




## Memorandum

## Florida Department of Environmental Protection

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TO: Michael G. Cooke

THRU: Trina Vielhauer   
Jeff Koerner 

FROM: Michael P. Halpin 

DATE: June 27, 2005

SUBJECT: Florida Power & Light Company  
Manatee Plant Reburn Project  
DEP File No. 0810010-010-AC

Attached is the final permit for the Manatee Plant Reburn Project to be completed on Units 1 and 2. This is an existing oil/gas fired facility located in Parrish, Manatee County.

This construction permit is being issued in order for FPL to comply with the settlement agreement reached between FDEP and FPL on September 19, 2002. Public Notice was made on June 6, 2005 in The [Bradenton] Herald. Comments were received solely from FPL, and each comment was accommodated, in the manner requested by the applicant.

I recommend your approval.

Attachments

/mph

## FINAL DETERMINATION

Florida Power & Light Company  
Manatee Plant Reburn Project  
DEP File No. 0810010-010-AC, PA02-44

The Department distributed a public notice package on May 26, 2005 to allow the applicant to construct and commence operation of a reburn system on Units 1 and 2 at its Manatee Power Plant, located at 19050 State Road 62 in Parrish, Manatee County. The Public Notice of Intent to Issue concerning the Draft Permit was published in the Bradenton Herald on June 6, 2005.

### COMMENTS/CHANGES

No comments were received by the Department from the public.

No comments were received from EPA.

Five comments were received from the applicant by letter dated June 16, 2005. Four of the comments recommended wording changes to four separate conditions and one comment requested that a condition be stricken in its entirety.

### DEPARTMENT ACTION

Each of the three comments related to wording changes within the conditions are acceptable. These changes related to the following condition numbers: Specific Conditions I.5, I.9 and II.

Regarding the comment related to the striking of Condition I.2., the subject (draft) condition is listed below as well as the argument which was made by the applicant:

*Beginning March 31, 2006, the permittee shall be responsible for submitting semi-annual summary reports. These reports will outline the status of construction, each test program conducted and a summary of any test program results. Proprietary or confidential data, documents or information submitted or disclosed to FDEP shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law. The semi-annual summary reports will be sent to the DEP Southwest District Office and the Bureau of Air Regulation. The first summary will be due March 31, 2006 and will cover all construction, tests and results from such tests conducted between the issuance date of this permit and December 31, 2005. In a like manner, a similar summary shall be submitted for each 180 day period thereafter.*

FPL COMMENT: FPL previously agreed with the Department to submit a report summarizing the 18 month program designed to evaluate the nitrogen oxides emission rates, boiler performance and Unit operation outlined in Paragraph 7 of the Reburn Agreement (September 2002). Providing the Department with semi-annual reports summarizing the status of construction, test programs conducted, and test program results as required by Specific Condition 2 of the Draft AC permit was not addressed in the terms of the agreement and is inconsistent with the many AC permits that FPL has acquired. The additional reporting created by this Specific Condition is burdensome and will take already limited Plant resources from the critical tasks associated with commissioning and optimizing the potentially complex application of a Reburn technology on Manatee Units 1 & 2. FPL requests that this Specific Condition is deleted in its entirety, as there is no regulatory basis for this condition, and, reporting terms and conditions were previously established in the "Agreement".

RESPONSE: The Department notes that Rule 62-4.070 provides the Department with broad authority to require conditions within permits, and that the Agreement was entered into "... for the exclusive purpose of ensuring compliance with the ambient air quality standards for ozone as provided for by Section 366.8255(1)(d)7, Florida Statutes (2002)". However, the permit condition will be simplified/clarified as follows:

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*Beginning March 31, 2006, the permittee shall submit semi-annual reports providing a brief summary of the following: scope of construction completed, a schedule for upcoming construction, a general description of the NO<sub>x</sub> test program conducted and a summary of the NO<sub>x</sub> test program results. Proprietary or confidential data, documents or information submitted or disclosed to FDEP shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law. The semi-annual summary reports will be sent to the DEP Southwest District Office and the Bureau of Air Regulation. The first summary will be due March 31, 2006 and will cover the period between the issuance date of this permit and December 31, 2005. In a like manner, a similar summary shall be submitted for each 180 day period thereafter.*

Regarding the comment related to the reduction of requirements with Specific Condition I.3., the subject (draft) condition is listed below as well as the argument which was made by the applicant:

*For the duration of the project, once the permittee has established any test program which involves stack testing (formal or informal), a Scope of Work shall be sent by fax to the DEP Southwest District Office as soon as possible and in advance of the planned commencement of the test program. This Scope of Work will give general descriptions of processes, work planned, dates of the tests and general objectives of the tests. Proprietary or confidential data, documents or information submitted or disclosed to FDEP shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law.*

FPL COMMENT: Due to the many different configurations, variables, and scheduling perturbations anticipated with the commissioning the Reburn system, providing notice to the Department of “any test program which involves stack testing (formal or informal)” as required by Specific Condition 3 is unprecedented in any FPL permit, and places undue burdens on both the Manatee Plant and the DEP Southwest District Office. FPL suggests the following language replace the existing language of Specific Condition 3: “FPL shall notify the DEP Southwest District, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator as provided by Rule 62-297.310.”

RESPONSE: The Department accepts (in part) FPL’s suggestion, but will additionally require notice of major changes to the construction schedule as follows:

*FPL shall notify the DEP Southwest District, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator as provided by Rule 62-297.310. FPL shall promptly notify the DEP Southwest District Office and the Bureau of Air Regulation of substantial changes to the construction schedule.*

## CONCLUSION

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



Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

July 1, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Paul Plotkin  
General Manager, Manatee Plant  
Florida Power & Light Company  
19050 State Road 62  
Parrish, FL 34219-9220

Re: DEP File No. 0810010-010-AC  
Reburn Technology Project

Dear Mr. Plotkin:

In September 2002, FPL and FDEP entered into an agreement ("Agreement") for the purpose of ensuring compliance with the ambient air quality standards for ozone in the Tampa Bay region. This agreement, among other things, called for the installation of reburn technology for Units 1 and 2, designed to achieve a nitrogen oxides (NO<sub>x</sub>) emission rate of 0.20 lb/MMBtu on a 30-day rolling average.

The Department has reviewed your request for an air construction permit for the purpose of installing reburn technology on Manatee Units 1 and 2 as required by the Agreement. As a result of this review, the Department has concluded that construction may be authorized. It is the Department's expectation that construction, start-up and optimization will occur according to the following parameters (Conditions 3 through 7 of the Agreement):

3. FPL shall commence installation of reburn technology in one of the existing Manatee Units (either Unit 1 or Unit 2) no later than 18 months after receiving all required state, federal or local environmental permits. FPL shall commence installation of reburn technology on the other unit no later than 12 months after installation has commenced on the first Unit. Installation of reburn technology in each Unit shall be completed no later than 12 months after commencement of installation in that Unit. The reburn technology will consist of a combustion modification process that utilizes fuel (either oil or natural gas) and air staging within the boilers to reduce nitrogen oxides emissions. In addition, overfire air (OFA) may be injected above the reburn zone within the boilers of Manatee Units 1 and 2 to reduce overall nitrogen oxides emissions.

4. The reburn technology installed in Manatee Units 1 and 2 shall be designed to achieve a nitrogen oxides emissions goal of 0.20 pounds per million BTU heat input on a 30-day rolling average. It is anticipated that achievement of this emissions goal will be achieved by utilizing the reburn when operating the Unit at greater than or equal to 350 megawatts.

5. Upon completion of installation of the reburn technology in each Unit, FPL shall optimize the operation of that Unit with reburn technology. After this optimization period has been completed for a Unit, or after a six month period, whichever occurs first, the reburn technology shall be utilized to minimize nitrogen oxides emissions when that Unit is in operation.

6. After completion of the optimization period for each Unit described in Paragraph 5, a nitrogen oxides emissions limit of 0.25 pounds per million BTU (30-day rolling average) shall apply to that Unit. This nitrogen oxides emissions limit shall apply during the data collection, testing and evaluation program described in Paragraph 7 and shall be incorporated into the Manatee Plant's Title V permit at the time of the next renewal.

*"More Protection, Less Process"*

*Printed on recycled paper.*

7. Beginning upon completion of the optimization period for the first of the Manatee Units in which reburn technology is installed, FPL shall conduct an 18 month program designed to evaluate nitrogen oxides emissions rates, boiler performance and Unit operation with the goal of identifying and implementing the lowest emissions rate possible for Manatee Units 1 and 2. This program shall include collection and analysis of data on nitrogen oxides emissions, boiler operating parameters, Unit performance characteristics and emissions of other pollutants, as well as projections of emissions rates assuming alternative, non-tested operating parameters and scenarios, including variations in fuels fired, Unit load and load-changing conditions, boiler and burner performance and any other factors relevant in evaluating possible changes to the nitrogen oxides emissions limit for Manatee Units 1 and 2. At the end of the 18 month period, FPL shall submit a report to FDEP summarizing the results of the program and addressing whether any further change in the applicable nitrogen oxides emissions limit is possible under tested and other alternative operating scenarios. Following receipt of the report, FDEP and FPL shall meet to discuss whether any further change in the applicable nitrogen oxides emissions limit for Manatee Units 1 and 2 is possible. If FPL and FDEP mutually agree on a change in the nitrogen oxides emissions limit for Manatee Units 1 and 2, FPL shall submit a Title V application for the Manatee Plant's Title V permit to incorporate the new, agreed upon limit. If FPL and FDEP do not agree on any new nitrogen oxides emissions limit for Manatee Units 1 and 2, the limit established in Paragraph 6 shall remain applicable.

