

Department of Environmental Protection

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

David B. Struhs Secretary

June 5, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Walter P. Bussells, Managing Director and CEO JEA
21 West Church Street
Jacksonville, Florida 32234

Re: DEP File No. PSD-FL-310, PA 00-43

Brandy Branch Facility Duct Burner Size Increase

Dear Mr. Bussells:

The Department reviewed your request dated March 12, 2003 to modify the PSD Permit relative to the revised duct burner sizes for Emission Units 002 and 003. The Department notes that the units are under construction, the subject duct burners may only fire natural gas, and no increase in the hours of operation has been sought. According to the supplied information, the Department has concluded this request is acceptable as indicated herein.

Permit PSD-FL-310 is hereby modified as follows:

Section III, Condition 4:

ARMS Emissions Units 002 and 003. Direct Power Generation, each consisting of a nominal 170-megawatt combustion turbine-electrical generator, shall comply with all applicable provisions of 40CFR60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s). Additionally, each Emissions Unit consists of a supplementally-fired heat recovery steam generator equipped with a natural gas fired-85-170 MMBTU/hr duct burner (HHV) and combined with one 200 MW steam electrical generator. The duct burners shall comply with all applicable provisions of 40CFR60, Subpart De, Performance Standards for Small Industrial-Commercial Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(7), F.A.C. The duct burners shall comply with all applicable provisions of 40CFR60, Subpart Db, Standards of Performance for Electric Utility Steam Generating Units Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(7), F.A.C.

Section III, Condition 9:

Heat Recovery Steam Generators Equipped with Duct Burners: The maximum heat input rate of each natural gas fired duct burner shall not exceed \$5 170 MMBtu/hr (HHV). {Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emission unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to

demonstrate at what percentage of the rated capacity that the unit was tested.} [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

Section III, Condition 22:

22. Volatile Organic Compounds (VOC) Emissions: Emissions of VOC in the stack exhaust gas (baseload at ISO conditions) with the combustion turbine operating on gas shall not exceed 3.49 6.81 lb/hour (4.0 lb/hour with duct burners off) and with the combustion turbine operating on oil shall not exceed 7.68 lb/hr, to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. Thereafter, continuous monitoring of CO shall represent a surrogate for VOC emissions and provide assurance that a the emission rates of the BACT Determination is not required are being met. [PSD Avoidance, Rule 62-212.400, F.A.C.]

Section III, Condition 24:

24. PM/PM₁₀ and Visible emissions (VE): VE emissions shall not exceed 10 percent opacity from the stack in use. PM/PM₁₀ emissions from each combustion turbine and HRSG train shall not exceed 20.6 22.02 lb/hr at 100% output firing natural gas with the duct burner on and 62.1 lb/hr at 100% output firing fuel oil to be demonstrated by opacity. [BACT, Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.]

BACT DETERMINATION FOR VOC'S

A review of this modification indicates that the PSD Significant Emission Rate (SER) for Volatile Organic Compounds (40 tons per year) will be exceeded, when combining the emissions from the simple cycle unit with both combined cycle units and duct burners. Accordingly, this modification also represents the Department's Final BACT Determination for VOC emission rates for each unit.

Discussion

VOC emissions result from incomplete combustion when firing natural gas and distillate oil. Large combustion turbines offer high temperatures with efficient combustion resulting in relatively low levels of volatile organic compounds. Similar to the control of carbon monoxide, catalytic oxidation systems are available for reducing VOC emissions from gas turbines. Catalytic oxidation systems can achieve emissions reductions approaching 90% depending on the uncontrolled inlet VOC emission rate. However, upon reviewing BACT for CO emissions (within the original PSD application), the applicant concluded (and the Department agreed) that such a system was not cost effective.

Applicant's Proposal

The applicant proposes the following emissions standards based on efficient combustion of natural gas and distillate oil and good operating practices for the gas turbines.

- Oil Firing: 7.68 lb/hr
- Gas Firing: 4.0 lb/hr
- Gas Firing with Duct Firing: 6.81 lb/hr

The applicant proposes to demonstrate initial compliance with the standards by conducting performance tests in accordance with EPA Methods 18, 25, and 25A. Thereafter, CO will be used as a surrogate.

