

P.E. Certification Statement

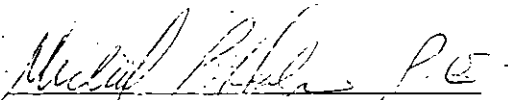
JEA
Brandy Branch Generating Station
Duval County

DEP File No.: PA 00-43 (PSD-FL-310)
Facility ID No.: 0310485

Project: PSD Permit Modification – Very low sulfur oil and hours of operation

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).

(Seal)



Michael P. Halpin, P.E.
Registration Number: 31970

4/15/04
Date

Permitting Authority:
Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

Florida Department of
Environmental Protection

Memorandum

TO: Trina Vielhauer

THRU: J. K. Pennington *JKP*

FROM: M. P. Halpin *MH*

DATE: April 15, 2004

SUBJECT: JEA
PSD Permit Modification – Very low sulfur oil and hours of operation
DEP File No. PP 00-43 (PSD-FL-310)

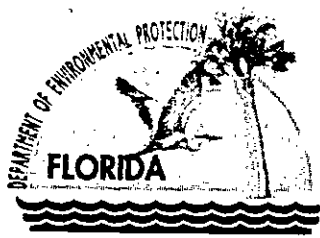
Attached is the public notice package for JEA's Brandy Branch permit modifications. This is an existing facility which is currently in the process of modifying two of its three combustion turbines for combined cycle operation. Although natural gas is the primary fuel for all three CT's, the facility is also allowed to combust small amounts of low sulfur oil (0.05%) for limited time periods. JEA has now asked for permission to combust a lower sulfur oil (0.0065%) for longer periods of time.

A preliminary review supports the applicant's contention that the ambient air quality standards will be met, and no PSD review is triggered, eliminating the requirement for a BACT Determination.

I recommend your approval.

JKP/mph

Attachments



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

April 15, 2004

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James M. Chandler, P.E., D.P.A.
Vice President, Operations and Maintenance
JEA
21 West Church Street
Jacksonville, Florida 32202

Re: DEP File No. 0310485-007-AC; Modification of Permit No. PSD-FL-310 (PA 00-43)
Brandy Branch Generating Station / Duval County

Dear Mr. Chandler:

Enclosed is one copy of the Draft PSD Permit Modification relative to JEA's request for a permit modification which clarifies the allowable fuels and associated hours of use, including provisions for the use of very low sulfur oil (0.0065% sulfur). The facility is located near Baldwin City in Duval County.

The Public Notice of Intent to Issue PSD Permit Modification 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 J. K. Pennington, P.E., Administrator, North Permitting Section at the above letterhead address. If you have any other questions, please contact Michael P. Halpin, P.E. at 850/921-9519.

Sincerely,

Trina Vielhauer, Chief,
Bureau of Air Regulation

TV/mph

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an
Application for Permit by:

James M Chandler, Vice President Operations & Maintenance
JEA
21 West Church Street
Jacksonville, Florida 32202-3139

DEP File No. PSD-FL-310 (PA 00-43)

INTENT TO ISSUE PSD PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD Permit Modification (copy of Draft permit attached) for the proposed project, detailed in the application specified above and for the reasons stated below.

The applicant, James M. Chandler, Vice President Operations & Maintenance, JEA, applied on March 11, 2004, to the Department for a PSD Permit Modification for its Brandy Branch Station, located near Baldwin City, Duval County. The request is for a permit modification which clarifies the allowable fuels and associated hours of use, including provisions for the use of very low sulfur oil (0.0065% sulfur).

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, 62-212 and 40 CFR 52.21. The above actions are not exempt from permitting procedures. The Department has determined that a PSD Permit Modification is required to revise the permit with respect to changes in fuel as well as hours of use.

The Department intends to issue this PSD Permit Modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. and 40 CFR 52.21.

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 PSD Permit Modification. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. 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 Public Notice of Intent to Issue PSD Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

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

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

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

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

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

Mediation is not available in this proceeding.