Authorized Construction for Units 1 and 2:

- The top row of burners (8) and the existing overfire air ports (16) will be removed.
- The remaining 3 burner rows (24) will be replaced with Zink Dynaswirl burners.
- The windbox and associated ductwork will be modified so as to incorporate secondary air and gas injection, turning vanes and baffles, as necessary.
- A booster fan and associated ductwork will be installed downstream of the existing GI fan.
- A new overfire air system will be installed (including air flow metering and control components) which will comprise approximately 30 percent of the combustion air capacity.
- Fuel piping for natural gas and fuel oil will be installed (including fuel flow metering and control components) which will comprise approximately 25 percent of the heat input capacity.
- A full (DCS) control system will be installed and integrated with existing controls as necessary.
- Ancillary utilities will be involved, including air, steam and electric.

I. Conditions of Construction - The project shall be subject to the following conditions:

1. The permittee shall notify the DEP Southwest District and the Bureau of Air Regulation, in writing, at least seven days prior to beginning construction. Notification shall also occur within seven days, in writing, of completion of construction activities.
2. Beginning March 31, 2006, the permittee shall submit semi-annual reports providing a brief summary of the following: scope of construction completed, a schedule for upcoming construction, a general description of the NO<sub>x</sub> test program conducted and a summary of the NO<sub>x</sub> test program results. Proprietary or confidential data, documents or information submitted or disclosed to FDEP shall be identified as such by the Permittee and shall be maintained as such pursuant to applicable Florida law. The semi-annual summary reports will be sent to the DEP Southwest District Office and the Bureau of Air Regulation. The first summary will be due March 31, 2006 and will cover the period between the issuance date of this permit and December 31, 2005. In a like manner, a similar summary shall be submitted for each 180 day period thereafter.
3. FPL shall notify the DEP Southwest District, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator as provided by Rule 62-297.310. FPL shall promptly notify the DEP Southwest District Office and the Bureau of Air Regulation of substantial changes to the construction schedule.
4. Stack emissions shall not exceed any limit within existing permits.
5. All compliance tests shall be conducted using EPA Reference Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Sources) or any other method approved by the Department, in writing, in accordance with Chapter 62-297, F.A.C.
6. The project shall not result in the release of objectionable odors pursuant to Rule 62-296.320(2). F.A.C.
7. Testing shall cease as soon as possible if the boiler operations are not in accordance with the conditions within existing permits, or this authorization protocol. Such testing shall not resume until appropriate measures to correct the problem(s) have been implemented.
8. This Department action is only to authorize the reburn construction and operation. Notification shall occur within 30 days, in writing, upon completion of each optimization period as well as the eighteen month study.
9. Upon completion of the study, FPL shall submit a written report to the Department as indicated by the "Agreement". Such report shall be prepared and certified by a Florida licensed Professional Engineer and include pertinent equipment specifications. "As-built" drawings shall be made available at the plant for Department inspection.
10. The "Agreement" signed by FPL and FDEP on September 19, 2002, is incorporated herein.

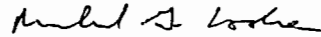
II. Fugitive Construction Dust Emissions – Reasonable precautions to control fugitive dust emissions shall be in accordance with the existing Title V permit.

III. General Conditions - Appendix GC (attached)

This construction permit is issued pursuant to Chapter 403, Florida Statutes. No other changes to the permit are authorized by this action. A copy of this letter shall be filed with permit No. 0810010-009-AV and shall become part of the permit. Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by the filing of 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 of Appeal must be filed within (thirty) days after this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Sincerely,



Michael G. Cooke, Director  
Division of Air Resource  
Management

**CERTIFICATE OF SERVICE**

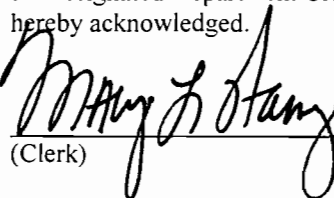
The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 7/5/05 to the person(s) listed:

Paul Plotkin, FPL\*  
Clarence Troxell\*  
Chair, Manatee County Commissioners\*  
President, Manatee County Citizens Against Pollution (MCAP)\*  
Manatee County Environmental Management Department  
Kevin Washington, FPL

Mary Maxwell, FPL  
Ken Kosky, Golder  
Joel Smolen, SWD  
Hamilton Oven, DEP Siting Office  
Gregg Worley, EPA Region 4  
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.

 7/5/05  
(Clerk) (Date)

**AGREEMENT**  
**FOR THE PURPOSE OF**  
**ENSURING COMPLIANCE WITH**  
**AMBIENT AIR QUALITY STANDARDS FOR OZONE**

This Agreement is entered into between the Florida Department of Environmental Protection ("FDEP") and Florida Power & Light Company ("FPL") to reduce emissions of nitrogen oxides from an existing electrical generating facility for the exclusive purpose of ensuring compliance with the ambient air quality standards for ozone, as provided for by Section 366.8255(1)(d)7, Florida Statutes (2002).

**WHEREAS:**

I. The Florida Legislature enacted Chapter 2002-276, Laws of Florida, to allow agreements between electric utilities and FDEP for the purpose of ensuring compliance with ozone ambient air quality standards, and further to provide for the recovery of costs and expenses prudently incurred by an electric utility pursuant to such an agreement entered into prior to October 1, 2002;

II. FDEP has the statutory duty and authority, pursuant to Chapter 403, Florida Statutes, and rules adopted under Chapter 62, Florida Administrative Code, to protect and maintain Florida's air quality, including ensuring compliance with ambient air quality standards for ozone;

III. The U.S. Environmental Protection Agency ("U.S. EPA") has promulgated a new ambient air quality standard for ozone that establishes a permissible limit on the level of ozone during any 8-hour period;

IV. Manatee County is located in the vicinity of the Tampa Bay Airshed, which has experienced recent episodes of elevated ozone levels higher than the U.S. EPA's new ambient air quality standard for ozone on at least 15 separate days in the past four years;



V. Nitrogen oxides emissions from electrical generating facilities owned by electric utilities can contribute to the formation of ozone in the vicinity of an electrical generating facility;

Based upon the best available information, including ambient air quality monitoring data, it is not clear whether the Tampa Bay Airshed will be in compliance with the 8-hour ozone standard in 2004/2005.

FPL is an electric utility that owns and operates an electrical generating facility known as the Manatee Plant, located in unincorporated Manatee County, Florida, comprised of two 800 megawatt class fossil fuel-fired generating units known as Manatee Units 1 and 2 or jointly as "the facility";

FPL is regulated by the Florida Public Service Commission, and the Manatee Plant provides electric power to consumers in FPL's service area;

Manatee Units 1 and 2 emit nitrogen oxides, a precursor to regional ozone formation, into the atmosphere of Manatee County and surrounding areas, including the Tampa Bay Airshed;

X. The Manatee Plant, together with other regional power plants, commercial and industrial activities, and transportation, are the main sources of nitrogen oxides affecting regional ozone formation in the Tampa Bay Airshed;

XI. FPL has identified a nitrogen oxides emissions control technology known as "reburn" that is a "pollution prevention" system, which can reduce nitrogen oxides emissions from Manatee Units 1 and 2 without the use of reagents, catalysts, pollution collection or removal equipment;

XII. Use of the proposed reburn emissions control technology in Manatee Units 1 and 2 will require FPL to incur certain costs and expenses to install, operate and maintain that control technology; and,

XIII. Installation of reburn technology in FPL's Manatee Units 1 and 2 and the

achievement of an emissions rate of no greater than 0.25 pounds per million BTU on a 30-day rolling average basis will help to ensure that the Tampa Bay Airshed will comply with the ozone ambient air quality standards established by U.S. EPA and by FDEP.

NOW THEREFORE, in consideration of the premises and mutual agreements contained herein, and intending to be legally bound, FDEP and FPL hereby agree as follows:

1. This Agreement is entered into by FDEP and FPL for the exclusive purpose of ensuring compliance with ozone ambient air quality standards.

2. This Agreement is in full force and effect upon the signature of both parties unless the Florida Public Service Commission (FPSC) does not issue a final order authorizing FPL to recover the costs incurred pursuant to this Agreement through the Environmental Cost Recovery Clause within 120 days of the execution of the Agreement at which time the parties may mutually agree, in writing, to extend the Agreement. In the event the FPSC does not issue a final order within 120 days of the execution of the Agreement and the parties do not mutually agree to extend the Agreement, the Agreement becomes null and void. A final order is one that is no longer subject to review or appeal by a court of competent jurisdiction. FPL will exercise good faith in seeking approval of such cost recovery from the FPSC in a timely manner. FDEP agrees to support FPL's request for such approval by the FPSC. FDEP and FPL agree that installation of reburn technology in Manatee Units 1 and 2, in conjunction with the achievement of an emissions rate of no greater than 0.25 pounds per million BTU on a 30-day rolling average, will reduce nitrogen oxides emissions from the facility in a potential ozone nonattainment area.

3. FPL shall commence installation of reburn technology in one of the existing Manatee Units (either Unit 1 or Unit 2) no later than 18 months after receiving all required state, federal or local environmental permits. FPL shall commence installation of reburn technology on the other unit no later than 12 months after installation has commenced on the first Unit. Installation of reburn technology in each Unit shall be completed no later than 12 months after commencement of installation in that Unit. The reburn technology will consist of a combustion

modification process that utilizes fuel (either oil or natural gas) and air staging within the boilers to reduce nitrogen oxides emissions. In addition, overfire air (OFA) may be injected above the reburn zone within the boilers of Manatee Units 1 and 2 to reduce overall nitrogen oxides emissions.