Department's VOC BACT Determination

As noted above, the Department agreed that a catalytic oxidation system was not cost effective for the control of CO emissions. Additionally, the increased VOC emissions as a result of this modification (approximately 15 TPY) do not give rise to a differing conclusion. Therefore, the efficient combustion design and good operating practices are determined to represent the Best Available Control Technology for VOC. Based on the test data previously presented by other applicants, the Department believes VOC emissions will likely be lower than estimated herein. However, the Department accepts the applicant's proposal and establishes as the BACT standards:

- Oil Firing: 7.68 lb/hr
- Gas Firing: 4.0 lb/hr

• Gas Firing with Duct Burning: 6.81lb/hr

This determination is consistent with recent determinations for combined cycle gas turbine projects in attainment areas. Initial compliance shall be demonstrated by conducting performance tests in accordance with EPA Method 25 or 25A. EPA Method 18 may also be performed to deduct emissions of methane and ethane that are excluded from the definition of "VOC".

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 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

Howard L. Rhodes, Director Division of Air Resources

Management

CERTIFICATE OF SERVICE

Walter P. Bussells, JEA *
N. Bert Gianazza, P.E., JEA
Gregg Worley, EPA
John Bunyak, NPS
Chris Kirts, NED
James L. Manning, P.E. RESD
Kyle Lucas, Black & Veatch
Mr. 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)

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	PS Form 3800, January 2	001	See Reverse for Instructions		

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MAY 19 2003

THE FLORIDA TIMES-UNION Jacksonville, Fl Affidavit of Publication

BUREAU OF AIR REGULATION

Florida Times Union

J.E.A./ENVIRONMENTAL ATTN: DAVE ENGLISH 21 W CHURCH ST T-8 JACKSONVILLE FL 32202

REFERENCE: 0334984

Dave English

R016429

Public Motice

State of Florida County of Duval

Before the undersigned authority personally appeared Valerie Vest who on oath says she is a Legal Advertising Representative of The Florida Times-Union, a daily newspaper published in Jacksonville in Duval County, Florida; that the attached copy of advertisement is a legal ad published in The Florida Times-Union. Affiant further says that The Florida Times-Union is a newspaper published in Jacksonville, in Duval County, Florida, and that the newspaper has heretofore been continuously published in Duval County, Florida each day, has been entered as second class mail matter at the post office in Jacksonville, in Duval County, Florida for a period of one year preceeding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation | any discount, rebate, commission, or refund for the purpose of securing this advertisement for publication in said newspaper.

PUBLISHED ON: 04/30

FILED ON:

03 Valeure Verst 04/30/03

Name: Valerie Vest

Title: Legal Advertising In testimony whereof, I have hereunto set my hand and

seal, the day and year aforesaid.

TWILLA SHIPP

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Martino F. Olm., State of Florida Му сони ехриез жау 13, 2006

Comm. No. DO 117248

ENVIRONMENTAL SEI

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 Electric Generating Plant
Duval County
The Department of Environmental Protection (Department) gives notice
of its intent to issue a PSD Permit Modification to JEA, for the Brandy
Branch Electric Generating Plant located approximately 1 mile northeast of
Baldwin City, Duval County. The modification is to revise the permit to
incorporate increased duct burner sizes on each of the two combined cycle
units at the Brandy Branch Facility. These are new generating units, which
are currently under construction. The applicant's mailing address is: JEA,
21 West Church Street, Jacksonville, FL 32234
This modification will revise each of the authorized duct burner sizes
from 85 MMBtu/hr (HHV) to170MMBtu/hr (HHV); there is one duct burner
for each combustion turbine and they fire natural gos only. There will be
slight increases in the authorized emissions as a result of this modification,
however such emission increases are less than the PSD Significant Emission
Rates as defined within 62-212.400, F.A.C.

Pallutant TPY Increase PSD Significant Emission Rate. Significant

Pollutant	TPY Increase	PSD Significant Emission Rate	Significant?
NOx	4.86	40	NO
CO	37.31	100	NO
VOC	14.54	40	NO
502	0.22	40	NO
PAA/PAA.	A 55	The state of the s	N/O

by rule 28-106.301.