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

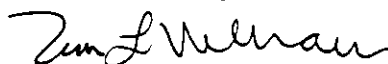
The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The

name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

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

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

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

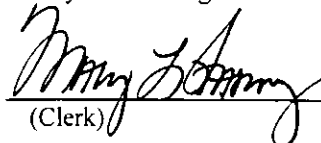
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue PSD Permit Modification (including the Public Notice of Intent to Issue PSD Permit Modification and the Draft PSD Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/22/04 to the person(s) listed:

James M. Chandler, JEA *
N. Bert Gianazza, P.E., JEA
Gregg Worley, EPA
John Bunyak, NPS
Chris Kirts, NED
James L. Manning, P.E. RESD
Kyle Lucas, A.Q.S., Black & Veatch
Hamilton S. Oven, DEP-Siting

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)

4/22/04
(Date)

PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. PSD-FL-310 (PA 00-43)

JEA
Brandy Branch Generating Station
Duval County

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD Permit Modification to Brandy Branch Generating Station, located near Baldwin City, Duval County. The permit modification clarifies the allowable fuels and associated hours of use, including providing for the use of very low sulfur oil (0.0065% sulfur). This is an existing facility, which currently combusts natural gas and 0.05% sulfur distillate fuel oil. A new determination of Best Available Control Technology (BACT) was not required. The applicant's mailing address is: 21 West Church Street, Jacksonville FL 32202-3139.

In addition to clarifying the amount of sulfur within the natural gas which is combusted at the facility, the applicant wishes to combust distillate oil with a sulfur content (0.0065%) less than currently permitted (0.05%). In exchange for this reduction in sulfur content, the applicant requests approval for an increase in the amount of hours which distillate oil may be fired. Such a trade-off provides the Department with reasonable assurance that no significant increases of regulated pollutants will occur.

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 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 PSD Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

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

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

April 15, 2004

Mr. James M. Chandler, P.E., D.P.A.
Vice President, Operations and Maintenance
JEA
21 West Church Street
Jacksonville, Florida 32202

Re: DEP File No. 0310485-007-AC; Modification of Permit No. PSD-FL-310 (PA 00-43)
Brandy Branch Generating Station / Duval County

The applicant, JEA, applied on March 11, 2004, to the Department for a modification to PSD permit number PSD-FL-310 for its Brandy Branch Generating Station located in Duval County. The modification is to clarify the allowable fuels and associated hours of use, including provisions for the use of very, very low sulfur oil (0.0065% sulfur). The Department has reviewed the modification request. The referenced permit is hereby modified as follows:

III. Emissions Unit(s) Specific Conditions

Applicable Standards And Regulations (Specific Condition 14. rewritten in entirety):

14.A. Allowable fuels: The facility is authorized to burn any combination of natural gas (2.0 grains sulfur / 100 scf), low sulfur fuel oil (0.05% sulfur) and lower sulfur fuel oil (0.0065% sulfur). The combinations of these fuels are subject to the hour limitations and record-keeping requirements set forth in 14.B. and 14.C. below. Unless otherwise authorized by this permit, CT operation below 50% output shall be limited to 2 hours during each calendar day.

14.B. Hours of operation: All units (combined and simple cycle) are authorized to operate 8760 hours per year while firing natural gas (2.0 grains sulfur / 100scf). The combined cycle units are authorized to operate up to a combined maximum of 576 actual plus "equivalent hours" per consecutive 12-month period while firing 0.05% sulfur oil OR a combined maximum of 1478 actual plus "equivalent hours" while firing 0.0065% sulfur oil per consecutive 12-month period, whichever occurs first. The simple cycle unit is authorized to operate up to a maximum of 750 actual plus "equivalent hours" per consecutive 12-month period, while firing either 0.05% or .0065% sulfur oil, whichever occurs first. Tracking of "equivalent hours" shall conform with and be recorded as defined in paragraph 14C. Additionally, the following requirements shall apply:

1. In the event that any of the 3 emission units (simple or combined cycle) fires No. 2 distillate fuel oil (0.05% sulfur) during a calendar day, that unit shall be limited to 16 hours of daily operation on any fuel. Additionally, the other 2 units shall not be fired on any of the allowable fuels for that calendar day.