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5. Upon completion of installation of the reburn technology in each Unit, FPL shall optimize the operation of that Unit with reburn technology. After this optimization period has been completed for a Unit, or after a six month period, whichever occurs first, the reburn technology shall be utilized to minimize nitrogen oxides emissions when that Unit is in operation.

6. After completion of the optimization period for each Unit described in Paragraph 5, a nitrogen oxides emissions limit of 0.25 pounds per million BTU (30-day rolling average) shall apply to that Unit. This nitrogen oxides emissions limit shall apply during the data collection, testing and evaluation program described in Paragraph 7 and shall be incorporated into the Manatee Plant's Title V permit at the time of the next renewal.

7. Beginning upon completion of the optimization period for the first of the Manatee Units in which reburn technology is installed, FPL shall conduct an 18 month program designed to evaluate nitrogen oxides emissions rates, boiler performance and Unit operation with the goal of identifying and implementing the lowest emissions rate possible for Manatee Units 1 and 2. This program shall include collection and analysis of data on nitrogen oxides emissions, boiler operating parameters, Unit performance characteristics and emissions of other pollutants, as well as projections of emissions rates assuming alternative, non-tested operating parameters and scenarios, including variations in fuels fired, Unit load and load-changing conditions, boiler and burner performance and any other factors relevant in evaluating possible changes to the nitrogen

oxides emissions limit for Manatee Units 1 and 2. At the end of the 18 month period, FPL shall submit a report to FDEP summarizing the results of the program and addressing whether any further change in the applicable nitrogen oxides emissions limit is possible under tested and other alternative operating scenarios. Following receipt of the report, FDEP and FPL shall meet to discuss whether any further change in the applicable nitrogen oxides emissions limit for Manatee Units 1 and 2 is possible. If FDEP and FPL mutually agree on a change in the nitrogen oxides emissions limit for Manatee Units 1 and 2, FPL shall submit a Title V application for the Manatee Plant's Title V permit to incorporate the new, agreed-upon limit. If FDEP and FPL do not agree on any new nitrogen oxides emissions limit for Manatee Units 1 and 2, the limit established in Paragraph 6 shall remain applicable.

8. In the event state or federal law changes to require a change in nitrogen oxides emissions or the Tampa Bay Airshed is declared non-attainment for ozone, any reduction requirements would be in accordance with all applicable state and federal requirements. FDEP concurs that the changes contemplated by this Agreement will not constitute "modifications" that trigger New Source Review. In addition, although Florida currently has no state statute providing for nitrogen oxides trading or credits, FPL shall be entitled to retain all nitrogen oxides reduction credits and trading rights that may be authorized by Florida law in the future.

9. FDEP concurs that the steps and changes described in paragraphs 3 through 7, above, are prudent for purposes of (a) ensuring that FPL's Manatee Plant located within the Tampa Bay Airshed supports the area's compliance with the 8-hour ozone ambient air quality standard and (b) authorizing related cost recovery pursuant to Section 366.8255(1)(d), Florida Statutes, as amended by the Florida Legislature in its 2002 session and signed into law by the Governor of the State of Florida.

10. FDEP shall process in a timely manner any permit applications or requests for approvals necessary to implement this Agreement.

11. This Agreement is not and shall not be construed to be a permit issued or required pursuant to any federal, state or local law, rule or regulation including those of FDEP and Manatee County.

12. FPL shall be entitled to relief from the time requirements of this Agreement in the event of a *force majeure*, which includes, but is not limited to, delays in regulatory approvals, construction, labor, material, or equipment delays, fuel supply delays, acts of God or other similar events that are beyond the control of FPL and do not result from its own actions, for the length of time necessarily imposed by any such delay.

13. There shall be no modifications or amendments of this Agreement without the written agreement of all parties to this Agreement.

14. This Agreement shall apply to and be binding upon FDEP and FPL and their successors and assigns. Each person signing this Agreement certifies that he or she is authorized to execute this Agreement and to legally bind the party on whose behalf he or she signs this Agreement.

By their signatures affixed below, the parties agree to be bound by the terms and conditions of this Agreement.

DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

9-19-02  
Date

BY:   
Allan Bedwell, Deputy Secretary

FLORIDA POWER & LIGHT COMPANY

9-19-02  
Date

BY:   
Randall LaBauve, Vice President  
Environmental Services

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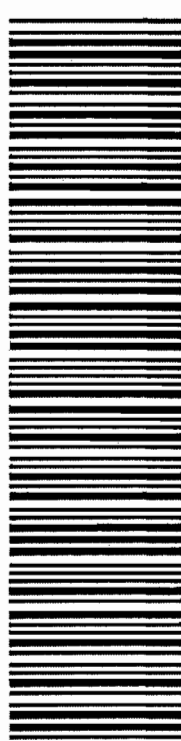
FPL COMMENT: Due to the many different configurations, variables, and scheduling perturbations anticipated with the commissioning the Reburn system, providing notice to the Department of “any test program which involves stack testing (formal or informal)” as required by Specific Condition 3 is unprecedented in any FPL permit, and places undue burdens on both the Manatee Plant and the DEP Southwest District Office. FPL suggests the following language replace the existing language of Specific Condition 3: “FPL shall notify the DEP Southwest District, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator as provided by Rule 62-297.310.”

RESPONSE: The Department accepts (in part) FPL’s suggestion, but will additionally require notice of major changes to the construction schedule as follows:

*FPL shall notify the DEP Southwest District, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator as provided by Rule 62-297.310. FPL shall promptly notify the DEP Southwest District Office and the Bureau of Air Regulation of substantial changes to the construction schedule.*

## CONCLUSION

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

		<b>2ND</b> Parcels: <b>1/1</b>
<b>Front DEPT AIR RESOURCE MGMT</b> P. Adams DIRECTOR OFFICE STE 23 111 S MAGNOLIA DR TALLAHASSEE, FL 32301 UNITED STATES Tel: 850-921-9505 To: National Park Service Mr. John Bunyak 12795 W. Alameda Parkway Air Division Lakewood, CO 80228 UNITED STATES Tel: 303-966-2818		<b>ORIGIN:</b> TLH Sender's ref 37550201000 A7 SP255 <b>POSTCODE:</b> <b>80228</b>
Description: books Weight: 2 lbs for 1 pcs Date: 2005-05-13 DHL standard terms and conditions apply.	(2L)JUS80228  <b>EGEH 8E</b> <b>OOH</b>	<b>17TU</b> Day
 WAYBILL: 26263612351 (Non-Negotiable)		

▲ PEEL HERE

PEEL HERE ▲

Please fold or cut in half

**DO NOT PHOTOCOPY**

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

**SENDER'S RECEIPT**

Waybill #: 26263612351

To (Company):  
 National Park Service  
 Air Division  
 12795 W. Alameda Parkway  
 Lakewood, CO 80228  
 UNITED STATES

Attention To: Mr. John Bunyak  
 Phone#: 303-966-2818

Sent By: P. Adams  
 Phone#: 850-921-9505

Rate Estimate: 5.15  
 Protection: Not Required  
 Description: books

Weight (lbs.): 2  
 Dimensions: 0 x 0 x 0

Ship Ref: 37550201000 A7 SP255  
 Service Level: 2nd Day (2nd business day by 5 PM)

Special Svc:

Date Printed: 5/13/2005  
 Bill Shipment To: Sender  
 Bill To Acct: 778941286

DHL Signature (optional) \_\_\_\_\_ Route \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

For Tracking, please go to [www.dhl-usa.com](http://www.dhl-usa.com) or call 1-800-225-5345

Thank you for shipping with DHL

Create new shipment 

► View pending shipments

Print waybill 
  
 EXPRESS



		<b>EXP</b>		Parcels: <b>1/1</b>
<b>Front DEPT AIR RESOURCE MGMT</b> P. Adams DIRECTOR OFFICE STE 23 111 S MAGNOLIADR TALLAHASSEE, FL 32301 UNITED STATES Tel: 850-921-9505 To: U.S. EPA Region 4 Mr. Gregg M. Worley 61 Forsyth Street Air Permits Section Atlanta, GA 30303 UNITED STATES				
ORIGIN: <b>TLH</b> Sender's ref: <b>37550201000 A7 AP255</b> POSTCODE: <b>30303</b> Tel: 404-562-9141				
Description: books  Weight: 2 lbs for 1 pcs Date: 2005-05-13 DHL standard terms and conditions apply.		HARB 6V ATT (2L)US30303 MAYBILL: 26263701155 (Non-Negotiable)		

▲ PEEL HERE

PEEL HERE ▲

Please fold or cut in half

**DO NOT PHOTOCOPY**

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

**SENDER'S RECEIPT**

Waybill #: 26263701155

**To (Company):**U.S. EPA Region 4  
Air Permits Section  
61 Forsyth StreetAtlanta, GA 30303  
UNITED STATESAttention To: Mr. Gregg M. Worley  
Phone#: 404-562-9141Sent By: P. Adams  
Phone#: 850-921-9505Rate Estimate:  
Protection:  
Description:6  
Not Required  
booksWeight (lbs.):  
Dimensions:2  
0 x 0 x 0Ship Ref:  
Service Level:  
business day by 12 PM)37550201000 A7 AP255  
Next Day 12:00 (Next

Special Svc:

