

RECEIVED

AUG 1 1 2000

BUREAU OF AIR REGULATION

August 8, 2000

Mr. Jonathan Holtom, P.E. Bureau of Air Regulation Florida Department of Environmental Protection 2600 Blair Stone Rd. Tallahassee, Florida 32399-2400

Dear Mr. Holtom:

Re: Tiger Bay Auxiliary Boiler Construction Permit - Proof of Publication

I have enclosed the proof of publication of the Public Notice of Intent to Issue Air Construction Permit for Florida Power Corporation's Tiger Bay facility.

Please contact me at (727) 826-4334 if you have any questions.

Sincerely,

J. Michael Kennedy, Q.E.P.

Manager, Air Programs

AFFIDAVIT OF PUBLICATION THE LEDGER

Lakeland, Polk County, Florida

Case No	Attach Notice Here
STATE OF FLORIDA) COUNTY OF POLK)	I, PUBLIC NOTICE OF INTENL TO ISSUE AIR CONSTRUCTION PERMIT STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Before the undersigned authority personally appeared Nelson Kirkland, who on oath says that he is Classified Advertising Manager of The Ledger, a daily newspaper published at Lakeland in Polk County, Florida; that the attached copy of advertisement, being a	DEP Rie No. 1050223-009-AC Roddo Power Carporation Tiger ser Cooperation Focally Tiger Ser Cooperation Tiger Ser Cooperati
Public Notice of Intent	A Best Available Conhot Technology (BACT) defermination was required for p and subtra divides (50g) pursuant to Rule 62-296 806, F.A.C.
0,	Nitrogen Oridos (NO.) emissions will be restricted to 30 font pay year by limitin to AMBNI and hours of operation to 6,000 per year. Emissions of suffur dis-lide (SO.) of (PM/PM ₀) will be very low before on the excluse thing of anherently clean burning rat got. There will be no provisions for firing that of
in the matter of	Total emissions of pollutants should not exceed the consult emission inter in tons or
DEP File No. 1050223-009-AC	Position Functions Increase (Decisions) Specific Specific
in the	An air quothy impact analysis was not conducted: Emissions from the facility will in ment and will not significantly contribute to or cause a violation of any state or feder transfers.
	docordance with the following procedures results in a different decision or significal conditions.
Court, was published in said newspaper in the issues of	The Department will accept written comments concerning the proposed perms period of 14 (fourness) days from the date of publication of the Atlac Notice Constitution formed through the province of the Department's But Constitution of the Department of the Depar
7-31;2000	Dosed rigancy actions the Depositment shall revise the processed permit and require in Public Nation 1.34,11. The Depositment will save the permit with the artisched conditions unless a firmly strative hearing is find arrunned to section 1/20,50 and 1/20,57.53, before the decid the procedured for permitting for a hearing one set from below Medicinion in not windelice in this processing.
Affiant further says that said The Ledger is a newspaper published at Lakeland, in said Polk County, Florida, and that the said newspaper has heretofore been continuously published in said Polk County, Florida, daily, and has been entered as second class matter at the post office in Lakeland, in said Polk County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper. Signed Nelson Kirkland Classified Advertising Manager Who is personally known to me. Sworn to and subscribed before me this	A preson whose authoritorial interests are affected by the proposed permitting at an authoritorial processing (heaving) under Society (20) 50 and 1057, 13, the an authoritorial processing (heaving) under Society (20) 50 and 1057, 13, the an authoritorial processing (heaving) under Society (20) 50 and 1057, 13, the present of 300 Commonwealth Bousevert Moll Sticken AS (horizonse Horizon, 2000) the permit applicant or any of the patient Red below must be fleet within fourteen codes of missing the Post of the processing of the permit applicant or any of the patient of the processing of the permit applicant or any of the patient of the processing of the permit applicant or any of the post of the notice of the processing of the permit of t
JENNIFER L. CLENDENING MY COMMISSION # CC 900308 EXPIRES. January 10, 2004 Bonded The Victor Place (Morrowhers)	
(Scal)	