Because the administrative 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 any 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 buildows at:

holidays, at

Protection
Bureau of Air
Regulations
111 S. Magnolia Drive,
Suite 4
Tallahassee, Florida
32301
Telephone: 850/488-0114
The complete project file includes the application, Draft permit, and the intormation submitted by the Responsible Official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Source Review Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 or call 850/488-0114, for additional information.

SENDER: COMPLETE THIS SECTION	CCMPLETE THIS SECTION ON DELIVERY
 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. 	A. Received by (Please Print Clearly) B. Date of Delivery C. Charles Agent Addressee
Article Addressed to:	If YES, enter delivery address below:
Mr. Walter P. Bussells CEO & Managing Director Jacksonville Electric Autho	rity
21 West Church Street Jacksonville, FL 32202	3. Service Type Certified Mail Registered Return Receipt for Merchandise C.O.D.
	4. Restricted Delivery? (Extra Fee) ☐ Yes
2. 7001 0320 0001 3692 5856	;
PS Form 3811, July 1999 Domestic Retu	urn Receipt 102595-00-M-0952

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Memorandum

TO: Howard L. Rhodes

THRU: Trina Vielhauer

FROM: Michael P. Halpin

DATE: June 4, 2003

SUBJECT: JEA

Brandy Branch Combined Cycle Conversion of 2 Simple Cycle CT's

DEP File No. PSD-FL-310

Attached is the final modification to Brandy Branch's PSD permit. Apparently, their environmental folks and construction engineers had crossed signals on the duct burner sizing during the conversion of the two simple cycle units. JEA permitted a total of 170 MMBtu/hr worth of duct burners (2 each 85 MMBtu/hr) whereas they intended to permit 170 MMBtu/hr duct burners on each unit. Now, the units are under construction, the (larger) duct burners are being purchased and they've realized the error.

Notice was published, and only one comment was received from the National Park Service (regarding a BACT Determination for VOC) which has been addressed. Accordingly, I recommend your approval of the attached modification.

Attachments

/mph

Howard,

prike spoke with EPA \$ NPS about their

conment. It does not change any lemits or technologies

from draft permit.

Trina

SENDER: COMPLETE THIS SECTION	CCMPLETE THIS SECTION ON DELIVERY
 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. 	A. Received by (Please Print Clearly) B. Date of Delivery C. Signature Agent Addressee Delivery address different from item 12 Yes
1. Article Addressed to: Mr. Walter P. Bussells CEO & Managing Director Jacksonville Electric Author	If YES, enter delivery address below: ☐ No
21 West Church Street Jacksonville, FL 32202	3. Service Type Certified Mail
2. 7001 0320 0001 3692 5 <u>85</u> 6	
PS Form 3811, July 1999 Domestic Retu	urn Receipt 102595-00-M-0952

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BUREAU OF AIR REGULATION

JEA

May 16, 2003

Mr. Scott Sheplak, P.E.
Administrator
Bureau of Air Regulation
Division of Air Resources Management
Florida Department of Environmental Protection

E L E C T R I C 2600 Blair Stone Road
Tallahassee, FL 32399-2400

WATER

RE: Brandy Branch Generating Station
Combined Cycle Combustion Turbines 2, and 3
Proof of Publication
DEP File No. PSD-FL-310

EWER

Dear Mr. Sheplak:

Enclosed please find the Proof of Publication for the duct burner modification to the above referenced permit.

The proof of publication was received by this office on May 15.

If you have any questions regarding this submittal, please call me at (904) 665-6247.

Sincerely,

N. Bert Gianazza, P.E. Environmental Services

Attachment: As Noted

cc: Mike Halpin, P.E., FDEP Steve Pace, P.E., RESD

Chris Kirts, P.E., DEP-NED

RECEIVED

MAY 19 2003

THE FLORIDA TIMES-UNION Jacksonville, Fl Affidavit of Publication

BUREAU OF AIR REGULATION

Florida Times Union

J.E.A./ENVIRONMENTAL ATTN: DAVE ENGLISH 21 W CHURCH ST T-8 JACKSONVILLE FL 32202

REFERENCE: 0334984

Dave English

R016423

Public Notice

State of Florida County of Duval

Before the undersigned authority personally appeared Valerie Vest who on oath says she is a Legal Advertising Representative of The Florida Times-Union, a daily newspaper published in Jacksonville in Duval County, Florida; that the attached copy of advertisement is a legal ad published in The Florida Times-Union. Affiant further says that The Florida Times-Union is a newspaper published in Jacksonville, in Duval County, Florida, and that the newspaper has heretofore been continuously published in Duval County, Florida each day, has been entered as second class mail matter at the post office in Jacksonville, in Duval County, Florida for a period of one year preceeding the first publication of the attached copy of advertisement: and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission, or refund for the purpose of securing this advertisement for publication in said newspaper.