Date Printed: 5/13/2005  
Bill Shipment To: Sender  
Bill To Acct: 778941286

DHL Signature (optional) \_\_\_\_\_ Route \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

For Tracking, please go to [www.dhl-usa.com](http://www.dhl-usa.com) or call 1-800-225-5345

Thank you for shipping with DHL

Create new shipment 

▶ View pending shipments

Print waybill 
  
 EXPRESS

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

7001 0320 0001 3692 2817

**OFFICIAL USE**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

Mr. Clarence Troxell  
 3321 Lakeside Circle  
 Parrish, Florida 34219

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

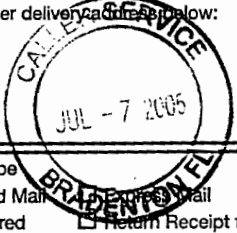
7001 0320 0001 3692 2794

**OFFICIAL USE**

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

**Total** Dan Kumarich, President  
**Sent To** Manatee Citizens Against Pollution  
**Street, or PO** P.O. Box 660  
**City, St.** Parrish, FL 34219

BEST AVAILABLE COPY

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"><li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li><li>■ Print your name and address on the reverse so that we can return the card to you.</li><li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li></ul>		<p>A. Signature <i>Terry L. Farnham</i> Agent <input type="checkbox"/> Addressee <input type="checkbox"/></p> <p>B. Received by (Printed Name) <i>Terry L. FARNHAM</i> C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Registered Mail <input type="checkbox"/> Insured Mail <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>	
1. Article Addressed to:  Mr. Ron Getman, Chairman Manatee County Board of Commissioners Post Office Box 1000 Bradenton, Florida 34206-1000			
2. Article Number (Transfer from service label) <i>7001 0320 0001 3692 2800</i>			
PS Form 3811, February 2004		Domestic Return Receipt 102595-02-M-1540	

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

7001 0320 0001 3692 2800

Mr. Ron Getman, Chairman  
Manatee County Board of  
Commissioners  
Post Office Box 1000  
Bradenton, Florida 34206-1000

PS Form 3800, January 2001. See Reverse for Instructions.

**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. Paul Plotkin, General Manager  
 Manatee Plant  
 Florida Power & Light Company  
 19050 State Road 62  
 Parrish, Florida 34219-9220

**2. Article Number**

(Transfer from service label)

7001 0320 0001 3692 2824

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

**COMPLETE THIS SECTION ON DELIVERY**
**A. Signature**

X

*Gale Kinne*

☐ Agent

☐ Addressee

**B. Received by (Printed Name)**

GALE KINNE

**C. Date of Delivery**

7-7-05

**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

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 2824

Postage

\$

Certified Fee

Return Receipt Fee

(Endorsement Required)

Restricted Delivery Fee

(Endorsement Required)

Postmark  
 Here

Mr. Paul Plotkin, General Manager  
 Manatee Plant  
 Florida Power & Light Company  
 19050 State Road 62  
 Parrish, Florida 34219-9220

PS Form 3800, January 2001. See Reverse for Instructions.

# THE HERALD

WWW.HERALDTODAY.COM  
P.O. Box 921  
Bradenton, FL 34206-0921  
102 Manatee Avenue West  
Bradenton, FL 34205-8894  
941/748-0411 ext. 7065

The Herald  
Published Daily  
Bradenton, Manatee, Florida

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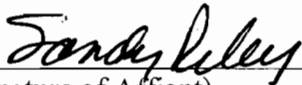
JUN 13 2005

BUREAU OF AIR REGULATION

STATE OF FLORIDA  
COUNTY OF MANATEE;

Before the undersigned authority personally appeared Sandy Riley, who on oath says that she is a Legal Advertising Representative of the The Herald, a daily newspaper published at Bradenton in Manatee County, Florida; that the attached copy of the advertisement, being a Legal Advertisement in the matter of **PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT** in the Court, was published in said newspaper in the issues of, **6/6,'05**

Affiant further says that the said publication is a newspaper published at Bradenton, in said Manatee County, Florida, and that the said newspaper has heretofore been continuously published in said Manatee County, Florida, each day and has been entered as second-class mail matter at the post office in Bradenton, in said Manatee County, Florida for a period of 1 year next preceding the first publication of the attached copy of advertisement; and affiant further says that 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.

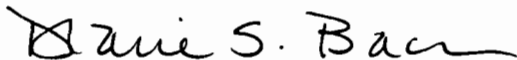


(Signature of Affiant)

Sworn to and subscribed before me this

6th Day of June, 2005

**DIANE S. BACRO**  
Notary Public  
State of Florida  
My comm. exp. 08-15-2007  
Comm. No. DD 206531



SEAL & Notary Public

Personally Known ☒ OR Produced Identification \_\_\_\_\_  
Type of Identification Produced \_\_\_\_\_

# **PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0810010-010-AC

Florida Power & Light Company  
Manatee Power Plant  
Manatee County

The Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit for Manatee Power Plant, located at 19050 State Road 62 in Parrish, Manatee County. The permit is to allow the construction and operation of a reburn system on Manatee Units 1 and 2. The proposed project is intended to comply with an agreement reached between the Department and Florida Power & Light Company on September 19, 2002. The reburn system will incorporate overfire air system and burner replacements on each boiler, as well as modifications to the oil and gas systems for the reburn fuel. A control system installation and ancillary plant service modifications are necessary in order to complete the installation. A Determination of Best Available Control Technology (BACT) is not required in order to comply with the aforementioned agreement.

An air quality impact analysis was 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 of significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this 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, 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.

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  
Southwest District Office  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: (813) 744-6100  
Fax: (813) 744-6084

The complete project file includes the application, Draft permit, and the information submitted by the Responsible Official. Interested persons may review specific details of this project by contacting the Administrator, North Permitting Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850-488-0114, for additional information.



RECEIVED

MAY 09 2005

DIVISION OF AIR  
RESOURCE MANAGEMENT

April 25, 2005

Florida Department of Environmental Protection  
Division of Air Resource Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Attention: Mr. Michael G. Cooke, Director

RE: FPL Manatee Plant  
Facility I.D. No. 0810010  
Air Construction Permit Application for Reburn Technology

Dear Mr. Cooke:

Florida Power & Light Company (FPL) is submitting this application to Florida Department of Environmental Protection (FDEP) to obtain an air construction permit for the installation of reburn technology on Manatee Plant Units 1 and 2. This project is a result of a September 2002 agreement between FPL and FDEP for the purpose of ensuring compliance with ambient air quality standards for ozone in the Tampa Bay region. The vendors for this project have been identified and we are ready to begin installation on the first unit in the fall of this year. The installation on both units will be complete in 2006 with optimization on the second unit completed in the summer of 2007.

FPL looks forward to working with the Department on this important air pollution prevention project. Please contact Kevin Washington of our Environmental Services Department at (561) 691-2877 or Ken Kosky of Golder Associates at (352) 336-5600 if there are any technical questions or additional information related to this application.

Sincerely,

Paul Plotkin  
Manatee Plant General Manager

Enclosures

cc: Joel Smolen, P.E., FDEP Southwest District  
Karen Collins-Fleming, Manatee County Environmental Management Department  
Kevin Washington, FPL Environmental Services  
Ken Kosky, Golder Associates

*M. Halpern*  
*G. Wolley, EPA*  
*G. Casmyak, NPS*

**APPLICATION FOR AIR CONSTRUCTION PERMIT  
FOR INSTALLATION OF REBURN TECHNOLOGY**

**MANATEE POWER PLANT  
*PARRISH, FLORIDA***

**Prepared For:  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, Florida 33408**

**Prepared By:  
Golder Associates Inc.  
6241 NW 23rd Street, Suite 500  
Gainesville, Florida 32653-1500**

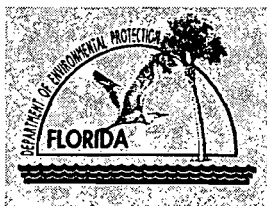
**April 2005**

**0537554**

**DISTRIBUTION:  
10 Copies – FPL  
2 Copies – Golder Associates Inc.**



**PART I**



# Department of Environmental Protection

## Division of Air Resource Management

### APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

**Air Construction Permit** – Use this form to apply for an air construction permit for a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

**Air Operation Permit** – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

**Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option)**

– Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

#### Identification of Facility

1. Facility Owner/Company Name: <b>Florida Power &amp; Light Company</b>	
2. Site Name: <b>Manatee Plant</b>	
3. Facility Identification Number: <b>0810010</b>	
4. Facility Location...: Street Address or Other Locator: <b>109050 State Road 62</b> City: <b>Parrish</b> County: <b>Manatee</b> Zip Code: <b>34219-9220</b>	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

#### Application Contact

1. Application Contact Name: <b>Kevin Washington, Senior Environmental Engineer</b>	
2. Application Contact Mailing Address... Organization/Firm: <b>FPL - Environmental Services</b> Street Address: <b>700 Universe Blvd.; P.O. Box 14000</b> City: <b>Juno Beach</b> State: <b>FL</b> Zip Code: <b>33408</b>	
3. Application Contact Telephone Numbers... Telephone: <b>(561) 691-2877</b> ext. Fax: <b>(561) 691-7049</b>	
4. Application Contact Email Address: <b>kevin_washington@fpl.com</b>	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<b>5-9-05</b>
2. Project Number(s):	<b>0810010-010-AC</b>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

## APPLICATION INFORMATION

### Purpose of Application

This application for air permit is submitted to obtain: (Check one)

#### **Air Construction Permit**

☒ Air construction permit.