the reverse side?	SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b Print your name and address on the reverse of this form so that we card to you. Attach this form to the front of the mailpiece, or on the back if space pornit. Write Receipt Requested* on the mailpiece below the article. The Return Receipt Register on the mailpiece was delivered and delivered.	does not number.	I also wish to rectollowing services extra fee): 1.	s (for an ee's Address d Delivery	ipt Service.
ADDRESS completed on	3. Article Addressed to: W. Jeffrey Pardue, Director Environmental Services Florida Power Corporation P.O. Box 14042, MAC BB1A St. Petersburg, FL 33733		umber 212 851 Type ed Mail ceipt for Merchandise elivery 1 10 1 70	XX Certified Insured COD	ou for using Return Rece
Is your BETURN	5. Received By: (Print Name) 6. Signature. (Aedressee or Agent) X PS Form 3811, December 1994	8. Addresse and fee is	Domestic Retu		Thank you

Z 094 212 851 US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail (See reverse) Sent to W. Jeffrey Pardue,
Street & Number
P. O. Box 14042, MA
Post Office, State, & 2/P Code
Sr. Petersburg, FI Postage Certified Fee Special Delivery Fee Restricted Delivery Fee Return Receipt Showing to Whom & Date Delivered Return Receipt Showing to Whom Oate, & Addressee's Address TOTAL Postage & Fees Posiment or Date 7/27/00
DEP File No. 1050223-009-AC
Tiger Bay Cogeneration Postmark or Date 7/27/00



Department of Environmental Protection

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

David B. Struhs Secretary

P.E. Certification Statement

Permittee:

Florida Power Corporation
Tiger Bay Cogeneration Facility

DRAFT Permit No.: 1050223-009-AC

Facility ID No.: 1050223

26/00

Project: Air Construction Permit - 100 MMBtu/hr. Natural Gas-fired Auxiliary Package Steam Boiler

I HEREBY CERTIFY that the engineering features described in the above referenced application and related additional information submittals, if any, and subject to the proposed permit conditions, provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Johathan K. Holtom, P.E.

Registration Number: 0052664

Date

Permitting Authority:

Florida Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Telephone: 850/488-0114

Fax: 850/922-6979



Department of Environmental Protection

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

David B. Struhs Secretary

July 26, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

W. Jeffrey Pardue, Director, Environmental Services Florida Power Corporation P.O. Box 14042, MAC BB1A St. Petersburg, Florida 33733

Re: DEP File No. 1050223-009-AC

100 MMBtu/hr Natural Gas-fired Auxiliary Package Steam Boiler, Tiger Bay Cogeneration Facility

Dear Mr. Pardue:

Enclosed is one copy of the Draft air construction permit for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 East, Ft. Meade, Polk County. The <u>Technical Evaluation and Preliminary Determination</u>, the Department's <u>Intent to Issue Air Construction Permit</u> and the <u>Public Notice of Intent to Issue Air Construction Permit</u> are also included.

The <u>Public Notice of Intent to Issue Air Construction Permit</u> must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50. Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Scott M. Sheplak, P.E., Administrator, Title V Section at the above letterhead address. If you have any other questions, please contact Jonathan Holtom, P.E. at 850/921-9531.

Sincerely,

C. H. Fancy, P.E., Chref,

Bureau of Air Regulation

CHF/jh

Enclosures

In the Matter of an Application for Permit by:

W. Jeffrey Pardue, Director, Environmental Services Florida Power Corporation P.O. Box 14042, MAC BB1A St. Petersburg, Florida 33733 DEP File No. 1050223-009-AC Tiger Bay Cogeneration Facility Polk County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

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

The applicant, W. Jeffrey, Director, Environmental Services, Florida Power Corporation, applied on May 17, 2000, to the Department for an air construction permit for its Tiger Bay Cogeneration Facility located at 3219 State Road 630 East, Ft. Meade, Polk County. The permit is to add a natural gas-fired auxiliary package steam boiler in order to provide a backup supply of steam during periods of non-operation of the facility's combustion turbine. This steam will be used strictly to meet the requirements of a steam contract with the facility's property host. The maximum steam production capacity of 85,000 lb/hr corresponds to a maximum heat input capacity of 100 MMBtu/hr. Emissions of NO_x will be limited to 30 tons/year.