PUBLISHED ON: 04/30

FILED ON:

04/30/03 *Da*

Title: Legal Advertising

In testimony whereof, I have hereunto set my hand and

seal, the day and year aforesaid.

NOTARY: Mulla

TWILLA SHIPP

Margara E. Ohn., St. ne of Florida My culom expires may 13, 2006

Comm. No. Di: 117248



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 Electric Generating Plant
Duval County
The Department of Environmental Protection (Department) gives notice
of its intent to Issue a PSD Permit Modification to JEA, for the Brandy
Branch Electric Generating Plant located approximately 1 mile northeast of
Baldwin City, Duval County. The modification is to revise the permit to
incorporate increased duct burner sizes on each of the two combined cycle
units at the Brandy Branch Facility. These are new generating units, which
are currently under construction. The applicant's mailing address is: JEA,
21 West Church Street, Jacksonville, FL 32234.
This modification will revise each of the authorized duct burner sizes
from 85 MMBtu/hr (HHV) to170MMBtu/hr (HHV); there is one duct burner
for each combustion turbine and they fire natural gas only. There will be
slight increases in the authorized emissions as a result of this modification,
however such emission increases are less than the PSD Significant Emission
Rates as defined within 62-212.400, F.A.C.

Pollutant TPY Increase PSD Significant Emission Rate

Poliutant	TPY Increase	PSD Significant Emission Rate	Significant?
NOx	4.86	40	NO
co	37.31	100	NO
VOC	14.54	40	NO.
SO ₂	0.22	40	NO
PM/PM ₁₀	6.22	15	, NO

by rule 28-106.301.

Because the administrative 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 any 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 holldays, at:

44. 1 h.

Dept of Environmental Dept. of Environmental Protection Protection Protection and Bureau of Air Northeast District Environmental Services Department

111 S. Magnolla Drive, 7825 Baymeadows Way, Suite 225, 117 W. Duval Street

121 S. Magnolla Drive, 7825 Baymeadows Way, Suite 225, 117 W. Duval Street

12301 Jacksonville, Florida Jacksonville, Florida



Department of Environmental Protection

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

David B. Struhs Secretary

April 14, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Walter P. Bussells Managing Director and CEO JEA 21 West Church Street Jacksonville, Florida 32234

Re: DEP File No. PSD-FL-310 (PA 00-43)
Brandy Branch Duct Burner Size Increase

Dear Mr. Bussells:

Enclosed is one copy of the Draft PSD Permit Modification relative to the increased duct burner sizes for Emissions Units 002 and 003. The JEA Brandy Branch Facility is located approximately 1 mile northeast of Baldwin City, Duval County.

The <u>Public Notice of Intent to Issue PSD Permit Modification</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 A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Michael P. Halpin at 850/921-9519.

Sincerely,

Trina Vielhauer, Chief, Bureau of Air Regulation

Zuna J Vulhaun

TV/mph

Enclosures

In the Matter of an Application for Permit by:

Walter P. Bussells, Managing Director and CEO JEA
21 West Church Street
Jacksonville, Florida 32234

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, Walter P. Bussells, Managing Director and CEO, JEA, applied on March 12, 2003, to the Department for a PSD Permit Modification for its Brandy Branch Electric Generating Facility located approximately 1 mile northeast of Baldwin City, Duval County. The request is to revise the permit to incorporate the increased duct burner sizes on the Brandy Branch Combined Cycle Units.

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 a PSD Permit Modification is required to revise the permit with respect to listed heat input values.

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.

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 30 (thirty) days from the date of publication of <u>Public Notice of Intent to Issue PSD Permit Modification</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 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.

