condition 33 Testing procedure: FPL states that the these combustion turbines will have inlet foggers which will lower the effective temperature "seen" by the combustion turbine compressor. FPL believes that it is therefore appropriate to use these values, rather than ambient values, for comparison with heat input since FPL and Black & Veatch have refined the design of the fuel gas heaters. They stated that the exact configuration could involve from 2 to 6 heaters, depending on the selected location; i.e., in the gas yard or adjacent to the combustion turbines and that the combined heat input and emissions from the gas heaters will not exceed that included in their initial application.

The Department concurs with this rationale and this condition is revised as requested with a correction for the rule citation.

Specific Condition 39 Continuous Monitoring System: FPL requests that the one-working day notification be verbal, and that FPL be allowed up to 3 working days to follow up with a written explanation. FPL states that this is a typical scenario that they use at their other facilities, and it has been acceptable to the Department previously. FPL adds that in some instances, the explanation as to why an event occurred is not readily apparent, and some investigation time is required to identify the cause. FPL states that these events don't occur often, but when they do, it has historically worked closely with the Department to identify causes and cures.

The Department considers a verbal notification to suffice for the purposes of compliance with the requirement in Rule 62-4.130 that "permittee immediately notify the Department (of plant operations problems)."

Specific Conditions 41 and 42 Monitoring Requirements: By letter dated November 3, 1998, EPA concurred with the monitoring schedule proposed for this project. However EPA advised that certain conditions needed to be included in the permit to reflect the conditions for approval of the monitoring schedule. FPL (electronic correspondence of November 18, 1998) requested that mention be made that they filed for an Acid Rain permit with EPA and sent a copy to the Department.

The Department concurs with EPA. The Department acknowledges receipt of a copy of the acid rain permit application submittal and will include a reference to the document in the list of relevant documents listed in Section I of the permit. Specific Conditions 41 and 42 of the Monitoring Requirements Section are revised as follows:

41. Continuous Monitoring System Reports: The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40CFR75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and

maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62 .

42. Natural Gas Monitoring Schedule: The following custom monitoring schedule for natural gas is approved in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2):
    - The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
    - The permittee shall submit a monitoring plan, certified by signature of the Designated Representative (DR), that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
    - Each unit shall be monitored for SO_2 emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

Categorical Exemption: FPL and Black & Veatch have recently identified the need to add a diesel-fired water pump to the site for the purpose of fire protection. This would be a backup pump to the normal fire protection system and would only be used in an emergency or for testing required by NFPA regulations (1-2 hrs / month). It is exempt from permitting since it qualifies for a categorical exemption under State Rule 62-210.300(3)(a)22. – Fire and Safety equipment. The following emission rates and fuel consumption rates are planned by FPL for this piece of equipment:

Fuel consumption	*19.7 gallons per hour*
VOC	*170 grams per hour*
NO_X	*2850 grams per hour*
CO	*1010 grams per hour*
SO_2	*250 grams per hour*
Particulate matter	*80 grams per hour*

The Department acknowledges the above. This categorical exemption would be covered under the Title V permitting process.

Miscellaneous Revisions: The Department revised some language in various permit conditions to clarify the meaning without changing the intent or the stringency of the conditions.

CONCLUSION

The Final action of the Department is to issue the permit with the changes described above.

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:

Florida Power & Light Company
Fort Myers Power Plant
Post Office Box 430
Fort Myers, Florida 33905

Permit No.	0710002-004AC
Project:	1500 MW Repowering Project
SIC No.	4911
Expires:	December 31, 2002

Authorized Representative:

William Reichel
Plant General Manager

PROJECT AND LOCATION:

Permit to install six (6) combined cycle units to replace two (2) residual oil-fired steam generating units. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with the existing residual oil-fired units (593 MW total capacity) will be dismantled and replaced by two relatively short stacks per unit for simple and combined operation. The project also includes a cooling tower for once-through brackish water and a small boiler or heaters with a 30-foot stack to heat the natural gas prior to use during simple cycle operation and cold start-ups.

This facility is located at 10650 State Road 80 near Tice, Lee County. UTM coordinates are: Zone 17; 422.3 km E and 2,952.9 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

ATTACHED APPENDICES MADE A PART OF THIS PERMIT:

Appendix GC Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT 0710002-004-AC

SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION

Currently, this facility generates electric power from two residual fuel oil-fired steam units with a combined generating capacity of 593 megawatts (MW) and 12 distillate fuel oil-fired simple cycle combustion turbines with a combined generating capacity of 708 MW.

This permitting action (1500 MW Repowering Project) is to install six (6) combined cycle units to replace two (2) residual oil-fired steam generating units. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with the existing residual oil-fired units (593 MW total capacity) will be dismantled and replaced by two relatively short stacks per unit for simple and combined operation. The project also includes a cooling tower for once-through brackish water and a small boiler or heaters with a 30-foot stack to heat the natural gas prior to use during simple cycle operation and cold start-ups.

This Project is exempt from the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) as discussed stated in the Technical Evaluation and Preliminary Determination dated September 18, 1998.

EMISSION UNITS

This permit addresses the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
018 - 023	Power Generation	Six (6) Combined Cycle Combustion Turbine-Generators with Unfired Heat Recovery Steam Generators
024	Fuel Heating	Natural Gas Boiler or Heater(s)
025	Water Cooling	Mechanical Draft Cooling Tower

REGULATORY CLASSIFICATION

This facility, FPL Fort Myers Power Plant, is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

SECTION I. FACILITY INFORMATION

This facility is a major source of hazardous air pollutants (HAPs) and is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

PERMIT SCHEDULE

- 9/30/98 Notice of Intent published in the Fort Myers News-Press
- 09/22/98 Distributed Intent to Issue Permit
- 09/04/98 Received Application
- 05/19/98 Project Presentation

RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- Application received on September 4, 1998
- Department's Intent to Issue and Public Notice Package dated September 22, 1998.
- EPA comments dated November 03, 1998.
- FPL's comments dated October 28 and November 2, 1998.
- FPL's submittal of revised Phase II Acid Rain application dated November 2, 1998
- FPL's letter dated November 6, 1998 to Director of Environmental Services of Lee County.

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-0114. All documents related to reports, tests, and notifications should be submitted to the DEP South District office, 2295 Victoria Avenue, Suite 364, Ft Myers, Florida 33902-3381 and phone number 941/332-6975.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
5. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212]
6. Permit Extension: *This permit expires on December 31, 2002.* The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rule 62-4.080, F.A.C.].
7. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation, and a copy sent to the Department's South District office. [Chapter 62-213, F.A.C.]
8. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

9. Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the DEP's South District office by March 1st of each year.

10. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.

11. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1997 version), shall be submitted to the DEP's South District office.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

APPLICABLE STANDARDS AND REGULATIONS:

1. Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 60, 72, 73, and 75.
2. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]
3. These emission units shall comply with all applicable requirements of 40CFR60, Subpart A, General Provisions including:
   - 40CFR60.7, Notification and Recordkeeping
   - 40CFR60.8, Performance Tests
   - 40CFR60.11, Compliance with Standards and Maintenance Requirements
   - 40CFR60.12, Circumvention
   - 40CFR60.13, Monitoring Requirements
   - 40CFR60.19, General Notification and Reporting requirements
4. ARMS Emission Units 018 through 023, Power Generation, consisting of six (nominal) 170 MW combustion turbines (250 MW in combined cycle operation), shall comply with all applicable provisions of 40CFR60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standard(s).
5. ARMS Emission Unit 024, Fuel Heating, shall comply with all applicable provisions of 40CFR60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800, F.A.C. This condition shall not apply if FPL actually install direct fired heaters (DFH) instead of a steam boiler.
6. ARMS Emission Unit 025, Cooling Tower, is an unregulated emission unit.
7. All notifications and reports required by the above specific conditions shall be submitted to the DEP's South District office.

GENERAL OPERATION REQUIREMENTS

8. Fuels: Only pipeline natural gas shall be fired in these units. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
9. Turbine Capacity: The maximum heat input rates, based on the lower heating value (LHV) of the fuel to *each* combustion turbine at compressor inlet conditions of 59°F, 60% relative

humidity, 100% load, and 14.7 psia shall not exceed 1,760 million Btu per hour (MMBtu/hr). This maximum heat input rate will vary depending upon turbine inlet conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other compressor inlet conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

10. Steam Boiler (SB) or Direct Fired Heaters (DFHs). The maximum heat input rate, based on the lower heating value (LHV) of the fuel to the SB or DFHs at ambient conditions of 59°F, 60% relative humidity, 100% load, and 14.7 psia shall not exceed 132 MMBtu per hour.

11. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary.

12. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEP South District office as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

13. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

14. Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

15. Maximum Annual Allowable Hours of operation for each of the six combustion turbines, the cooling tower, and the gas heaters/boiler (ARMS Emission Units 018 - 025) are 8760. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

Control Technology

16. Dry Low NO_X (DLN) combustor shall be installed on each stationary combustion turbine to control nitrogen oxides (NO_X) emissions. [Design, Rule 62-4.070, F.A.C.]

17. The permittee shall provide manufacturer's emissions performance versus load diagrams for the DLN systems prior to their installation. DLN systems shall each be tuned upon initial operation to optimize emissions reductions and shall be maintained to minimize NO_X emissions and CO emissions. [Rule 62-4.070, and 62-210.650 F.A.C.]

EMISSION LIMITS AND STANDARDS

18. Following are the emission limits determined for this project assuming full load. Values for NO_X are corrected to 15% O_2. These limits or their equivalents in terms of pounds per hour, as well as the applicable averaging times, are followed by the applicable specific conditions. [Applicant Requests, Rules 62-204.800(7)(b) (Subparts GG and Db), 62-210.200 (Definitions-Potential Emissions), F.A.C.].

Emission Unit	NO_X	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines (each)	9 ppm (30 day) 75/110 ppm (NSPS)	12 ppm	1.4 ppm	10	Dry Low NO_X Combustors Natural Gas, Good Combustion
Gas Heaters/ Boiler	0.10 lb/mmBtu	0.15 lb/mmBtu		10	Low NO_X Burners

19. Nitrogen Oxides (NO_X) Emissions:

- The concentration of NO_X concentrations in the exhaust gas of each CT shall not exceed 9 ppmvd at 15%O_2 on a 30-day rolling average basis as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. In addition, NO_X emissions calculated as NO_2 (at ISO conditions) shall exceed neither 9 ppm @15% O_2 nor 65 lb/hr to be demonstrated by initial performance test.
- When NO_X monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the 30 day rolling average emission rate.
- NO_X emission limit from the gas heaters/boiler shall not exceed 0.10 lb/mmBtu (at ISO conditions) to be demonstrated by stack test.

20. Visible Emissions (VE): VE emissions shall not exceed 10 percent opacity. Visible emissions from the gas heaters/steam boiler shall not exceed 10 percent opacity.

21. Carbon Monoxide (CO) emissions: The concentration of CO (@15% O_2 in the exhaust gas shall not exceed 12 ppmvd as measured by EPA Method 10. CO emissions (at ISO conditions) shall not exceed 43 lb/hr (per CT) to be demonstrated by stack test.

22. Volatile Organic Compounds (VOC) Emissions: The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd as determined by EPA Methods 18 or 25 A. VOC emissions (at ISO conditions) shall not exceed 2.9 lb/hr per CT to be demonstrated by initial stack test.

23. Sulfur Dioxide (SO_2) emissions: As per Condition 8.

EXCESS EMISSIONS

24. Excess Emissions Requirements:

- Excess emissions resulting from startup, shutdown, or malfunction of the *combustion turbines and heat recovery steam generators* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during both "cold start-up" to or shutdowns from combined cycle operation. During cold start-up to combined cycle operation, up to four hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours.
- Excess emissions from the combustion turbines resulting from startup of the *steam turbines system* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed 12 hours per cold startup of the steam turbine system.

  [Applicant Request (FPL estimates that, on average, there will be approximately 12 startups to combined-cycle operation per year), G.E. Combined Cycle Startup Curves Data and Rules 62-210.700, 62-4.130 F.A.C.].

25. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C.

26. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's South District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Condition No. 18 and 19. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7 (1997 version)].

COMPLIANCE DETERMINATION

27. Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will be operated, but not later than 180 days following initial operation of the unit, and annually thereafter as indicated in this permit, by using the following reference methods as described in 40 CFR 60, Appendix A (1997 version), and adopted by reference in Chapter 62-204.800, F.A.C.

28. Initial (I) performance tests shall be performed pursuant to 40 CFR Subpart GG. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on each CT as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

    - EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources" (I, A).
    - EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A).
    - EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." Initial test only for compliance with 40CFR60 Subpart GG.
    - EPA Reference Method 18, and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only.
    - EPA Reference Method 19. "Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates". Method 19 shall be used only for the calculation of lb/mmBtu and 40CFR75 shall be used to calculate mmBtu/hr and lb/hr emissions rates from stack tests. Initial test only.

29. Continuous compliance with the NO_X emission limits: Continuous compliance with the NO_X emission limits shall be demonstrated with the CEM system based on a 30-day rolling average. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new 30 day average emission rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction. A valid hourly emission rate shall be calculated for each hour in which at least two NO_X concentrations are obtained at least 15 minutes apart. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., and 40CFR75]

30. Compliance with the SO_2 and PM/PM_{10} emission limits: Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas is the method for determining compliance for SO_2 and PM_{10}.

For the purposes of demonstrating compliance with the 40 CFR 60.333, natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. Gas analysis, if conducted, may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1997 version). However, the applicant is responsible for ensuring that the procedures in 40CFR 60.335 or 40CFR75 are used for determination of fuel sulfur content if gas analysis is done.

31. Compliance with CO emission limit: An initial test for CO, shall be conducted concurrently with the initial NO_X test while operating at permitted capacity. These initial NO_X and CO test results shall be the average of three runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NOx RATA testing which is performed pursuant to 40 CFR 75.

32. Compliance with the VOC emission limit: An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, CO emission limit will be employed as a surrogate and no annual testing is required.

33. Testing procedures: Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average compressor inlet temperature during the test (with 100 percent represented by a curve depicting heat input vs. compressor inlet temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. compressor inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for compressor inlet temperature) and 105 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204 and 62-297 F.A.C.

34. Test Notification: The DEP's South District office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance test(s).

35. Special Compliance Tests: The DEP may request a special compliance test pursuant to Rule 62-297.310(7), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.

36. Test Results: Compliance test results shall be submitted to the DEP's South District office no later than 45 days after completion of the last test run.

NOTIFICATION, REPORTING, AND RECORDKEEPING

37. Records: All measurements, records, and other data required to be maintained by the permittee shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.

38. Emission Compliance Stack Test Reports: A test report indicating the results of the required compliance tests shall be filed with the DEP South District Office as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

MONITORING REQUIREMENTS

39. Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from each CT. Thirty day rolling average periods when NO_X emissions (ppmvd @ 15% oxygen) are above the standards, listed in Specific Condition No 18 and 19, shall be provided to the DEP South District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternately by facsimile within one working day). [Rule 62-210.700 and 62-4.130, F.A.C].

40. CEMS for reporting excess emissions:, The NO_X CEMS may be used in lieu of the requirement for reporting excess emissions in 40 CFR 60.334(c)(1), Subpart GG (1997 version). Upon request from DEP, the CEMS emission rates for NO_X on each CT shall be corrected to ISO conditions to demonstrate compliance with the NO_X standard established in 40 CFR 60.332.

41. Continuous Monitoring System Reports: The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40CFR75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62 .

42. Natural Gas Monitoring Schedule: The following custom monitoring schedule for natural gas is approved in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2):

- The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
- The permittee shall submit a monitoring plan, certified by signature of the Designated Representative (DR), that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
- Each unit shall be monitored for SO_2 emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

43. Determination of Process Variables:

- The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value [Rule 62-297.310(5), F.A.C]

44. Subpart Db Monitoring: The Permittee shall comply with the applicable monitoring requirements of 40CFR60, Subpart Db for the steam boiler.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

G.13 This permit also constitutes:

a) Determination of Best Available Control Technology ( )
b) Determination of Prevention of Significant Deterioration non-applicablity (X); and
c) Compliance with New Source Performance Standards (X).

G.14 The permittee shall comply with the following:

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

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

c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

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

Memorandum

Florida Department of
Environmental Protection

TO: Howard Rhodes

THRU: Clair Fancy

FROM: A. A. Linero 11/20

DATE: November 20, 1998

SUBJECT: FPL Ft. Myers 1500 MW Repowering Project
DEP File No. 0710002-004-AC

Attached is the final permit for the Ft. Myers Repowering Project. The application is for installation of six (6) 250 megawatt (MW) combined cycle units to replace two (2) residual oil-fired steam generators at the Fort Myers Plant.

Each unit is a 170 megawatt General Electric PG7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with existing residual oil-fired units (593 MW total capacity) will be dismantled. The project also includes: a cooling tower for once-through brackish water; a small boiler or heaters to heat the natural gas prior to use; and two relatively short stacks per unit for simple and combined (with HRSG) operation.

Nitrogen Oxides (NO_X) emissions will be controlled by Dry Low NO_X (DLN-2.6) combustors capable of achieving emissions of 9 parts per million (ppm) by volume at 15 percent oxygen. Emissions of carbon monoxide (CO) will be controlled to 12 ppm, while emissions of volatile organic compounds (VOC) will be less than 1.4 ppm. Emissions of sulfur dioxide (SO_2), sulfuric acid mist (SAM), and particulate matter (PM/PM_{10}) will be very low because of the switch to inherently clean pipeline quality natural gas. There will be no provisions for firing fuel oil.

There are very substantial emission reductions for all pollutants except VOC. The project netted out of PSD and no BACT was required. The lower NO_X emissions will reduce ozone (smog) formation potential and nitrate fallout. The lower PM/PM_{10}, SO_2 and SAM emissions will reduce visible emissions, fine particulate generation, and acid smut fallout. An air quality impact analysis was conducted. Impacts due to the proposed project emissions are all favorable and the net effect is a "creation of available increment" in the PSD Class I (Everglades) and Class II areas.

I recommend your approval.

AAL/th

Attachments

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

November 6, 1998

Mr. Larry Johnson, P.E.
Lee County
Director, Environmental Services Division
P.O. Box 398
Fort Myers, FL 33902

Re: Emissions During Final Year of Construction
FPL Fort Myers Repowering Project

Dear Larry:

We have reviewed the potential emissions from the repowered plant during the final year of construction, and have verified that the Prevention of Significant Deterioration (PSD) rules would not apply.

During the final year of construction (i.e., 2001), several of the combustion turbines (CTs) may be operated in simple cycle mode. The existing units 1 and 2 will also be capable of operation for several months during the early part of the year. Representative future actual emissions during this final year of construction are presented in Table 1 and compared to past actual emissions.

The operation during 2001 was estimated based on the construction schedule for the repowered facility. During this time period, Units 1 and 2 will be taken out of service to make steam turbine enhancements to accommodate the steam profile from the heat recovery steam generators. The maximum operating duration of the existing Units 1 and 2 are estimated to be 5 and 2 months, respectively. The operation of the CTs in simple cycle mode will be phased during the early part of 2001 with primary operation during the summer of 2001 to provide power not available from the existing units. Combined cycle operation will be possible during the last month of 2001 (i.e., December, 2001).

The CTs will not be able to operate in simple cycle mode during the tie in to the existing steam turbines which is scheduled for the fall of 2001. The maximum operating duration for CTs is as follows: CT2A - 8 months, CT2B - 7 months, CT2C – 8.5 months, CT2D – 7.5 months, CT2E – 6.5 months and CT2F - 5 months. The representative emissions are conservatively estimated based on 100 percent load for the possible months of operation. The net emissions changes during 2001 shows that for all pollutants except volatile organic compounds (VOC's), emissions decrease from past actual emissions. The emissions increase estimated for VOC's is 33 tons/year (TPY) which is less than the Prevention of Significant Deterioration (PSD) significant emission rate of 40 TPY. Therefore, PSD review is not applicable.

If you have any questions regarding this issue, please do not hesitate to contact me at (561) 691-7058.

Very truly yours,

Richard Piper
Repowering Licensing Manager
Florida Power and Light Company

Cc:

Al Linero FDEP / Tallahassee

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

NOV 0 3 1998

4APT-ARB

Mr. A. A. Linero, P.E.
Administrator
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJECT: Request for approval of a Custom Fuel Monitoring Schedule for Florida Power & Light (FPL) - Fort Myers Plant

Dear Mr. Linero:

Thank you for your letter of September 22, 1998, regarding the use of a custom fuel monitoring schedule for Florida Power & Light's Fort Myers Plant. FPL plans to operate six new combustion turbines which will be subject to 40 C.F.R. Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines and six new heat recovery steam generators which will be subject to 40 C.F.R. Part 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. As requested, Specific Conditions 29 and 42 have been reviewed and Region 4 has concluded that the custom fuel monitoring schedule proposed in Specific Condition 42 is acceptable, however, there are some details of the approval that must be clarified by adding more detail to the permit. In the following paragraphs, we have outlined an acceptable custom fuel monitoring schedule that is consistent with previously issued guidance and suggested clarifications to the permit condition. Additionally, Specific Condition 29 was reviewed, and we found it lacking in certain details. The information which should be added to Specific Condition 29 is also in this letter.

According to 40 C.F.R. 60.334(b)(2), owners and operators of stationary gas turbines subject to Subpart GG are required to monitor fuel nitrogen and sulfur content on a daily basis if a company does not have intermediate bulk storage for its fuel. 40 C.F.R. 60.334(b)(2) also contains provisions allowing owners

future, however, we believe that it is important to make the sampling waiver contingent upon adherence to Part 75 monitoring requirements because inconsistencies between the monitoring conducted for Part 60 and 75 purposes could arise in the future if the Part 75 provisions are ever revised or updated.

Specific Condition 29 involves the method used to monitor nitrogen oxides (NO_x) excess emissions. Under the provisions for 40 C.F.R. §60.334(c)(1), the operating parameters used to identify NO_x excess emissions for Subpart GG turbines are water-to-fuel injection rates and fuel nitrogen content. As an alternative to monitoring NO_x excess emissions with these parameters, FPL is proposing to use a NO_x continuous emission monitoring system (CEMS) that is certified for measuring NO_x emissions under 40 C.F.R. Part 75. Based upon the enclosed determination issued by EPA on March 12, 1993, NO_x CEMS can be used to monitor excess emissions from Subpart GG turbines if a number of conditions specified in the determination are met and included in the permit conditions. Since the combustion turbines are regulated by 40 C.F.R. Part 60, Subpart GG as well as the requirements of the construction permit, the NSPS NO_x emission limit, with its appropriate averaging time, should be included in Specific Condition 29.

Finally, a NO_x CEMS used to conduct excess emission monitoring for Subpart GG must be capable of correcting results to ISO standard day conditions (i.e., 288 degrees Kelvin, 60 percent relative humidity, and 101.3 kilopascals pressure). The basis for this requirement is that, under the provisions of 40 C.F.R. §60.335(c), NO_x results from performance tests must be converted to ISO standard day conditions. As an alternative to continuously correcting results to ISO standard day conditions, FPL could keep records of the data needed to make this conversion, so that NO_x results could be calculated on an ISO standard day condition basis anytime at the request of EPA or the Florida DEP. This approach will be acceptable, since the Construction (non-PSD) permit contains NO_x limits that are more stringent than those in Subpart GG, and compliance with Subpart GG for these units would be a concern only in cases when a turbine is in violation of the NO_x limits in its permit. Therefore, converting NO_x results to ISO standard day conditions when the CEMS indicates an exceedance of the applicable permit limits, rather than converting results continuously, will provide

and operators of turbines that do not have intermediate bulk storage for their fuel to request approval of custom fuel monitoring schedules that require less frequent monitoring of fuel nitrogen and sulfur content. The basis for dropping the requirement to sample the gas burned in the turbine addressed by this determination is that SO_2 emissions from the turbine will be monitored in accordance with acid rain requirements in 40 C.F.R. Part 75.

Region 4 reviewed Specific Condition 42 which stated "SO2 emissions shall be quantified pursuant to the monitoring plan approved by the Environmental Protection Agency (EPA) Acid Rain Division for firing only pipeline quality natural gas" and this plan was intended to be followed in lieu of daily sampling as required by 40 C.F.R 60.334(b). First, the January 16, 1996, Region 5 determination you are referring to is enclosed in the permits appendix and instead the monitoring plan should be written directly into the permit condition including all the appropriate limiting conditions (see below). Additionally, after reviewing the determination issued by Region 5 in 1996, we have concluded that dropping the requirement to periodically measure the sulfur content of the natural gas would only be acceptable under the following conditions:

1. FPL must be in possession of an approved Phase II acid rain permit for the six new combustion turbines.

2. An acid rain monitoring plan that has been certified by signature of the Designated Representative for FPL must be submitted, and the monitoring plan must list pipeline quality natural gas as the primary fuel for the six new combustion turbines.

3. SO_2 emissions must be measured using monitoring systems that have been certified by EPA in accordance with 40 C.F.R. Part 75.

Since the Part 75 monitoring requirements do not, at the present time, require periodic sampling to determine the sulfur content of pipeline quality natural gas, we would not be opposed to approval of the sampling waiver requested by FPL if the above conditions are met. In order to ensure consistency between the monitoring performed for Subpart GG and for Part 75 in the

adequate assurance of compliance with the NO_x limit in Subpart GG. For clarification, these recordkeeping and monitoring conditions must be written specifically into the permit conditions.

If you have any questions regarding the determination provided in this letter, please call David McNeal of my staff at 404/562-9102.

Sincerely,

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics Management Division

Enclosure

(1) March 12, 1993, Headquarter's guidance regarding the use of CEMS to monitor NO_x excess emissions under Subpart GG

Determination Detail

Control Number: 9400024

Category: NSPS
EPA Office: SSCD
Date: 03/12/1993
Title: NSPS Subpart GG, Alternative Method
Recipient: Karl Mangels
Author: Rasnic, John B.
Comments:

Abstract:

Can a gas turbine subject to NSPS subpart GG, and using both water injection and selective catalytic reduction to control NOx emissions use a CEMS.

Yes, the alternative of using a CEMS was approved.

Letter:

MEMORANDUM

SUBJECT: Approval of the Use of NOx CEMS as an Alternative Method to the Water-fuel Ratio Monitoring under NSPS Subpart GG

FROM: John B. Rasnic, Director
Stationary Source Compliance Division
Office of Air Quality Planning and Standards

To: Karl Mangels, Chief
New York Compliance Section
Air Compliance Branch, Region II

In response to your January 12, 1993, memorandum to Linda Lay, SSCD investigated the feasibility of our approval of your request. You asked SSCD to approve a request from East Syracuse Generating Company to allow the use of the NOx continuous emission monitoring system (CEMS) as an alternative monitoring method to the continuous water-fuel ratio monitoring method.

East Syracuse Generating Company is to commence development of a 100 MW natural gas-fired cogeneration combustion turbine facility in the village of East Syracuse, New York. The facility is allowed to use a limited amount of low sulfur distillate oil as a backup fuel. To control the emissions of NOx this turbine will use both water injection and selective catalytic reduction as required by the New York State

Department of Environmental Conservation (NYSDEC). Since the NYSDEC permit conditions are more restrictive than the requirements of NSPS Subpart GG, East Syracuse is asking for a waiver from the following monitoring requirements:

1. Fuel sulfur monitoring
2. Fuel nitrogen monitoring
3. Continuous water-fuel ratio monitoring for Nox compliance.

You have already made determinations on the first two issues and asked SSCD to address only the third issue, use of NOx CEMS, that is required by the State permit, instead of the water-fuel ratio monitoring method.

SSCD determined that the use of a NOx CEMS can be allowed as an alternative monitoring method if the facility meets the following conditions:

* Each turbine meets the emission limitation (STD) determined according to 40 CFR Part 60.332. The "Y" value for the applicable equation and supporting documentation should be provided by the applicant and the limitation for NOx emissions from pipeline quality natural gas should be fixed by EPA assuming the "F" value equals 0. The emission limitation shall be expressed in ppmv, dry, corrected to 15 percent 02.

* Each N0x CEMS meets the applicable requirements of 40 CFR 560.13, Appendix B, and Appendix F for certifying, maintaining, operating and assuring quality of the system.

* Each N0x CEMS must be capable of calculating N0x emissions concentrations corrected to 15% 02 an IS0 conditions.

* Monitor data availability shall be no less than 95 percent on the quarterly basis.

* N0x CEMs should provide 4 data points for each hour and calculate a l-hour average.

* Each owner or operator of a N0x CEMS shall submit an excess emissions (calculated according to the requirements of paragraph 60.13(h)) and monitoring systems performance report and/or a summary report form to the Administrator on a quarterly basis, if excess emissions are determined, or semiannually. The report shall be postmarked by the 30th day following the end of each reporting period. Written reports shall include information required in paragraphs 60.7 (c) and 60.7 (d). This report shall also contain the content of nitrogen in fuel oil for each reporting period when oil is fired and a clearly calculated corresponding emission limitation (STD).

* Recordkeeping requirements shall follow the requirements specified in 40 CFR 560.7.

In addition, to upgrade the EPA data, we recommend that the N0x CEMS be used to demonstrate compliance with the emission limitation on a continuous basis and that the quarterly report include the N0x mass emissions for the reported period as reported to the State.

If you have any questions, please call Zofia Kosim at 703-308-8733.

cc: Air, Pesticides, and Toxics Management Division Directors Regions I and IV

Air and Waste Management Division Director

Region II

Air, Radiation, and Toxics Division Director
Region III

Air and Radiation Division Director
Region V

Air, Pesticides, and Toxics Division Director
Region VI

Air and Toxics Division Directors
Regions VII, VIII, IX, and X

Florida Power & Light Company, P. O. Box 430, Fort Myers, FL 33902

FPL

November 2, 1998

Mr. Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Draft Air Construction Permit #0710002-004AC

Dear Mr. Fancy:

This correspondence provides comments regarding the subject draft Air Construction Permit for the Fort Myers power plant, which was received by FPL on September 18, 1998. I would like to thank Al Linero, of your staff, for meeting with me and several members of the repowering organization on October 28th to discuss this permit.