#### **Air Operation Permit**

- ☐ Initial Title V air operation permit.
- ☐ Title V air operation permit revision.
- ☐ Title V air operation permit renewal.
- ☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- ☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

#### **Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)**

- ☐ Air construction permit and Title V permit revision, incorporating the proposed project.
- ☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

**Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:**

- ☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

### Application Comment

This application is for the installation of reburn system to minimize the formation of NO<sub>x</sub> emissions from Manatee Units 1 and 2 in accordance with the September 2002 agreement with FDEP.

## APPLICATION INFORMATION

### Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
001	Fossil Fuel Steam Generator, Unit 1	AC1F	NA
002	Fossil Fuel Steam Generator, Unit 2	AC1F	NA

### Application Processing Fee

Check one: ☐ Attached - Amount: \$ \_\_\_\_\_ ☒ Not Applicable

## APPLICATION INFORMATION

### Owner/Authorized Representative Statement

**Complete if applying for an air construction permit or an initial FESOP.**

1. Owner/Authorized Representative Name : <b>Paul Plotkin, Manatee Plant, General Manager</b>
2. Owner/Authorized Representative Mailing Address... Organization/Firm: <b>FPL - Manatee Plant</b> Street Address: <b>19050 State Road 62</b> City: <b>Parrish</b> State: <b>FL</b> Zip Code: <b>34219-9220</b>
3. Owner/Authorized Representative Telephone Numbers... Telephone: <b>(941) 776-5211</b> ext. Fax: <b>(941) 776-5219</b>
4. Owner/Authorized Representative Email Address: <b>paul_plotkin@fpl.com</b>
5. Owner/Authorized Representative Statement:  <i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i>   Signature   Date

## APPLICATION INFORMATION

### Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:			
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.			
3. Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:			
4. Application Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -			
5. Application Responsible Official Email Address:			
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.  Signature _____ Date _____			

## APPLICATION INFORMATION

### Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**

Registration Number: **14996**

2. Professional Engineer Mailing Address...

Organization/Firm: **Golder Associates Inc.\*\***

Street Address: **6241 NW 23<sup>rd</sup> Street, Suite 500**

City: **Gainesville**

State: **FL**

Zip Code: **32653**

3. Professional Engineer Telephone Numbers...

Telephone: **(352) 336-5600**

ext. **516**

Fax: **(352) 336-6603**

4. Professional Engineer Email Address: **kkosky@golder.com**

5. Professional Engineer Statement:

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

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

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.*

*(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

*Kennard F. Kosky*  
Signature

*4/26/05*  
Date



\* Attach any exceptions to certification statement.

\*\* Board of Professional Engineers Certificate of Authorization #00001670

## FACILITY INFORMATION

### II. FACILITY INFORMATION

#### A. GENERAL FACILITY INFORMATION

##### Facility Location and Type

1. Facility UTM Coordinates... Zone 17      East (km)    367.250 North (km)   3054.150		2. Facility Latitude/Longitude... Latitude (DD/MM/SS)    27/36/21 Longitude (DD/MM/SS)   82/20/44	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4911
7. Facility Comment : The facility consists of two fossil fuel-fired steam generators and, unregulated and exempt emission units.			

##### Facility Contact

1. Facility Contact Name: Mary Maxwell			
2. Facility Contact Mailing Address... Organization/Firm: FPL - Manatee Plant Street Address: 19050 State Road 62 City: Parrish                      State: FL                      Zip Code: 34219-9220			
3. Facility Contact Telephone Numbers: Telephone: (941) 776-5278      ext.      Fax: (941) 776-5219			
4. Facility Contact Email Address:			

##### Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:			
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City:                      State:                      Zip Code:			
3. Facility Primary Responsible Official Telephone Numbers... Telephone: (   )   -      ext.      Fax: (   )   -			
4. Facility Primary Responsible Official Email Address:			



## FACILITY INFORMATION

### Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:  <b>Manatee Unit 3 is under construction. When complete, this unit will be subject to NSPS (Subpart GG and Da; Subpart KKKK will replace these NSPS when finalized).</b>	



## FACILITY INFORMATION

## B. EMISSIONS CAPS

### **Facility-Wide or Multi-Unit Emissions Caps**

[illegible]

## FACILITY INFORMATION

### C. FACILITY ADDITIONAL INFORMATION

#### Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>2003</u>
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>2003</u>
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>2003</u>

#### Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction or Modification: <input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u>
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

## FACILITY INFORMATION

### Additional Requirements for FESOP Applications

- |   |
|---|
| 1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):<br><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility) |
|---|

### Additional Requirements for Title V Air Operation Permit Applications

- |  |
|--|
| 1. List of Insignificant Activities (Required for initial/renewal applications only):<br><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (revision application)   |
| 2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):<br><input type="checkbox"/> Attached, Document ID: _____<br><input checked="" type="checkbox"/> Not Applicable (revision application with no change in applicable requirements)   |
| 3. Compliance Report and Plan (Required for all initial/revision/renewal applications):<br><input type="checkbox"/> Attached, Document ID: _____<br>Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing. |
| 4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):<br><input type="checkbox"/> Attached, Document ID: _____<br><input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed<br><input checked="" type="checkbox"/> Not Applicable   |
| 5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :<br><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable  |
| 6. Requested Changes to Current Title V Air Operation Permit:<br><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable  |

### Additional Requirements Comment

See Part II.

## EMISSIONS UNIT INFORMATION

Section [1] of [2]  
Unit 1

### III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application** - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application** - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application** - Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

**EMISSIONS UNIT INFORMATION**Section [1] of [2]  
Unit 1**A. GENERAL EMISSIONS UNIT INFORMATION****Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

- ☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

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

2. Description of Emissions Unit Addressed in this Section:  
**Fossil Fuel-Fired Steam Generator Unit 1**

3. Emissions Unit Identification Number: **001**

4. Emissions Unit Status Code: <b>A</b>	5. Commence Construction Date:	6. Initial Startup Date: <b>10/13/76</b>	7. Emissions Unit Major Group SIC Code: <b>49</b>	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--	--------------------------------	---	--	--

9. Package Unit:  
Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_

10. Generator Nameplate Rating: **863.3 MW**

11. Emissions Unit Comment:  
**Generator name plant rating from the Ten-Year Power Plant Site Plan submitted to the Florida Public Service Commission. Actual generator output varies.**

## EMISSIONS UNIT INFORMATION

Section [1] of [2]

Unit 1

### Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Staged combustion using reburn, overfire air, and low-NO<sub>x</sub> burners.

2. Control Device or Method Code(s): 025, 204, and 205



**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

Unit 1

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate:
3. Maximum Heat Input Rate: <b>8,650/5,670</b> million Btu/hr
4. Maximum Incineration Rate:           pounds/hr tons/day
5. Requested Maximum Operating Schedule: hours/day   days/week weeks/year <b>8,760</b> hours/year
6. Operating Capacity/Schedule Comment:  <b>The heat input of 8,760 MMBtu/hr is for residual oil firing. The heat input of 5,670 MMBtu/hr is for natural gas firing.</b>

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

Unit 1

**C. EMISSION POINT (STACK/VENT) INFORMATION****(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>NA</b>		2. Emission Point Type Code:	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:	6. Stack Height: <b>499</b> feet	7. Exit Diameter: <b>26.2</b> feet	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:  <b>The installation of a reburn system is not expected to change stack gas parameters.</b>			

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]  
Unit 1

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type):  <b>Residual Oil Firing</b>		
2. Source Classification Code (SCC): <b>1-01-004-01</b>		3. SCC Units: <b>1,000 gallons</b>
4. Maximum Hourly Rate: <b>56.9</b>	5. Maximum Annual Rate: <b>498,513</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>1</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>152</b>
10. Segment Comment: <b>Segment shown for residual oil firing. Unit authorized to also utilize distillate oil and on-specification used oil.</b>		

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

1. Segment Description (Process/Fuel Type):  <b>Natural Gas Firing</b>		
2. Source Classification Code (SCC): <b>1-01-006-01</b>		3. SCC Units: <b>MMcf</b>
4. Maximum Hourly Rate: <b>5.45</b>	5. Maximum Annual Rate: <b>47,759</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>1,026</b>
10. Segment Comment: <b>Segment shown for natural gas firing. Unit authorized to fire propane.</b>		

**Section [1] of [2]**  
**Unit 1**

**List of Pollutants Emitted by Emissions Unit**

[illegible]

## EMISSIONS UNIT INFORMATION

Section [1] of [2]  
Unit 1

## POLLUTANT DETAIL INFORMATION

Page [1] of [1]  
Nitrogen Oxides - NO<sub>x</sub>F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <b>NO<sub>x</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>2,162.5 lb/hour      9,471.75 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to      tons/year			
6. Emission Factor: <b>0.25 lb/MMBtu</b>  Reference: <b>See Part II.</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions:  $0.25 \text{ lb/MMBtu} \times 8,650 \text{ MMBtu/hr} = 2,162.5 \text{ lb/hr};$ $2,162.5 \text{ lb/hr} \times 8,760 \text{ hr/yr} \times 1 \text{ ton}/2,000 \text{ lb} = 9,471.75 \text{ tons/yr}$			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>See Part II.</b>			

**EMISSIONS UNIT INFORMATION**Section [1] of [2]  
Unit 1**POLLUTANT DETAIL INFORMATION**Page [1] of [1]  
Nitrogen Oxides - NO<sub>x</sub>**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.25 lb/MMBtu, 30-day rolling average</b>	4. Equivalent Allowable Emissions: <b>2,162.5 lb/hour      9,472 tons/year</b>
5. Method of Compliance: <b>CEM</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>See Part II.</b>	