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

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

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

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

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of <u>Public Notice of Intent to Issue Air Permit</u>. 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

Florida Power Corporation, Tiger Bay Cogeneration Facility DEP File No. 1050223-009-AC Page 2 of 4

comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

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

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

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

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

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

Mediation is not available in this proceeding.

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

Florida Power Corporation, Tiger Bay Cogeneration Facility DEP File No. 1050223-009-AC Page 3 of 4

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

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

Executed in Tallahassee, Florida.

C. H. Fancy, P.E., Chief

Bureau of Air Regulation

Florida Power Corporation, Tiger Bay Cogeneration Facility DEP File No. 1050223-009-AC Page 4 of 4

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the Draft permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on to the person(s) listed:

Mr. W. Jeffrey Pardue, Director, Environmental Scrvices, Florida Power Corporation *

Mr. J. Michael Kennedy, Florida Power Corporation

Mr. Bill Thomas, DEP, SWD

Mr. Gregg Worley, EPA

Clerk Stamp

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

(Clerk)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 1050223-009-AC

Florida Power Corporation Tiger Bay Cogeneration Facility Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to W. Jeffrey Pardue, Director, Environmental Services, for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 East, Ft. Meade, Polk County. The permit is to add a natural gas-fired auxiliary package steam boiler in order to provide a backup supply of steam during periods of non-operation of the facility's combustion turbine. This steam will be used strictly to meet the requirements of a steam contract with the facility's property host. The maximum steam production capacity of 85,000 lb/hr corresponds to a maximum heat input capacity of 100 MMBtu/hr. Emissions of NO_x will be limited to 30 tons/year in order to avoid PSD applicability. The applicant's mailing address is: P.O. Box 14042, MAC BB1A,St. Petersburg, Florida 33733

A Best Available Control Technology (BACT) determination was required for particulate matter (PM) and sulfur dioxide (SO₂) pursuant to Rule 62-296.406, F.A.C.

Nitrogen Oxides (NO_X) emissions will be restricted to 30 tons per year by limiting NO_X emissions to 0.1 lb/MMBtu and hours of operation to 6,000 per year. Emissions of sulfur dioxide (SO₂) and particulate matter (PM/PM₁₀) will be very low because of the exclusive firing of inherently clean burning pipeline quality natural gas. There will be no provisions for firing fuel oil.

Total emissions of pollutants shall not exceed the annual emission rates in tons per year:

<u>Pollutant</u>	Emissions	Increase (Decrease)	Specifically Limited?
PM/PM ₁₀	2.40	2.40	No
SO ₂	0.42	0.42	No
NO_{X}	30.0	30.0	Yes
VOC	1.80	1.80	No
CO	25.2	25.2	No

An air quality impact analysis was not conducted. Emissions from the facility will not consume PSD increment and will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

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

The Department will accept written comments concerning the proposed permit issuance action for a period of 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:

Dept. of Environmental Protection Bureau of Air Regulation Suite 4, 111 S. Magnolia Drive Tallahassee, Florida. 32301 Telephone: 850/488-0114

Fax: 850/922-6979

Dept. of Environmental Protection Southwest District 3804 Coconut Palm Drive Tampa, Florida 33619-8218 Telephone: 813/744-6100

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, Title V Section, or the Department's reviewing engineer for this project, Jonathan Holtom, P.E., at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Florida Power Corporation

Tiger Bay Cogeneration Facility

Air Construction Permit to Install a 100 MMBtu/hr Natural Gas-Fired Package Steam Boiler

Polk County

DEP File No.: 1050223-009-AC

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

July 18, 2000

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Florida Power Corporation Tiger Bay Cogeneration Facility P.O. Box 14042, MAC BB1A St. Petersburg, Florida 33733

Authorized Representative: W. Jeffrey Pardue, Director, Environmental Services

1.2 REVIEWING AND PROCESS SCHEDULE

May 17, 2000 Received permit application
May 17, 2000 Application complete

June 28, 2000 Received minor revision to application

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

The facility is located at 3219 State Road 630 East, Ft. Meade, Polk County. The UTM coordinates are Zone 17; 416.20 km E; 3069.22 km N.