Following are our revised comments to various Specific Conditions. Several issues were resolved during the meeting; these comments document the discussions we had during the meeting. Language requested to be deleted is ~~stricken~~; suggested new language is in **boldface type**.

Specific Condition 9 Turbine Capacity: The maximum heat input rates, based on the lower heating value (LHV) of the fuel to each combustion turbine at ~~ambient~~ **compressor inlet** conditions of 59°F, 60% relative humidity, 100% load, and 14.7 psia shall not exceed ~~1,600~~ **1,760** million Btu per hour, (mmBtu / hr). The maximum heat input rate will vary depending upon turbine inlet conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ~~ambient~~ **compressor inlet** conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. Also see the rational for specific condition 18. [Design, Rule 62-210.200, F.A.C. (Definitions – Potential Emissions)].

Rationale: In order to allow for degradation of combustion turbine components, an appropriate heat input limitation for the permit is 1,760 mmBtu / hour. Also, since inlet foggers will be used as part of this project, it is appropriate to reflect the "fogged" condition in the correction to ISO conditions. Using the compressor inlet temperature, rather than ambient, will accomplish this. There will be no impact on the environment, since the 9ppm / 65 lb. / hour limitations will still apply.

Specific Condition 22 Volatile Organic Compounds (VOC) Emissions: The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd as measured by EPA Methods 18 or 25A. VOC emissions (at ISO conditions) shall not exceed 2.9 lb. / hr (per CT) to be demonstrated by **annual EPA Method 18 or 25A** stack test. **The VOC emissions shall be exclusive of background concentrations in the ambient air.**

Rationale: The background concentrations of VOC in the ambient air should be subtracted from the measured VOC in the exhaust stream.

Specific Condition 24 Excess Emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during ~~both "cold~~ startup". ~~to or shutdowns from combined cycle operation.~~ **During startup of individual CTs, up to 4 hours of excess emissions are allowed**. During ~~cold~~ startup to combined cycle operation, up to ~~four~~ **twelve** hours of excess emissions are allowed. ~~During shutdowns from combined cycle operation, up to three hours of excess emissions are allowed. Cold startup is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours~~. [Applicant Request, G.E. Combined cycle startup Curves Data and Rule 62-210.700, F.A.C. **(It is estimated that, on average, there will be approximately 12 startups to combined-cycle operation per year)].**

Rationale: FPL and our design-engineering firm, Black & Veatch, have identified a requirement for extended startup excess emission allowances during startups to combined-cycle operation. Because of the unique configuration of the Fort Myers repowered plant, (i.e. 2,400 lb. HRSGs and a large heavy-framed steam turbine (400MW nominal)), FPL, Black & Veatch, Foster Wheeler and GE are concerned about the limitations of both the HRSGs and the 430MW steam turbine with respect to the "ramp rate" for both steam turbine and HRSG metal temperatures.

The suggested language allows FPL the flexibility to start up and operate the new facility and to gain operational experience with this new configuration. Furthermore, Rule 62-210.700(5) provides a basis for this flexibility: "Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest."

Specific Condition 28. Add:

- **EPA Method 19. "Determination of ... Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates". Method 19 shall be used for the calculation of lb / mmBtu and 40 CFR 75 shall be used to calculate mmBtu / hour and lb / hour emission rates from stack tests.**

Rationale: This clarifies the procedure for calculating lb / hour, so that in the future, no ambiguity exists during compliance testing.

Specific Condition 31. Compliance with CO emission limit: An initial test for CO, shall be conducted concurrently with the initial NOx test, as required. The initial NOx and CO test results shall be the average of three valid ~~one-hour~~ runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NOx RATA testing which is performed pursuant to 40 CFR 75.

Comment: The requirement for three, one-hour runs for the NOx test appears to reflect the requirements of EPA Method 7E rather than Method 20. Note that Method 20 is specified as the NOx test method in Specific Condition 28. Method 20 requires an O_2-CO_2 traverse, then the 8 points with the lowest $\%O_2$ are sampled for only about 1 minute each (rather than 1 hour). Note that 40 CFR 60.335 requires Method 20 to be used; but Method 20 doesn't require 1-hour test runs. The same section of the CFR requires a NOx analyzer span of 0-300ppm; however FPL wishes to retain the right to use smaller spans, such as 0-250 or even 0-25 ppm, either of which are inherently more accurate than 0-300ppm.

Specific Condition 33 Testing Procedures: Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ~~turbine Intel~~ **compressor inlet** temperature during the test (with 100 percent represented by a curve depicting heat input vs. ~~ambient~~ **compressor inlet** temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ~~turbine~~ **compressor** inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ~~ambient~~ **compressor inlet** temperature) and 105 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204.800 F.A.C..

Rationale: These combustion turbines will have inlet foggers which will lower the effective temperature "seen" by the combustion turbine compressor. It is therefore appropriate to use these values, rather than ambient values, for comparison with heat input.

FPL and Black & Veatch have refined the design of the fuel gas heaters. The exact configuration could involve from 2 to 6 heaters, depending on the selected location; i.e., in the gas yard or adjacent to the combustion turbines. The combined heat input and emissions from the gas heaters will not exceed that included in our initial application.

FPL and Black & Veatch have recently identified the need to add a diesel-fired water pump to the site for the purpose of fire protection. This would be a backup pump to the normal fire protection system and would only be used in an emergency or for testing required by NFPA regulations (1-2 hrs / month). It is exempt from permitting since it qualifies for a categorical exemption under State Rule 62-210.300(3)(a)22. – Fire and Safety equipment. For the Department's information, the following emission rates and fuel consumption rates are planned for this piece of equipment:

Fuel consumption	19.7 gallons per hour
VOC	170 grams per hour
NOx	2850 grams per hour
CO	1010 grams per hour
SO2	250 grams per hour
Particulate matter	80 grams per hour

I look forward to discussing these issues with your at your earliest convenience. Please do not hesitate to contact me at (561) 691-2787 or Rich Piper at (561) 691-7058.

Very truly yours,

W. L. Yeager
General Manager, Combustion Turbines
Florida Power & Light Company

FPL ENVIRONMENTAL SERVICES DEPARTMENT
PO BOX 14000
JUNO BEACH, FL 33408

DATE: November 2, 1998

SEND TO:
NAME: AL LINERO

COMPANY: FDEP

FAX NUMBER: 850 922 6979

FROM: RICHARD PIPER
FPL ENVIRONMENTAL SERVICES
PHONE: (561) 691-7058
FAX: (561) 691-7070
rich_piper@fpl.com

NUMBER OF PAGES INCLUDING FAX COVER: 4

MESSAGE:

AL -

Per my voicemail and pursuant to our meeting last week. Please let me know your thoughts. Thanks -

Rich

PS - Hard copy to follow

Florida Power & Light Company, P. O. Box 430, Fort Myers, FL 33902

FPL

November 2, 1998

Mr. Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Draft Air Construction Permit #0710002-004AC

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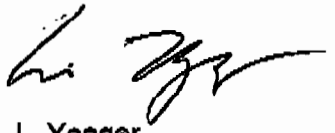
I look forward to discussing these issues with your at your earliest convenience. Please do not hesitate to contact me at (561) 691-2787 or Rich Piper at (561) 691-7058.

Very truly yours,



W. L. Yeager
General Manager, Combustion Turbines
Florida Power & Light Company

Florida Power & Light Company, P. O. Box 430, Fort Myers, FL 33902

FPL

RECEIVED
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BUREAU OF
AIR REGULATION

November 2, 1998

Mr. R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics Management Division
United States Environmental Protection Agency
Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8909

Re: Submittal of Revised Phase II Acid Rain Permit Application
FPL Fort Myers Repowered Plant

Dear Mr. Neeley:

Enclosed please find the subject Title IV permit application for the repowered Fort Myers facility.

The existing Fort Myers plant has been in operation since the late 1950's. The two existing Phase II steam boiler units will be repowered within the next 2 years. The boilers will be retired and dismantled, while the steam turbines and electric generators will remain. The repowered facility will be a combined-cycle natural gas-fired plant. Steam produced in new Heat Recovery Steam Generators (HRSGs) will be used to drive the existing steam turbines and electric generators. Significant reductions in actual emissions will occur as a result of this project.

The attachment to the enclosed Phase II application provides information regarding the schedule for the retirement of the existing emissions units and startup of the new units. Should you have any questions regarding this submittal, please do not hesitate to contact me at (561) 691-7058.

Very truly yours,

Richard Piper
Repowering Licensing Manager
Florida Power & Light Company

Cc: Clair Fancy FDEP - Tallahassee

Phase II Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is: ☐ New ☒ Revised

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

Plant Name *Fort Myers Plant*	State *FL*	ORIS Code *612*

STEP 2
Enter the boiler ID# from NADB for each affected unit, and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e

	Compliance Plan			
a	b	c	d	e
Boiler ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
PFM1	Yes	*N/A*	*N/A*	*N/A*
PFM2	Yes	*N/A*	*N/A*	*NA*
PFM2CTA	Yes	*N/A*	*1/1/2001*	*4/1/2001*
PFM2CTB	Yes	*N/A*	*2/1/2001*	*5/1/2001*
PFM2CTC	Yes	*N/A*	*3/1/2001*	*6/1/2001*
PFM2CTD	Yes	*N/A*	*4/1/2001*	*7/1/2001*
PFM2CTE	Yes	*N/A*	*5/1/2001*	*8/1/2001*
PFM2CTF	Yes	*N/A*	*6/1/2001*	*9/1/2001*
	Yes			
	Yes			
	Yes			
	Yes			

STEP 3
Check the box if the response in column c of Step 2 is "Yes" for any unit

☐ For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

Phase II Permit - Page 2

Plant Name (from Step 1)

STEP 4
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements

Permit Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the permitting authority; and
(ii) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75;
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Phase II Permit - Page 3

Plant Name (from Step 1)

Recordkeeping and Reporting Requirements (cont.)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

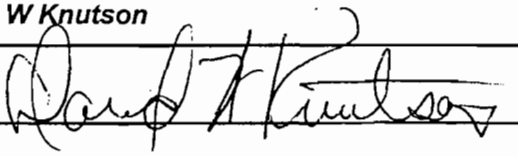
(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided,* that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

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 **(see Attachment).**

Name ***David W Knutson***	
Signature 	Date 10-29-98

STEP 5 (optional)
Enter the source AIRS and FINDS identification numbers, if known

AIRS
FINDS

ATTACHMENT TO THE PHASE II APPLICATION
FLORIDA POWER & LIGHT COMPANY -FORT MYERS PLANT

The units identified in this application are being constructed as part of the repowering of existing units PFM1 and PFM2. The new units (PFM2CTA, PFM2CTB, PFM2CTC, PFM2CTD, PFM2CTE and PFM2CTF) are combustion turbines (CTs) with heat recovery steam generators (HRSGs). The HRSGs, when operational, will replace the boilers for Units PFM1 and PFM 2. The CTs will initially be operated in simple cycle mode on the preliminary schedule identified in this application. During this period, Units PFM1 and PFM2 may also be operated. During the interconnection of the HRSGs steam supply with the steam turbines for Units PFM1 and PFM2, the boilers associated with Units PFM1 and PFM2 will be taken out of service. This will occur during 2001. At this time FPL will notify EPA of the retirement of Units PFM1 and PFM2.

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

Received by AL Linero on 10/28/98

October 28, 1998

Mr. Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Draft Air Construction Permit #0710002-004AC

Dear Mr. Fancy:

This correspondence provides comments regarding the subject draft Air Construction Permit for the Fort Myers power plant, which was received by FPL on September 18, 1998.

Before providing comments, I would like to thank the Department, and particularly Al Linero for the timely response to our permit application. I look forward to working closely with the Department in the future in order to optimize the environmental aspects of the project.

Following are our comments to various Specific Conditions. Language requested to be deleted is ~~stricken~~; suggested new language is in **boldface type**.

Specific Condition 9 Turbine Capacity: The maximum heat input rates, based on the lower heating value (LHV) of the fuel to each combustion turbine at ~~ambient~~ **compressor inlet** conditions of 59°F, 60% relative humidity, 100% load, and 14.7 psia shall not exceed 1,600 million Btu per hour, (mmBtu / hr). The maximum heat input rate will vary depending upon turbine inlet conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ~~ambient~~ **compressor inlet** conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. Also see the rational for specific condition 18. [Design, Rule 62-210.200, F.A.C. (Definitions – Potential Emissions)]. **Move to Statement of Basis.**

Rationale: In previous conversations with the Department and with EPA regarding periodic monitoring, I understand that the Department has agreed to remove heat input limitations from the body of air permits, and to insert them into the Statement of Basis (SOB). Accordingly, we request that change to be made here as well. Also, since inlet foggers will be used as part of this project, it is appropriate to reflect the "fogged" condition in the correction to ISO conditions. Using the compressor inlet temperature, rather than ambient, will accomplish this.

Specific Condition 10 Steam Boiler: **Move to Statement of Basis.**

Rationale: FPL and Black & Veatch have refined the design of the fuel gas heater from the steam boiler to six direct-fired heaters. The exact configuration could involve from 2 to ~~5~~ 6 heaters, depending on the selected lcoation; i.e., in the gasyard or adjacent to the combustion turbines. The combined heat input and emissions from six fuel gas heaters will not exceed that included in our initial application.

Specific Condition 18. Following are the emission limits determined for this project assuming full load. Values for NOx are corrected to 15% 0_2. These limits or their equivalents in terms of pounds per hour, as well as the applicable averaging times, are followed by the applicable specific conditions. [Applicant Requests, Rules 62-204.800(7)(b)(Subparts GG and Db), 62-210.200 (Definitions- Potential Emissions), F.A.C.].

Emission Unit	NOx	CO	VOC	PM / Visibility (% Opacity)	Technology and Comments
Combustion Turbines (each)	~~9ppm~~ **68 lb / hour** (30 day) 75 / 110 ppm (NSPS)	~~12 ppm~~ **45 lb / hour**	~~1.4 ppm~~ **3 lb / hour**	10	Dry Low NOx Combustors Natural Gas, Good Combustion
Gas Heater / Boiler	0.10 lb / mmBtu	0.15 lb / mmBtu		10	Dry Low NOx Burners

Rationale: The 68 lb/hour emission rate was the basis for the potential emissions of NOx for the repowering project in tons/year as provided in the permit application. It is unnecessary to regulate FPL for both concentration (ppm) and mass emissions since the mass emissions (of 68, 45 and 3 lb. / hour) provides the Department a limit on total emissions and assurance that PSD is not triggered.

Specific Condition 19 Nitrogen Oxides (NOx) Emissions:

- The concentration of NOx ~~concentrations~~ in the exhaust gas of each CT shall not exceed ~~9 ppmvd at 15% O2~~ **68 lb. / hour** on a 30-day rolling average basis as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all ~~valid~~ **operating** hourly emission rates during the previous 30 operating days~~. In addition, NOx emissions calculated as NO2 (at ISO conditions) shall exceed neither 9 ppm @15% O2 nor 65 lb. / hour to be demonstrated by stack test.~~

- When NOx monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) ~~to calculate the specified average time~~.

- NOx emission limit from the gas heaters/boiler shall not exceed 0.10 mmBtu / hour to be demonstrated by stack test.

Rationale: See rationale for specific condition #18.

Specific Condition 21 Carbon Monoxide (CO) Emissions: The concentration of CO (@ 15% O2) in the exhaust gas shall not exceed ~~12 ppmvd as measured by EPA Method 10. CO emissions (at ISO conditions) shall not exceed~~ ~~43~~ **45** lb. / hr (per CT) to be demonstrated by **annual EPA Method 10** stack test.

Rationale: See rationale for specific condition #18.

Specific Condition 22 Volatile Organic Compounds (VOC) Emissions: The concentration of VOC in the exhaust gas shall not exceed ~~1.4 ppmvd as measured by EPA Methods 18 or 25A. VOC emissions (at ISO conditions) shall not exceed~~ ~~2.9~~ **3.0** lb. / hr (per CT) to be demonstrated by **annual EPA Method 18 or 25A** stack test. **The VOC emissions shall be exclusive of background concentrations in the ambient air.**

Rationale: See rationale for specific condition # 18. In addition, background concentrations of VOC in the ambient air should be subtracted from the measured VOC in the exhaust stream.

Specific Condition 24 Excess Emissions – Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during startups. During cold startup to combined cycle operation, up to twelve hours of excess emissions are allowed. During startups of individaul CTs, up to four hours of excess emissions are allowed. Cold startup is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours.

Rationale: FPL and our design-engineering firm, Black & Veatch, have identified a requirement for extended startup excess emission allowances during "cold" startups. Because of the unique configuration of the Fort Myers repowered plant, (i.e. 6 combustion turbines / HRSG's feeding a 430MW steam turbine, then a 160MW steam turbine, in series), FPL, Black & Veatch, Foster Wheeler and GE are concerned about the limitations of both the HRSGs and the 430MW steam turbine with respect to the "ramp rate" for both steam turbine and HRSG metal temperatures.

The suggested language allows FPL the flexibility to start up and operate the new facility and to gain operational experience with this new configuration. Furthermore, Rule 62-210.700(5) provides a basis for this flexibility: "Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest."

Specific Condition 31. Compliance with CO emission limit: An initial test for CO, shall be conducted concurrently with the initial NOx test, as required. The initial NOx and CO test results shall be the average of three valid ~~one-hour~~ runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NOx RATA testing which is performed pursuant to 40 CFR 75.

Comment: The requirement for three, one-hour runs for the NOx test appears to reflect the requirements of EPA Method 7E rather than Method 20. Note that Method 20 is specified as the NOx test method in Specific Condition 28. Method 20 requires an O_2-CO_2 traverse, then the 8 points with the lowest $\%O_2$ are sampled for only about 1 minute each (rather than 1 hour). Note that 40 CFR 60.335 requires Method 20 to be used; but Method 20 doesn't require 1-hour test runs. The same section of the CFR requires a NOx analyzer span of 0-300ppm; however FPL wishes to retain the right to use smaller spans, such as 0-250 or even 0-25 ppm, either of which are inherently more accurate than 0-300ppm.

Specific Condition 33 Testing Procedures: Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ~~turbine Intel~~ **compressor inlet** temperature during the test (with 100 percent represented by a curve depicting heat input vs. ~~ambient~~ **compressor inlet** temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ~~turbine~~ **compressor** inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ~~ambient~~ **compressor inlet** temperature) and 105 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204.800 F.A.C..

Rationale: These combustion turbines will have inlet foggers which will lower the effective temperature "seen" by the combustion turbine compressor. It is therefore appropriate to use these values, rather than ambient values, for comparison with heat input.

Specific Condition 39 Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measur4e and record the nitrogen oxides emissions from each CT. Thirty day rolling average periods when NOx emissions (~~ppmvd @ 15% oxygen~~ **lb / hour**) are above the standards, listed in Specific Condition No 18 and 19, shall be provided to the DEP Bureau of Air Monitoring and Mobile Sources pursuant to 40CFR75. **The lb. / hour value shall be calculated by multiplying the lb. / mmBtu measured by the CEM by the heat input value as calculated pursuant to 40CFR 75, for each operating hour.**

Rationale: For consistency with Specific Conditions 18 and 19, the lb. / hour value is the appropriate one to use in this instance. The additional sentence regarding the calculation of the lb. / hour value is for clarification.

FPL and Black & Veatch have recently identified the need to add a diesel-fired water pump to the site for the purpose of fire protection. This would be a backup pump to the normal fire protection system and would only be used in an emergency or for testing required by NFPA regulations (1-2 hrs / month). It is exempt from permitting since it qualifies for a categorical exemption under State Rule 62-210.300(3)(a)22. – Fire and Safety equipment. For the Department's information, the following emission rates and fuel consumption rates are planned for this piece of equipment:

Fuel consumption	19.7 gallons per hour
VOC	170 grams per hour
NOx	2850 grams per hour
CO	1010 grams per hour
SO2	250 grams per hour
Particulate matter	80 grams per hour

I look forward to discussing these issues with your at your earliest convenience. Please do not hesitate to contact me at (561) 691-7058 if I can answer any questions.

Very truly yours,

Rich Piper
Repowering Licensing Manager
Florida Power & Light Company

bcc:

W. Reichel	PFM / PFM
B. Burgess	GPA / JB
J. Gnecco	CPM / JB
P. Cunningham	HGSS
K. Kosky	Golder Inc.
M. Beery	Black & Veatch

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FPL Fort Myers Repowering Active F.L.

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NEWS RELEASES

FOSTER WHEELER SELECTED TO SUPPLY 12 HEAT RECOVERY STEAM GENERATORS FOR FLORIDA POWER & LIGHT REPOWERING PROJECTS

CLINTON, N.J., October 6, 1998-Foster Wheeler has been selected by Florida Power & Light Co. to design, manufacture, and erect twelve heat recovery steam generators (HRSGs) as part of its repowering program at the Ft. Myers and Sanford Generating Stations. The transaction is valued at approximately $145 million.

The HRSGs to be supplied by Foster Wheeler will be coupled to new General Electric Frame 7FA combustion-turbine generators to convert waste heat exhaust gas into 407,070 lbs/hr of high pressure steam to power already-existing steam-turbine generators in these highly efficient, low emission combined-cycle power plants.

The HRSG units will be designed to operate at high pressures and temperatures (2400 psi and 1050°F) using Foster Wheeler's proven natural circulation technology, a design that is used throughout the power industry in a variety of steam generating applications.

The contract will be executed by Foster Wheeler Limited, located in St. Catharines, Ontario, Canada, and a leading supplier of heat recovery steam generators and other steam generating technology.

Foster Wheeler Limited is a subsidiary of Foster Wheeler Energy International, Inc., which is based in Clinton, New Jersey.

Foster Wheeler Energy International, Inc. designs, manufactures, and erects steam generators and auxiliary power generation equipment for electric power producers, public authorities, and industrial applications worldwide.

Foster Wheeler Corporation is a global company offering a broad range of design, engineering, construction, manufacturing, project development and management, research, plant operations and environmental services. The Corporation's headquarters are at Clinton, N.J. For more information about Foster Wheeler, visit our World-Wide Web site at www.fwc.com.

Contact Alastair Davie at 908-730-4444 for further information, or e-mail to alastair_davie@fwc.com.

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Naples News

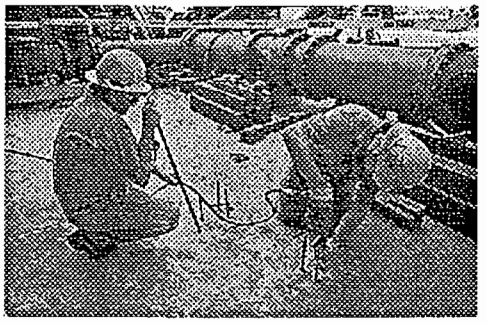
OCT 1 2 1998

1 Teresa
2 Kim FPL Ft Myers file

FPL plans to repower Fort Myers plant with gas pipeline

Monday, October 12, 1998

By REBECCA WAKEFIELD, Staff Writer



Roy Goss, left, and Scott Subbert prepare foundations to mount heat exchanges at the Florida Power & Light plant in Fort Myers last week. Subbert is a mechanic for mechanical maintenance at the plant and Goss is maintenance leader. *Lisa Krantz/Staff*

The Florida Power & Light Co. recently put the gas to its $500 million plan to keep up with booming energy needs in Southwest Florida.

Oct. 1, FPL announced its contract with Florida Gas Transmission Company to build a natural gas pipeline from Tampa to the FPL plant in Fort Myers.

The gas company plans to run 100 miles of pipeline from existing facilities near Tampa, through Polk, Hardee, DeSoto, Charlotte and Lee counties to the plant.

FPL says it will triple the capacity of the 40-year-old power plant by combining jet engine technology with the plant's steam generators and by burning natural gas instead of oil. The repowered plant is expected to begin

Naples News OCT 12 1998

continued . . .

construction next December and be fully operational by late 2001.

Florida Gas Transmission will submit its proposal for the route the underground gas pipeline will take to the Federal Energy Regulatory Commission Dec. 1, 1998. Construction is scheduled to begin in March 2000 and finish by the fall of 2000.

The Fort Myers plant is the first of three repowering projects to expand FPL's statewide generating system by 14 percent - about 2,500 additional megawatts - over the next 10 years.

FPL says the 540-megawatt capacity plant will be increased to about 1,400 megawatts to keep up with the demands of a region growing 40 percent faster than in the rest of its service territory. The move will also clean up the air around the plant, reducing pollution to a fraction of today's levels.

The repowering effort will not lower electric bills in the region because FPL bases its rates on the entire system, said Grover Whidden, spokesman for the Fort Myers plant. But the move toward efficiency and more power generation will hold back rising costs in the future, he said.

Benefits of the project include:

-- Significant reduction of air pollution from nitrogen oxide, sulfur dioxide, carbon monoxide and particulate matter. Particulate matter makes up the majority of the visible smoke coming from the stacks.

-- An increased fuel efficiency of about 30 percent and a total plant operating efficiency near 90 percent, instead of the current 50 percent. Both will result in reduced need to borrow power from Florida's east coast through long-distance transmission lines. The region may still borrow more than half its power in peak times.

-- Oil barges will no longer bring fuel up the Caloosahatchee River from Boca Grande, thus eliminating the danger of an oil spill. The oil storage terminal at Boca Grande will also be retired.

-- The six new combustion turbines and heat recovery units will be built on the existing FPL site with no need for a land expansion. Also, the two 400-foot stacks will

be replaced by six stacks at only half the height.

-- FPL plans to landscape the areas facing State Road 80 and the Caloosahatchee to make them more aesthetic.

-- FPL estimates it will pay more than nine times the tax revenue for Lee County - $5 million - in 2002.

For months, FPL has been soliciting comments on the project and taking groups from community, business and environmental organizations on plant tours. The outreach effort has paid off in support from a variety of sources.

Karl Hollander, executive director of Lee County Alliance of the Arts, served on a citizen advisory panel created by FPL several months ago to address any local concerns about the repowering project.

Hollander supports the FPL project because of its environmental benefits and the potential to encourage growth in the area. And though he likes the idea of having more energy choices in the future, he expressed concern about possible impacts of some routes for the gas pipeline.

"I have no problem with FPL," Hollander said. "I don't know how the company bringing in the propane will do things."

FGT spokeswoman Linsey Hasenbank said the company plans to follow FPL's lead in getting input from the public on the project and considerations for the best route for the pipeline. The meetings with community members will begin sometime this month, she said.

"We would like to work with the community to minimize environmental and public impacts," she said." We will try to follow existing routes where possible."

Hasenbank said this pipeline will be designed solely for the plant, but if a market develops, the company will likely pursue expansion. The pipeline will be FGT's first foray into Southwest Florida, though company pipelines extend to Miami on the east coast.

The market is sure to develop, said Steve Tirey, president and CEO of the Chamber of Commerce of Southwest Florida. He pointed to Tampa-based utility TECO Peoples Gas, which recently announced plans to

extend its pipelines from Sarasota to Marco Island, as an example.

"I think there will be a tremendous economic impact (from the FPL project), and not only from the construction dollars and capital improvement," Tirey said. "There will be economic spinoffs. I think we'll look back at this as a pretty significant benefit for large energy users."

Tirey added that the availability of an alternative, economical energy source could convince more companies to relocate to the region.

"We'll also probably see some existing companies convert to gas as a secondary or primary source because it's cheaper in the long term," he said. "As we go further in time, it will trickle down to residential energy."

One reservation about the plant centers on the warm water discharge in the Orange River that attracts hundreds of manatees to the site each winter.

Michael Simonik, environmental policy director for The Conservancy of Southwest Florida, said he would like to see more studies on the effects of the discharge on the endangered mammals. Among his concerns: that large numbers of manatees coming up the Caloosahatchee River are coming into greater contact with motor boats than they normally would. Also, an outbreak of disease at the wrong time of year could wipe out the congregating manatees.

"If there is a time to stop (the discharges), it would be now when they are reworking the whole plant," he said.

Whidden said the plant has been discharging warm water for 40 years and the repowering effort will include a cooling tower to ensure a more consistent temperature year-round.

Another caveat to the repowering effort that Simonik largely supports for its many environmental benefits is FPL's cutbacks on energy conservation incentives, such as rebates for energy-efficient homes.

"We're supportive, but I do think FPL needs to work harder to get people to conserve," he said. "They are (more focused on) accommodating the growing power needs."

Florida Power & Light Company, P. O. Box 430, Fort Myers, FL 33902

FPL

October 9, 1998

Mr. Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Plant
Draft Air Construction Permit #0710002-004AC
Public Notice

Dear Mr. Fancy:

Enclosed please find the Affidavit of Publication for the Public Notice of Intent to Issue the Air Construction permit for the Fort Myers repowered facility. This notice appeared in the Fort Myers News Press on September 30, 1998.

Please do not hesitate to contact me at (561) 691-7058 if I you have any questions.