2. In the event that the simple cycle unit fires lower sulfur oil (0.0065% sulfur) during any calendar day, but for 8 hours or less, the combined cycle units may fire any combination of lower sulfur oil (0.0065% sulfur) or natural gas (2 grains / 100 scf) during that calendar day.

3. In the event that the simple cycle unit fires lower sulfur fuel oil (0.0065% sulfur) for more than 8 hours during a calendar day, it shall be allowed 24 hours of daily operation while the combined cycle units shall not be fired on any fuel for the calendar day.

14.C. Record keeping requirements and fuel switching:

Upon prior written notification, JEA may switch between firing 0.05% or 0.0065% sulfur oil on a calendar day basis (i.e. switching is not authorized within any calendar day). A record shall be made every day for each emission unit documenting: the fuel type actually used, the number of actual hours of firing each fuel type, and

DRAFT

(for the hours when any oil is fired) the "equivalent hours" for the fuel oil which was not fired. The following shall be used to determine the "equivalent hours": each actual hour of combustion of 0.05% sulfur distillate oil shall equate to 2.6 "equivalent hours" of lower sulfur oil (0.0065% sulfur) combustion and each actual hour of firing lower sulfur oil (0.0065% sulfur) shall equate to 0.39 "equivalent hours" of 0.05% sulfur oil combustion.

At the end of each calendar month, the total number of "equivalent hours" plus actual hours shall be determined. A running total shall be maintained in order to ensure compliance with Condition 14.B. above.

[Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

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

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Michael G. Cooke, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

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

- James M. Chandler, JEA *
- N. Bert Gianazza, P.E., JEA
- Gregg Worley, EPA
- John Bunyak, NPS
- Chris Kirts, NED
- James L. Manning, P.E. RESD
- Kyle Lucas, A.Q.S., Black & Veatch
- Hamilton S. Oven, DEP-Siting

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)

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

JEA Brandy Branch Generating Station

Use of Very Low Sulfur Fuel Oil
And Related Hours of Operation

Duval County

0310485-007-AC



Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
North Permitting Section

April 15, 2004

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

JEA
Brandy Branch Generating Station
21 West Church Street
Jacksonville, Florida 32202-3139

Authorized Representative: James M. Chandler, Vice President, Operations & Maintenance

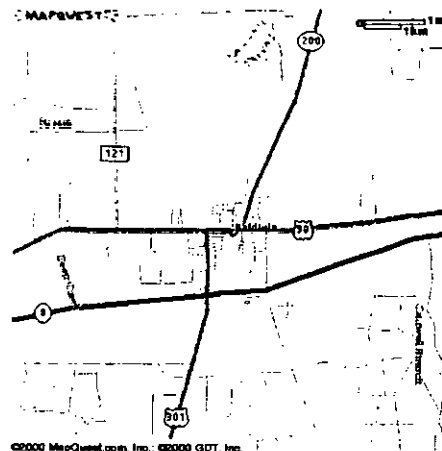
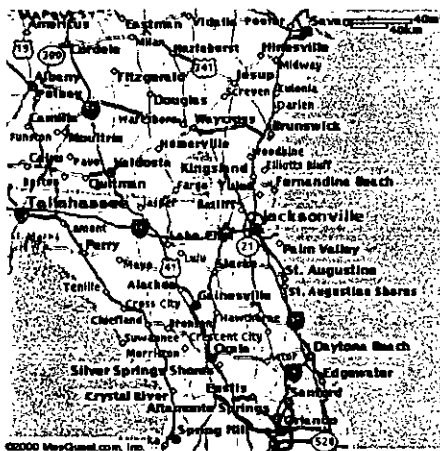
1.2 REVIEWING AND PROCESS SCHEDULE

March 11, 2004 Received permit application and fee
March 11, 2004 Application complete

2. FACILITY INFORMATION

2.1 FACILITY LOCATION

The JEA Brandy Branch Facility is located approximately 1 mile northeast of Baldwin City, Duval County. This site is approximately 34 kilometers southeast and 127 kilometers southwest of the Okefenokee and Wolf Island Class I National Wilderness Areas, respectively. UTM coordinates for this facility are Zone 17; 408.81 km E; 3354.38 km N.