Allowable Emissions Allowable Emissions \_\_\_\_ of \_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions \_\_\_\_ of \_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]  
Unit 1

**G. VISIBLE EMISSIONS INFORMATION**

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 3

1. Visible Emissions Subtype: <b>VE40</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rules 62-296.405(1)(a) and (1)(e)1., F.A.C.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 3

1. Visible Emissions Subtype: <b>VE60</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rule 62-210.700(3), F.A.C.</b>	

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

Unit 1

**G. VISIBLE EMISSIONS INFORMATION**

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

**Visible Emissions Limitation:** Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: <b>VE100</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>100 %</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>60 min/hour</b>	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rules 62-210.700(1) and (2), F.A.C., for two hours in 24 hours.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_ of \_\_\_\_

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



**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

Unit 1

**H. CONTINUOUS MONITOR INFORMATION****Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 2

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NO<sub>x</sub></b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>TECO</b> Model Number: <b>42C</b> Serial Number: <b>42C-77266-385</b>	
5. Installation Date: <b>5/29/03</b>	6. Performance Specification Test Date: <b>7/2/03</b>
7. Continuous Monitor Comment:  <b>Required by 40 CFR Part 75, Section 75.10(a)(2). This monitor will be used for determining compliance with the 30-day rolling average.</b>	

**Continuous Monitoring System:** Continuous Monitor 2 of 2

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>CO<sub>2</sub></b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Milton Roy</b> Model Number: <b>3300</b> Serial Number: <b>N3k4370T</b>	
5. Installation Date: <b>2/7/94</b>	6. Performance Specification Test Date: <b>12/19/94</b>
7. Continuous Monitor Comment:  <b>Required by 40 CFR Part 75, Section 75.10(a)(4). This is also a diluent monitor for measuring NO<sub>x</sub> emissions, and will be used for determining compliance with the 30-day rolling average.</b>	

## EMISSIONS UNIT INFORMATION

Section [1] of [2]  
Unit 1

### I. EMISSIONS UNIT ADDITIONAL INFORMATION

#### Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>2003</b>
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>2003</b>
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <b>See Part II</b> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input checked="" type="checkbox"/> Attached, Document ID: <b>See Part II.</b> <input type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]  
Unit 1

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications**

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [1] of [2]

Unit 1

**Additional Requirements Comment**

See Part II.

## EMISSIONS UNIT INFORMATION

Section [2] of [2]

Unit 2

### III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application** - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application** - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application** - Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

## EMISSIONS UNIT INFORMATION

Section [2] of [2]  
Unit 2

### A. GENERAL EMISSIONS UNIT INFORMATION

#### Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- ☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

#### Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:  
**Fossil Fuel-Fired Steam Generator Unit 2**

3. Emissions Unit Identification Number: **002**

4. Emissions Unit Status Code: <b>A</b>	5. Commence Construction Date:	6. Initial Startup Date: <b>11/19/77</b>	7. Emissions Unit Major Group SIC Code: <b>49</b>	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--	--------------------------------	---	--	--

9. Package Unit:  
Manufacturer:

Model Number:

10. Generator Nameplate Rating: **863.3 MW**

11. Emissions Unit Comment:  
**Generator name plant rating from the Ten-Year Power Plant Site Plan submitted to the Florida Public Service Commission. Actual generator output varies.**

## EMISSIONS UNIT INFORMATION

Section [2] of [2]  
Unit 2

### Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Staged combustion using reburn, overfire air, and low-NO<sub>x</sub> burners.

2. Control Device or Method Code(s): 025, 204, and 205

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]  
Unit 2

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate:
3. Maximum Heat Input Rate: <b>8,650/5,670</b> million Btu/hr
4. Maximum Incineration Rate:           pounds/hr tons/day
5. Requested Maximum Operating Schedule: hours/day   days/week weeks/year <b>8,760</b> hours/year
6. Operating Capacity/Schedule Comment:  <b>The heat input of 8,760 MMBtu/hr is for residual oil firing. The heat input of 5,670 MMBtu/hr is for natural gas firing.</b>



**EMISSIONS UNIT INFORMATION**Section [2] of [2]  
Unit 2**C. EMISSION POINT (STACK/VENT) INFORMATION**  
(Optional for unregulated emissions units.)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>NA</b>		2. Emission Point Type Code:	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code:	6. Stack Height: <b>499 feet</b>	7. Exit Diameter: <b>26.2 feet</b>	
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:  <b>The installation of a reburn system is not expected to change stack gas parameters.</b>			

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]  
Unit 2

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type):  <b>Residual Oil Firing</b>		
2. Source Classification Code (SCC): <b>1-01-004-01</b>		3. SCC Units: <b>1,000 gallons</b>
4. Maximum Hourly Rate: <b>56.9</b>	5. Maximum Annual Rate: <b>498,513</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>1</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>152</b>
10. Segment Comment: <b>Segment shown for residual oil firing. Unit authorized to also utilize distillate oil and on-specification used oil.</b>		

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

1. Segment Description (Process/Fuel Type):  <b>Natural Gas Firing</b>		
2. Source Classification Code (SCC): <b>1-01-006-01</b>		3. SCC Units: <b>MMcf</b>
4. Maximum Hourly Rate: <b>5.45</b>	5. Maximum Annual Rate: <b>47,759</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>1,026</b>
10. Segment Comment: <b>Segment shown for natural gas firing. Unit authorized to fire propane.</b>		

**Section [2] of [2]**  
**Unit 2**

### List of Pollutants Emitted by Emissions Unit

[illegible]

## EMISSIONS UNIT INFORMATION

Section [2] of [2]  
Unit 2

## POLLUTANT DETAIL INFORMATION

Page [1] of [1]  
Nitrogen Oxides - NO<sub>x</sub>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –  
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

**Potential/Estimated Fugitive Emissions**

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <b>NO<sub>x</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>2,162.5 lb/hour      9,471.75 tons/year</b>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to                      tons/year			
6. Emission Factor: <b>0.25 lb/MMBtu</b>  Reference: <b>See Part II.</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions:  <b>0.25 lb/MMBtu x 8,650 MMBtu/hr = 2,162.5 lb/hr;</b>  <b>2,162.5 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 9,471.75 tons/yr</b>			
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>See Part II.</b>			

**EMISSIONS UNIT INFORMATION**Section [2] of [2]  
Unit 2**POLLUTANT DETAIL INFORMATION**Page [1] of [1]  
Nitrogen Oxides - NO<sub>x</sub>**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -  
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>0.25 lb/MMBtu, 30-day rolling average</b>	4. Equivalent Allowable Emissions: <b>2,162.5 lb/hour 9,472 tons/year</b>
5. Method of Compliance: <b>CEM</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>See Part II.</b>	

**Allowable Emissions** Allowable Emissions \_\_\_\_ of \_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**Allowable Emissions** Allowable Emissions \_\_\_\_ of \_\_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]  
Unit 2

**G. VISIBLE EMISSIONS INFORMATION**

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 3

1. Visible Emissions Subtype: <b>VE40</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rules 62-296.405(1)(a) and (1)(e)1., F.A.C.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 3

1. Visible Emissions Subtype: <b>VE60</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rule 62-210.700(3), F.A.C.</b>	

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]  
Unit 2

**G. VISIBLE EMISSIONS INFORMATION**

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

**Visible Emissions Limitation:** Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: <b>VE100</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>100 %</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>60 min/hour</b>	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rules 62-210.700(1) and (2), F.A.C., for two hours in 24 hours.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_ of \_\_\_\_

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

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]  
Unit 2

**H. CONTINUOUS MONITOR INFORMATION**

Complete if this emissions unit is or would be subject to continuous monitoring.

**Continuous Monitoring System:** Continuous Monitor 1 of 2

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NO<sub>x</sub></b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>TECO</b> Model Number: <b>42C</b> Serial Number: <b>42C-77265-385</b>	
5. Installation Date: <b>5/12/03</b>	6. Performance Specification Test Date: <b>5/21/03</b>
7. Continuous Monitor Comment:  <b>Required by 40 CFR Part 75, Section 75.10(a)(2). This monitor will be used for determining compliance with the 30-day rolling average.</b>	

**Continuous Monitoring System:** Continuous Monitor 2 of 2

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>CO<sub>2</sub></b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <b>Milton Roy</b> Model Number: <b>3300</b> Serial Number: <b>N3k4365T</b>	
5. Installation Date: <b>2/7/94</b>	6. Performance Specification Test Date: <b>12/19/94</b>
7. Continuous Monitor Comment:  <b>Required by 40 CFR Part 75, Section 75.10(a)(4). This is also a diluent monitor for measuring NO<sub>x</sub> emissions, and will be used for determining compliance with the 30-day rolling average.</b>	



## EMISSIONS UNIT INFORMATION

Section [2] of [2]

Unit 2

### I. EMISSIONS UNIT ADDITIONAL INFORMATION

#### Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>2003</b>
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <b>2003</b>
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <b>See Part II</b> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input checked="" type="checkbox"/> Attached, Document ID: <b>See Part II</b> <input type="checkbox"/> Not Applicable

## EMISSIONS UNIT INFORMATION

Section [2] of [2]

Unit 2

### Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

### Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [2] of [2]  
Unit 2

**Additional Requirements Comment**

See Part II.