Very truly yours,

Rich Piper

Rich Piper
Repowering Licensing Manager
Florida Power & Light Company

cc: SD

NEWS-PRESS

Published every morning — Daily and Sunday
Fort Myers, Florida

Affidavit of Publication

STATE OF FLORIDA
COUNTY OF LEE

Before the undersigned authority, personally appeared Brenda Leighton

who on oath says that he/she is the Legal Coordinator of the News-Press, a daily newspaper, published at Fort Myers, in Lee County, Florida; that the attached copy of advertisement, being a display

in the matter of Notice of Intent to Issue Air Construction Permit

in the _____ Court

was published in said newspaper in the issues of September 30, 1998

Affiant further says that the said News-Press is a paper of general circulation daily in Lee, Charlotte, Collier, Glades and Hendry Counties and published at Fort Myers, in said Lee County, Florida and that said newspaper has heretofore been continuously published in said Lee County, Florida, each day, and has been entered as a second class mail matter at the post office in Fort Myers in said Lee County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Brenda Leighton

Sworn to and subscribed before me this 30th day of September, 19 98 by Brenda Leighton

who is personally known to me or who has produced _____ as identification, and who did or did not take an oath.

Notary Public Janet E. Cobb

Print Name _____

My Commission Expires:

CLASS-16

Janet E. Cobb
MY COMMISSION # CC602535 EXPIRES
November 19, 2000
BONDED THRU TROY FAIN INSURANCE, INC.

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP FILE NO. 0710002-004-AC
Florida Power & Light Fort Myers Plant
1500 Megawatt Repowering Project
Lee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Florida Power & Light Company (FPL). The permit is to install six combined cycle units to replace two (2) residual oil-fired steam generators at the Fort Myers Plant near Tice, Lee County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Fort Myers Plant, Post Office Box 430, Fort Myers, Florida 33905.

Each unit is a nominal 170 Megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce approximately another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with existing residual oil-fired units (593 MW total capacity) will be dismantled. The project is in-effect a "gas repowering of existing fossil-fuel fired units." The project also includes: a cooling tower for once-through brackish water; a small boiler or heaters to heat the natural gas prior to use; and two relatively short stacks per unit for simple and combined (with HRSG) operation.

Nitrogen Oxides (NO_x) emissions will be controlled by Dry Low NO_x (DLN-2.6) combustors capable of achieving emissions of 9 parts per million (ppm) by volume at 15 percent oxygen. Emissions of carbon monoxide (CO) will be controlled to 12 ppm, while emissions of volatile organic compounds (VOC) will be less than 1.4 ppm. Emissions of sulfur dioxide (SO_2), sulfuric acid mist (SAM), and particulate matter (PM/PM_{10}) will be very low because of the switch to inherently clean pipeline quality natural gas. There will be no provisions for firing fuel oil.

Although a BACT determination was not required, the proven capabilities of the selected units and the limits that FPL has accepted are more stringent than the requirements to-date for any combustion turbine project in Florida. There will be very substantial decreases in regulated air pollutants except for an insignificant increase in VOC emissions. The maximum potential annual emissions in tons per year are summarized below for comparison with recent annual emissions from Units 1 and 2 slated for retirement.

Pollutants	Units 1/2 Emissions	After Repowering	Increase (decrease)
PM/PM_{10}	607	313	(294)
SAM	915	21	(894)
SO_2	20,561	137	(20,424)
NO_x	7,095	1,845	(5,250)
VOC	47	82	35
CO	1,507	1,267	(240)

The lower NO_x emissions will reduce ozone (smog) formation potential and nitrate fallout. The lower PM/PM_{10}, SO_2 and SAM emissions will reduce visible emissions, fine particulate generation, and acid smut fallout. An air quality impact analysis was conducted. Impacts due to the proposed project emissions are all favorable and the net effect is a "creation of available increment" in the PSD Class I (Everglades) and Class II areas.

The Department will issue the FINAL permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Fort Myers Repowering Project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever comes first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition 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 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 presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

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 notice. 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 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:

Florida Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: (850) 488-1344
Fax: (850) 922-6979

Florida Department of Environmental Protection
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902-2549
Telephone: (941) 332-6975
Fax: (941) 332-6969

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-0114, for additional information.

Department of Environmental Protection

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

September 22, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. R. Douglas Neeley, Chief
Air, Radiation Technology Branch
US EPA Region IV
61 Forsyth Street
Atlanta, GA 30303

Re: Custom Fuel Monitoring Schedule
FPL Fort Myers Plant Repowering Project
DEP File 0710002-004-AC

Dear Mr. Neeley:

Enclosed are copies of a construction permit (non-PSD) application and the Department's Intent to Issue Permit to repower residual fuel oil-fired Units 1 and 2 at the Florida Power & Light (FPL) Fort Myers Plant in Lee County. The boilers will be replaced with six highly efficient gas-fired combustion turbines and heat recovery steam generators. The project will reduce emissions of sulfur dioxide and nitrogen oxides by over 20,000 and 5000 tons per year respectively while increasing generating capacity from 600 to 1500 megawatts.

Please send your written comments on or approval of the applicant's proposed custom fuel monitoring schedule. The plan is based on the enclosed letter dated January 16, 1996 from Region V to Dayton Power and Light. The Subpart GG limit on SO_2 emissions is 150 ppmvd @ 15% O_2 or a fuel sulfur limit of 0.8% sulfur. Neither of these limits could conceivably be violated by the use of pipeline quality natural gas which has a maximum SO_2 emission rate of 0.0006 lb/MMBtu (40 CFR 75 Appendix D Section 2.3.1.4). The sulfur content of pipeline quality natural gas in Florida has been estimated at a maximum of 0.003 % sulfur. No fuel oil will be used. The requirement has been incorporated into the enclosed draft permit as Specific Condition 42.

Please comment on Specific Condition 29 which allows the use of the acid rain NO_X CEMS for demonstrating compliance as well as reporting excess emissions. The Subpart GG requirements for the water-to-fuel monitoring system do not apply because only combustion controls will be employed. Typically NO_X emissions will be less than 10 ppmvd @15% O2 which is less than one-tenth of the applicable Subpart GG limit based on the efficiency of the unit. A CEMS requirement is stricter and more accurate than any Subpart GG requirement for determining excess emissions.

The Department recommends your approval of the custom fuel monitoring schedule and these NO_X monitoring provisions. We also invite your comments on the Intent to Issue. If you have any questions on these matters please contact me at 850/921-9523.

Sincerely,

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

AAL/aal

Enclosures

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

D. Neeley
Mr. ~~Brian Beals~~, Section Chief
Air, Radiation Technology Branch
Preconstruction/HAP Section
U.S. EPA - Region IV
61 Forsyth Street
Atlanta, GA 30303

4a. Article Number: Z333 612 516

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

7. Date of Delivery: 9-24-98

5. Received By: *(Print Name)* Bruce Hoke

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

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 333 612 516

ostal Service
ceipt for Certified Mail
Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to D. Neeley	
Street & Number EPA	
Post Office, State, & ZIP Code Atlanta	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 9-22-98	

PS Form **3800**, April 1995

0710002-004-AC

Department of Environmental Protection

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

September 22, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
Mr. William Reichel, General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

Re: DEP File No. 0710002-004-AC
FPL Fort Myers Plant - 1500 MW Gas Repowering Project

Dear Mr. Reichel:

Enclosed is one copy of the Intent to Issue, Draft Air Construction Permit, and Technical Evaluation and Preliminary Determination for the referenced project at the FPL Fort Myers Plant, north of State Road 80, near Tice, Lee County. The Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" must be published in the legal section of a newspaper of general circulation in Lee County. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please call Mr. Linero at 850/921-9523 or Ms. Teresa Heron at 850/921-9529.

Sincerely,

A. A. Linero, P.E.

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

CHF/aal

Enclosures

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. William Reichel
FPL Ft. Myers Plant
P O Box 430
Ft. Myers, Fl 33905

4a. Article Number
Z 333 612 512

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

7. Date of Delivery
10-5-98

5. Received By: *(Print Name)*
John J. Mack Jr

6. Signature: *(Addressee or Agent)*
X

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

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 333 612 512

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Will. Reichel	
Street & Number FPL - Ft. Myers Plant	
Post Office, State, & ZIP Code Ft. Myers, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0710002-004-AC 9-[redacted]-98 22	

PS Form **3800**, April 1995

In the Matter of an
Application for Permit by:

Mr. William Reichel, General Manager
FPL Fort Myers Plant
Post Office Box 430
Fort Myers, Florida 33905

DEP File No. 0710002-004-AC
1500 MW Gas Repowering Project
Lee County

/

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Florida Power & Light Company (FPL), applied on September 4,1998 to the Department to install six (6) gas-fired combined cycle units and auxiliary equipment to replace two (2) residual oil-fired steam generators at the Fort Myers Plant near Tice, Lee County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to conduct the work.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed ""Public Notice of Intent to Issue Air Construction Permit." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). The Department suggests that you publish the notice within thirty days of receipt of this letter. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit or other authorization. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 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 presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

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 notice. 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. Mediation is not available in this proceeding.

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 F.S. 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) F.S., 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 the 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.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9-22-98 to the person(s) listed:

Mr. William Reichel, FPL*
Mr. Richard Piper, FPL
Ms. Peggy Highsmith, SD
Mr. Doug Neeley, EPA
Mr. John Bunyak, NPS
Mr. Ken Kosky, P.E., Golder Associates
Mr. Peter Cunningham, Esq., HGSS

Clerk Stamp

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

(Clerk) 9-22-98 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0710002-004-AC

Florida Power & Light Fort Myers Plant
1500 Megawatt Repowering Project
Lee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Florida Power & Light Company (FPL). The permit is to install six combined cycle units to replace two (2) residual oil-fired steam generators at the Fort Myers Plant near Tice, Lee County. A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Fort Myers Plant, Post Office Box 430, Fort Myers, Florida 33905.

Each unit is a nominal 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce approximately another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with existing residual oil-fired units (593 MW total capacity) will be dismantled. The project is in-effect a "gas repowering of existing fossil-fuel fired units." The project also includes: a cooling tower for once-through brackish water; a small boiler or heaters to heat the natural gas prior to use; and two relatively short stacks per unit for simple and combined (with HRSG) operation.

Nitrogen Oxides (NO_X) emissions will be controlled by Dry Low NO_X (DLN-2.6) combustors capable of achieving emissions of 9 parts per million (ppm) by volume at 15 percent oxygen. Emissions of carbon monoxide (CO) will be controlled to 12 ppm, while emissions of volatile organic compounds (VOC) will be less than 1.4 ppm. Emissions of sulfur dioxide (SO_2), sulfuric acid mist (SAM), and particulate matter (PM/PM_{10}) will be very low because of the switch to inherently clean pipeline quality natural gas. There will be no provisions for firing fuel oil.

Although a BACT determination was not required, the proven capabilities of the selected units and the limits that FPL has accepted are more stringent than the requirements to-date for any combustion turbine project in Florida. There will be very substantial decreases in regulated air pollutants except for an insignificant increase in VOC emissions. The maximum potential annual emissions in tons per year are summarized below for comparison with recent annual emissions from Units 1 and 2 slated for retirement.

Pollutants	Units 1/2 Emissions	After Repowering	Increase (decrease)
PM/PM_{10}	607	313	(294)
SAM	915	21	(894)
SO_2	20,561	137	(20,424)
NO_X	7,095	1,845	(5,250)
VOC	47	82	35
CO	1,507	1,267	(240)

The lower NO_X emissions will reduce ozone (smog) formation potential and nitrate fallout. The lower PM/PM_{10}, SO_2 and SAM emissions will reduce visible emissions, fine particulate generation, and acid smut fallout. An air quality impact analysis was conducted. Impacts due to the proposed project emissions are all favorable and the net effect is a "creation of available increment" in the PSD Class I (Everglades) and Class II areas.

The Department will issue the FINAL permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 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 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 presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

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 notice. 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 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:

Florida Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: (850)488-1344
Fax: (850)922-6979

Florida Department of Environmental Protection
South District Office
2295 Victoria Avebnue, Suite 364
Fort Myers, Florida 33902-2549
Telephone: (941)332-6975
Fax: (941)332-6969

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-0114, for additional information.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Florida Power & Light Company

Fort Myers Power Plant

1500 Megawatt Repowering Project

Lee County

DEP File No. 0710002-004-AC

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

September 22, 1998

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Florida Power & Light Company
Fort Myers Power Plant
Post Office Box 430
Fort Myers, Florida 33905

Authorized Representative: William Reichel, Plant General Manager

1.2 Reviewing and Process Schedule

09-04-98: Date of Receipt of Application
09-22-98: Intent Issued

2. FACILITY INFORMATION

2.1 Facility Location

The Fort Myers Plant is located on 460 acres, north of State Road 80 and approximately 2.5 miles east of Tice, Lee County. This site is approximately 97 kilometers from Everglades National Park, a Class I PSD Area. The UTM coordinates of this facility are Zone 17; 422.3 km E; 2,952.9 km N.

2.2 Standard Industrial Classification Codes (SIC)

Industry Group No.	49	Electric, Gas, and Sanitary Services
Industry No.	4911	Electric Services

2.3 Facility Category

The Florida Power & Light (FPL) Fort Myers Plant generates electric power from two residual fuel oil-fired steam units with a combined generating capacity of 593 megawatts (MW) and 12 distillate fuel oil-fired simple cycle combustion turbines with a combined generating capacity of 708 MW.

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than 40 TPY of NO_X or SO_2, 25/15 TPY of PM/PM_{10}, or 3 TPY of fluorides (F) require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.400, F.A.C. The present modification results in net emissions decreases or less-than-significant increases in PSD pollutants. Therefore the modification is not subject to PSD.

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 TPY.

3. PROJECT DESCRIPTION

This permit addresses the following emissions units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
018 - 023	Power Generation	Six (6) Combined Cycle Combustion Turbine-Generators with Unfired Heat Recovery Steam Generators
024	Fuel Heating	Natural Gas Boiler or Heater(s)
025	Water Cooling	Mechanical Draft Cooling Tower

Florida Power & Light Company (FPL) proposes to install six (6) natural gas-fired combined cycle units that will consist of six (6) nominal 170 MW (@ 59°F) combustion turbine-generators with heat recovery steam generators (HRSGs). These will replace the two existing residual oil-fired boilers at the Fort Myers Power Plant in Lee County. The HRSGs will raise steam to repower the existing steam turbines thus producing approximately another 80 MW of electricity per unit or 1500 MW for the six combined cycle units.

The project includes a mechanical draft cooling tower to reduce the temperature of the water discharged from the once-through condenser cooling system. A 98-foot bypass stack will be installed for each combustion turbine for simple cycle (non-HRSG) operation. A separate 125-foot stack will also be installed for each combustion turbine for combined cycle operation. An approximately 132 million Btu per hour (MMBtu/hr) gas-fired boiler or direct-fired heaters will be included as well as a 30-foot stack. This unit will be used to heat natural gas prior to combined cycle operation and during cold start-up.

Each unit will initially operate in simple cycle mode until the corresponding HRSG is installed and integrated with the existing steam turbines. The existing stacks and steam generators (boilers) will be dismantled within one year after complete implementation of combined cycle operation.

The turbines will be equipped with Dry Low NO_X (DLN-2.6) combustors for the control of NO_X emissions to 9 ppmvd at 15% O_2 from 50% load up to 100% load conditions during normal operations. Each turbine will have a nominal heat input of 1,600 million Btus per hour, lower heating value (MMBtu/hr, LHV) at 59°F. The HRSGs will not be supplementally fired and will raise steam only from hot (1100°F) combustion turbine exhaust.

Emission decreases will occur for carbon monoxide (CO), sulfur dioxide (SO_2), sulfuric acid mist ($H_2SO_{4\ mist}$ or SAM), particulate matter (PM/PM_{10}), and nitrogen oxides (NO_X). Emission increases of volatile organic compounds (VOC) will be less than the significant emission levels per Table 62-212.400-2, F.A.C. Therefore review for the Prevention of Significant Deterioration (PSD) is not required.

4. PROCESS DESCRIPTION

Much of the following discussion is from a 1993 EPA document on Alternative Control Techniques for NO_X Emissions from Stationary Gas turbines.[1] Project specific information is interspersed where appropriate.

A gas turbine is an internal combustion engine that operates with rotary rather than reciprocating motion. Ambient air is drawn into the 18-stage compressor of the GE 7FA where it is compressed by a pressure ratio of about 15 times atmospheric pressure. The compressed air is then directed to the combustor section, where fuel is introduced, ignited, and burned. The combustion section consists of 14 separate can-annular combustors.

An exterior view of the GE MS 7001FA (a predecessor of the MS 7241FA) is shown in Figure 1. The key components are identified in Figure 2. The unit will be delivered with 14 can-annular design, DLN-2.6 combustors instead of those shown in Figure 2.

Flame temperatures in a typical combustor section can reach 3600 degrees Fahrenheit (^{o}F). Units such as the 7FA operate at lower flame temperatures which minimize NO_X formation. The hot combustion gases are then diluted with additional cool air and directed to the turbine section at temperatures of approximately 2400 ^{o}F. Energy is recovered in the turbine section in the form of shaft horsepower, of which typically more than 50 percent is required to drive the internal compressor section. The balance of recovered shaft energy is available to drive the external load unit such as an electrical generator.

In the FPL project, the unit will operate primarily in combined cycle mode although FPL plans to operate the unit in simple cycle mode as well. Cycle efficiency, defined as a percentage of useful shaft energy output to fuel energy input, is approximately 35 percent for F-Class combustion turbines in simple cycle mode. In addition to shaft energy output, 1 to 2 percent of fuel input energy can be attributed to mechanical losses. The balance is exhausted from the turbine in the form of heat.

In combined cycle operation, the gas turbine drives an electric generator while the exhausted gases are used to raise steam in a heat recovery steam generator (HRSG). In this case, most of the steam is fed to a separate steam turbine which also drives an electrical generator. Figure 3 is a process flow diagram for combined cycle operation. The bypass stack is used when the unit operates in simple cycle mode. The main stack following the HRSG is required for combined cycle operation. In combined cycle mode, the thermal efficiency of the 7FA can exceed 56 percent.

At high ambient temperature, the units cannot generate as much power because of lower compressor inlet density. To compensate for a portion of the loss of output (which can be on the order of 20 MW compared to referenced temperatures), inlet foggers will be installed ahead of the combustion turbine inlet. At an ambient temperature of 95 ^{o}F, roughly 10 MW of power can be regained by using the foggers.

The FPL project is representative of *gas repowering* which is characterized by replacement of a conventional fossil fuel-fired steam unit with one or more combustion turbines and HRSGs. Typically, the existing boiler, stack, and fans are removed or abandoned, while the

existing steam turbines and related auxiliaries are retained as part of the repowered combined-cycle units.[2] This concept is shown in Figure 4.

The first gas repowering project in Florida was at the FPL Lauderdale Plant. FPL installed four (4) Westinghouse 501 F combustion turbines and HRSGs to replace two conventional units. The steam generators were kept. Summer generating capacity was increased from approximately 275 to 850 MW. Whereas the original units were used primarily as peaking units, the more efficient repowered plant has a high availability more representative of a baseload plant. A photograph of the FPL Lauderdale Plant is shown as Figure 5.

Additional process information related to the combustor design, and control measures to minimize NO_X formation are given in the control technology section below.

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Lee County, an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is not subject to review under Rule 62-212.400., F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for PM/PM_{10}, CO, VOC and NO_X do not exceed the significant emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C.

This evaluation consists of a review of the control technology for PM/PM_{10}, VOC, CO, SO_2, and NO_X to insure that it is sufficient to restrict future emissions to levels lower than past emissions or increases in emissions to levels less than the significant emission rates as described above. An analysis of the air quality impact from proposed project is required to insure that there are no exceedances of the National or State Ambient Air Quality Standards.

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

5.1 State Regulations

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements

Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-214	Requirements For Sources Subject To The Federal Acid Rain Program
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications

5.2 Federal Rules

40 CFR 60	NSPS Subparts GG and Db
40 CFR 60	Applicable sections of Subpart A, General Requirements
40 CFR 72	Acid Rain Permits (applicable sections)
40 CFR 73	Allowances (applicable sections)
40 CFR 75	Monitoring (applicable sections including applicable appendices)
40 CFR 77	Acid Rain Program-Excess Emissions (future applicable requirements)

6. AIR POLLUTION CONTROL TECHNOLOGY

6.1 Applicant Control Technology Proposal

POLLUTANT	CONTROL TECHNOLOGY	PROPOSED LIMIT
Particulate Matter	Pipeline Natural Gas Combustion Controls	
Volatile Organic Compounds	As Above	1.4 ppm
Carbon Monoxide	As Above	12 ppm (CTs) 0.15 lb/mmBtu (Boiler)
Sulfur Dioxide	As Above	1 gr/100 scf (CTs)
Nitrogen Oxides	Dry Low NO_X Combustors (Cts) Dry Low NO_X Burners (Boiler)	9 ppm @ 15% O_2 (30 days) 0.10 lb/mmBtu (Boiler)

According to the application, the new units, will emit approximately 1,845 tons per year (TPY) of NO_X, 1,267 TPY of CO, 82 TPY of VOC, 137 TPY of SO_2, and 313 TPY of PM/PM_{10}.

6.2 Standards of Performance for New Stationary Sources

The minimum project control technology basis is 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (NSPS). Subpart GG was adopted by the Department by reference in Rule 62-204.800, F.A.C. The key emission limits required by Subpart GG are 75 ppm NO_X @15% O_2. (assuming 25 percent efficiency) and 150 ppm SO_2 @15% O_2 (or <0.8% sulfur in fuel). The proposal is consistent with the NSPS which allows NO_X emissions over 100 ppm for the high efficiency unit to be purchased by FPL. No National Emission Standards for Hazardous Air Pollutants exist for stationary gas turbines.

The small gas heaters or boiler must comply with 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The above limits are consistent with the requirements of Subpart Db.

6.3 Determinations by EPA and States

The following table is a sample of information on recent control technology determinations by EPA and the States for combined cycle projects.

Project Location	Power Output (MW)	NO_X Limit ppm @ 15% O_2 and Fuel	Technology	Comments
Lakeland, **FL**	350	9/9/7.5 - NG 4215/15 - No. 2 FO	**DLN**/HSCR/SCR WI/HSCR/SCR	230 MW WH 501G CT Initially 250 MW simple cycle and 25 ppm NO_X limit on gas
Mid-GA Cogen	308	9 - NG 20 - No. 2 FO	DLN & SCR	2x119 MW WH 501D5A CTs
PREPA, PR	248	10 - No. 2 FO	WI & Hot SCR	3x83 MW ABB CTs
Tiger Bay, **FL**	270	15/10 - NG 42 - No. 2 FO	**DLN** &/or SCR WI	184 MW **GE** MS7001**FA** CT DLN/15 ppm or SCR/10 ppm
Hines Polk, **FL**	485	12 - NG 42 - No. 2 FO	**DLN** WI	2x165 MW WH 501FC CTs Switched to SCR
Tallahassee, **FL**	260	12 - NG 42 - No. 2 FO	**DLN** WI	160 MW **GE** MS 7231**FA** CT DLN guarantee is 9 ppm
Eco-Electrica, PR	461	7 - NG 9 - LPG, No. 2 FO	DLN & SCR	2x160 MW WH 501**F** CTs
Sithe/IPP, NY	1012	4.5 - NG	DLN & SCR	4 x160 MW **GE 7FA** CTs
Hermiston, OR	474	4.5 - NG	SCR	2x160 MW **GE 7FA** CTs
Barry, AL	800	3.5 - NG (CT/DB)	DLN & SCR	3x170 MW **GE 7FA** CTs

CT = Combustion Turbine
DB = Duct Burner
WI = Water or Steam Injection
ppm = parts per million
NG = Natural Gas
HSCR = Hot SCR
FO = Fuel Oil
DLN = Dry Low NO_X Combustion
SCR = Selective Catalytic Reduction
LPG = Liquefied Propane Gas
GE = General Electric
WH = Westinghouse
ABB = Asea Brown Bovari
Factors in Common with FPL Project are bolded.

Project Location	CO - ppm (or as shown)	VOC - ppm (or as shown)	PM - lb/mmBtu (or as shown)	Technology and Comments
Lakeland, FL	25 - NG or 10 by Ox Cat 75 - FO@ 15% O_2	4 - NG 10 - FO	10% Opacity	Clean Fuels Good Combustion
Mid-GA Cogen,	10 - NG 30 - FO	6 - NG 30 - FO	18 lb/hr - NG 55 lb/hr - FO	Clean Fuels Good Combustion
PREPA, PR	9 - FO @15% O_2	11 - FO @15% O_2	0.0171 gr/dscf	Clean Fuels Good Combustion
Tiger Bay, FL	0.045 lb/mmBtu-NG 0.053 lb/mmBtu-FO		0.053 - NG 0.009 - FO	Clean Fuels Good Combustion
Hines Polk, FL	25 - NG 30 - FO	7 - NG 7 - FO	0.006 - NG 0.01 - FO	Clean Fuels Good Combustion
Tallahassee, FL	25 - NG 90 - FO			Clean Fuels Good Combustion
Eco-Electrica, PR	33 - NG/LPG @15% O_2 33 - FO @15% O_2	1.5/2.5 - NG/LPG 6 - FO	0.0053 - NG/LPG 0.0390 - FO	Clean Fuels Good Combustion
Sithe/IPP, NY	13 - NG			Clean Fuels Good Combustion
Hermiston, OR	15 - NG			Clean Fuels Good Combustion
Barry, AL	0.034 lb/mmBtu - NG/CT 0.057 lb/mmBtu - CT/DB	0.015 lb/mmBtu After CT and DB	0.011 - CT/DB 10% Opacity	Gas only Good Combustion

6.4 Review of Combustion Turbine Control Technologies

A complete discussion of control options was not required because the project is not subject to a Best Available Control Technology Determination. However the applicant discussed the technology to be employed in order to comply with the New Source Performance Standards and the requested limits. The Department has included other information typically included in a complete BACT determination for comparison purposes.

6.4.1 Nitrogen Oxides Formation

Much of the discussion in this section is based on a 1993 EPA document on Alternative Control Techniques for NO_X Emissions from Stationary Gas Turbines. Project-specific information is included where applicable.

Nitrogen oxides form in the gas turbine combustion process as a result of the dissociation of molecular nitrogen and oxygen to their atomic forms and subsequent recombination into seven different oxides of nitrogen. Thermal NO_X forms in the high temperature area of the gas turbine combustor. Thermal NO_X increases exponentially with increases in flame temperature and linearly with increases in residence time. Flame temperature is dependent upon the ratio of fuel burned in a flame to the amount of fuel that consumes all of the available oxygen.

By maintaining a low fuel ratio (lean combustion), the flame temperature will be lower, thus reducing the potential for NO_X formation. Prompt NO_X is formed in the proximity of the flame front as intermediate combustion products. The contribution of Prompt to overall NO_X is relatively small in lean, near-stoichiometric combustors and increases for leaner fuel mixtures. This provides a practical limit for NO_X control by lean combustion.

Fuel NO_X is formed when fuels containing bound nitrogen are burned. This phenomenon is not important when combusting natural gas. It is not important for the FPL project because natural gas will be the only fuel used.

Uncontrolled emissions range from about 100 to over 600 parts per million by volume, dry, corrected to 15 percent oxygen (ppm @15% O_2). For large modern turbines, the Department estimates uncontrolled emissions at approximately 200 ppm @15% O_2.

6.4.2 NO_X Control Techniques

Combustion Controls

The excess air in lean combustion, cools the flame and reduces the rate of thermal NO_X formation. Lean premixing of fuel and air prior to combustion can further reduce NO_X emissions. This is accomplished by minimizing localized fuel-rich pockets (and high temperatures) that can occur when trying to achieve lean mixing within the combustion zones.

The above principle is depicted in Figure 6 for a General Electric can-annular combustor operating on gas. For ignition, warm-up, and acceleration to approximately 20 percent load, the first stage serves as the complete combustor. Flame is present only in the first stage,

which is operated as lean stable combustion will permit. With increasing load, fuel is introduced into the secondary stage, and combustion takes place in both stages. When the load reaches approximately 40 percent, fuel is cut off to the first stage and the flame in this stage is extinguished. The venturi ensures the flame in the second stage cannot propagate upstream to the first stage. When the fuel in the first-stage flame is extinguished (as verified by internal flame detectors), fuel is again introduced into the first stage, which becomes a premixing zone to deliver a lean, unburned, uniform mixture to the second stage. The second stage acts as the complete combustor in this configuration.

To further reduce NO_X emissions, GE developed the DLN-2 combustor (cross section shown in Figure 6) wherein air usage (other than for premixing) was minimized. The venturi and the centerbody assembly were eliminated and the combustor has a single burning zone. So-called "quaternary fuel" is introduced through pegs located on the circumference of the outward combustion casing.

The emission characteristics of General Electric's DLN 2 combustors are given in Figure 7. NO_X concentrations are higher in the exhaust at lower loads because at lower loads, the combustor do not operate in the lean pre-mix mode. Therefore such a combustor emits NO_X at concentrations of 25 parts per million (ppm) at loads between 50 and 100 percent of capacity, but concentrations as high as 100 ppm at less than 50 percent of capacity.

Simplified cross sectional views of the totally premixed DLN-2.6 combustor to be installed at the FPL project are shown in Figure 8. The combustor is similar to the DLN-2 with the addition of a sixth (center) fuel nozzle to achieve 9 ppm of NO_X and 9 ppm of CO at somewhat less than 50 percent load. Presumably the emission characteristics of the DLN-2.6 are similar are similar to the DLN 2, except that the combustor emits NO_X at concentrations of 9 ppm at loads between 50 and 100 percent. Because of the "totally pre-mixed" design, emissions at less than 50 percent load are probably also lower for the DLN 2.6 than the DLN-2.

In all but the most recent gas turbine combustor designs, the high temperature combustion gases are cooled to an acceptable temperature with dilution air prior to entering the turbine (expansion) section. The sooner this cooling occurs, the lower the thermal NO_X formation. Cooling is also required to protect the first stage nozzle. When this is accomplished by air cooling, the air is injected into the component and is ejected into the combustion gas stream, causing a further drop in combustion gas temperature. This, in turn, results in a lower achievable thermal efficiency for the unit.