Brandy Branch Combined Cycle Units, Duval County, Florida DEP File No. PSD-FL-310 (PA 00-43) Page 2 of 3

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'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

Brandy Branch Combined Cycle Units, Duval County, Florida DEP File No. PSD-FL-310 (PA 00-43) Page 3 of 3

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

Walter P. Bussells, JEA *
N. Bert Gianazza, P.E., JEA
Gregg Worley, EPA
John Bunyak, NPS
Chris Kirts, NED
James L. Manning, P.E. RESD
Kyle Lucas, Black & Veatch
Mr. 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)

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 Electric Generating Plant Duval County

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD Permit Modification to JEA, for the Brandy Branch Electric Generating Plant located approximately 1 mile northeast of Baldwin City, Duval County. The modification is to revise the permit to incorporate increased duct burner sizes on each of the two combined cycle units at the Brandy Branch Facility. These are new generating units, which are currently under construction. The applicant's mailing address is: JEA, 21 West Church Street, Jacksonville FL 32234.

This modification will revise each of the authorized duct burner sizes from 85 MMBtu/hr (HHV) to 170 MMBtu/hr (HHV); there is one duct burner for each combustion turbine and they fire natural gas only. There will be slight increases in the authorized emissions as a result of this modification, however such emission increases are less than the PSD Significant Emission Rates as defined within 62-212.400, F.A.C.

Pollutant	TPY Increase	PSD Significant Emission Rate	Significant?
NO _x	4.86	40	NO
CO	37.31	100	NO
VOC	14.54	40	NO
SO ₂	0.22	40	· NO
PM/PM ₁₀	6.22	15	NO

An air quality impact analysis was performed. Emissions from the facility will not contribute to or cause a violation of any state or federal ambient air quality standards. No significant impacts were predicted in either the PSD Class II area in the vicinity of the facility or in the PSD Class I Okefenokee and Wolf Island National Wilderness Areas.

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

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) 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'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 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 850/488-0114 Fax: 850/922-6979 Dept. of Environmental Protection Northeast District Office 7825 Baymeadows Way, Suite 200B Jacksonville, Florida 32256-7590 Telephone: 904/448-4300 Fax: 904/448-4366 Jacksonville Regulatory and Environmental Services Department Suite 225, 117 W. Duval Street Jacksonville, Florida 32202 Telephone: 904/630-4900 Fax: 904-630-6338

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

DRAFT

April XX, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Walter P. Bussells, Managing Director and CEO JEA
21 West Church Street
Jacksonville, Florida 32234

Re: DEP File No. PSD-FL-310, PA 00-43
Brandy Branch Facility Duct Burner Size Increase

Dear Mr. Bussells:

The Department reviewed your request dated March 12, 2003 to modify the PSD Permit relative to the revised duct burner sizes for Emission Units 002 and 003. The Department notes that the units are under construction, the subject duct burners may only fire natural gas, and no increase in the hours of operation has been sought. According to the supplied information, the Department has concluded this request is acceptable as indicated herein.

Permit PSD-FL-310 is hereby modified as follows:

Section III, Condition 4:

ARMS Emissions Units 002 and 003. Direct Power Generation, each consisting of a nominal 170-megawatt combustion turbine-electrical generator, shall comply with all applicable provisions of 40CFR60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s). Additionally, each Emissions Unit consists of a supplementally-fired heat recovery steam generator equipped with a natural gas fired-85-170 MMBTU/hr duct burner (HHV) and combined with one 200 MW steam electrical generator. The duct burners shall comply with all applicable provisions of 40CFR60, Subpart Dc, Performance Standards for Small Industrial-Commercial Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(7), F.A.C. The duct burners shall comply with all applicable provisions of 40CFR60, Subpart Db, Standards of Performance for Electric Utility Steam Generating Units Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(7), F.A.C.

Section III, Condition 9:

Heat Recovery Steam Generators equipped with Duct Burners: The maximum heat input rate of each natural gas fired duct burner shall not exceed \$5 170 MMBtu/hr (HHV). {Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emission unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish



appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested.} [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

Section III, Condition 22:

22. Volatile Organic Compounds (VOC) Emissions: Emissions of VOC in the stack exhaust gas (baseload at ISO conditions) with the combustion turbine operating on gas shall not exceed 3.49 6.81 lb/hour and with the combustion turbine operating on oil shall not exceed 7.68 lb/hr, to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. Thereafter, continuous monitoring of CO shall represent a surrogate for VOC emissions and provide assurance that a BACT Determination is not required. [PSD Avoidance, Rule 62-212.400, F.A.C.]