## PART II

## 1.0 INTRODUCTION

Florida Power & Light Company (FPL) is submitting this application to Florida Department of Environmental Protection (FDEP) to obtain an air construction permit for the installation of reburn technology at the Manatee Plant, Units 1 and 2, located in Parrish, Manatee County, Florida. Manatee Plant, Units 1 and 2 are existing fossil fuel fired units firing residual oil and natural gas. These units are located on a 9,300 acre site that includes a 4,000-acre cooling pond. Units 1 and 2 are authorized to operate under Final Title V Permit No. 0810010-009-AV.

In September 2002, FPL and FDEP entered into an agreement ("Agreement") for the purpose of ensuring compliance with ambient air quality standards for ozone in the Tampa Bay region (see Attachment A). This agreement, among other things, calls for the installation of reburn technology to achieve a nitrogen oxides (NO<sub>x</sub>) emissions rate of 0.25 lb/MMBtu on a 30-day rolling average basis. In addition, the reburn technology shall be designed to achieve a NO<sub>x</sub> emissions goal of 0.20 lb/MMBtu on a 30-day rolling average. After installation of the reburn technology, and optimization for an 18-month period, FPL shall submit a report summarizing the results of the program and addressing whether any further changes in the applicable NO<sub>x</sub> emission limit is possible.

This application is being submitted to obtain authorization from FDEP for the installation of the reburn technology identified in the Agreement. The air permit application consists of the appropriate applications form [Part I; DEP Form 62-210.900(1)], a technical description of the project (Part II, Section 2.0), and rule applicability for the project (Part II, Section 3.0).

## 2.0 PROJECT DESCRIPTION

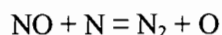
### 2.1 EXISTING MANATEE UNITS

The existing Manatee Units are fossil fuel fired steam electric generators with a nominal capacity of 863 MW. Each unit has a heat input of 8,650 MMBtu/hr when firing No. 6 fuel oil (i.e., residual oil) and 5,670 MMBtu/hr when firing natural gas. The units are front-fired using four rows of eight burners. The units are equipped with flue gas recirculation for control of NO when firing fuel oil. The current NO<sub>x</sub> emission limit is 0.3 lb/MMBtu on a 30-day rolling average.

### 2.2 DESCRIPTION OF REBURN TECHNOLOGY

Reburn technology is a pollution prevention technology using the combustion process to remove NO<sub>x</sub> by using fuel as a reducing agent. This is achieved by injecting fuel above the main combustion zone to form a slightly fuel-rich zone, also referred to as "reburning zone" where the fuel fragments react with NO formed in the primary combustion zone to form molecular nitrogen. Air to complete combustion is introduced beyond the "reburn zone" to complete combustion. These basic concepts are shown in Figure 2-1.

As shown in Figure 2-1, the main burners supply fuel and air as the primary combustion zone where about 80 to 85 percent of the total heat input occurs. The fuel in this zone is burned in fuel-lean conditions resulting in relatively high levels of NO<sub>x</sub> emissions. Low-NO<sub>x</sub> burners can be installed to provide initial NO<sub>x</sub> control resulting in lower amount of NO that ultimately is required to be "reduced" in the reburn zone. In the reburn zone, fuel is injected typically on both sides of the boiler to obtain penetration of the combustion gas stream. About 10 to 15 percent of the total heat input is supplied in the reburn zone. This zone is slightly fuel rich resulting in the breakdown of the fuel into hydrocarbon radicals such as CH that react with NO molecules in the combustion gas stream from the primary combustion zone. These reaction form intermediates that decay reaching molecular nitrogen through the reverse of the Zeldovich reaction:



The remaining fuel fragments and partial products of combustion such as carbon monoxide are oxidized by introducing air above the reburn zone in the form of overfire air. This zone, referred to as

the burnout zone, results in an overall fuel-lean combustion gases where the remaining nitrogen species are oxidized to NO or reduced to N<sub>2</sub>.

The most critical parameters in minimizing NO emission through reburn technology are NO<sub>x</sub> formed from the main burners, reburning stoichiometry, reburning zone temperature and residence time, mixing of the reburn fuel with the primary combustion zone gases, and amount and mixing of overfire air. Together, the effective placement of these parameters will result in substantial NO<sub>x</sub> reduction.

### **2.3 REBURN TECHNOLOGY TO BE INSTALLED ON MANATEE UNITS 1 AND 2**

The reburn technology installed on Manatee Units 1 and 2 will be under a contract to General Electric's Energy and Environmental Research Corporation (GE EER). The reburn system will involve the following:

- **Demolition**
  - Top Row of (8) Burners, Existing Overfire Air (16) Ports
- **Improve Baseline Combustion**
  - Three Burner Rows, Total (24) John Zink Dynaswirl Burners
  - CFD Modeling, Secondary Air and Gas Injection, Turning Vanes, Baffles
- **Reburn System**
  - Utilities - Instrument Air, Purge Steam, Reactivate Existing Atomizing Steam Supply System
  - Controls - Full System Control Implemented via Westinghouse Ovation DCS, Fully Integrated with BMS per NFPA Code
  - Reburn Fuel - RFO and Natural Gas, 25 percent Heat Input Capacity (240 GPM, 34,000 SCFM), Standard Fuel Metering and Control Components
  - Injection Boost - Utilize 5 percent FGR Capacity (325,000 lbs/hr), Existing GI Fan Discharge Supply Source
- **Overfire Air System**
  - 30 percent of Total Combustion Air Capacity (400,000 SCFM), No increase in total air flow
  - Standard Combustion Air Flow Metering and Control Components
  - Front Wall Injection between (7) Division Walls and Side-wall Ports

Initially the top row of burners will be demolished along with the existing overfire air system. Three rows of 8 burners will be replaced with John Zink Company, TODD Combustion Group, Dynaswirl Burners (Attachment B). These burners are the state-of-the-art successors of burners installed as Reasonably Available Control Technology (RACT) on the FPL Riviera, Port Everglades and Turkey Point Plant in the mid-1990s. The burner performance will be optimized using computational fluid dynamic (CFD) modeling. The reburn system will consist of eight front-wall and 9 rear-wall fuel injectors. Fuel injection, utilities and controls will be installed. The overfire system will consist of 8 front-wall overfire air ports and two side-wall overfire air ports. Figures 2-2 and 2-3 show a profile and three-dimensional views of the reburn and overfire air systems.

The reburn system will be installed in the first unit beginning in the fall of 2005 with completion by the end of the year. Performance optimization for the first unit is expected by the spring of 2006. For the second unit, construction of the reburn system is expected by the fall of 2006 with completion by the end of 2006. Performance optimization for the second unit is expected by the spring of 2007. Evaluations required under the Agreement and a revision of the Title V Permit is expected by the end of 2007.

The reburn technology installed on Manatee Units 1 and 2 is designed to achieve a  $\text{NO}_x$  emission rate equal to or less than 0.20 lb/MMBtu on a 30-day rolling average and will achieve after optimization a  $\text{NO}_x$  emission rate of 0.25 lb/MMBtu on a 30-day rolling average. Emissions of other pollutants related to the combustion process, such as CO and particulate matter (including opacity), are not expected to be, after optimization, different than the current emissions of these pollutants. Therefore no increases in emissions of combustion related pollutants are anticipated.



### 3.0 RULE APPLICABILITY

Under Federal and State of Florida PSD review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a pre-construction permit issued. EPA has approved Florida's State Implementation Plan (SIP), which contains PSD regulations, therefore, PSD approval authority has been granted to the FDEP.

The Manatee Plant is "major facility" since it is 1 of 28 named source categories that have the potential to emit 100 TPY or more. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment. Once a source is determined to be a "major facility" for a particular pollutant, any project that emits pollutants in amounts greater than the PSD significant emission rates is potentially subject to PSD review.

Due to the reduction in NO<sub>x</sub> emissions, the installation of reburn technology on Manatee Units 1 and 2 is a "pollution control project" as defined in 40 CFR Part 52.21(b)(32) and meets the requirements cited in FDEP Rule 62-212.400(2)(a)2., F.A.C. The latter states: "A pollution control project that is being added, replaced, or used at an existing electric utility steam generating unit and that meets the requirements of 40 CFR 52.21(b)(2)(iii)(h), adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall not be subject to the preconstruction review requirements of this rule." The installation of reburn technology being installed in Manatee Unit 1 and 2 meets these requirements and is exempt from PSD review. The applicable requirement for the installation of reburn technology is the issuance of a minor source air construction permit that incorporates the conditions of the Agreement between FPL and FDEP.