Larger units, such as the Westinghouse 501 G or the planned General Electric 7H, use steam in a closed loop system to provide much of the cooling. The fluid is circulated through the internal portion of the nozzle component or around the transition piece between the combustor and the nozzle and does not enter the exhaust stream. Instead it is normally sent back to the steam generator. The difference between flame temperature and firing temperature into the first stage is minimized and higher efficiency is attained.

Another important result of steam cooling is that a higher firing temperature can be attained with no increase in flame temperature. Flame temperatures and NO_X emissions can

therefore be maintained at comparatively low levels even at high firing temperatures. At the same time, thermal efficiency should be greater when employing steam cooling. A similar analysis applies to steam cooling around the transition piece between the combustor and first stage nozzle.

The relationship between flame temperature, firing temperature, unit efficiency, and NO_X formation can be appreciated from Figure 9 which is from a General Electric discussion on these principles. In addition to employing pre-mixing and steam cooling, further reductions are accomplished through design optimization of the burners, testing, further evaluation, etc.

At the present time, emissions achieved by combustion controls are low as 9 ppm (and even lower) from gas turbines smaller than about 200 MW (simple cycle), such as the F class. Initial guarantees of 25 ppm by combustion controls are proposed for turbines larger than larger than 200 MW, such as the G and H classes. The guaranteed values are expected to be reduced for the reasons given above. As in the case of wet injection, higher CO and hydrocarbon emissions can occur as a result of employing combustion controls to minimize NO_X.

Selective Catalytic Combustion

Selective catalytic reduction (SCR) is an add-on NO_X control technology that is employed in the exhaust stream following the gas turbine. SCR reduces NO_X emissions by injecting ammonia into the flue gas. As of early 1992, over 100 gas turbine installations already used SCR in the United States. The only combustion turbines in Florida employing SCR are at the FPC Hines Energy Complex, where the manufacturer was unable to meet the DLN limits at start-up. Virtually all SCR units are used in combination with wet injection or combustion controls.

Ammonia reacts with NO_X in the presence of a catalyst and excess oxygen yielding molecular nitrogen and water. The catalyst used in combined cycle, low temperature applications (conventional SCR), is usually vanadium or titanium oxide and accounts for almost all installations. For high temperature applications (Hot SCR up to 1100 ^{o}F), such as simple cycle turbines, zeolite catalysts are available but used in few applications to-date.

In the past, sulfur was found to poison the catalyst material. Sulfur-resistant catalyst materials are now available, however, and catalyst formulation improvements have proven effective in resisting performance degradation with fuel oil in Europe and Japan, where conventional SCR catalyst life in excess of 4 to 6 years has been achieved, versus 8 to 10 years with natural gas.

In a manner analogous to balancing control of NO_X from the combustor with emissions of CO and hydrocarbon, similar balancing is required when controlling NO_X by SCR. Excessive ammonia use tends to increase emissions of CO, ammonia (slip), and particulate matter (when sulfur bearing fuels are used). Permit BACT limits as low as 3.5 ppm NO_X have been specified using SCR for an F Class project in Alabama and proposed for another F Class project in Mississippi.

6.4.3 Particulate Matter (PM/PM_{10}) Control

Particulate matter is generated by various physical and chemical processes during combustion and will be affected by the design and operation of the NO_X controls. The particulate matter emitted from this unit will mainly be less than 10 microns in diameter (PM_{10}).

Natural gas will be the only fuels fired and is efficiently combusted in gas turbines. Clean fuels are necessary to avoid damaging turbine blades and other components already exposed to very high temperature and pressure. Natural gas is an inherently clean fuel and contains no ash.

A technology review indicated that the top control option for PM_{10} is a combination of good combustion practices, fuel quality, and filtration of inlet air. This has been chosen as BACT by the applicant and the Department concurs. Annual emissions of PM/PM_{10} are expected to be less than 313 tons per year (six combustion turbines and small boiler). This represents a decrease of 294 TPY.

Drift eliminators shall be installed on the cooling tower to reduce PM/PM_{10}. The drift eliminators shall be designed and maintained to reduce drift to 0.001 percent of the circulating water flow rate. No PM testing is required.

6.4.4 Carbon Monoxide (CO) Control

CO is emitted from combustion turbines due to incomplete fuel combustion. Combustion design and catalytic oxidation are the control alternatives that are viable for the project. The most stringent control technology for CO emissions is the use of an oxidation catalyst.

Most installations using catalytic oxidation are located in the Northeast. Among them are the 272 Berkshire, Massachusetts facility, 240 MW Brooklyn Navalyard Facility, the 240 MW Masspower facility, the 165 MW Pittsfield Generating Plant in Massachusetts, and the 345 MW Selkirk Generating Plant in New York. Catalytic oxidation was recently installed at a cogeneration plant at Reedy Creek (Walt Disney World), Florida to avoid PSD review which would have been required due to increased operation at low load.

Most combustion turbines incorporate good combustion to minimize emissions of CO. These installations typically achieve CO emissions between 10 and 30 ppm at full load, even as they achieve relatively low NO_X emissions by SCR or dry low NO_X means. By comparison, the value of 12 ppm proposed FPL's application appears relatively low, but consistent with the capabilities of the DLN-2.6 technology as discussed above.

6.4.5 Volatile Organic Compound (VOC) Control

Volatile organic compound (VOC) emissions, like CO emissions, are formed due to incomplete combustion of fuel. There are no viable add-on control techniques as the combustion turbine itself is very efficient at destroying VOC. The applicant has proposed good combustion practices to control VOC to 1.4 ppm. This value is lower than any BACT-based VOC limit listed above. According to GE, even lower VOC emissions were achieved during recent tests of the DLN-2.6 technology when firing natural gas.[3] Annual

emissions of VOC are expected to be approximately 82 TPY from the repowered units. The difference between future emissions and past actual emissions is less than the 40 ton per year (PSD) significant emission rate increase.

6.5 Background on Selected Gas Turbine

FPL plans to the purchase six (6) 170 MW General Electric MS7241FA combined cycle gas turbines with un-fired HRSGs. By using the two existing steam turbine-electrical generators, each combustion turbine will produce approximately another 80 MW of electrical power.

The first commercial GE 7F Class unit was a installed at the Virginia Power Chesterfield Station in 1990.[4] The initial units had a firing temperature of 2300°F and a combined cycle efficiency exceeding 50 percent. By the mid-90s, the line was improved by higher combustor pressure, a firing temperature of 2400°F, and a combined cycle efficiency of approximately 56 percent based on a 167 MW combustion turbine. The line was redesignated as the 7FA Class.

The first GE 7F/FA project in Florida was at the FPL Martin Plant in 1993 and entered commercial service in 1994.[5] The units were equipped with DLN-2 combustors with a permitted NO_X limit of 25 ppm. These actually achieve less 25 ppm of NO_X and 15 ppm of CO. The City of Tallahassee recently received approval to install a GE 7FA Class unit at its Purdom Plant.[6] Although permitted emissions are 12 ppm of NO_X, the City obtained a performance guarantee from GE of 9 ppm.[7]

General Electric, other manufacturers, and their customers are relying on further advancement and refinement of DLN technology to provide sufficient NO_X control for their combined cycle turbines in Florida. Where required by BACT determinations of certain states, General Electric incorporates SCR in combined cycle projects.[8]

The approach of progressively refining such technology is a proven one, even on some relatively large units. Basically this was the strategy adopted in Florida throughout the 1990's. Recently GE Frame 7 FA units met performance guarantees of 9 ppm with DLN-2.6 burners at Fort St. Vrain, CO and Clark County, WA.[9] GE has already achieved emissions of approximately 6 ppm on gas at a dual-fuel MW 7EA (120 MW combined cycle) unit at Cane Island Power Park in Kissimmee, FL.[10] The Cane Island unit is equipped with DLN-2 combustors. According to GE, similar performance is expected soon on the 7FA line and performance guarantees less than 9 ppm can be expected using the DLN-2.6 combustors for units delivered in a couple of years.[11]

The 9 ppm NO_X limit on natural gas requested by FPL is comparable with recent BACT determinations for F Class combined cycle units, such as those previously listed.

6.6 Control Technology Determination

Following are the emission limits determined for the FPL project assuming full load. Values for NO_X are corrected to 15% O2. These limits or their equivalents in terms of

pounds per hour, as well as the applicable averaging times, are given in the permit Specific Conditions.

Emission Unit	NO_X	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines	9 ppm (30 day) 75/110 ppm (NSPS)	12 ppm	1.4 ppm	10	Dry Low NO_X Combustors Natural Gas, Good Combustion
Gas Heater/ Boiler	0.10 lb/mmBtu	0.15 lb/mmBtu	-	-	Dry Low NO_X Burners

6.7 Rationale for Control Technology Determination

- FPL obtained a guarantee from GE for DLN-2.6 combustors which have been demonstrated to meet all of the above limits on "7FA" Class gas turbines.
- FPL specifically requested that these limits be incorporated into the permit although the project could "net out" of PSD review and BACT with higher limits (except for VOC).
- All of the combustion turbine emission limits comply with the NSPS and are less than or equal to recent Department BACT determinations applicable to new units at start-up.
- PM_{10} emissions will be very low and difficult to measure. Therefore, the Department, with FPL's concurrence will set a visible emission standard of 10 percent opacity.
- CO emissions from FPL's project are low (approximately 9 ppm). With FPL's concurrence, the Department will set CO limits achievable by good combustion equal to 12 ppm. For reference, CO limits for the Lakeland and Tallahassee projects are 25 ppm on gas.
- VOC emissions of 1.4 ppm proposed by FPL are at the lower end of values determined as BACT. Good Combustion is sufficient to achieve these low levels with the DLN-2.6 combustors while firing natural gas.
- The small boiler for gas heating during startup and simple cycle operation will comply with the NSPS (Subpart Db).

6.8 Compliance Procedures

Pollutant	Compliance Procedure
Visible Emissions	Method 9
Volatile Organic Compounds	Method 18, 25, or 25A (initial tests only)
Carbon Monoxide	Annual Method 10 (can use RATA if at capacity)
NO_X (30-day average)	NO_X CEMS, O_2 or CO_2 diluent monitor, and flow device as needed
NO_X (NSPS initial performance)	Method 20 (can use RATA if at capacity)

6.9 Excess Emissions

Allowable Excess Emissions: Pursuant to Rule 62-210.200 F.A.C., excess emissions are allowable under the following scenarios: Valid hourly emission rates shall not included periods of startup (~240 minutes), shutdown (~180 minutes), or malfunction as defined in Rule 62-210.200 F.A.C., where emissions exceed the applicable NO_X standard. These excess emissions periods shall be reported as required in permit Specific Condition 27. A valid hourly emission rate shall be calculated for each hour in which at least two NO_X concentrations are obtained at least 15 minutes apart. [Rules 62-4.070 F.A.C., 62-210.700 F.A.C and applicant request]

7. SOURCE IMPACT ANALYSIS

7.1 Emission Limitations

The proposed six combustion turbines, cooling tower and small boiler will emit the following PSD pollutants (Table 212.400-2): particulate matter, sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, and negligible quantities of sulfuric acid mist, fluorides, beryllium, mercury and lead. The applicant's proposed annual emissions are summarized in the Table below and form the basis of the source impact review.

7.2 Emission Summary

The net emissions increase/decrease for all PSD pollutants as a result of this modification are calculated below:

CONTEMPORANEOUS CREDITABLE CHANGES (TPY)

Pollutants	Past Emissions (Units 1 and 2)	Future Emissions (Repowered)	Increase (decrease)	PSD Significance	PSD Review?
PM/PM_{10}	607	313	(294)	25/15	No
SAM	915	21	(894)	7	No
SO_2	20,561	137	(20,424)	40	No
NO_X	7,095	1,845	(5,250)	40	No
VOC	47	82	35	40	No
CO	1,507	1,267	(240)	100	No

7.3 Air Quality Analysis

7.3.1 Introduction

The proposed project will not result in the increase of emissions of any PSD pollutants at levels in excess of PSD significant amounts. With the exception of VOC emissions, emissions of PSD pollutants will actually decrease due to the project. However, as a

supplement to the air permit application, FPL estimated air quality impacts for the existing plant and the repowered plant including impacts related to construction activities and future operations. This supplemental air quality analysis was done for PM_{10}, CO, SO_2 and NO_X emissions.

Based on these analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment. A discussion of these analyses follows.

7.3.2 Models and Meteorological Data Used in the Air Quality Impact Analysis

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Ft. Myers Page Field, Florida (surface data) and Ruskin, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

7.3.3 AAQS Analysis

An AAQS analysis was done for PM_{10}, SO_2 and NO_2 due to the project. Predicted CO impacts from the project were less than the applicable significant impact levels; therefore, no further CO modeling for comparison with the AAQS was required. Total air quality impacts for comparison with the PM_{10}, SO_2 and NO_2 AAQS were estimated by adding the maximum predicted concentrations due to project-related sources to background concentrations. Background concentrations are concentrations due to sources not associated with the Fort Myers plant. These concentrations consist of two components: impacts due to other modeled emission sources in the area, and impacts due to sources not explicitly modeled. The non-modeled background concentrations were obtained from air quality monitoring data. The AAQS analysis submitted with this proposed project, and summarized in the two tables below shows that maximum predicted total impacts from PM_{10}, SO_2 and NO_2 emissions do not exceed the AAQS.

Ambient Air Quality Impacts During Construction

Pollutant	Averaging Time	Modeled Sources Impact (ug/m^3)	Background Monitor Concentration (ug/m^3)	Total Impact (ug/m^3)	Total Impact Greater Than AAQS?	Florida AAQS (ug/m^3)
SO_2	Annual	6	5	11	NO	60
	24-hour	126	31	157	NO	260
	3-hour	552	100	652	NO	1300
PM_{10}	Annual	18	1	19	NO	50
	24-hour	33	10	43	NO	150
NO_2	Annual	6	20	26	NO	100

Ambient Air Quality Impacts for Future Operations After Project Completion

Pollutant	Averaging Time	Modeled Sources Impact (ug/m^3)	Background Concentration (ug/m^3)	Total Impact (ug/m^3)	Total Impact Greater Than AAQS?	Florida AAQS (ug/m^3)
SO_2	Annual	3	5	8	NO	60
	24-hour	21	31	52	NO	260
	3-hour	112	100	212	NO	1300
PM_{10}	Annual	18	1	19	NO	50
	24-hour	27	10	37	NO	150
NO_2	Annual	4	20	24	NO	100

7.3.4 PSD Increment Analysis

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant from a baseline concentration which was established in 1977 (the baseline year was 1975 for existing major sources of SO_2) for SO_2 and 1988 for NO_2. This project will expand increment since the proposed emissions after the project is completed will be less than the emissions of these pollutants during the baseline years.

7.3.5 Impact Analysis Impacts On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur for PM_{10}, CO, and NO_X as a result of the proposed project, including background concentrations and all other nearby sources, will be below the associated AAQS. The AAQS are designed to protect both the public health and welfare. As such, this project is not expected to have a harmful impact on soils and vegetation in the vicinity of the plant or the PSD Class I area in the Everglades National Park. In addition, there should be an amelioration of any impacts from the existing plant due to the reduction in acid particulate deposition.

7.3.6 Impact On Visibility

Visibility should improve in the immediate area based on lower emissions of particulate and particulate pre-cursors. The stack visible emissions limits of 10 percent opacity compared with present limits as high as 40 percent will further insure an improvement.

7.3.7 Growth-Related Air Quality Impacts

The proposed project is being constructed to meet current and future state-wide electric demands. Additional growth in the immediate area as a direct result of the additional electric power provided by the project is not expected The project will be constructed and operated with minimum labor and associated facilities and is not expected to significantly affect growth in the local area. Obviously any increase in highly efficient electric power capacity promotes or accommodates further state-wide growth.

8. CONCLUSION

Based on the foregoing technical evaluation of the application and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. Furthermore the project will improve ambient air quality in the area and reduce acidic particulate deposition.

A. A. Linero, P.E.
Teresa Heron, Review Engineer
Cleve Holladay, Meteorologist

REFERENCES

[1] EPA. "Alternative Control Techniques for NO_X Emissions from Stationary Gas Turbines." 1993.

[2] Moore, T. "Repowering as a Competitive Strategy." EPRI Journal. September-October, 1995.

[3] Telecon. Vandervort, C., GE, and Linero, A. A., DEP. VOC Emissions From FA Gas Turbines with DLN-2.6 Combustors.

[4] Brochure. General Electric. "GE Gas Turbines - MS7001FA." Circa 1993.

[5] Davis, L.B. :Dry Low NO_X Combustion Systems for GE Heavy Duty Gas Turbines. 1994.

[6] Florida DEP. PSD Permit, City of Tallahassee Purdom Unit 8. May, 1998.

[7] City of Tallahassee. PSD/Site Certification Application. April, 1997.

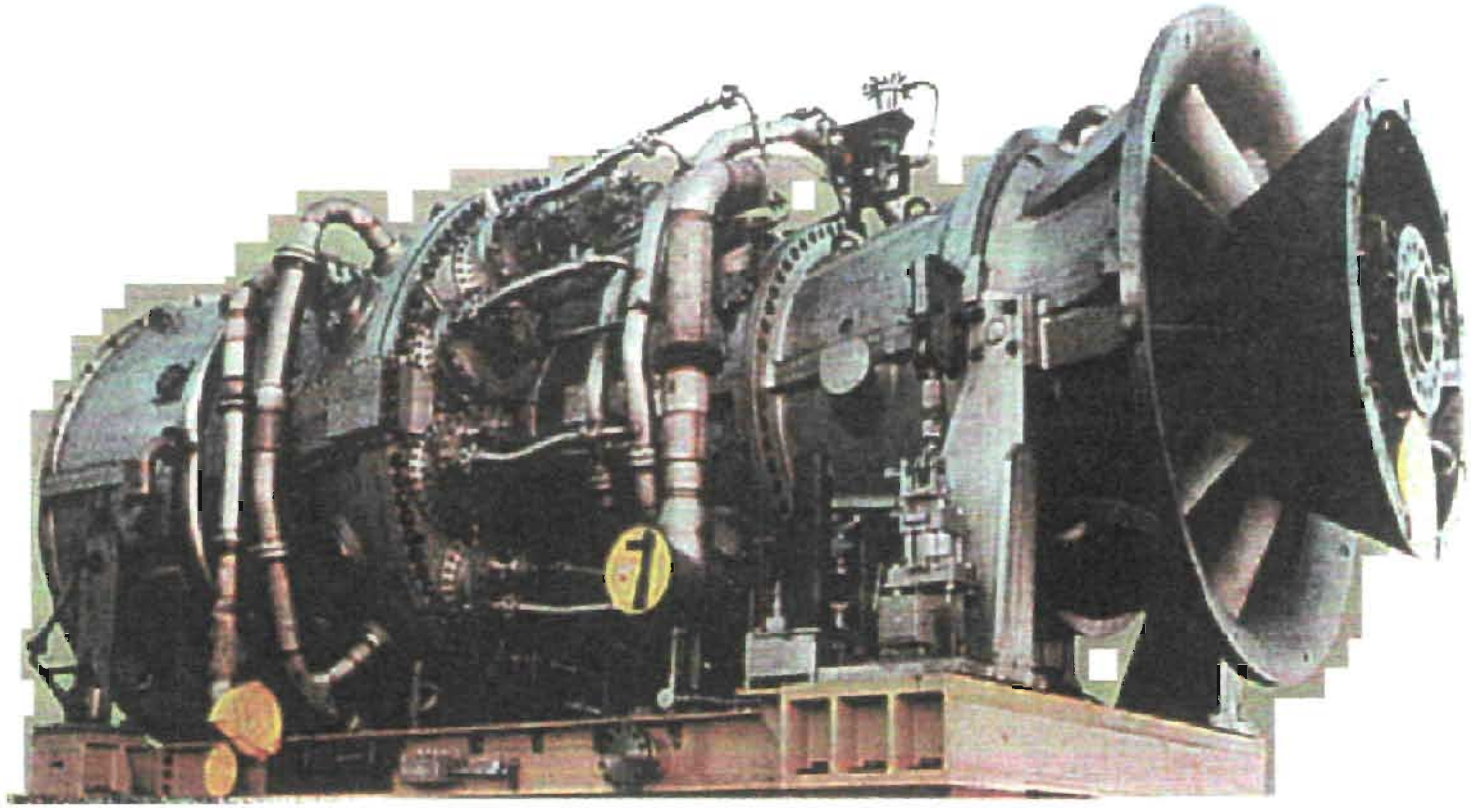
[8] State of Alabama. PSD Permit, Alabama Power/Barry Sithe/IPP (GE 7FA).

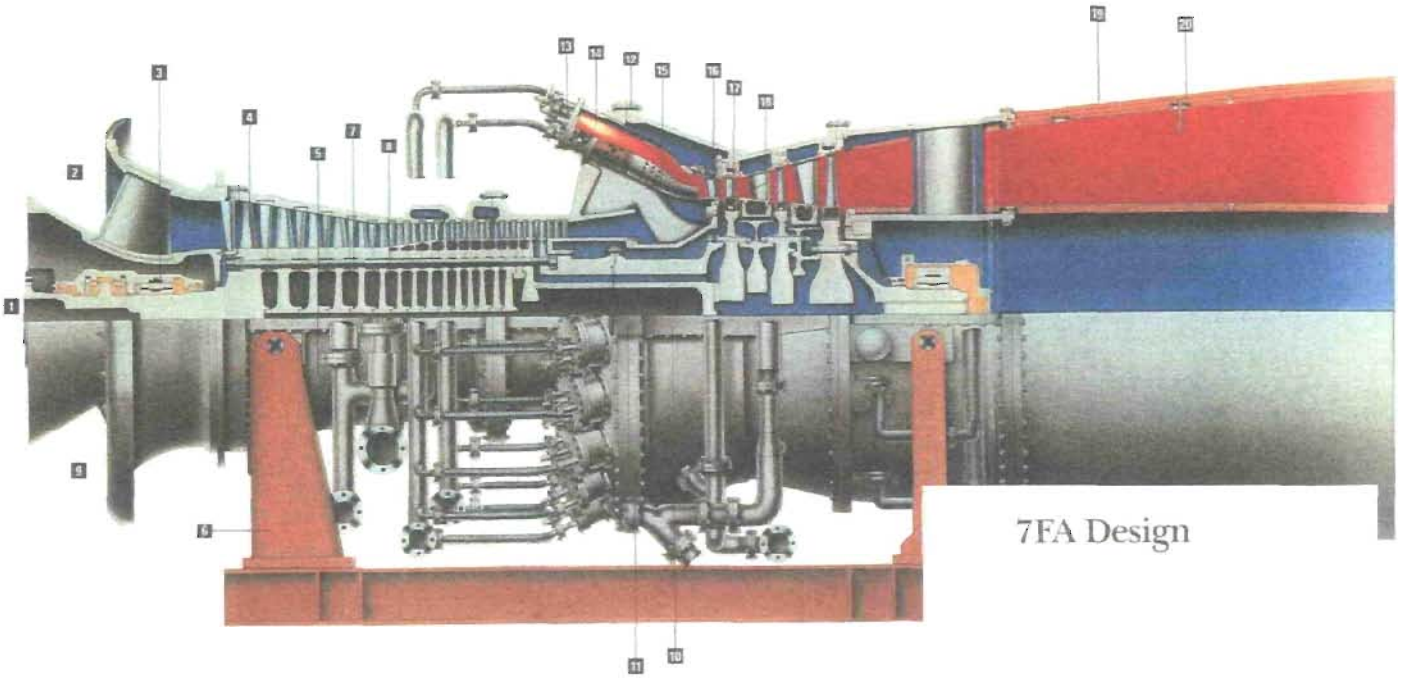
[9] Telecon. Schorr, M., GE, and Costello, M., Florida DEP. March 31, 1998. Status of DLN-2.6 Program.

[10] Florida DEP. Bureau of Air Regulation Monthly Report. June, 1998.

[11] Telecon. Schorr, M., GE, and Linero, A. A., Florida DEP. August, 1998. Cost effectiveness of DLN versus SCR.

Figure 1 - GE MS7001FA





COMPRESSOR

1. Load Coupling – short, rigid coupling can be directly connected to generator flange.

2. Axial/Radial Inlet Casing – proven design provides uniform inlet flow to compressor.

3. Journal Bearings – bearings are tilting-pad type for improved rotor stability and are also pressure-lift for reduced break-away torque.

4. Compressor Blading – an evolution from the 7EA compressor with a zero stage added. Blade length increased for added flow. Blade material upgraded for more demanding requirements. Shrouded stator 17 and exit guide vanes are utilized for improved cyclical life.

5. Compressor Design – based on proven axial-flow design. One piece casing allows easier start-up. Casing material upgraded to accommodate higher temperature and pressure.

6. Rigid Forward Support – in combination with forward thrust bearing, limits thermal expansion of gas turbine into generator.

7. Wheel Construction – machined to nearly constant stress cross-section with contact faces at maximum diameter for high rotor stiffness.

8. Through-Bolt Construction – large bolts at maximum bolt circle provide rigid rotor with required torque capability for front-end drive.

9. Inlet Orientation – available in up, down or side arrangement.

STATOR CASINGS

10. Horizontally Split – all casings split on horizontal centerline with through-bolting to facilitate maintenance.

COMBUSTION

11. Combustor Bulkhead – combustor outer cans attached over elongated holes in combustor bulkhead to permit removal of transition piece without lifting turbine shell.

12. Top and Bottom Manway Access – permits an alternative method for removing combustor transition piece and stage 1 nozzle without lifting turbine shell.

13. Fuel Distribution – single fuel line connection for each combustor with manifolding to six fuel nozzles built into combustor end cover.

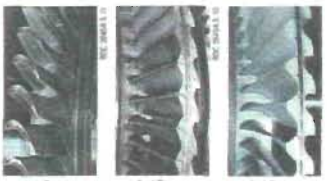
14. Reverse Flow Combustor Chambers – supplement the impingement and film cooling of the liners, prolonging parts life.

15. Impingement Cooled Combustor Transition Piece – separate perforated sleeve around transition piece causes compressor discharge air to impinge on and effectively cool the transition piece.

TURBINE

16. Nozzle Design – sidewalls and internal surfaces of vanes impingement cooled with spent air used for extensive film cooling.

17. Stage 1 Stationary Shroud Design – gas path insert of high temperature alloy, extensively convection, impingement and film cooled and coated for maintaining tight clearances with the stage 1 bucket tip.



18. Bucket Design – stage 1 bucket is directionally solidified and uses a turbulated serpentine cooled design with trailing edge bleed cooling, based on GE Aircraft Engine technology. Stage 2 uses turbulated radial cooling holes. Stage 3 is uncooled. Stages 2 and 3 have integral z-lock shrouds for vibration control, and all three stages have long shanks for vibration control and isolation of gas path temperatures from the turbine wheels.

EXHAUST

19. Exhaust Diffuser – axial design (permitted by front-end drive) is blanket insulated for thermal stability, safety and reduced heat loss from exhaust before entering heat recovery system.

20. Exhaust Thermocouples – sets of thermocouples supply signals to each of the three SPEEDTRONIC™ Mark V computers. The thermocouples are used for control and also for monitoring the combustion system.