Section III, Condition 24:

24. PM/PM₁₀ and Visible emissions (VE): VE emissions shall not exceed 10 percent opacity from the stack in use. PM/PM₁₀ emissions from each combustion turbine and HRSG train shall not exceed 20.6 22.02 lb/hr at 100% output firing natural gas with the duct burner on and 62.1 lb/hr at 100% output firing fuel oil to be demonstrated by opacity. [BACT, Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.]

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 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,

Howard L. Rhodes, Director Division of Air Resources Management

HLR/mph

Memorandum

Florida Department of Environmental Protection

TO:

Trina Vielhauer

THRU:

Al Linero

FROM:

Michael P. Halpin

DATE:

April 4, 2003

SUBJECT:

JEA

Brandy Branch Combined Cycle Conversion of 2 Simple Cycle CT's

DEP File No. PSD-FL-310

Attached is the public notice package for a modification to Brandy Branch's PSD permit. Apparently, their environmental folks and construction engineers had crossed signals on the duct burner sizing. JEA permitted a total of 170 MMBtu/hr worth of duct burners (2 each 85 MMBtu/hr) whereas they intended to permit 170 MMBtu/hr duct burners on each unit. Now, the units are under construction, the (larger) duct burners have been purchased and they've realized the error.

Cleve and I met with JEA and Black & Veatch in February, to discuss this along with another change which they wished to make (hours of operation on oil). Since all parties understood that the latter change was likely to require additional modeling as well as to raise interest from the EPA and NPS, and that the former issue was one of urgency as the construction schedule will be affected, we agreed to process the duct burner change expeditiously and as a minor construction change; they agreed to submit a separate request for the increased oil operation.

Given that the increased emissions involved (see Public Notice) are less than the PSD significance levels, the BACT remains unaffected and the permit requires only minor changes. Accordingly, I recommend your approval of the attached Intent to Issue.

AAL/mph

Attachments

Trina - This is all benign. Clean facility, overwhemingly 80 - fined. Will make sure any subsequent abords are aggregated with this one too see if additional review is needed.

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7007	Street, Apt. No.: ② PO 聯以 NC hurch City, State, ZIP+4 Jacksonville	e, FL 32202			
	. PS Form 3800, January 20	001	See Reverse for Instructions	1	



8400 Ward Parkway P.O. Box 8405 Kansas City, Missouri 64114

REC

Black & Veatch Corporation

Tel: (913) 458-2000

MAR 13 2003

BUREAU OF AIR REGULATION B&V Project 133972 B&V File 32.0000

March 12, 2003

JEA Combined Cycle Conversion Project

Mike Halpin Florida Department of Environmental Protection Bureau of Air Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Subject:

Duct Burner Size Increase

0310485 -006-AC

On behalf of JEA, Black & Veatch is submitting both this letter report summarizing JEA's proposed increase in duct burner size for their combined cycle turbines at the Brandy Branch facility, as well as a CD-ROM containing the electronic air dispersion modeling files which demonstrate compliance with the Prevention of Significant Deterioration (PSD) Significant Impact Levels (SILs).

Specifically, JEA is proposing to modify their PSD Air Construction Permit for the Brandy Branch Combined Cycle Conversion project by increasing the duct burner size in the heat recovery steam generator (HRSG) of each combined cycle unit. Currently, the combined cycle Units 2 and 3 are each permitted with a natural gas fired duct burner in the HRSG. The permitted maximum heat input of each duct burner is 85 MMBtu/hr (HHV) and has a regulatory classification under 40 CFR Part 60 as a Dc unit. JEA proposes to increase each duct burner's actual maximum heat input from 85 MMBtu/hr to 170 MMBtu/hr (HHV). The change in duct burner size would then classify each burner as a Db unit.