2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Industry Group No.	49	Electric, Gas And Sanitary Services
Industry No.	4961	Steam Supply

2.3 FACILITY CATEGORY

The facility consists of a single combustion turbine (CT) that exhausts through a non-fired heat recovery steam generator (HRSG). The CT is permitted to burn natural gas or distillate fuel oil, however, the equipment needed to burn fuel oil has not yet been installed. The facility also operates a zero liquid discharge system that provides treatment of process wastewater and exhausts through a baghouse. Total capacity of the facility is 269.5 megawatts (MW), of which a nominal 184 MW are from the CT and a nominal 85.5 MW are provided by the HRSG.

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

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

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

3. PROJECT DESCRIPTION

This project addresses the following emissions unit(s):

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
-003	100 MMBtu/hr Auxiliary Natural Gas-fired Package Steam Boiler.

The applicant proposes to add a natural gas-fired package steam boiler in order to provide a backup supplemental steam supply at the facility. The maximum steam production capacity of 85,000 lb/hr corresponds to a maximum heat input capacity of 100 MMBtu/hr. Emissions of NO_X will be limited to 30 tons per year by restricting operation to 6,000 hours per year. Due to the use of natural gas fuel, the emissions of other pollutants will be quite low. The proposed package boiler was manufactured by Cleaver-Brooks (Model DL-94). The purpose of this unit is to provide a back-up supply of steam during periods of non-operation of the facility's combustion turbine. This steam will be used strictly to meet the requirements of a steam contract with the facility's property host.

4. PROJECT EMISSIONS

The emissions associated with this project are the by-products of combustion of natural gas.

The following table summarizes the potential maximum emissions increases of air pollutants, comparing past actual to future potential emissions in TPY:

Pollutant	Past Actual (New Unit)	Future Potential Emissions	Maximum Emissions Change	PSD Significance Levels ¹	Subject to PSD Review?
NO _x	0	30.00	+30.00	40	No
CO	0	25.20	+25.20	100	No
PM/PM ₁₀	0	2.40	+2.40	25/15	No
SO ₂	0	0.42	+0.42	40	No
VOC	0	1.80	+1.80	40	No

¹ Florida Administrative Code 212.400-2.

The proposed project results in less-than-significant increases in PSD pollutants. Emission increases will occur for nitrogen oxides (NO_X) (synthetically limited to 30 tons per year by restricting operation to 6,000 hours per year), carbon monoxide (CO), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), and volatile organic compounds (VOC) will be less than the significant emission levels per Table 62-212.400-2, F.A.C. This project will emit negligible quantities of sulfuric acid mist (H₂SO₄ mist or SAM), fluorides, beryllium, mercury and lead. Therefore, the modification is not subject to PSD.

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment for the criteria pollutants ozone, PM₁₀, carbon monoxide, sulfur dioxide, and nitrogen dioxide; and, as unclassifiable for lead.

The proposed project is not subject to review under Rule 62-212.400., F.A.C., Prevention of Significant Deterioration (PSD) as discussed above.

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules.

5.1 STATE REGULATIONS

Chapter 62-4	Permits
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.200	Definitions
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-296.406	Fossil Fuel Steam Generators With Less Than 250 MMBtu/hr Heat Input
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods

5.2 FEDERAL RULES

40 CFR 60	NSPS Subpart(s) Dc - Standards Of Performance For Small Industrial-
	Commercial-Institutional Steam Generating Units
40 CFR 60	Applicable Sections of Subpart A, General Requirements

6. AIR POLLUTION CONTROL TECHNIQUES

6.1 APPLICANT CONTROL TECHNOLOGY PROPOSAL

The applicant proposed to control air pollutant emissions through the use of proper combustion of natural gas to limit SO_2 and PM emissions; and by limiting emissions of NO_X and hours of operation to keep NO_X emissions below the significance level.