Figure 2 - GE Combustion Turbine MS 7001FA

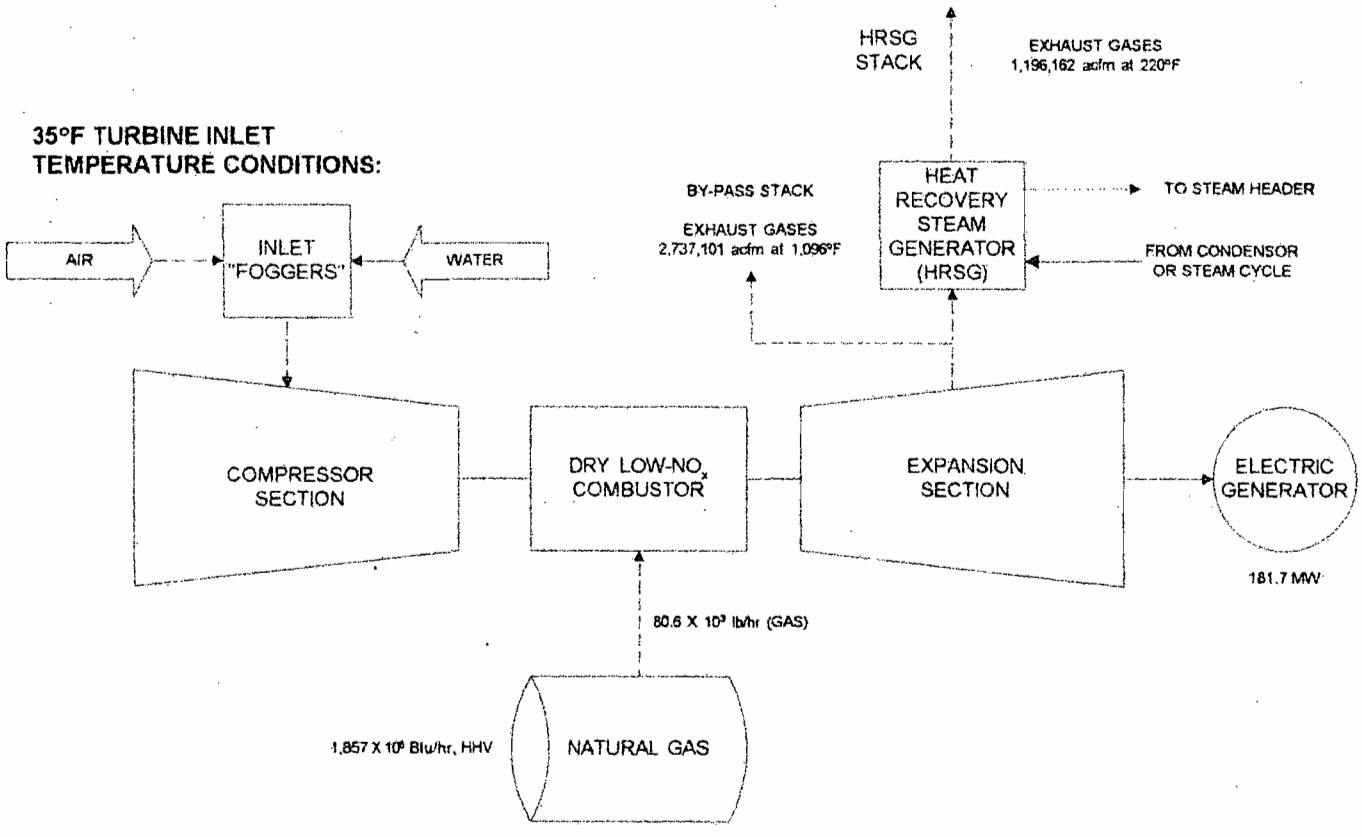


Figure 3 - Simplified Flow diagram of FPL Fort Myers Project

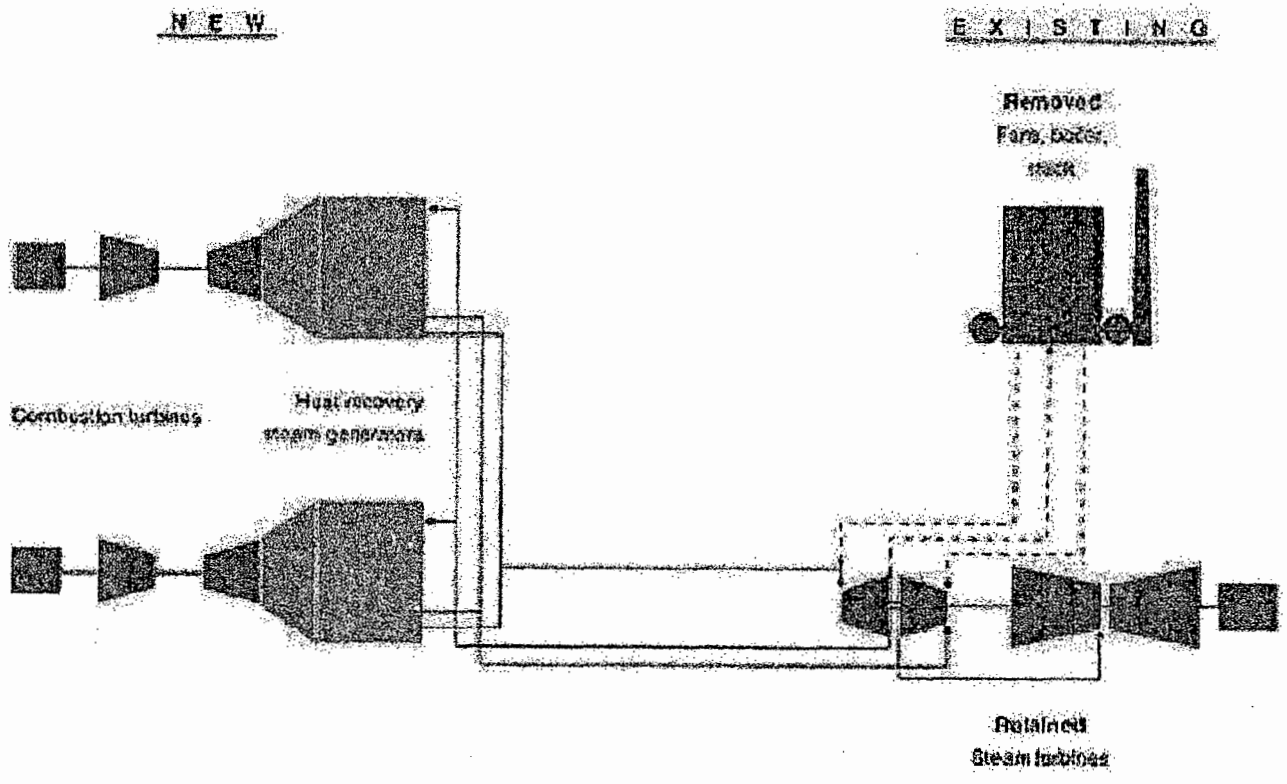


Figure 4 - Simplified Gas Repowering Diagram

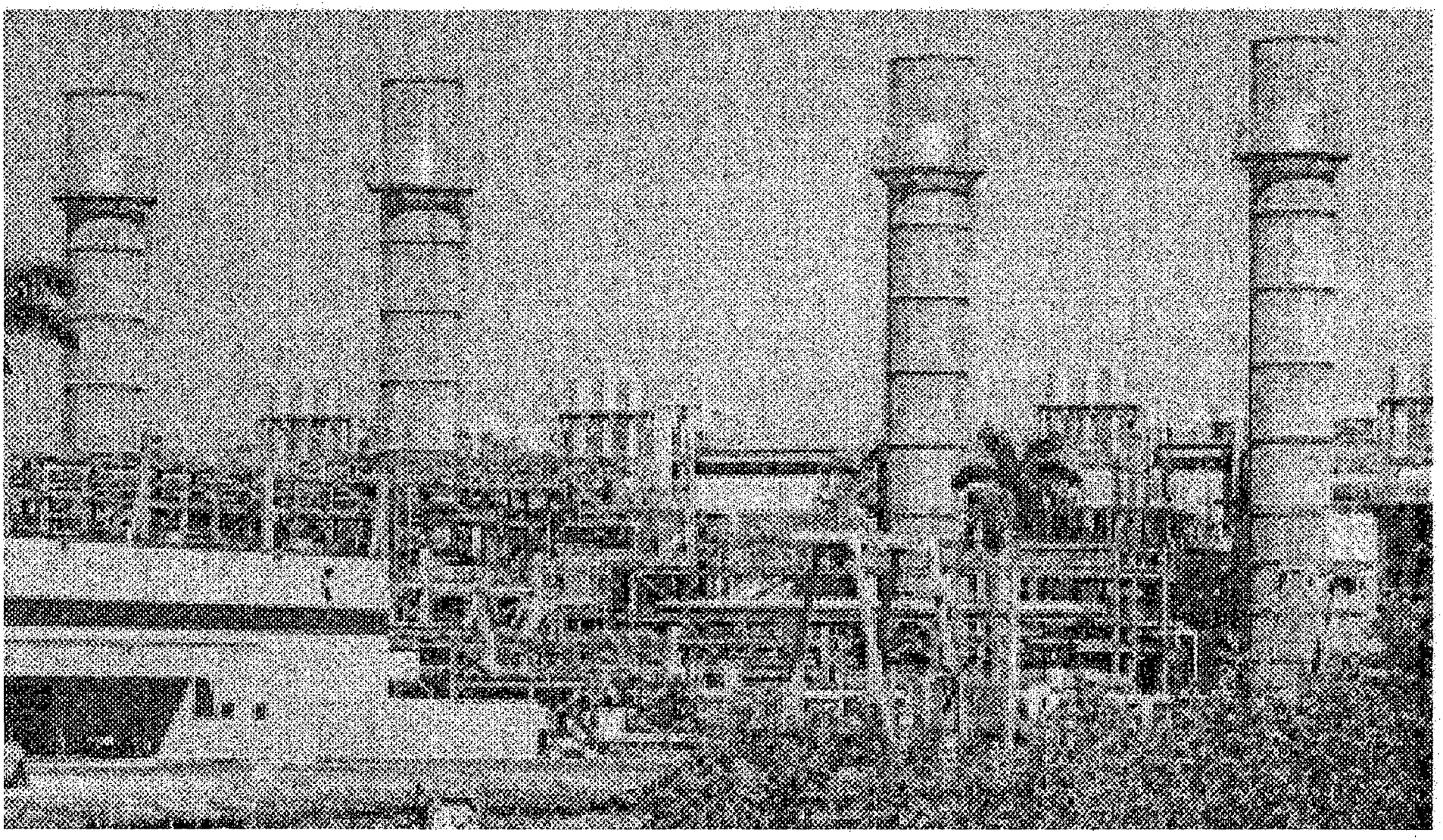
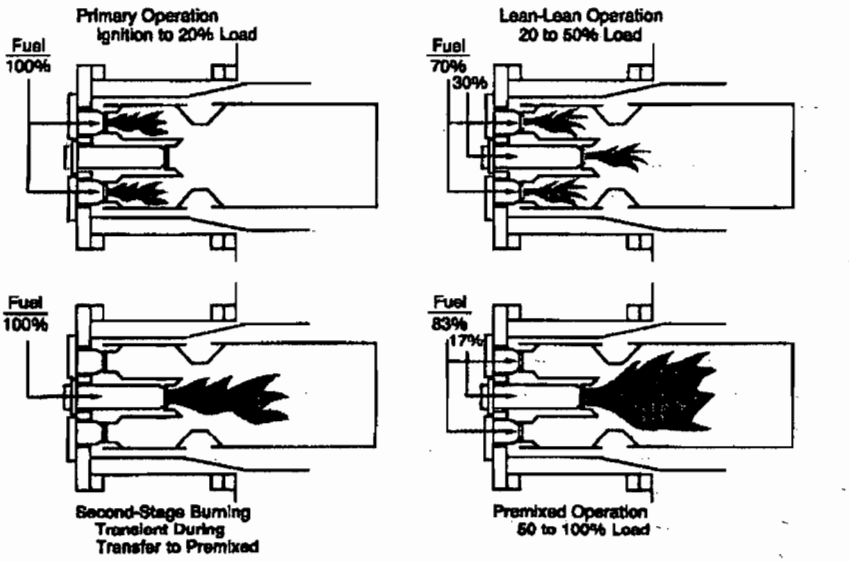


Figure 5 - Repowered FPL Lauderdale Plant



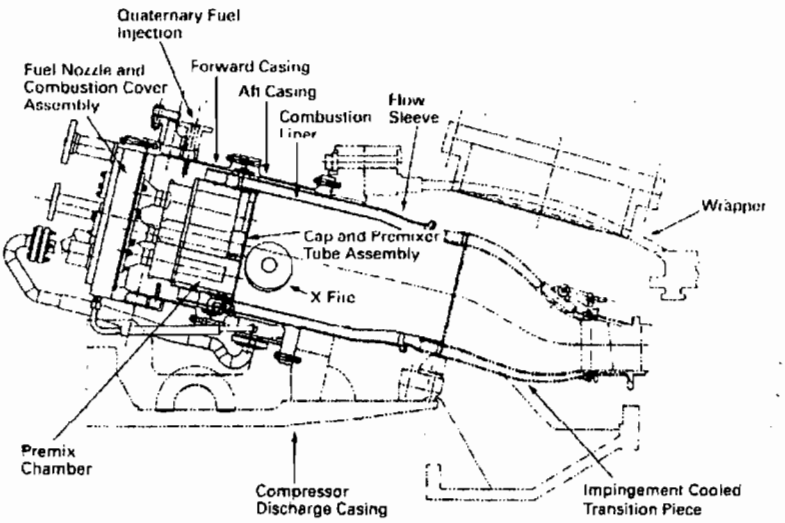


Figure 6 - Dry Low NOx Operating Modes - DLN-1

Cross Section of GE DLN-2

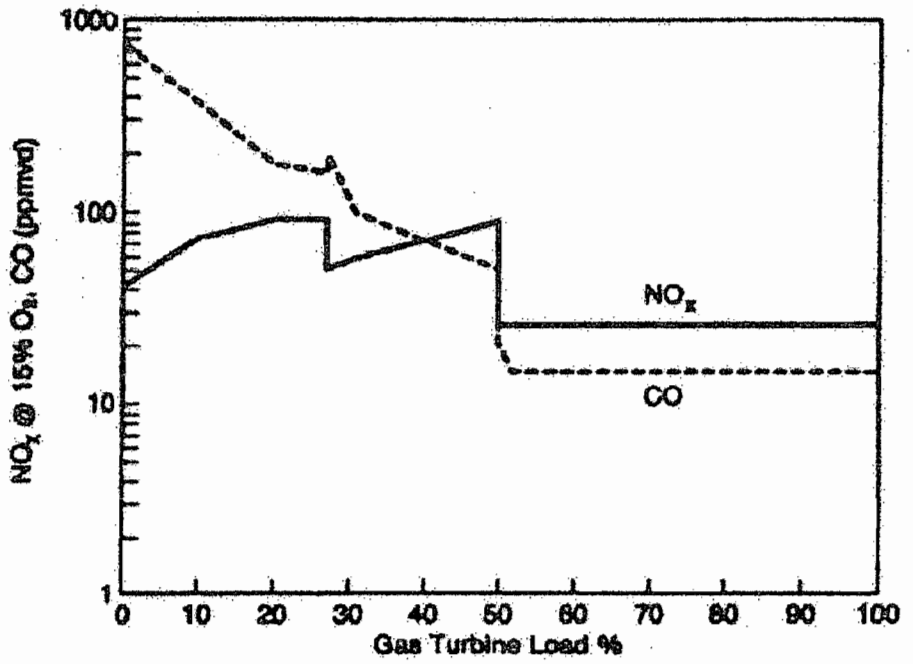


Figure 7 - Emissions Performance for DLN-2 Combustors

Firing Natural Gas in Dual-Fuel 7FA Turbine

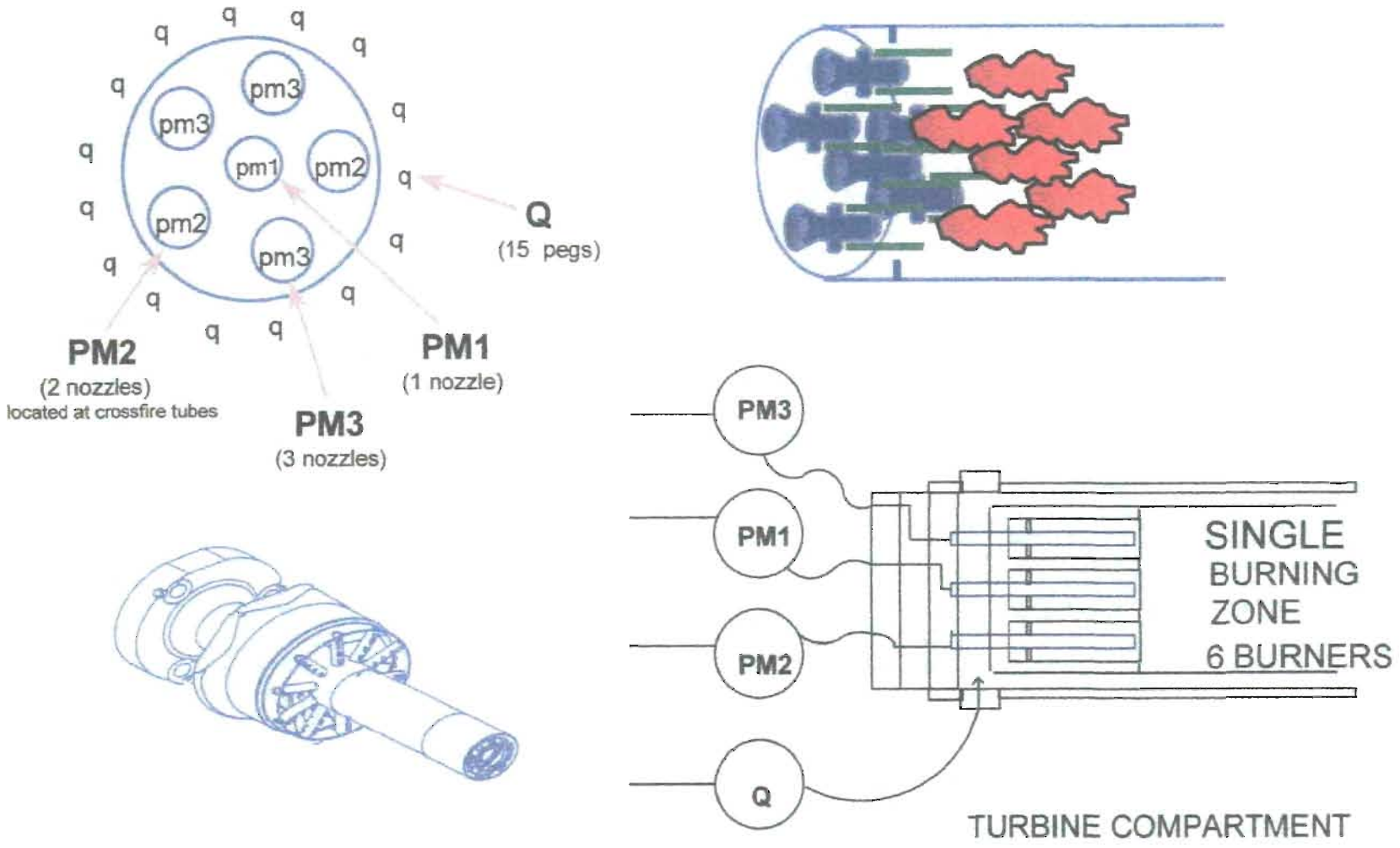


Figure 8 - GE DLN-2.6 Combustor and Nozzle Arrangement

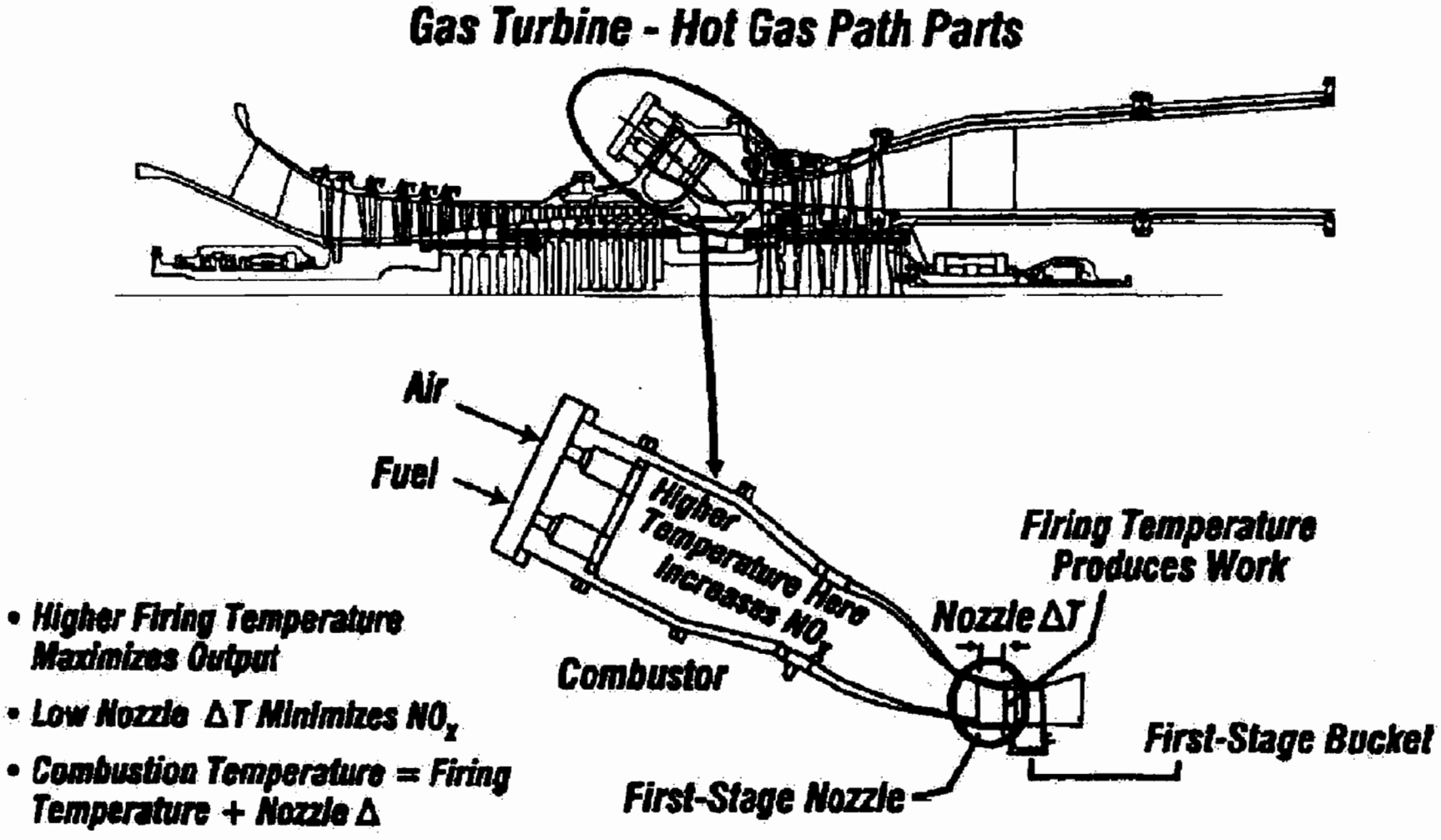


Figure 9 - Relationship of Combustion Temperature to Firing Temperature

PERMITTEE:

Florida Power & Light Company
Fort Myers Power Plant
Post Office Box 430
Fort Myers, Florida 33905

Permit No.	0710002-004AC
Project:	1500 MW Repowering Project
SIC No.	4911
Expires:	December 31, 2002

Authorized Representative:

William Reichel
Plant General Manager

PROJECT AND LOCATION:

Permit to install six (6) combined cycle units to replace two (2) residual oil-fired steam generating units. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with the existing residual oil-fired units (593 MW total capacity) will be dismantled and replaced by two relatively short stacks per unit for simple and combined operation. The project also includes a cooling tower for once-through brackish water and a small boiler or heaters with a 30-foot stack to heat the natural gas prior to use during simple cycle operation and cold start-ups.

This facility is located at 10650 State Road 80 near Tice, Lee County. UTM coordinates are: Zone 17; 422.3 km E and 2,952.9 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

ATTACHED APPENDICES MADE A PART OF THIS PERMIT:

Appendix GC Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT 0710002-004-AC

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

Currently, this facility generates electric power from two residual fuel oil-fired steam units with a combined generating capacity of 593 megawatts (MW) and 12 distillate fuel oil-fired simple cycle combustion turbines with a combined generating capacity of 708 MW.

This permitting action (1500 MW Repowering Project) is to install six (6) combined cycle units to replace two (2) residual oil-fired steam generating units. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with the existing residual oil-fired units (593 MW total capacity) will be dismantled and replaced by two relatively short stacks per unit for simple and combined operation. The project also includes a cooling tower for once-through brackish water and a small boiler or heaters with a 30-foot stack to heat the natural gas prior to use during simple cycle operation and cold start-ups.

This Project is exempt from the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) as discussed stated in the Technical Evaluation and Preliminary Determination dated September 18, 1998.

SUBSECTION B. EMISSION UNITS

This permit addresses the following emission units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
018 - 023	Power Generation	Six (6) Combined Cycle Combustion Turbine-Generators with Unfired Heat Recovery Steam Generators
024	Fuel Heating	Natural Gas Boiler or Heater(s)
025	Water Cooling	Mechanical Draft Cooling Tower

SUBSECTION C. REGULATORY CLASSIFICATION

This facility, FPL Fort Myers Power Plant, is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

SECTION I. FACILITY INFORMATION

This facility is a major source of hazardous air pollutants (HAPs) and is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

SUBSECTION D. PERMIT SCHEDULE

- 10/xx/98 Notice of Intent published in _____
- 09/22/98 Distributed Intent to Issue Permit
- 09/04/98 Received Application
- 05/19/98 Project Presentation

SUBSECTION E. RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- Application received on September 4, 1998
- Department's Intent to Issue and Public Notice Package dated September 22, 1998.
- EPA comments dated October xx, 1998.
- FPL's comments dated October xx, 1998.

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-0114. All documents related to reports, tests, and notifications should be submitted to the DEP South District office, 2295 Victoria Avenue, Suite 364, Ft Myers, Florida 33902-3381 and phone number 941/332-6975.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
5. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212]
6. Permit Extension: *This permit expires on December 31, 2002.* The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rule 62-4.080, F.A.C.].
7. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation, and a copy sent to the Department's South District office. [Chapter 62-213, F.A.C.]
8. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

9. Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the DEP's South District office by March 1st of each year.

10. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.

11. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1997 version), shall be submitted to the DEP's South District office.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

APPLICABLE STANDARDS AND REGULATIONS:

1. Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 60, 72, 73, and 75.
2. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]
3. These emission units shall comply with all applicable requirements of 40CFR60, Subpart A, General Provisions including:
   - 40CFR60.7, Notification and Recordkeeping
   - 40CFR60.8, Performance Tests
   - 40CFR60.11, Compliance with Standards and Maintenance Requirements
   - 40CFR60.12, Circumvention
   - 40CFR60.13, Monitoring Requirements
   - 40CFR60.19, General Notification and Reporting requirements
4. ARMS Emission Units 018 through 023, Power Generation, consisting of six (nominal) 170 MW combustion turbines (250 MW in combined cycle operation), shall comply with all applicable provisions of 40CFR60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standard(s).
5. ARMS Emission Unit 024, Fuel Heating, shall comply with all applicable provisions of 40CFR60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800, F.A.C.
6. ARMS Emission Unit 025, Cooling Tower, is an unregulated emission unit.
7. All notifications and reports required by the above specific conditions shall be submitted to the DEP's South District office.

GENERAL OPERATION REQUIREMENTS

8. Fuels: Only pipeline natural gas shall be fired in these units. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]
9. Turbine Capacity: The maximum heat input rates, based on the lower heating value (LHV) of the fuel to *each* combustion turbine at ambient conditions of 59°F, 60% relative humidity, 100% load, and 14.7 psia shall not exceed 1,600 million Btu per hour. (MMBtu/hr).

This maximum heat input rate will vary depending upon turbine inlet conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

10. Steam Boiler (SB). The maximum heat input rate, based on the lower heating value (LHV) of the fuel to the SB at ambient conditions of 59°F, 60% relative humidity, 100% load, and 14.7 psia shall not exceed 132 MMBtu per hour.

11. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary.

12. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEP South District office as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

13. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

14. Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

15. Maximum Annual Allowable Hours of operation for each of the six combustion turbines, the cooling tower, and the gas heaters/boiler (ARMS Emission Units 018 - 025) are 8760. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

Control Technology

16. Dry Low NO_X (DLN) combustor shall be installed on each stationary combustion turbine to control nitrogen oxides (NO_X) emissions. [Design, Rule 62-4.070, F.A.C.]

17. The permittee shall provide manufacturer's emissions performance versus load diagrams for the DLN systems prior to their installation. DLN systems shall each be tuned upon initial

operation to optimize emissions reductions and shall be maintained to minimize NO_X emissions and CO emissions. [Rule 62-4.070, and 62-210.650 F.A.C.]

EMISSION LIMITS AND STANDARDS

18. Following are the emission limits determined for this project assuming full load. Values for NO_X are corrected to 15% O_2. These limits or their equivalents in terms of pounds per hour, as well as the applicable averaging times, are followed by the applicable specific conditions. [Applicant Requests, Rules 62-204.800(7)(b) (Subparts GG and Db), 62-210.200 (Definitions-Potential Emissions), F.A.C.].

Emission Unit	NO_X	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines (each)	9 ppm (30 day) 75/110 ppm (NSPS)	12 ppm	1.4 ppm	10	Dry Low NO_X Combustors Natural Gas, Good Combustion
Gas Heater/ Boiler	0.10 lb/mmBtu	0.15 lb/mmBtu		10	Dry Low NO_X Burners

19. Nitrogen Oxides (NO_X) Emissions:

- The concentration of NO_X concentrations in the exhaust gas of each CT shall not exceed 9 ppmvd at 15%O_2 on a 30-day rolling average basis as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. In addition, NO_X emissions calculated as NO_2 (at ISO conditions) shall exceed neither 9 ppm @15% O_2 nor 65 lb/hr to be demonstrated by stack test.
- When NO_X monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the specified average time.
- NO_X emission limit from the gas heaters/boiler shall not exceed 0.10 MMBtu/hr (at ISO conditions) to be demonstrated by stack test.

20. Visible Emissions (VE): VE emissions shall not exceed 10 percent opacity. Visible emissions from the gas heaters/steam boiler shall not exceed 10 percent opacity.

21. Carbon Monoxide (CO) emissions: The concentration of CO (@15% O_2 in the exhaust gas shall not exceed 12 ppmvd as measured by EPA Method 10. CO emissions (at ISO conditions) shall not exceed 43 lb/hr (per CT) to be demonstrated by stack test.

22. Volatile Organic Compounds (VOC) Emissions: The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd as determined by EPA Methods 18 or 25 A. VOC emissions (at ISO conditions) shall not exceed 2.9 lb/hr per CT.

23. Sulfur Dioxide (SO_2) emissions: As per Condition 8.

EXCESS EMISSIONS

24. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during both "cold start-up" to or shutdowns from combined cycle operation. During cold start-up to combined cycle operation, up to four hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours. [Applicant Request, G.E. Combined Cycle Startup Curves Data and Rule 62-210.700, F.A.C.].

25. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C.

26. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's South District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Condition No. 18 and 19. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7 (1997 version)].

COMPLIANCE DETERMINATION

27. Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will be operated, but not later than 180 days following initial operation of the unit, and annually thereafter as indicated in this permit, by using the following reference methods as described in 40 CFR 60, Appendix A (1997 version), and adopted by reference in Chapter 62-204.800, F.A.C.

28. Initial (I) performance tests shall be performed on these units' stacks. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on these units as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

- EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources" (I, A).
- EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A).
- EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." Initial test only for compliance with 40CFR60 Subpart GG.
- EPA Reference Method 18, and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only.