As outlined in the submitted modeling protocol document and discussions with the FDEP at their office in Tallahassee on February 12, 2003, the demonstration of compliance was based on air dispersion modeling of the current permit conditions for

JEA Combined Cycle Conversion Project B&V Project 133972 March 12, 2003

fuel firing scenarios as outlined in the FDEP PSD Air Construction Permit (PSD-FL-310), Condition #14 (page 7 of 14):

Maximum allowable hours of operation for the 540 MW Combined Cycle Plant are 8760 hours per year while firing natural gas. The combined hours of fuel oil firing for the two combined cycle combustion turbines is limited to 576 hours per consecutive 12-month period and fuel oil firing for the simple cycle unit is limited to 750 hours per consecutive 12-month period. In the event that any of the 3 emission units (simple or combined cycle) fires fuel oil 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 fuel for the calendar day.

The modeling analyses followed the approved approach used in the original PSD application for this permit in which enveloping the emissions and stack parameters between the two fuels and over various operating scenarios yielded the worst-case modeling scenario. To account for the increase in duct burner emissions, each of the emission rates were doubled for the duct burners at 100 percent load for the natural gas fired case only. Furthermore, the modeling performed for this demonstration was limited to using the USEPA ISCST3 air dispersion model to predict pollutant concentrations for areas less than 50 km from the project. Specifically, the Class II area surrounding the project and Okefenokee National Wildlife Refuge (ONWR) Class I area were analyzed. A comparison of the modeled impacts to the applicable PSD SILs for the significantly emitted pollutants from the proposed modification was made and the results illustrated in Tables 1 and 2. It should be noted that modeled impacts for regional haze and deposition for Class I areas at distances greater than 50 km from the project was not performed because oil fired operating scenarios were not affected by the proposed modification.

Tables 1 and 2 compare the maximum model predicted concentrations for each pollutant and applicable averaging period with the Class II and Class I PSD SILs. As each table indicates, the project's maximum predicted concentrations are less than the applicable PSD SILs. Therefore, under the PSD program, no further air quality impact analyses are required for the proposed modification. Based on the results of the ambient air quality analyses, Black & Veatch requests that FDEP grant this modification to the Brandy Branch Unit 2 and 3 duct burners and issue a revision of the PSD Air Construction Permit (PSD-FL-310).

JEA Combined Cycle Conversion Project B&V Project 133972 March 12, 2003

If you have any questions or comments, please feel free to contact either myself at 913-458-9062 or Ebenezer Gujjarlapudi at 904-665-6247.

Very truly yours,

BLACK & VEATCH

Kyle Lucas

Air Quality Specialist

Enclosure

CC:

B. Gianazza – JEA

E. Gujjarlapudi – B&V

Eilo

C. Halisday

Table 1 Comparison of the facility's Maximum Modeled Impacts with the PSD Class II Significant Impact Levels^a

	_	ISCST3	PSD Class II	
		Maximum	Significant	Further Analysis
	Averaging	Impact	Impact Level	Required
Pollutant	Period	(µg/m³)	(µg/m³)	(Yes/No)
NO _x	Annual °	0.09	1	No
	ľ			
PM/PM ₁₀	24-hour ^b	4.15	5	No
	Annual °	0.06	1	No
CO	1-hour ^b	104.08	2,000	No
	8-hour ^b	27.60	500	No
SO ₂	3-hour ^b	0.76	25	No
	24-hour ^b	0.24	5	No
	Annual °	0.01	1	No

^a Air dispersion modeling for all three combustion turbines, including the 170 MMBtu/hr duct burners where applicable, was performed in accordance with the limits established in the FDEP PSD Air Construction Permit (PSD-FL-310), Condition #14.

^b Short-term modeling was performed using natural gas emissions.

^c Annual modeling was performed using annualized emissions firing of both natural gas and fuel oil.

Table 2 Comparison of the facility's Maximum Modeled Impacts with the PSD Class I Significant Impact Levels^a

		ISCST3	PSD Class I	
		Maximum	Significant	Further Analysis
	Averaging	Impact	Impact Level	Required
Pollutant	Period	(µg/m³)	(µg/m³) ^b	(Yes/No)
NO _x	Annual	0.02	0.1	No
PM/PM ₁₀	24-hour	0.29	0.32	No
	Annual	0.01	0.16	No
SO ₂	3-hour	0.05	1.0	No
	24-hour	0.02	0.2	No
	Annual	0.003	0.08	No

^a Modeling was performed using the ISCST3 air dispersion model for the portions of the ONWR that lie within 50 kilometers of the project location.

^b Calculated as 4 percent of the Class I Increments as recommended by the Federal Land Managers.