6.2 STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

The minimum project control technology basis is 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (NSPS). The Department adopted Subpart Dc by reference in Rule 62-204.800, F.A.C. This subpart does not impose any emission limits for natural gas fired units. No National Emission Standards for Hazardous Air Pollutants exist for this project.

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6.3 POLLUTANT EMISSIONS

6.3.1 NITROGEN OXIDES (NO_x) EMISSIONS

Nitrogen oxides form in the combustion process as a result of the dissociation of molecular nitrogen and oxygen to their atomic forms and subsequent recombination into oxides of nitrogen. Thermal NO_X forms in the high temperature area of the combustor. Thermal NO_X increases exponentially with increases in flame temperature and linearly with increases in residence time. Flame temperature is dependent upon the ratio of fuel burned in a flame to the amount of fuel that consumes all of the available oxygen.

Fuel NO_X is formed when fuels containing bound nitrogen are burned. This phenomenon is not important when combusting natural gas because natural gas has little or no fuel nitrogen. Because natural gas will be the only fuel used, the fuel NO_X phenomenon is not important for this project.

Total NO_x emissions resulting from this project will be restricted below the PSD applicability levels by imposing an emissions limit of 0.1 lb/MMBtu, and by limiting operation to 6,000 hours per year.

6.3.2 PARTICULATE MATTER (PM/PM₁₀) & SULFUR DIGXIDE (SO₂) EMISSIONS

Particulate matter is generated by various physical and chemical processes during combustion. The particulate matter emitted from this unit will mainly be less than 10 microns in diameter (PM_{10}). SO_2 is formed during the combustion process from the sulfur that is contained in the fuel.

Natural gas will be the only fuel fired and is efficiently combusted. Natural gas is an inherently clean fuel that contains no ash and very little sulfur.

Emissions of PM and SO₂ are subject to BACT per Rule 62-296.406, F.A.C., as discussed in Appendix BD. The firing of natural gas has been chosen as BACT by the applicant, and the Department concurs.

6.3.3 CARBON MONOXIDE (CO) EMISSIONS

CO is emitted from combustion processes due to incomplete fuel combustion. Due to the size of this proposed unit, and the generally infrequent nature of its operational needs, CO will not be emitted in levels that would cause concern. At 6,000 hours per year, CO emissions are about 25 tons per year. If the annual hours were not limited, CO emissions would be about 37 tons per year, which is still less than half of the significant level (100 tons) that would subject this project to PSD review for CO emissions. Therefore, the firing of natural gas and good combustion practices are all that is required for this project for the control of CO emissions.

6.3.4 VOLATILE ORGANIC COMPOUND (VOC) EMISSIONS

Volatile organic compound (VOC) emissions, like CO emissions, are formed due to incomplete combustion of fuel. Generally good combustion practices are used to control VOC emissions and that is the control strategy selected for this project.

6.3.5 Emissions Control Techniques

There are no add-on emissions controls required by this permitting action. Pollutant emissions will be controlled by the proper combustion of natural gas, and by limiting NO_X emissions and hours of operation.

6.4 COMPLIANCE PROCEDURES

Pollutant	Compliance Procedure	
Visible Emissions	Method 9	
NO_X	Method 7E (Initial performance & permit renewal)	

6.5 EXCESS EMISSIONS

Pursuant to Rule 62-210.700 F.A.C., excess emissions are allowable under the following scenarios: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

7. SOURCE IMPACT ANALYSIS

An impact analysis was not required for this project because it is not subject to the requirements of PSD.

8. <u>CONCLUSION</u>

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department will issue a draft permit to the applicant that allows the installation of a package steam boiler fired exclusively on natural gas. The hours of operation will be limited to a maximum of 6,000 hours per year in order to limit potential NO_x emissions to 30 tons per year, thereby avoiding PSD applicability.

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