29. Continuous compliance with the NO_X emission limits: Continuous compliance with the NO_X emission limits shall be demonstrated with the CEM system based on a 30-day rolling average. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new 30 day average emission rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction. A valid hourly emission rate shall be calculated for each hour in which at least two NO_X concentrations are obtained at least 15 minutes apart. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., and 40CFR75]

30. Compliance with the SO_2 and PM/PM_{10} emission limits: Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas is the method for determining compliance for SO_2 and PM_{10}. For the purposes of demonstrating compliance with the 40 CFR 60.333, natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40CFR60.335 or 40CFR75 are used for determination of fuel sulfur content. Gas analysis, if conducted, may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1997 version).

31. Compliance with CO emission limit: An initial test for CO, shall be conducted concurrently with the initial NO_X test, as required. The initial NO_X and CO test results shall be the average of three valid one-hour runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NOx RATA testing which is performed pursuant to 40 CFR 75.

32. Compliance with the VOC emission limit: An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, CO emission limit will be employed as a surrogate and no annual testing is required.

33. Testing procedures: Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average turbine Intel temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. turbine inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 105 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204.800 F.A.C.

34. Test Notification: The DEP's South District office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance test(s).

35. Special Compliance Tests: The DEP may request a special compliance test pursuant to Rule 62-297.310(7), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.

36. Test Results: Compliance test results shall be submitted to the DEP's South District office no later than 45 days after completion of the last test run.

NOTIFICATION, REPORTING, AND RECORDKEEPING

37. Records: All measurements, records, and other data required to be maintained by the permittee shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.

38. Emission Compliance Stack Test Reports: A test report indicating the results of the required compliance tests shall be filed with the DEP South District Office as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

MONITORING REQUIREMENTS

39. Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from each CT. Thirty day rolling average periods when NO_X emissions (ppmvd @ 15% oxygen) are above the standards, listed in Specific Condition No 18 and 19, shall be provided to the DEP Bureau of Air Monitoring and Mobile Sources pursuant to 40CFR75.

40. CEMS in lieu of the requirement for reporting excess emissions: Subject to EPA approval, the NO_X CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1997 version). Upon request from DEP, the CEMS emission rates for NO_X on each CT shall be corrected to ISO conditions to demonstrate compliance with the NO_X standard established in 40 CFR 60.332.

41. Continuous Monitoring System Reports: The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40CFR75. Data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the Department's South District Office for review at least 90 days prior to installation.

42. Natural Gas Monitoring Schedule: The following custom monitoring schedule for natural gas is approved in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2):

    - SO2 emissions shall be quantified pursuant to the monitoring plan approved by the EPA Acid Rain Division for firing only pipeline quality natural gas.

43. Determination of Process Variables:

    - The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
    - Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value [Rule 62-297.310(5), F.A.C]

44. Subpart Db Monitoring: The Permittee shall comply with the applicable monitoring requirements of 40CFR60, Subpart Db for the steam boiler.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

G.13 This permit also constitutes:

a) Determination of Best Available Control Technology (X);
b) Determination of Prevention of Significant Deterioration non-applicablity (X); and
c) Compliance with New Source Performance Standards (X).

G.14 The permittee shall comply with the following:

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

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

c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

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

Florida Department of Environmental Protection

Memorandum

TO: C. H. Fancy

FROM: A. A. Linero

DATE: September 16, 1998

SUBJECT: FPL Ft. Myers 1500 MW Repowering Project
DEP File No. 0710002-004-AC

Attached is the draft public notice package including the Intent to Issue and the Technical Evaluation and Preliminary Determination for the Ft. Myers Repowering Project. The application is for installation of six (6) 250 megawatt (MW) combined cycle units to replace two (2) residual oil-fired steam generators at the Fort Myers Plant.

Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with existing residual oil-fired units (593 MW total capacity) will be dismantled. The project also includes: a cooling tower for once-through brackish water; a small boiler or heaters to heat the natural gas prior to use; and two relatively short stacks per unit for simple and combined (with HRSG) operation.

Nitrogen Oxides (NO_X) emissions will be controlled by Dry Low NO_X (DLN-2.6) combustors capable of achieving emissions of 9 parts per million (ppm) by volume at 15 percent oxygen. Emissions of carbon monoxide (CO) will be controlled to 12 ppm, while emissions of volatile organic compounds (VOC) will be less than 1.4 ppm. Emissions of sulfur dioxide (SO_2), sulfuric acid mist (SAM), and particulate matter (PM/PM_{10}) will be very low because of the switch to inherently clean pipeline quality natural gas. There will be no provisions for firing fuel oil.

There are very substantial emission reductions for all pollutants except VOC. The project netted out of PSD and no BACT was required. The lower NO_X emissions will reduce ozone (smog) formation potential and nitrate fallout. The lower PM/PM_{10}, SO_2 and SAM emissions will reduce visible emissions, fine particulate generation, and acid smut fallout. An air quality impact analysis was conducted. Impacts due to the proposed project emissions are all favorable and the net effect is a "creation of available increment" in the PSD Class I (Everglades) and Class II areas.

We will meet with Rich Piper and Ken Kosky on Friday morning. Basically, it is my intent to give them this package and discuss it with them. Thereafter they can send us comments. We will send copies to EPA and the Park Service and will consider their comments prior to issuance of the final permit. If their comments are not substantial we will revise the package and give it to them before they leave. I recommend your approval of the attached Intent to Issue and the cover letter.

AAL/aal

Attachments

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

P.E. Certification Statement

Permittee:

DEP File No. 0710002-004-AC

Florida Power & Light Company
FPL Fort Myers Plant
Lee County

Project type:

Project to install six (6) 250 megawatt (MW) combined cycle units to replace two (2) residual oil-fired steam generators at the Fort Myers Plant near Tice, Lee County. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that will raise sufficient steam to produce another 80 MW via the existing steam-driven electrical generators. The boilers and the tall stacks associated with existing residual oil-fired units (593 MW total capacity) will be dismantled. The project also includes: a cooling tower for once-through brackish water; a small boiler or heaters to heat the natural gas prior to use; and two relatively short stacks per unit for simple and combined (with HRSG) operation.

Nitrogen Oxides emissions will be controlled by Dry Low NO_X (DLN-2.6) combustors capable of achieving emissions of 9 parts per million (ppm) by volume at 15 percent oxygen. Emissions of carbon monoxide will be controlled to 12 ppm, while emissions of volatile organic compounds will be less than 1.4 ppm. Emissions of sulfur dioxide, sulfuric acid mist, and particulate matter will be very low because of the switch to inherently clean pipeline quality natural gas. The project "nets out" of PSD and a BACT determination was not required.

The lower NO_X emissions will reduce ozone (smog) formation potential and nitrate fallout. The lower PM/PM_{10}, SO_2 and SAM emissions will reduce visible emissions, fine particulate generation, and acid smut fallout. Impacts due to the proposed project emissions are all favorable and the net effect is a "creation of available increment" in the PSD Class I (Everglades) and Class II areas.

I HEREBY CERTIFY *that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).*

A. A. Linero, P.E. — 9/18/98
Registration Number: 26032

Bureau of Air Regulation
New Source Review Section
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Phone (850) 921-9523
Fax (850) 922-6979

A. A. LINERO CERTIFICATE NO. 26032 STATE OF FLORIDA REGISTERED ENGINEER 9/18

Florida Power & Light Company, P. O. Box 430, Fort Myers, FL 33902

FPL

September 4, 1998

Mr. Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Submittal of Air Construction Permit Application
FPL Fort Myers Plant

Dear Mr. Fancy: 0710002-004-AC

Enclosed for your use please find an application for an Air Construction permit for the repowering of the FPL Fort Myers facility. Since the facility currently holds a Title V permit issued by the Department, and this is a non-PSD permit, no permit fee is required, per FDEP Rule 62-4.050(4)(a)2..

FPL is quite interested in moving this application along as expeditiously as possible. I'll be contacting your staff in the next few days to arrange for a review of the application and to answer any questions they may have.

Please do not hesitate to contact me at (561) 691-7058 if I may be of further assistance.

Very truly yours,

Richard Piper
Repowering Licensing Manager
Florida Power & Light Company

Cc: David Knowles FDEP South District, Fort Myers

Florida Power & Light Company, P. O. Box 430, Fort Myers, FL 33902

FPL

September 4, 1998

Mr. Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Submittal of Air Construction Permit Application
FPL Fort Myers Plant

Dear Mr. Fancy:

Enclosed for your use please find an application for an Air Construction permit for the repowering of the FPL Fort Myers facility. Since the facility currently holds a Title V permit issued by the Department, and this is a non-PSD permit, no permit fee is required, per FDEP Rule 62-4.050(4)(a)2..

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Very truly yours,

Richard Piper
Repowering Licensing Manager
Florida Power & Light Company

Cc: David Knowles FDEP South District, Fort Myers

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

July 31, 1998

Mr. Cleve Holladay
Bureau of Air Quality Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: FPL Fort Myers Plant Repowering Project
Air Modeling Protocol for Site Certification Application

Dear Mr. Holladay:

Florida Power and Light Company (FPL) is proposing to repower their existing power plant site in Fort Myers. The existing power plant site consists of two oil-fired steam generating units and 12 gas turbine peaking units. The proposed project will involve replacing the two existed boilers with six nominal 150-MW combustion turbines (CTs). The CTs will be connected to heat recovery steam generators (HRSGs) to produce steam for the plant's existing 400- and 160-MW (net) steam turbines. No duct burners are planned for the project. The new CT units will be designed for continuous operation and will fire natural gas only. A once-through cooling tower is also planned to dissipate heat from the circulating water system.

The proposed project is not expected to cause increases above the Environmental Protection Agency's (EPA) Prevention of Significant Deterioration (PSD) significant emission rates for any regulated pollutant. Emissions of nitrogen oxides (NO_x), sulfur dioxide (SO_2), total particulate matter (PM), particulate matter with aerodynamic diameters less than 10 microns (PM_{10}), and carbon monoxide (CO) are expected to decrease from current facility emission levels while volatile organic compound (VOC) emissions will increase slightly but be less than the PSD significant emission rate . A PSD application will be included as part of a Site Certification Application/Environmental Assessment (SCA/EA).

This protocol presents the methodology to be used for the air modeling analysis to be performed for the SCA/EA. The protocol includes a discussion of the air dispersion model to be used; site geography; meteorological data; emission and source inventories; building data; receptor locations; and additional impact analyses.

Air Dispersion Model

The air modeling analysis will be performed in accordance with air modeling guidelines that are recommended by the EPA and FDEP. The Industrial Source Complex Short-term (ISCST3, Version 97363) will be used to predict air quality impacts in all areas that are beyond the FPL Fort Myers plant's property boundary. All modeling analyses will use the EPA default regulatory options.

Site Geography

The project site is located in Lee County, Florida. Around the site, the terrain is mostly flat within 50 miles in any direction. Based on topographical maps of the project site, the land use within a 3-km radius of the site can be classified as rural. As a result, the flat terrain and rural model options will be selected in the model.

Meteorological Data

Meteorological data will consist of a 5-year record of hourly surface data from the Flight Service Station located at Fort Myers Page Field and coincident upper air observations from the National Weather Service Station at Ruskin. The years of record for the meteorological data will be 1987 to 1991. The Fort Myers weather station, located approximately 14 kilometers (km) southwest of the FPL Fort Myers plant site, is the closest and considered the most representative of the climatology at the proposed project site.

Receptors

Plant Vicinity

Concentrations for the project alone will be predicted in a screening grid centered on the proposed CTs and comprised of 36 radials with 10-degree resolution. Receptors will be located along each radial beginning at the fenced property boundary and extending to off-site distances of 0.1; 0.5; 1.0; 1.5; 2.0; 2.5; 3.0; 4.0; 5.0; 7.0; and 10 km from the project site. Receptors will be located at further distances, if necessary, to capture the location of the proposed project's maximum impact. As necessary, modeling refinements will be performed in the area of the location of maximum impact in the screening grid. The refined receptor grid(s) will be centered on the critical screening grid receptor(s) and will extend to the adjacent screening grid receptors. Refinements will be performed for the receptor at which the highest concentration was predicted and at other receptors if concentrations predicted at those receptors are within 80 percent of the highest concentration, and occur during a different year or location. Receptor spacing will be 100 m or less between all adjacent receptors using an angular spacing of 1 or 2 degrees.

PSD Class I Area

Maximum impacts for the project will be predicted at the PSD Class I area of the Everglades National Park using an array of 52 discrete receptors located along the northern border of the ENP. The ENP, located approximately 100 miles (160 km) southwest of the proposed project site, is the nearest PSD Class I area to the proposed project site. Because there are no other Class I areas located within 120 miles (200 km) from the project site, impacts will be predicted only at the Class I area of the ENP.

Significant Impact Analysis

The highest annual and highest short-term average (i.e., 24-hour or less) concentrations predicted for the proposed project only using the five years of meteorological data will be compared to the EPA significant impact levels (SIL) in the plant vicinity and to the EPA's proposed and National Park Service's (NPS) PSD Class I significant impact levels at the Class I area of the ENP. The significant impact analysis will be performed for SO_2, NO_2, PM_{10}, and CO in the vicinity of the project site and for SO_2, NO_2, and PM_{10} at the ENP. If maximum predicted impacts of the proposed project are above the EPA SIL, additional air modeling analyses will be performed to determine the net change in impacts due to the reduction in pollutant emissions when the existing boiler units are shutdown. If these impacts are still above the SIL, additional analyses will be performed to determine compliance with allowable PSD Class II increments. The distance to which each respective pollutant has a significant impact will be determined, and that distance will be the maximum receptor distance for predicting impacts in the air modeling analysis. If the maximum predicted impacts of the proposed project at the ENP exceed EPA's proposed PSD Class I SIL, additional air modeling analyses will be performed to determine compliance with allowable PSD Class I increments.

For SO_2, NO_2, and PM_{10}, the maximum impacts of the proposed project will be modeled with other sources to ensure compliance with AAQS.

For NO_x, a second-level screening analysis will be applied (EPA Air Modeling Guidelines, Section 6.2.3) which assumes that 75% of the emitted NO_x emissions are converted to NO_2 and the rest remains as NO or other forms of NO_x. This approach is based on the fact that the model being used does not account for the natural transformation of NO_x to NO_2 during the dispersion process.

Emission Inventories

Based on the results of the significant impact analyses for each applicable pollutant, information for background sources will be developed to perform the PSD Class I, PSD Class II and AAQS analyses, as necessary. The information for these background sources will be obtained from the DEP and included in the air modeling analyses.

The facilities to be included in the air modeling analysis will follow the "Screening Threshold" method, developed by the North Carolina Department of Natural Resources and Community Development, and approved by EPA. The method is designed to objectively eliminate from the emission inventory those sources that are unlikely to have a significant interaction with the source undergoing evaluation. In general, sources that should be considered in the modeling analyses are those with emissions greater than a screening threshold value (in TPY) that is calculated by the following criteria:

$$Q = 20 \times D$$

where:

Q = the screening threshold value (TPY), and

D = the distance (km) from the proposed project to the competing facility undergoing valuation for short-term analysis, or the distance (km) from the edge of the proposed project's significant impact area to the facility undergoing evaluation for long-term (annual) analysis.

Based on a preliminary evaluation of the emission inventory available from the DEP, the Lee County Energy Recovery Facility Energy is the only facility within a 16-mile (25-km) radius of the power plant site that has emissions that could potentially interact with the project's emissions. This will be confirmed after the project's significant impact evaluation has been performed.

Preconstruction Monitoring and Background Air Quality

Background air quality data that are representative of the project site will determined from existing air monitoring data currently being collected in Lee County or in neighboring counties in southwest Florida. These data will be used to estimate a background air concentration, which will be added to the model predicted concentrations for comparison with the AAQS.

Building Data Processing

Each stack will be evaluated to determine if the stack complies with the Good Engineering Practice (GEP) stack height regulations. For those stacks that are less than GEP, building downwash effects will be considered. For these stacks, building dimensions for the project's structures will be obtained and used, where appropriate, in EPA's Building Profile Input Program (BPIP, Version 95086) for the purpose of obtaining direction-specific building heights and widths. The direction-specific building dimensions will be input to the ISCST3 model for the air modeling analyses.

AAQS Analyses

The highest annual and highest, second-highest (HSH) short-term concentrations (i.e., 24-hour averaging time or less) predicted with a 5-year meteorological data set will be obtained. The model-predicted concentrations will first be added to the appropriate background values before comparison to the AAQS. The AAQS modeling analysis will include the future FPL Fort Myers facility sources plus all competing sources within the proposed project's modeling screening area.

Impacts will also be predicted for construction-related activities including operation of the proposed CTs and cooling towers before and after the boiler buildings for Units 1 and 2 are taken down. Since the demolition of the boiler buildings will occur during the construction phase of the project, air quality impacts predicted for future operations will not include those buildings.

PSD Class II and I Increment Analyses

If necessary, PSD Class II and I increment analyses will be performed. The highest annual and HSH short-term concentrations (i.e., 24-hour averaging time or less) predicted with the 5-year meteorological data set will be compared to the allowable PSD Class II and I increments. The PSD Class II increment analysis will include the existing and future sources associated with the proposed project plus all increment consuming (or increment expanding) sources within the proposed project's modeling screening area. The PSD Class I increment analysis

will include all the existing and future sources associated with the proposed project plus all increment consuming (or increment expanding) sources within the ENP airshed.

Additional Impact Analysis

In addition to the air quality impact analyses, additional analyses will evaluate impairment to visibility and the impact of the proposed project on soils and vegetation. Impacts as a result of general commercial, residential, industrial, and other growth associated with the proposed project will also be addressed.

The Federal Land Manager of the ENP will be notified of the proposed project to help address any issues concerning that the proposed project may have on Air Quality Related Values (AQRV) within the ENP including regional haze. Because the proposed project will result in total emission decreases for SO_2, NO_2 and PM_{10}, the project's impacts are not expected to adversely affect AQRV within the ENP.

Please call me or Steve Marks at (352) 336-5600, if you have any questions or comments on the protocol. FPL greatly appreciates the assistance of the FDEP on this important project.

Sincerely yours,

Steve Marks for Robert C. McCann, Jr.

Robert C. McCann, Jr.
Manager, Air Resources

RCM/arz

cc: S. Marks, Golder
K. Kosky, Golder
R. Piper, FPL
File (2)

S to H 2m8 sts
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xc: Clain - FYI
Pat - file orig.
Howard
5/4

FPL

Richard Piper
Environmental Services Dept.
Florida Power & Light Company
P.O. Box 14000
Juno Beach, FL 33408

April 23, 1998

Howard Rhodes, Director
Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Howard:

I wanted to thank you again for the recent opportunity you provided for me to share FPL's plans for adding new generating capacity and *repowering* the Fort Myers power plant. As we discussed, this change will enable us to produce about three times more electricity from the plant and significantly improve air quality by using new combined-cycle technology and natural gas.

I especially appreciate your initial thoughts on the project. We are using all the feedback we received in our current planning for community outreach and licensing. Generally, the overall response was quite positive. I am enclosing a summary of what we learned in the hope that you will find it as informative as I did.

The other item I'm enclosing is a brief summary of FPL's recently filed 10-year Power Plant Site Plan. This is our annual forecast of how we plan to meet the electricity needs of the region and the state in a manner that protects Florida's sensitive land resources. The full plan is available on FPL's Web site in "*About Us*." At the same location, there also is a special site devoted to *Repowering Fort Myers*. Please visit -- or share with others our Web address -- **www.fpl.com**.

As the project progresses, we'll continue to meet with business, government and agency representatives to answer your questions. We also want to make sure that any issues DARM may have are addressed in our application. I anticipate setting up an inter-agency meeting, coordinated through Buck Oven, sometime in mid-May.

Meanwhile, if there is any additional information that might be of interest to you, or other thoughts or ideas you'd like to share with me, please email me at rich_piper@fpl.com or give me a call at (561) 691-7058 at your convenience.

Sincerely,

Rich Piper

Richard Piper
Sr. Environmental Specialist

Florida Power & Light Company: Learning About People's Ideas On Repowering to Meet Future Demand for Electricity

We at Florida Power & Light recently announced several opportunities to improve or expand electricity-generating plants.

- Two of the opportunities involve *repowering* existing FPL plants in Fort Myers and Sanford, Florida. Repowering simply means new combined-cycle technology would be added to an existing site, and a few older turbine-generators retained, resulting in a vastly more efficient plant.

- The third opportunity calls for new construction and new combined-cycle technology at an existing FPL power plant site in Martin County, Florida.

- All three proposals – the repowering and the new construction – call for the use of natural gas-fired combined-cycle, combustion turbines.

The reason for these changes is to make sure there is enough electricity for FPL customers, based on forecasts we have made of future demand. The changes would occur over the next 10 years.

Before making the announcement, FPL employees spoke with about 44 government officials, agency representatives and residents in different towns about the project. We wanted to find out what suggestions or questions people might have about the opportunities. Here's a summary of what we heard.

Looking Ahead

- Most people were very positive when they first heard about the project. They often asked for more information about how the changes might affect their particular areas.

- Most spoke about economic benefits for their communities possibly coming from the changes. They thought these benefits might include such things as lower electricity costs and more taxes paid by the company.

- Many thought using natural gas instead of oil to generate electricity could be good for the environment because burning natural gas would result in less air pollution. They also thought that using natural gas would eliminate the risk of oil spills because oil will no longer have to be shipped to the plants.

- Most questions or concerns about the company's proposal had to do with where and how a future gas pipeline would be built. A small number of individuals also mentioned the possible effects that new production methods might have on Manatees. They suggested there was a need to discuss both subjects with community citizens.

Keeping People Informed

- People we talked with said it was important that they and others (mostly community citizens) be kept well informed about work on the projects. They said they especially wanted to learn more about the building of a gas pipeline and how the environment will be protected.

- They also thought that if government officials were well aware of what was going on with work on the opportunities, they would be able to help answer questions that community citizens might have.

- The government and regulatory officials that were contacted said that presentations about the company's plans should be made early to city councils. From there, information could be made more widely available to other citizens.

- There were several other reasons why people thought it would be good for the company to keep community citizens up-to-date on the company's activities. One reason was that information would help people to better understand how the project would affect them. Another reason was that it would make it possible for the company to address early on any concerns citizens might have.

- People thought that good communications could build trust between community citizens, government officials and FPL employees. To gain citizen's confidence in how the projects would be managed, the people we spoke with said the company must be sure to follow through on any promises it might make.

- They also suggested that citizens should be involved in open discussions about the opportunities. They believed that this would help make sure that citizens could be involved in some of the decisions that would be made.

- People also suggested that the company work together with the business community and regulators. They believed that working together would help build community support. It would also help businesses and government to plan ahead.

"Talking to people about opportunities was a very positive experience for us," said Mary Lou Kromer, FPL's vice president of corporate communications. "It's helping us better understand people's views and ideas concerning our activities. We also learned important insights we can use to improve our communications as we work to match varying community interests with the technical requirements of generating electricity."

Florida Power & Light Company: The next ten years

Florida needs more electricity each year. This is because the population of Florida has grown dramatically, doubling since 1970 to 14.7 million residents today. Florida Power & Light Company has been a part of Florida's growth for more than 70 years, expanding its generation system to keep pace with increases in customers *and* with customers' many uses of electricity and electrical appliances.

To continue to produce the electricity that our customers are going to need, we believe we must plan on improving some of our existing power plants. We also plan on building some new ones when the time is right. The new plants would be built on property we already own. Here is a summary of our current planning over the next ten years.

Fort Myers Plant, Lee County – We propose replacing by 2002 the existing oil-burning generating units at this site with advanced natural gas-fired combustion turbines and heat recovery steam generators. This type of steam generation replacement is commonly called *repowering*.

Sanford Plant, Volusia County – We plan a similar *repowering* for Sanford by 2004. We propose replacing two of the three existing oil-burning generating units at this site with advanced natural gas-fired combustion turbines and heat recovery steam generators.

Martin Plant, Martin County – We plan by 2006 - 2007 to add two new generating units at this site consisting of advanced natural gas-fired combustion turbines and heat recovery steam generators. The 11,300-acre site is currently home to two oil-fired and two natural gas-fired generating units, which will remain.

Additional sites – Our 10 year plan additionally identifies other alternative sites for future power plant modifications or additions. They are 1) the DeSoto site in north central DeSoto County, 2) the Cape Canaveral Plant in Brevard County, 3) the Riviera plant in Palm Beach County, and 4) the Port Everglades Plant in Broward County. Any of these sites could be substituted for another in the planning process depending on a variety of unanticipated planning changes or events.

We also anticipate needing additional transmission power lines and other equipment to ensure that our customers receive uninterrupted power.

Our plants use oil, natural gas, coal and nuclear energy to produce electricity. We additionally purchase power from others, and we are in the process of licensing an alternative fuel called Orimulsion. A diverse energy mix provides operating flexibility and the ability to minimize fuel costs – which typically represent 30 percent of a customer's bill.

Our customers also are important partners in our effort to keep costs level and meet the demand for more electricity. They contribute by using efficient appliances and conserving energy through a variety of programs FPL offers to residents and businesses.

If you would like a copy of our ten year plan or more information about our activities, check our web page at **www.fpl.com**.

Fort Myers Repowering Project

Site Certification Application
Environmental Studies

Air Quality

- Only emission increases in CO and possibly VOC.
- Existing air monitoring data to be used.
- Modeling to be performed using ISCIII and 5-years data from Fort Myers.
- Net Air Quality Benefits to Class I and II areas will be presented.

Water Resources

- Thermal Studies to include:
  - Bathymetric Survey
  - Tidal Monitoring
  - Dye Dispersion Study
  - Thermal Plume Tracking
  - Current Measurement
  - Thermal Modeling

Water Resources

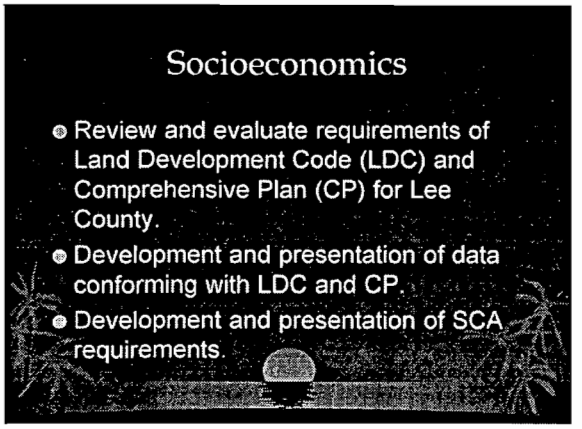
- Literature Surveys
- No change in groundwater - new wells in 1995.
- Groundwater analysis using known aquifer characteristics.
- Stormwater design to meet SFWMD requirements.

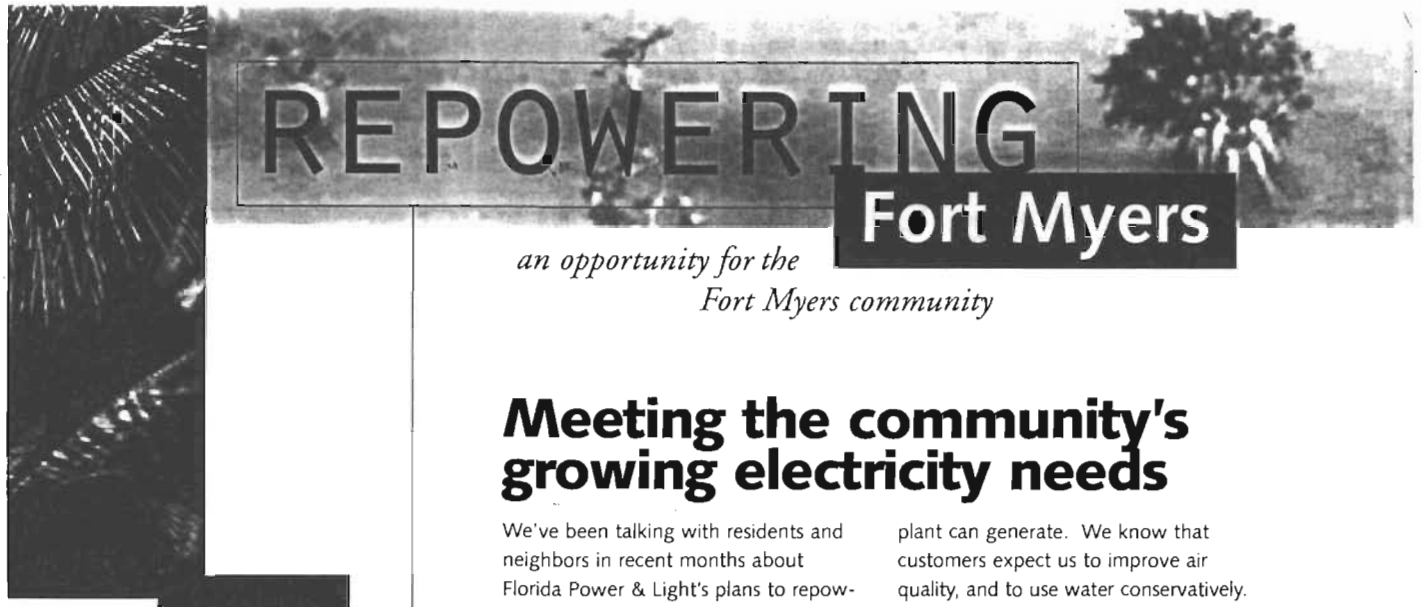
Noise

- Survey of existing combined cycle plant to develop "real-life" sound power levels.
- Survey of existing plant noise sources.
- Survey of sensitive receptors (e.g., park, residences, etc.).
- Use Type I Sound Level Meter.
- Use Environmental Noise Model.