2.2 STANDARD INDUSTRIAL CLASSIFICATION CODES (SIC)

Industry Group No.	49	Electric, Gas and Sanitary Services
Industry No.	4911	Electric Services

2.3 FACILITY CATEGORY

The existing facility is a power plant consisting of two combined cycle combustion turbine cogeneration systems and one simple cycle CT. Each combined cycle system consists of one combustion turbine (CT), one supplementary fired heat recovery steam generator (HRSG), and one steam turbine-generator. The facility utilizes pipeline natural gas (2.0 grains / 100scf) as its primary fuel source and low sulfur (0.05 % by weight) distillate fuel oil as a backup.

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).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

3. PROJECT DESCRIPTION

This project addresses each of the following emissions units:

Emissions Unit No.	Emissions unit Description
001	One nominal 170 Megawatt Gas Simple Cycle Combustion Turbine-Electrical Generator
002	One nominal 170 Megawatt Gas Combustion Turbine-Electrical Generator configured as a combined cycle unit, complete with supplementary fired HRSG
003	One nominal 170 Megawatt Gas Combustion Turbine-Electrical Generator configured as a combined cycle unit, complete with supplementary fired HRSG

JEA seeks to gain an increase in the hours of allowable operation of distillate oil combustion without increasing short or long-term emissions of SO₂. JEA proposes the combustion of 0.0065% sulfur oil in lieu of 0.05% sulfur oil as a means of accomplishing this goal. A review of the P.T.E. analysis follows.

4. PROJECT EMISSIONS

MAXIMUM POTENTIAL TO EMIT

The following table summarizes the existing potential maximum SO₂ emissions from 0.05%S oil-firing at the facility:

Unit	Max Heat Input	Authorized Daily Hours	Authorized Annual Hours	Lb SO ₂ per hour	Authorized Daily Pounds	Authorized Annual Tons
CC -1	2060	16	288	10.35	165.6	1.49
CC -2	2060	0	288	10.35	0	1.49
SC	1822	0	750	9.15	0	3.43
TOTAL				29.85	165.6	6.41

The following table summarizes the proposed potential maximum SO₂ emissions from 0.0065%S oil-firing at the facility:

Unit	Max Heat Input	Proposed Daily Hours	Proposed Annual Hours	Lb SO ₂ per hour	Proposed Daily Pounds of SO ₂	Proposed Annual Tons of SO ₂
CC -1	2060	24	1000	1.35	32.4	0.675
CC -2	2060	24	1000	1.35	32.4	0.675
SC	1822	8	750	1.19	9.52	0.446
TOTAL				3.89	74.32	1.796

Clearly, SO₂ emissions on an hourly, daily and annual basis are all less. Therefore, this project does not trigger a PSD review for SO₂. In order to be thorough, potential emissions increases of NO_x, CO and PM are reviewed as potential increases:

Unit	Gas NO _x Emission Rate lb/hr	Oil NO _x Emission Rate lb/hr	Increase in Hourly NO _x emissions lb/hr	Requested Increase in Allowable Hrs/Year Oil operation	Requested Annual NO _x Increase (Tons)	Allowable Hours Increase To Avoid PSD Review	Total Hours Approved For 0.0065%S Oil Firing
CC -1	23.6	112.4	88.8	712	31.6	451	739
CC -2	23.6	112.4	88.8	712	31.6	451	739
SC	49.67	232	182.33	0	0	0	750
TOTAL					63.2		

As can be seen from above, the authorized annual hours of operation on each CC unit must be limited to 739 in order to avoid a PSD Review.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Unit	Gas CO Emission Rate lb/hr	Oil CO Emission Rate lb/hr	Increase in Hourly CO emissions lb/hr	Requested Increase in Allowable Hrs/Year Oil operation	Annual Increase of CO (Tons)	Allowable Hours Increase To Avoid PSD Review	Total Hours Approved For 0.0065%S Oil Firing
CC -1	63	72	9	712	3.2	NA	739
CC -2	63	72	9	712	3.2	NA	739
SC	48	65	17	0	0	0	750
TOTAL					6.4		

Regarding emissions of PM, the Department has no hard data comparing 0.05% sulfur oil to 0.0065% sulfur oil. However, for the purpose of this analysis, the Department has assumed that PM emissions are roughly correlated to the sulfur content in the fuel. Based upon EIA data, typical natural gas is about 0.0005%S, compared to 0.05%S and 0.0067%S oils. Interpolating suggests that the PM emissions for 0.0067%S oil are about 13.5% of the way between natural gas and 0.05% sulfur oil.