Figure 2-1. Concepts of Reburn Technology

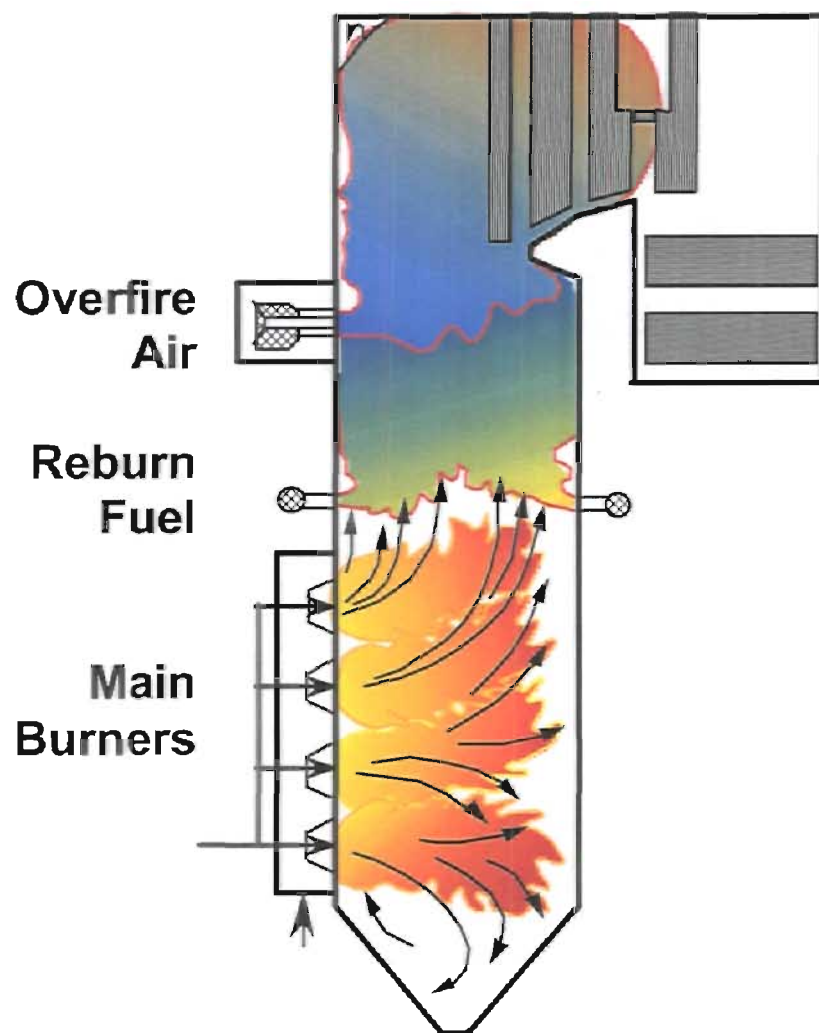


Figure 2-2. Profile of Reburn Installation for FPL Manatee Plant

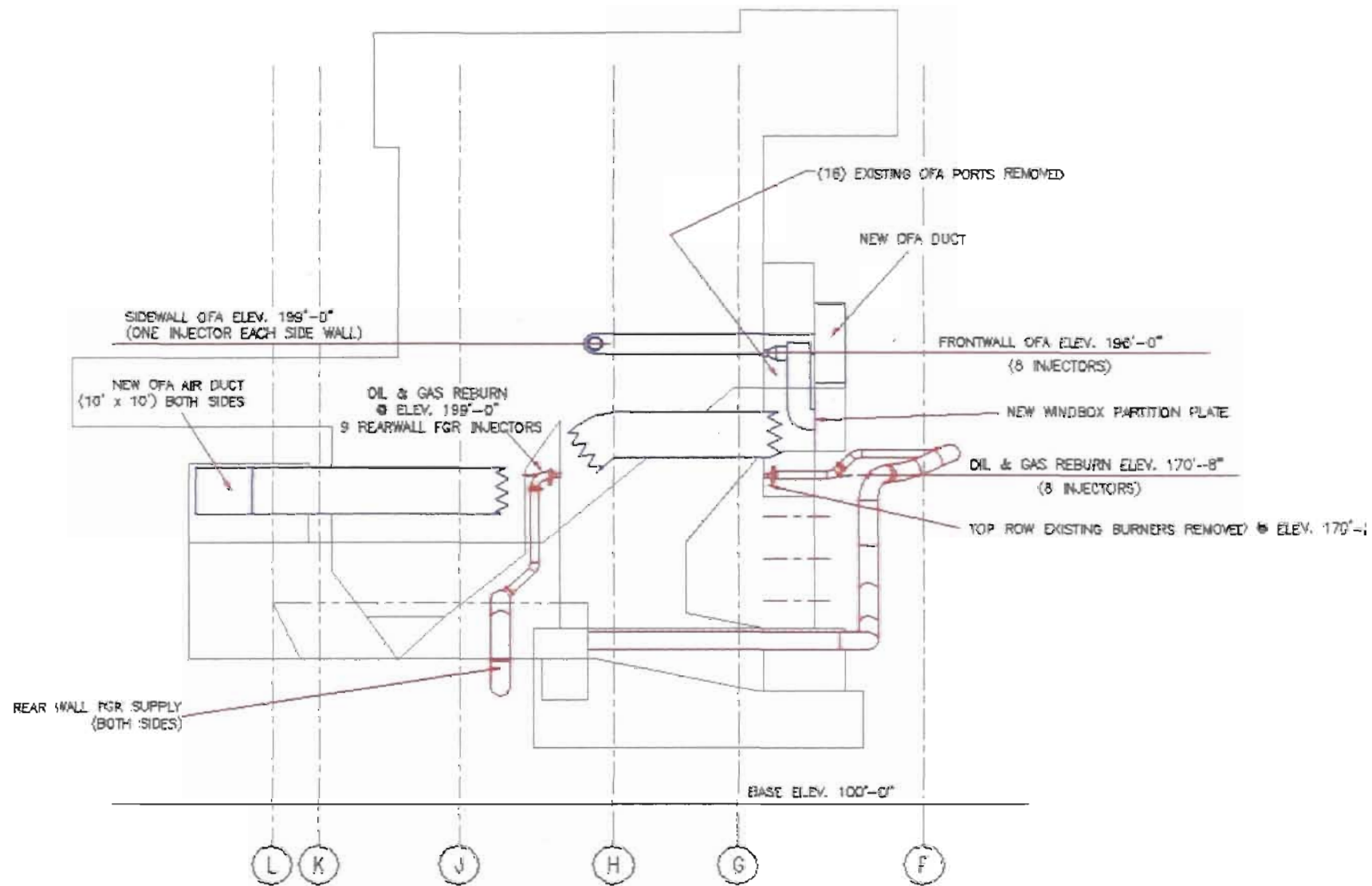
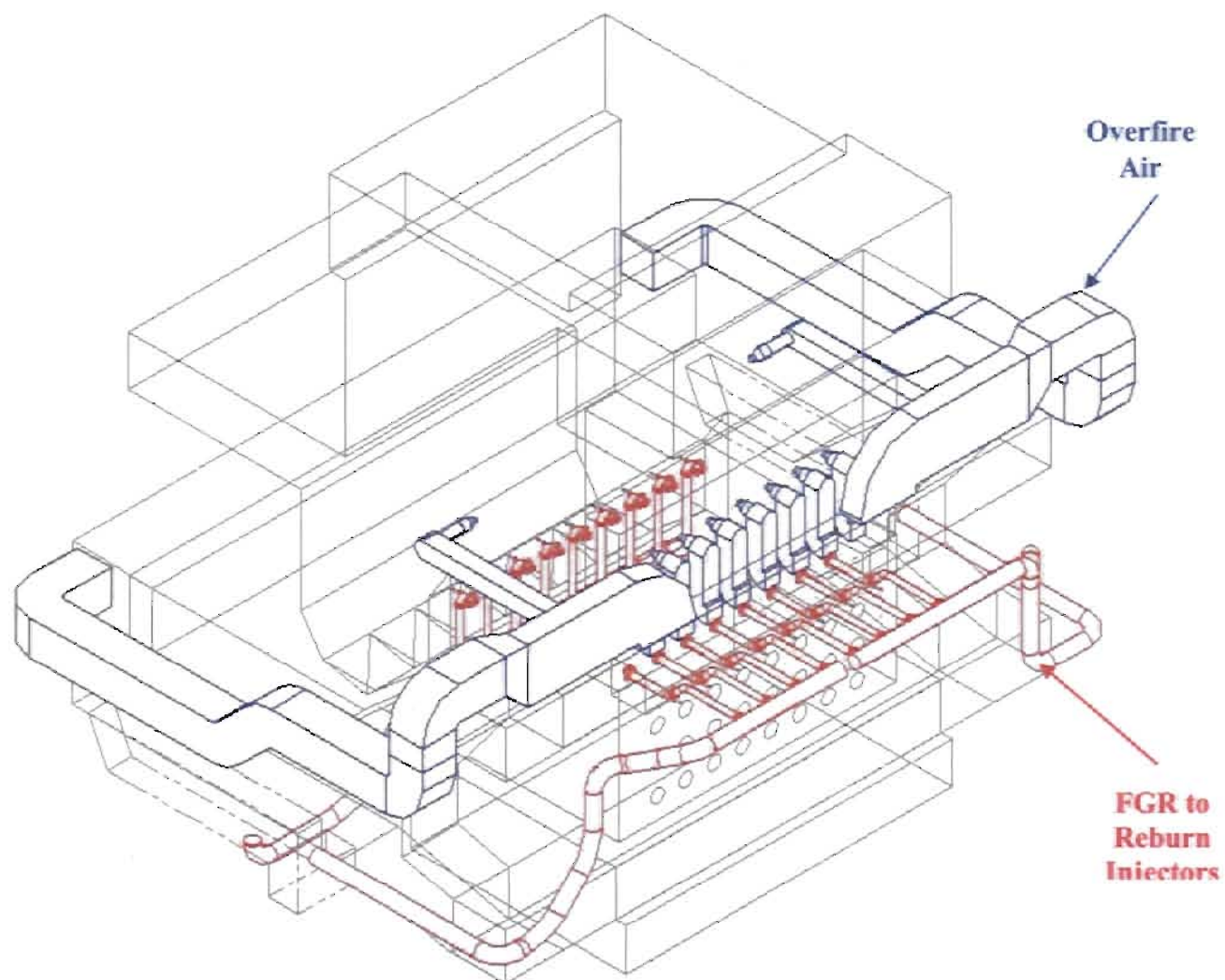


Figure 2-3. Three Dimensional View of Reburn Installation for FPL Manatee Plant



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 Manatee Plant  
 Florida Power & Light Company  
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 Parrish, Florida 34219-9220

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