Ecology

- Surveys of areas affected by repowered plant and transmission upgrades.
- Benthic survey to validate 316 a/b studies performed for the plant.
- Data available from initial 316a/b studies and NEP studies on the Caloosahatchee River and estuary.


Socioeconomics
Review and evaluate requirements of Land Development Code (LDC) and Comprehensive Plan (CP) for Lee County.
Development and presentation of data conforming with LDC and CP.
Development and presentation of SCA requirements.



REPOWERING Fort Myers

an opportunity for the Fort Myers community

Repowering Project Facts

- **$500 million power plant upgrade.**
- **First of three projects to meet future customer needs.**
- **Phased start up beginning in early 2001.**
- **Addresses regional power supply shortfall.**
- **Two-year construction schedule starting mid-1999.**
- **Uses existing plant site and some equipment.**

Compared to the current plant:

- Natural gas instead of oil.
- 1990s technology instead of 1950s.
- Generation that's 40 percent more efficient.
- More power produced per unit of fuel consumed.
- Almost three times the

Meeting the community's growing electricity needs

We've been talking with residents and neighbors in recent months about Florida Power & Light's plans to repower our Fort Myers plant. *Repowering* means adding new equipment at the site to increase the amount of electricity we produce. What we've heard is that people like our proposal for more and cleaner electricity, using new technology and natural gas instead of oil.

This month we begin meeting with local, state and federal agencies to discuss the approvals needed to upgrade our plant. These agencies will review the environmental and technical merits of the project. As part of their review, they also will be interested in how people in the community feel about the project.

We hope this brochure provides an overview of the project and a summary of what we will be providing to the various government agencies. If you would like more information, please contact us. See the back page for details.

Addressing the need for power

Residents or visitors to Southwest Florida won't find it hard to believe this region is growing 40 percent faster than the rest of FPL's service territory. However, for FPL, repowering Fort Myers is about more than just meeting Southwest Florida's growth and future needs. It's also about recognizing that communities clearly expect more from us. And we're listening.

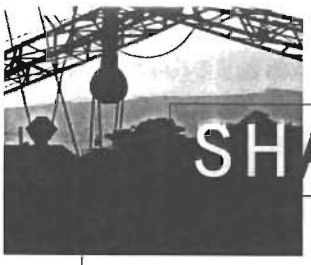
For example, our customers expect more efficient and reliable electric service. We're proposing to triple the amount of electricity the Fort Myers plant can generate. We know that customers expect us to improve air quality, and to use water conservatively. Both of these environmental improvements are part of our repowering plan.

People also strongly believe that any new project proposed to meet future needs should be cost-effective. It should help keep electric rates from going up.

Our proposal helps us meet these objectives and offers some additional benefits. For example, repowering the Fort Myers plant means using an existing site rather than new land, which is important to environmentally conscious Floridians. Plus, some existing plant equipment can be re-used, which will generate even greater cost-savings and efficiency.

Increasing plant output locally means we can avoid the current need to build a cross-Florida transmission line to import power. That strengthens the region's opportunity to become more self-sufficient. Increasing generation in Southwest Florida also helps balance the entire FPL electrical grid.

FPL's grid of interconnected power lines collects and moves power from all 13 of our plant sites to homes and businesses in the Fort Myers area and elsewhere. It's important that all our power resources work together to supply continuous, safe, reliable electric service, and backup, for our seven million FPL customers today — and those in the future — in each of the 35 Florida counties we serve.



SHARING OUR project plans

We are committed to building and operating an efficient, environmentally sound plant that meets the safety, environmental and economic objectives of FPL and our neighbors in Fort Myers.

The employees at FPL are proud to have been part of Florida's growth for more than 70 years. We promote energy conservation so natural resources are used wisely. It's also our responsibility to anticipate and plan for the future by adding new power resources to keep pace with new residents and a greater use of electricity.

In announcing plans to repower the Fort Myers plant, FPL President Paul Evanson promised to "establish a process to work with the community and to develop a mutually beneficial plan that incorporates citizens' interests and priorities with the technical requirements of providing additional electricity to the region."

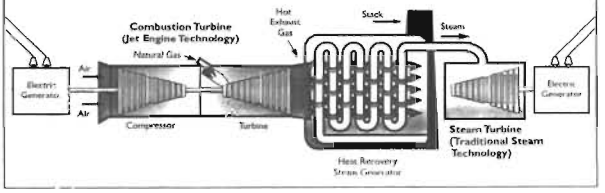
As part of that commitment, we hosted an open house on the repowering project at the convention center. We placed a newsletter on the project in the Fort Myers News Press. We made a number of presentations to neighbors and community groups. And we established a Web site where visitors can get project updates. A community advisory panel provided guidance on how the benefits of the project could be maximized for the community. Independent research also helped find the best way to provide community dialogue opportunities that would address local citizens' interests.

Seeking approval for the repowering project

Even though the existing Fort Myers power plant has operating permits, FPL must seek approval from several government agencies to make changes associated with replacing 1950s oil-burning technology.

Among the agencies we will work with are the Florida Department of Environmental Protection, the South Florida Water Management District, Lee County, the Florida Department of Transportation, U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers.

How does a combined-cycle power plant work?

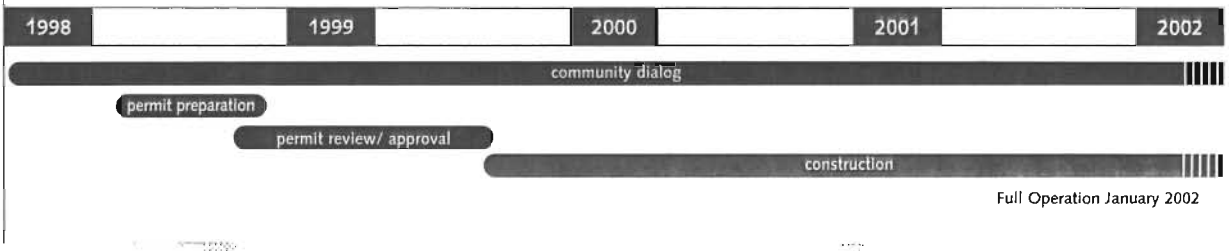


Energy is produced two ways:
- One, by combustion of natural gas in a turbine — much like a jet engine.
- Two, by using the hot, jet engine exhaust to make steam.
- Both sources of energy then drive turbine generators.
- The generators produce electricity.

Our repowering project will be highly efficient:
- It uses clean natural gas.
- It makes use of the existing plant's steam turbine generators.
- It produces more energy per unit of fuel burned.
- It enables us to produce more electricity.

We will provide information on many features of the project noted here. We'll include how the repowered plant may affect emissions to the air and water. We'll also outline what new equipment and facilities will be associated with the project. Short-term issues such as the impact construction could have on our neighbors also will be part of these discussions.

Project Timeline



Full Operation January 2002

We at FPL want to help improve the environment in

TODAY

When we asked people about how we should **communicate about our repowering proposal,** Fort Myers residents told us:

"People are more likely to accept change if they know what the future holds."

Power

- 1950s era generating technology using boilers.
- A small, but serviceable plant.
- 540 megawatt output from primary generators, enough for 125,000 homes and businesses.
- Only operates about 50 percent of the time due to inefficiencies.
- Site also includes 12 small, light-oil-fueled combustion turbines used to meet summer and winter peaks.

Air quality

- A visible plume.
- Emissions maintained well within permitted levels for the plant's fuel, age and technology.

Fuel and fuel transportation

- Fuel oil delivered by ocean-going tankers and river barges.
- Light oil (distillate) for 12 small turbines delivered by barge and truck.

Water use and quality

- Well water used for operating purposes.
- Variable temperature discharges to the Orange River.
- Special measures taken for manatees in winter when it's not economical to run the plant.

Land a

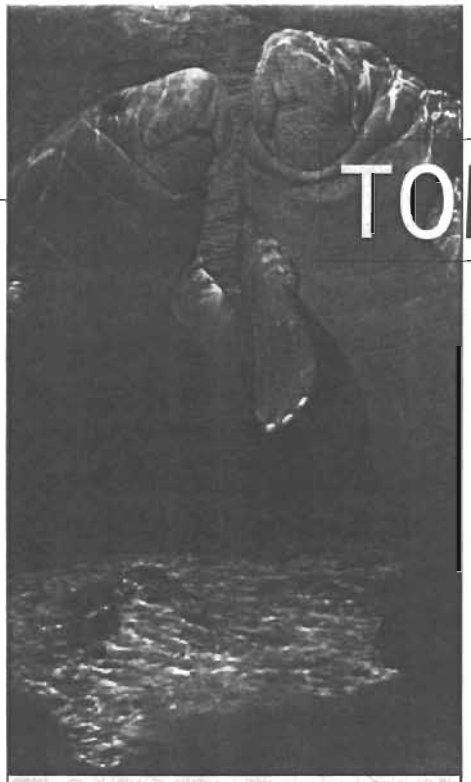
- 460-acre s
rural area.
- Natural ha
1950's wher
- Onsite sto
products (as
- Boca Gran
fuel storage

Aesthe

- Two plant
300 feet tall
- Two 160 f
structures ar
buildings.
- Planted pa

the region, *while working to meet the fut*

TOMORROW



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lm tree farm.

The challenge of providing more electricity should be accomplished with the goal of creating an ecological balance that contributes to a better quality of life.

- Generation capability → 3 times more
- Nitrogen oxide → 4 times less
- Particulate matter → 2 times less
- Sulfur dioxide → 158 times less
- Carbon monoxide → 1.35 times less
- Volatile organic compounds → 1.75 times more
- Carbon dioxide → 3 times more locally
- Carbon dioxide → statewide reduction
- Discharge water temperature highs → moderated
- Oil-ash → eliminated as a solid-waste by-product

**Compared to historical plant performance, these are the estimated changes we expect with a repowered Fort Myers plant.*

Power

1990s combined-cycle technology.

One of the most efficient plants in the state.

1400 megawatt repowered output, enough for more than 300,000 homes and businesses.

Expected to run close to 90 percent of the time.

Better match of regional power supply with customer demand.

Continuing use of 12 small, light-oil-fueled combustion turbines to meet summer and winter peaks.

Fuel and fuel transportation

Clean-burning natural gas.

Underground pipeline delivery.

A safe, reliable gas supply route.

Potential of natural gas for other energy uses in Southwest Florida.

No solid-waste fuel by-products.

Light oil for small turbines delivered primarily by truck.

Air qu

No visibl
combined-
Significa
levels over
rently, incl
fine partic
dioxide an
thus contri
Slight inc
fuel or VC
compound
Some inc
locally, but
of about 1

ure energy needs of our Southwest Florida customers.

ECOBALANCE

Land and habitat

- Land provided for Manatee Park remains dedicated to public use.
- Boca Grande no longer needed for fuel terminal.
- Some temporary construction noise and traffic.
- Nuisance plant species removed in area of construction.
- Warm-water manatee refuge maintained in winter.
- Landscaping and native vegetation replaced and enhanced after construction.

ıality

e plume from new
cycle units.
ıtly reduced emissions
those produced cur-
ıding nitrogen oxide,
ılates (soot), sulfur
d carbon monoxide,
buting to cleaner air.
rease in "unburned"
Cs (volatile organic
s).
reases in carbon dioxide
a statewide reduction
3 percent.

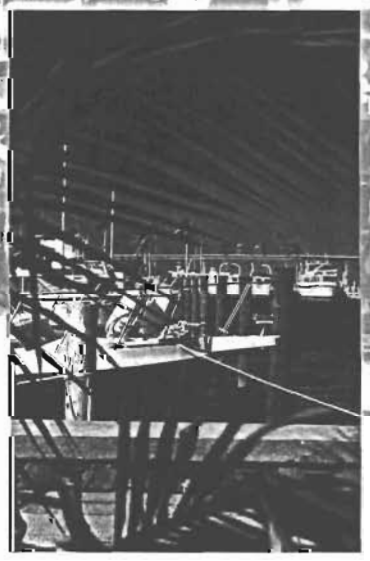
Water use and quality

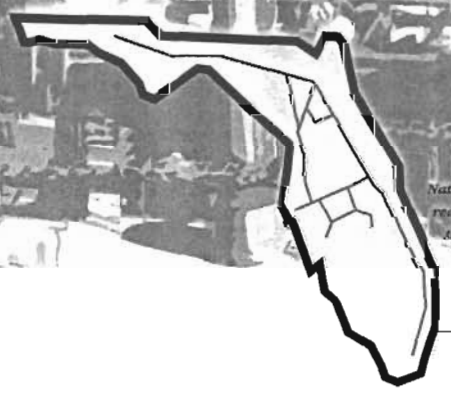
- Essentially the same use of city, county and well water.
- Cooling systems added to reduce significant temperature fluctuations.
- More constant water discharge temperatures.

Aesthetics

- Lower profile plant; 12 smaller stacks, about 100 and 125 feet tall.
- Water vapor or mist from cooling systems sometimes visible.
- More structures and equipment to support larger plant processes.
- Electrical substation expansion.
- Transmission line additions in existing rights-of-way.

Residents also told us: "People live here and tourists are drawn to this area, in part, because of this commitment to keep the environment ecologically sound."





Natural gas pipelines reach most regions of the state except for Southwest Florida.

LISTENING & responding

Our goal is to continue an on-going dialogue with the community. What we do know, we'll share as we go. What we don't know now, we'll share when we do.

Like many projects with a long lead time and many engineering challenges, not every aspect of our repowering proposal has been fully developed. Here are some topics that have come up so far in our discussions with Fort Myers residents. If you have others you'd like us to address in the future, please note the various ways you can reach us. We look forward to your comments and suggestions.

■ Will construction disrupt the neighborhood?
We will minimize the effects of construction on our plant neighbors and the Fort Myers community. For example, we're planning longer turn lanes into our site on State Road 80, so that workers can get to-and-from work safely, and local traffic can move along with minimal inconvenience. We'll check with our neighbors regularly to make sure that we are minimizing any disruptions.

■ How will you assure the safety and reliability of electricity supply using natural gas?
Natural gas will be supplied to the repowered Fort Myers plant by a carefully designed and controlled underground pipeline. The pipeline will meet strict engineering and safety requirements. We will work closely with the gas pipeline company to ensure its operations meet high standards for safety and performance. FPL has safely and reliably operated natural-gas-fueled generating units for 30 years.

To meet peak demand, we also will continue to use the 12 existing, small combustion turbines fueled by light oil. Light oil is similar to diesel fuel used in some cars. It typically will be delivered to the site by trucks driven by professional drivers using approved trucking routes.

■ Can you avoid service interruptions when you repower?
We will do everything possible to avoid service interruptions. Electricity will be supplied from other FPL plants and power resources during construction as needed. Having multiple power plants on an interconnected electric grid helps us maintain service reliability and flexibility. We also plan to start phasing in portions of the repowered units early in 2001. Repowering should be complete, and the new plant fully operational, by the end of the year.

■ Will the addition of a cooling system to moderate water temperatures still protect the manatees?
Yes. Manatees should continue to find the winter water temperatures near the plant a refuge from colder river and Gulf waters. The primary benefit of the proposed cooling system is that it would moderate discharge water temperatures during the summer. We also believe the cooling system will help contribute to a more stable environment for aquatic life.

Learning More and Getting Involved

We'd love to hear from you. Here's how to contact us:

- **Visit our Web site** - About FPL - Repowering Fort Myers at www.fpl.com

- **Call us at 1-800-DIAL FPL** if you'd like to be on a mailing list for periodic updates. Take an online tour of the project exhibits at the Community Activities section of the FPL/Repowering Web site.

- **Call us at 941-332-9130** if you'd like an FPL employee to give a presentation on repowering to your club or civic association.

- For a summary of our project plans and permit requirements, write or call Grover Whidden at 941-332-9130. To look over copies of our permit applications, stop by the Fort Myers public library or drop into our Fort Myers office at 1926 Victoria Avenue.

- **Send your project comments or suggestions to:**
Grover Whidden, FPL Community Affairs Manager, 1926 Victoria Avenue, Fort Myers, FL 33901 or to Bill Reichel, FPL Plant Manager, at P.O. Box 430, Fort Myers, FL 33902.

- **We welcome your comments and suggestions.**
Drop us a note or email: grover_whidden@fpl.com or bill_reichel@fpl.com

FPL

FORT MYERS REPOWERING PROJECT

PROJECT OVERVIEW

May 19, 1998

OUTLINE

I. INTRODUCTIONS

II. PROJECT PERSONNEL

III. PLANT LOCATION

IV. GENERAL PROJECT DESCRIPTION

V. TECHNOLOGY OVERVIEW

VI. PHOTOS

- PLANT & SURROUNDING AREA
- BOCA GRANDE & GASPARILLA ISLAND

VII. CONFIGURATION

- EXISTING PLANT
- CONCEPTUAL REPOWERED PLANT

VIII. SCHEDULE

- LICENSING
- OVERALL PROJECT

IX. LICENSING PLAN OF STUDY

X. QUESTIONS / ISSUES

Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

FPL FORT MYERS REPOWERING

Project Role	Name	Phone	FAX
Project General Manager	Tom Young	(561) 694-3963	(561) 694-3960
Plant General Manager	Bill Reichel	(941) 693-4200	(941) 693-4333
Licensing Manager	Rich Piper	(561) 691-7058	(561) 691-7070
Water Issues	Jim Arkerson	(561) 691-2758	(561) 691-7031
Manatees	Jim Arkerson	(561) 691-2758	(561) 691-7031
Public Participation Program	Florette Braun Stacey Shaw	(561) 691-7059 (305) 552-4898	(561) 691-7070 (305) 552-2144
Licensing Consultants Golder Associates Inc.	Ken Kosky	(352) 336-5600	(352) 336-6603
Legal Consultants Hopping, Green, Sams & Smith	Peter Cunningham	(850) 222-7500	(850) 224-8551

FORT MYERS REPOWERING

- FROM ~560 MW TO ~1400 MW
- KEEP EXISTING STEAM TURBINE-GENERATORS & CONDENSERS
- AIR EMISSIONS DECREASE
- #6 OIL SHIPMENTS CEASE

Repowering Licensing

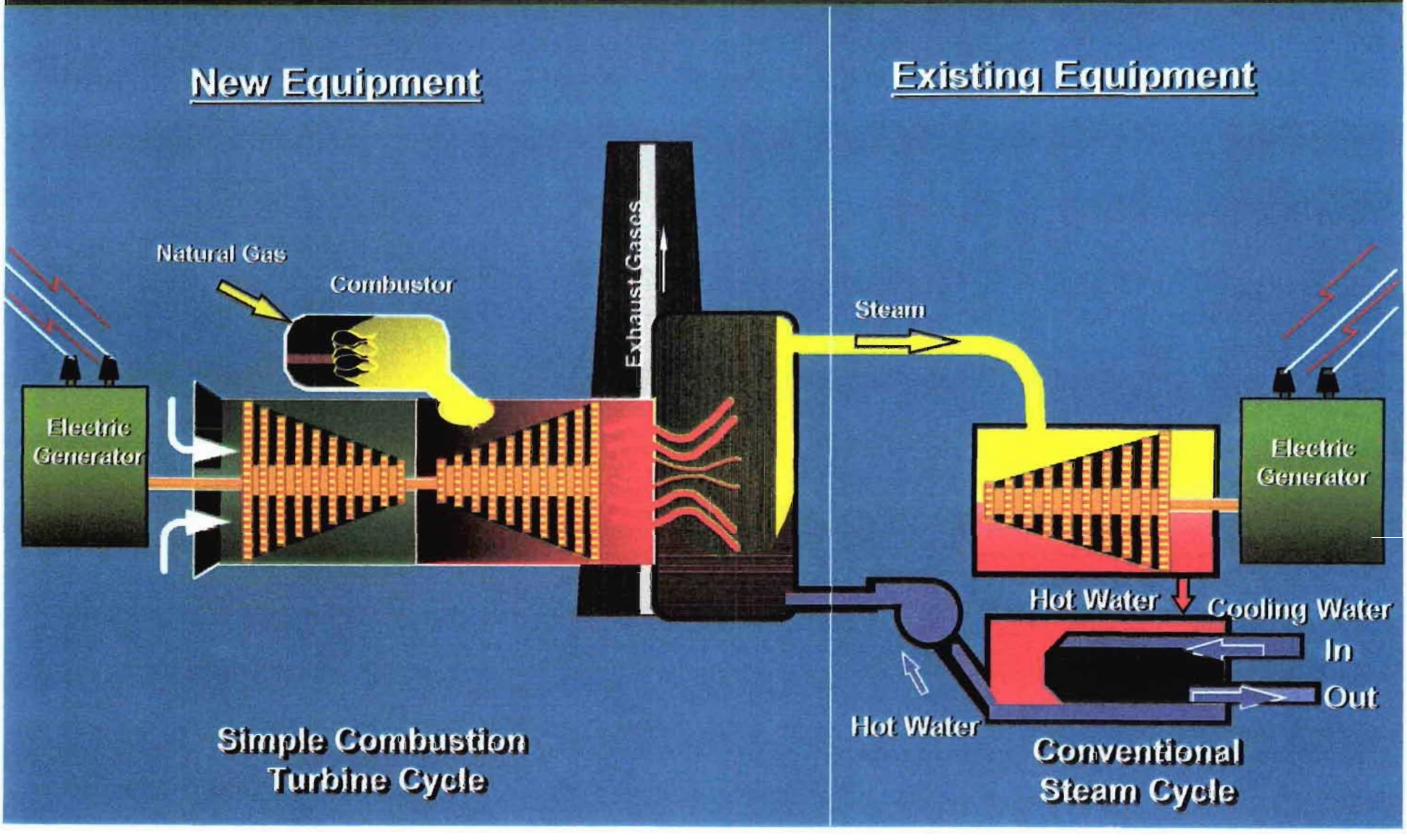
§ Use Power Plant Siting Act for Licensing

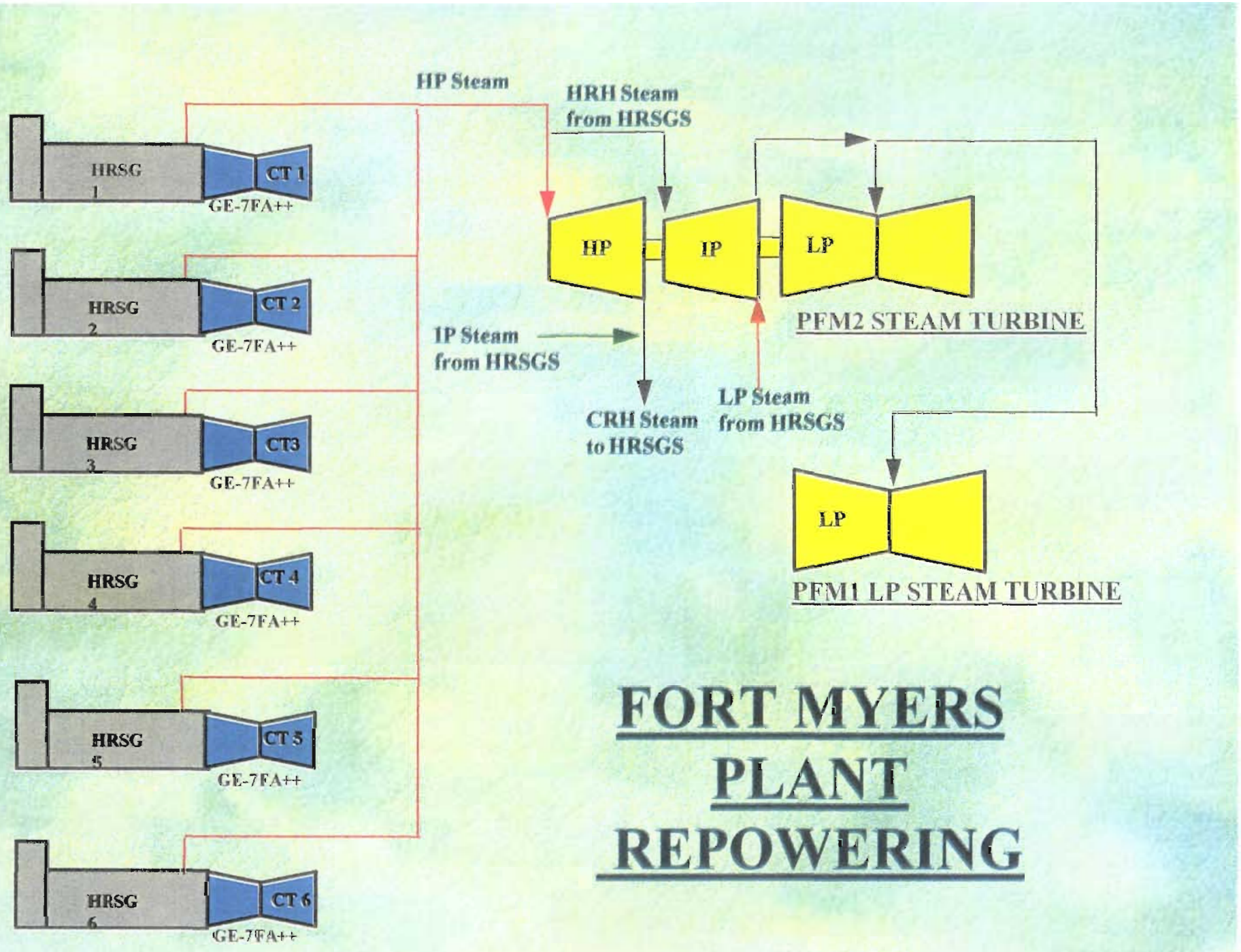
- Submit Application by August 28, 1998
- Obtain Final Order by November 30, 1999

§ Extensive Public Outreach Program

- Internal FPL
- External groups (agencies, env. grps, locals, politicians, media, customers, etc.)