Unit	Gas PM Emission Rate lb/hr	0.05%S Oil PM Emission Rate lb/hr	Estimated 0.0067%S Oil PM Emission Rate lb/hr	Requested Allowable Hrs/Year Oil operation	Annual Change in PM (Tons) calculated	Allowable Hours Increase To Avoid PSD Review	Total Hours Approved For 0.0065%S Oil Firing
CC -1	20.6	62.1	26.2	1000	3.2	NA	739
CC -2	20.6	62.1	26.2	1000	3.2	NA	739
SC	18	34	20.1	750	(5.2)	0	750
TOTAL					1.2		

In summary, only the emissions of NO_x would be expected to increase beyond PSD thresholds. However, by limiting the hours of operation to 739 for each of the combined cycle units, a PSD Review and related BACT Determination is avoided.

5. RULE APPLICABILITY

This facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment for all pollutants.

Rule 62-4.030, F.A.C., prohibits modification of any existing emissions unit without first receiving a permit. It further specifies that a permitted installation may only be modified in a manner that is consistent with the terms of such a permit. Rule 62-210.200, F.A.C., defines "modification" to mean generally a change that results in an increase in actual emissions of regulated air pollutants. Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C., also reiterate the requirement for construction permits. Additionally, Rule 62-210.300 requires an Air Construction permit for all new sources of air pollution unless specifically exempt. The emission unit 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).

6. DEPARTMENT DETERMINATION

The Department has determined that by limiting the number of hours by which the units are authorized to combust 0.0065% sulfur oil, all PSD emission levels remain below established thresholds eliminating the need for a PSD review.

7. SOURCE IMPACT ANALYSIS


An ambient air quality impact assessment was done in support of the original application. The modeling approach followed EPA and DEP guidelines for determining compliance with AAQS and PSD increments. An ambient air

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

quality impact assessment was also performed for this project for both the PSD Class II area in the vicinity of the facility and the PSD Class I Okefenokee National Wilderness Area, located approximately 34 kilometers northwest from the project at its closest point. Two air quality dispersion models were used to analyze air quality impacts for this project. These models were ISCST3 and CALPUFF. Five years of NWS meteorological data from Jacksonville/Waycross (1984-1988) were used for the ISCST3 Class II analysis and the portion of the Class I analysis located within 50 km of the facility. CALPUFF and three years of MM4/MM5 (1990, 1992, and 1996) mesoscale meteorological data were used for the portion of the Class I area that is located greater than 50 km from the project. The results of this modeling predict no significant contributions to any violation of an increment, standard or air quality related value.

8. CONCLUSION

Based on the foregoing technical evaluation of the application, additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project as outlined will comply with all applicable state and federal air pollution regulations.

Michael P. Halpin, P.E. Review Engineer 
Department of Environmental Protection, Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> 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. 	<p>A. Signature <input type="checkbox"/></p> <p>B. Received by (Printed Name) <input type="checkbox"/> <i>J. Richards</i></p> <p>C. Date <input type="checkbox"/> <i>APR 29</i></p>
<p>1. Article Addressed to:</p> <p>Mr. James M. Chandler, P.E., D.P.A. Vice President, Operation and Maintenance JEA West Church Street Jacksonville, Florida 32202</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/></p> <p>If YES, enter delivery address below: <input type="checkbox"/></p> <p>A.</p> <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee)</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7000 1670 0013 3109 9564</p>
<p>PS Form 3811, August 2001 Domestic Return Receipt</p>	

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

Postmark Here

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

7000 1670 0013 3109 9564

Sent To: *MR. James M. Chandler*
Street, Apt. No. or PO Box: *21 West Church St.*
City, State, ZIP+4: *Jacksonville, FL 32202*

PS Form 3800, May 2000 See Reverse for Instructions