PROPOSED TECHNOLOGY: GAS-FIRED COMBINED CYCLE

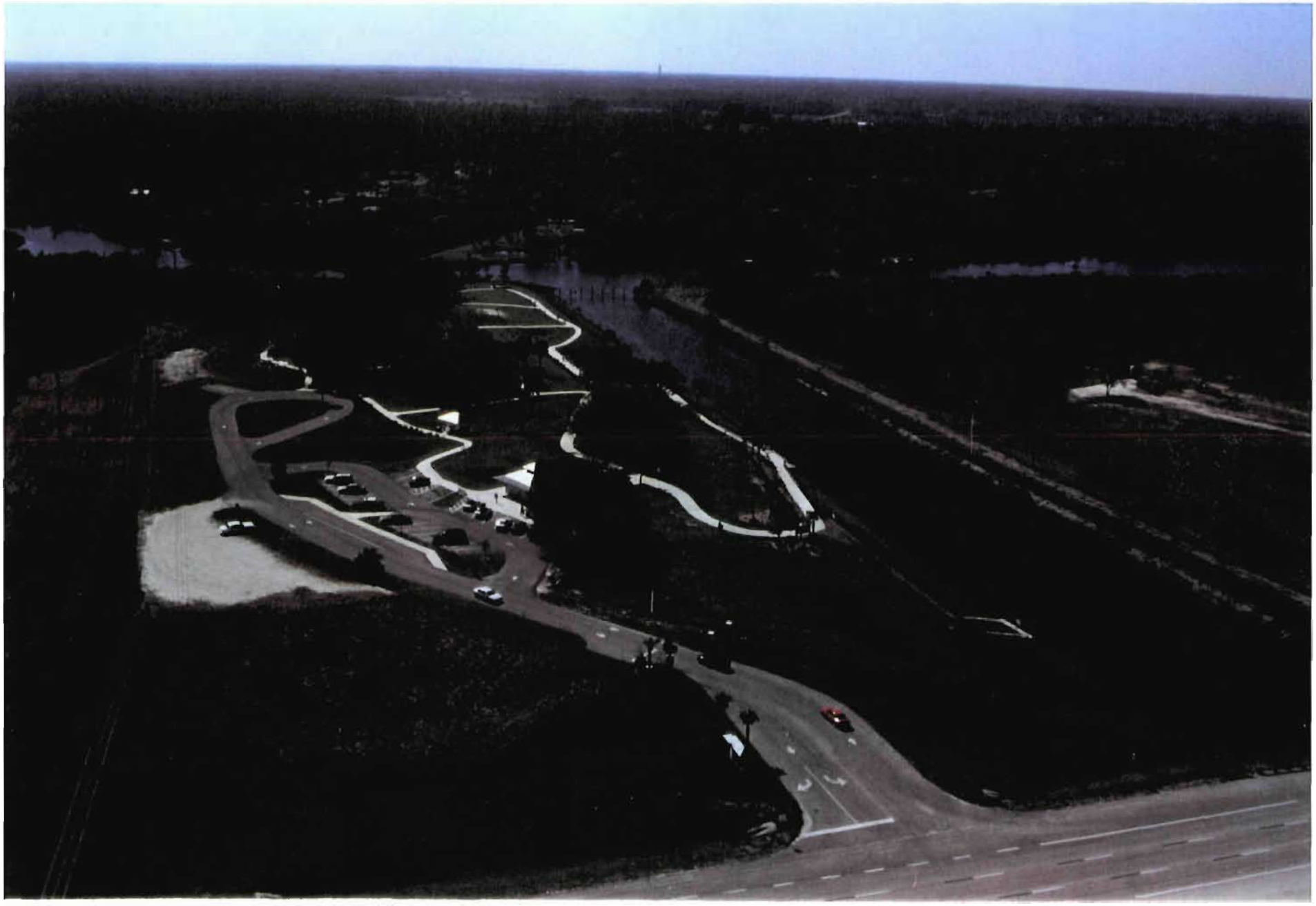



HP Steam
HRH Steam from HRSGS
HRSG 1
CT 1
GE-7FA++
HRSG 2
CT 2
GE-7FA++
HRSG 3
CT3
GE-7FA++
HRSG 4
CT 4
GE-7FA++
HRSG 5
CT 5
GE-7FA++
HRSG 6
CT 6
GE-7FA++
HP
IP
LP
PFM2 STEAM TURBINE
IP Steam from HRSGS
CRH Steam to HRSGS
LP Steam from HRSGS
LP
PFM1 LP STEAM TURBINE
FORT MYERS PLANT REPOWERING

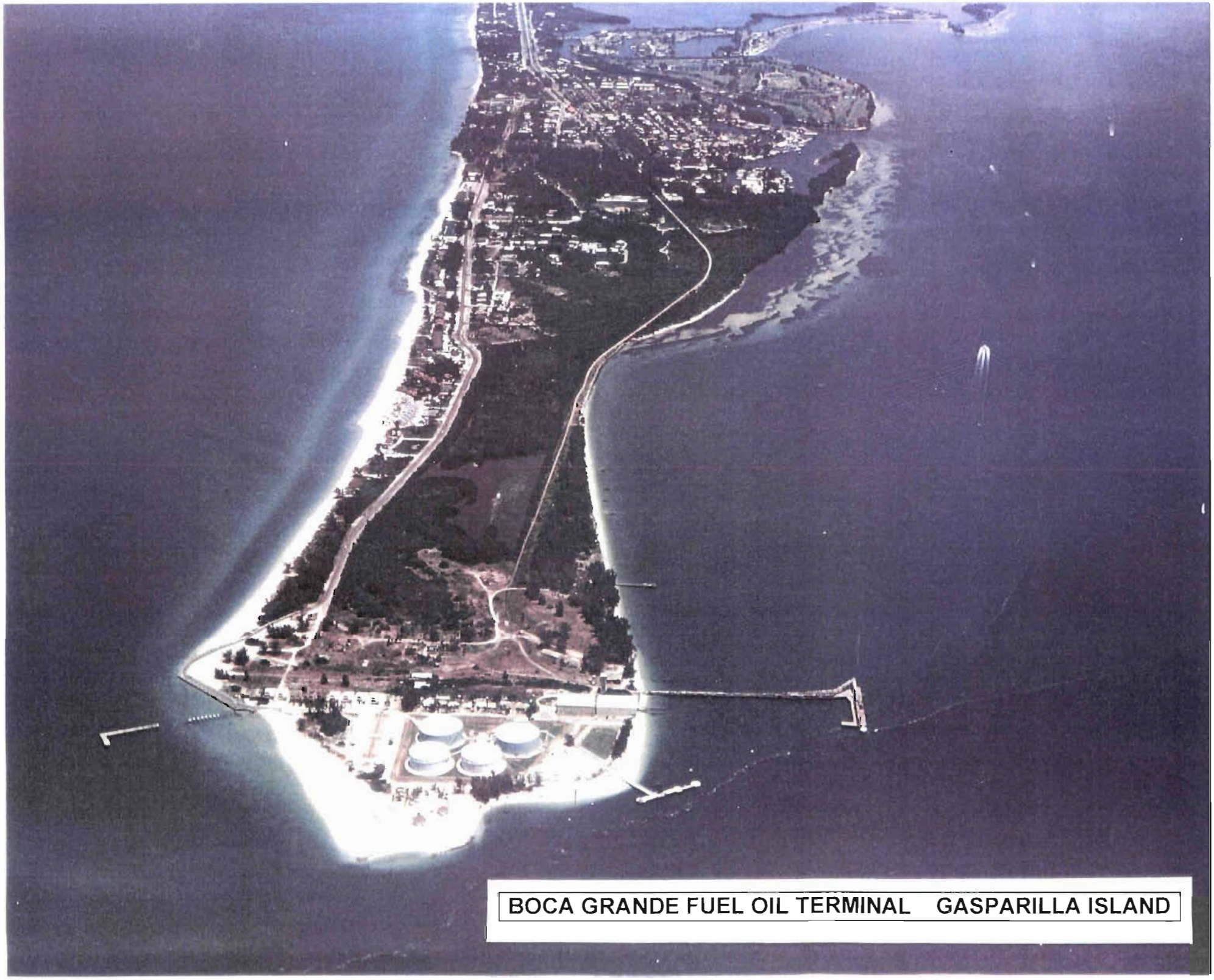
FORT MYERS PLANT VIEW FROM THE ORANGE RIVER

FORT MYERS PLANT VIEW FROM CALOOSAHATCHEE RIVER

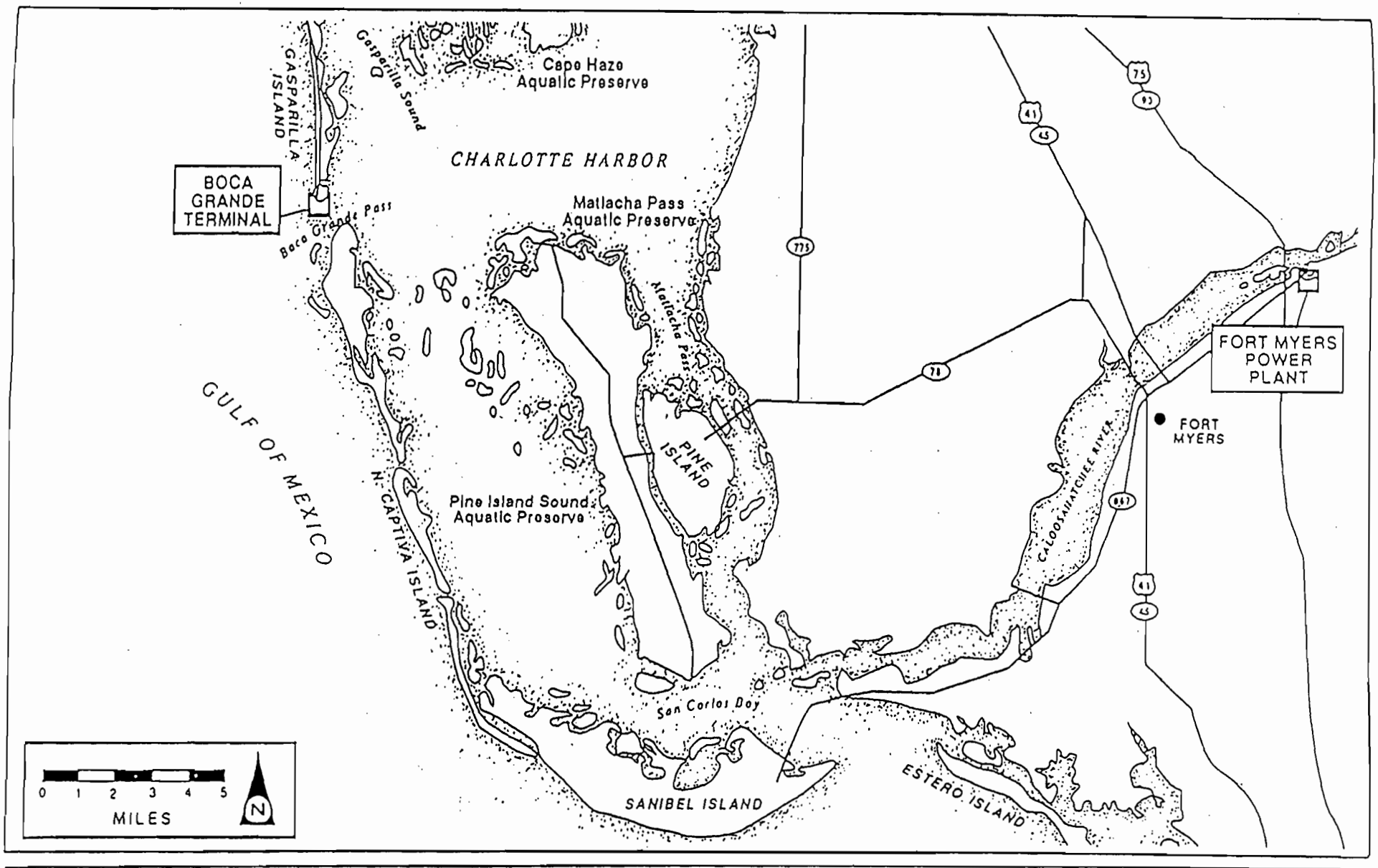
FORT MYERS PLANT VIEW FROM STATE ROAD 80



LEE COUNTY MANATEE PARK

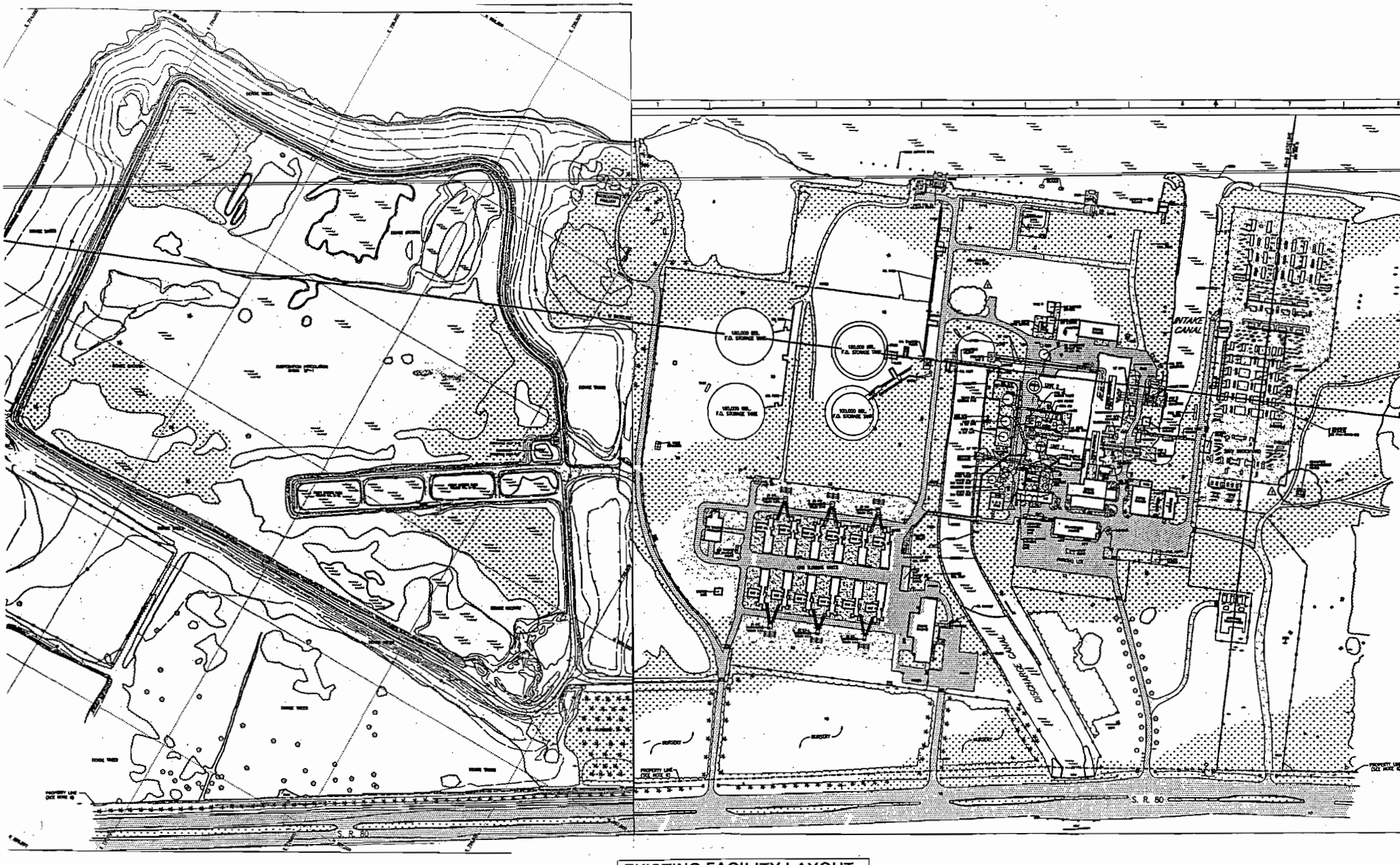


BOCA GRANDE FUEL OIL TERMINAL GASPARILLA ISLAND



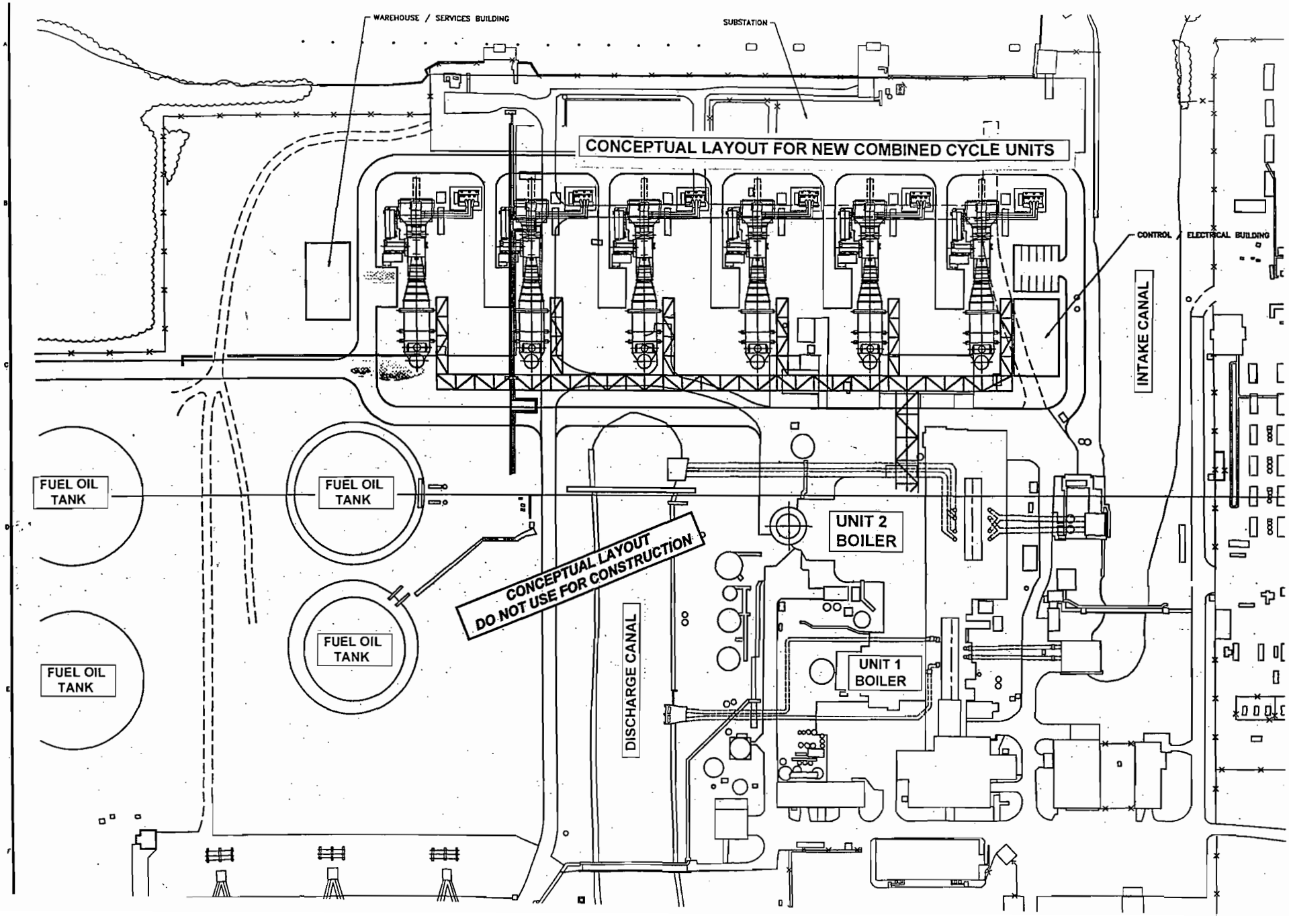
FORT MYERS PLANT IN RELATION TO
BOCA GRAND TERMINAL

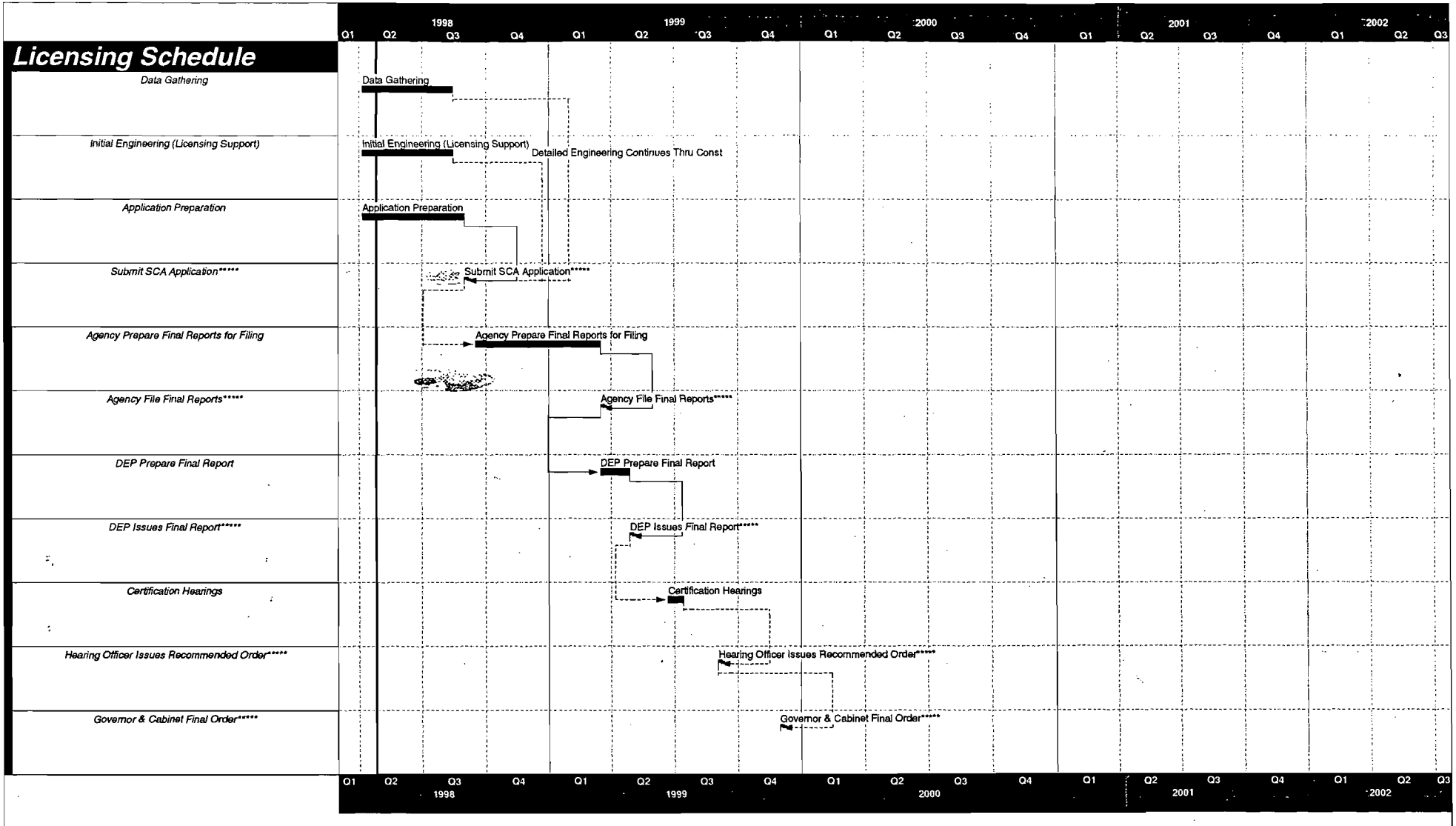
FPL



EXISTING FACILITY LAYOUT

BEST AVAILABLE COPY





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Page number	1A
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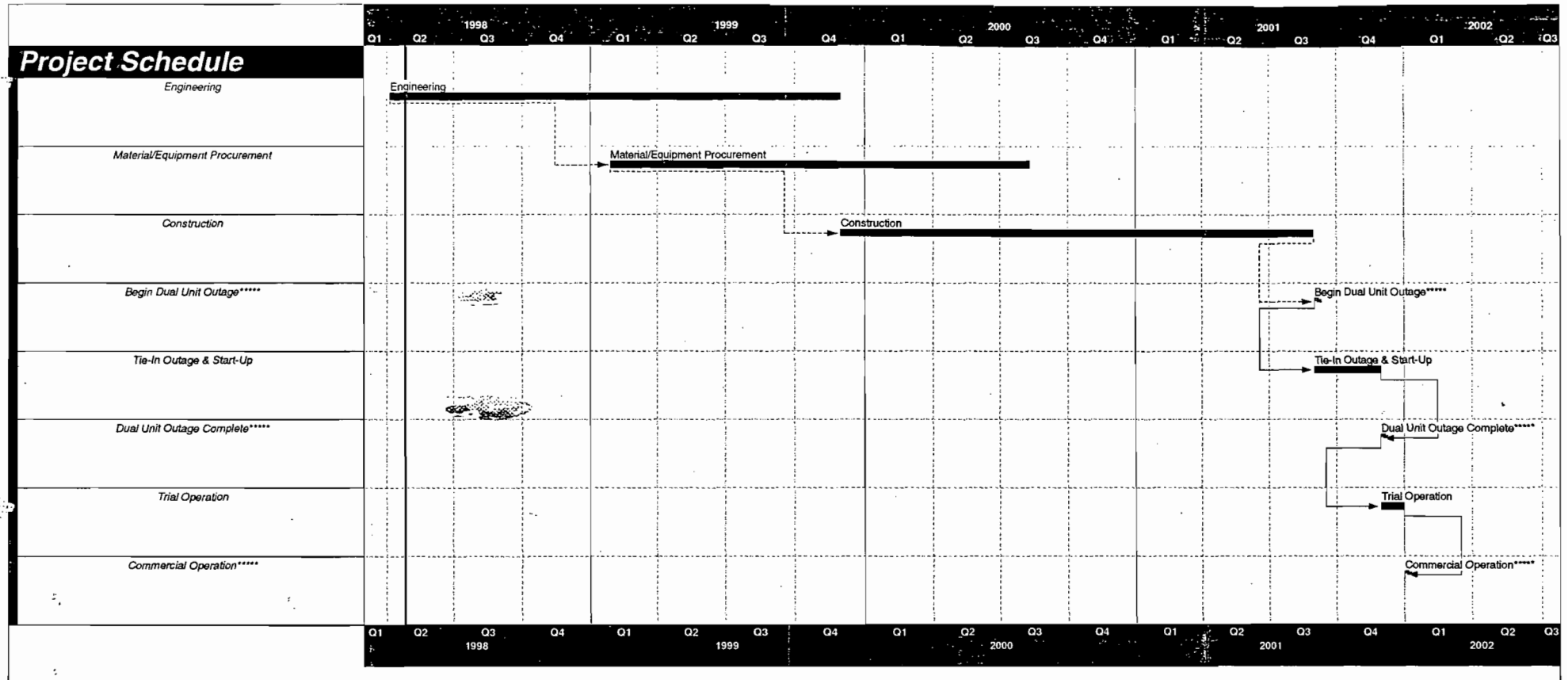
Florida Power & Light Co.
Ft. Myers Repowering Project

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point
- Finish milestone point



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Ft. Myers Repowering Project

- Early bar
- Progress bar
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- Start milestone point
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rich_piper@[redacted].fpl.com

Richard G. Piper
Senior Environmental Specialist
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Jim Arkerson
Power Generation Business Unit

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PETER C. CUNNINGHAM

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TALLAHASSEE, FLORIDA 32314

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pcunningham@hgss.com

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bill_reichel@email.fpl.com

William M. Reichel
Plant General Manager

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Juno Beach, FL 33408
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diana_davis@email.fpl.com

Diana Davis
Attorney
Law Department

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Florida Power & Light Company, P. O. Box 14000, Juno Beach, FL 33408-0420

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JAN 26 2001

BUREAU OF AIR REGULATION

January 19, 2001

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Initial Startup of Fort Myers
Combustion Turbine #2D

Dear Clair:

This correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that FPL first fired Combustion Turbine #2D on February 7, 2001. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

Please feel free to contact me at (561) 691-2438 if you have any questions.

Very truly yours,

David W. Knutson
Designated Representative
Florida Power & Light Company

cc:

David Knowles	FDEP South District Office
Lynn Haynes	EPA Region IV
Bernie Tibble	Fort Myers Plant
William Reichel	Plant General Manager - PFM

P. O. Box 078768, West Palm Beach, FL 33407-0768

FPL

January 19, 2001

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Initial Startup of Fort Myers
Combustion Turbine #2E

Dear Clair:

This correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that FPL first fired Combustion Turbine #2E on March 12, 2001. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

Please feel free to contact me at (561) 691-2438 if you have any questions.

Very truly yours,

David W. Knutson
Designated Representative
Florida Power & Light Company

cc:

David Knowles	FDEP South District Office
Lynn Haynes	EPA Region IV
Bernie Tibble	Fort Myers Plant
William Reichel	Plant General Manager - PFM

P. O. Box 078768, West Palm Beach, FL 33407-0768

FPL

January 19, 2001

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Initial Startup of Fort Myers
Combustion Turbine #2F

Dear Clair:

This correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that FPL first fired Combustion Turbine #2F on April 12, 2001. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

Please feel free to contact me at (561) 691-2438 if you have any questions.

Very truly yours,

David W. Knutson
Designated Representative
Florida Power & Light Company

cc:

David Knowles	FDEP South District Office
Lynn Haynes	EPA Region IV
Bernie Tibble	Fort Myers Plant
William Reichel	Plant General Manager - PFM

FPL

October 26, 2000

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Initial Startup of Fort Myers
Combustion Turbine #2B

Dear Clair:

This correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that FPL first fired combustion turbine #2B on October 26, 2000. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

Please feel free to contact me at (561) 691-7058 if you have any questions.

Very truly yours,

Myan ter by for Dave Knutson

David W. Knutson
Designated Representative
Florida Power & Light Company

PSD-FL-298

cc:

David Knowles	FDEP South District Office
Lynn Haynes	EPA Region IV
Bernie Tibble	Fort Myers Plant
William Reichel	Plant General Manager - PFM

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November 17, 2000

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

PSD-FL-298

Re: Initial Startup of Fort Myers
Combustion Turbine #2C

Dear Clair:

This correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that FPL first fired Combustion Turbine #2C on November 17, 2000. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

In addition, Florida Power & Light advised Al Linero of FDEP on November 16,2000 that the CEM Data Acquisition & Handling System (DAHS) will not be activated in time for this first fire milestone. However, the monitoring analyzers will have been calibrated and collecting data during this timeframe of first fire and preliminary Combustion Turbine testing. The DAHS is scheduled to be installed on November 28, 2000.

Please feel free to contact me at (561) 691-2438 if you have any questions.

Very truly yours,

David W. Knutson
Designated Representative
Florida Power & Light Company

cc:

David Knowles	FDEP South District Office
Lynn Haynes	EPA Region IV
Bernie Tibble	Fort Myers Plant
William Reichel	Plant General Manager - PFM

Florida Power & Light Company, P. O. Box 14000, Juno Beach, FL 33408-0420

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MAR 13 2001
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March 7, 2001

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Patty to FPL
Ft Myers Repowering
file.

Re: Initial Startup of Fort Myers
Combustion Turbine #FMCT2E

Dear Clair:

This **revised** correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that FPL will first fire Combustion Turbine #FMCT2E on March 12, 2001. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

Please feel free to contact me at (561) 691-2438 if you have any questions.

Very truly yours,

David W. Khutson
Designated Representative
Florida Power & Light Company

cc:

David Knowles	FDEP South District Office
Lynn Haynes	EPA Region IV
Bernie Tibble	Fort Myers Plant
William Reichel	Plant General Manager - PFM

P. O. Box 078768, West Palm Beach, FL 33407-0768

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To FPL Repowering file.

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FEB 09 2001
BUREAU OF AIR REGULATION

February 2, 2001

Clair Fancy, P.E.
State of Florida
Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Initial Startup of Fort Myers
Combustion Turbine #2D

Dear Clair:

REV

This correspondence is to serve as notification to the Department, in accordance with 40 CFR 60.7(a)(3), that the expected first fire date for FPL's Fort Myers Combustion Turbine #2D is February 5, 2001. Emissions performance testing for this unit has been scheduled and notification sent to the Department under separate cover.

Please feel free to contact me at (561) 691-2438 if you have any questions.

Very truly yours,

David W. Knutson
Designated Representative
Florida Power & Light Company

cc:

David Knowles	FDEP South District Office
Lynn Haynes	EPA Region IV
Bernie Tibble	Fort Myers Plant
William Reichel	Plant General Manager - PFM

FPL/Ft. Myers Repowering Files

P. O. Box 430, Ft. Myers, FL 33902-0430

FPL

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MAY 02 2001

BUREAU OF AIR REGULATION

April 30, 2001

Mr. Ronald Blackburn
Florida Department of Environmental Protection
South Florida District
P. O. Box 2549
Fort Myers, Florida 33902-2549

Dear Mr. Blackburn;

In accordance with Specific Condition (9) of our Final Air Construction Permit 0710002-004AC, please find an enclosed copy of the manufacturer's heat input curve corrected for site conditions at the Fort Myers Plant.

If you have any questions, please contact me at (941) 693-4390.

Sincerely,

Bernard P. Tibble

Bernard P. Tibble
Environmental Specialist

Enclosure: 1

cc: A. A. Linero/FDEP Tallahassee
E. Baker/FDEP South District Office
R. Piper/JES/JB
R. Burgess/GPA/JB
C. Alves/GPA/JB
S. Guisinger/GPA/JB
K. Washington/JES/JB

Fort Myers Units 2A - 2F Predicted Heat Consumption
mmBtu / Hour