

Florida Department of Environmental Protection

Memorandum

TO: Joe Kahn, Director, Division of Air Resource Management
THROUGH: Trina Vielhauer, Chief, Bureau of Air Regulation
THROUGH: Syed Arif, New Source Review Section SA
FROM: Bruce Mitchell, ^{DPV}New Source Review Section
DATE: December 2, 2008
SUBJECT: Final Air Construction Permit Revision No. PSD-FL-386A
Project No. 0310047-018-AC
JEA – Kennedy Generating Station
Combustion Turbine No. 8
Specific Condition Clarifications and Edits

The Final Permit for this project is attached for your approval and signature, which authorizes changes to some specific conditions, which are mainly minor in nature and the rewrites and edits are generally clarifications of these specific conditions. The changes affect the combustion turbine No. 8, which is located at the existing JEA Kennedy Generating Station in Duval County, Florida. The project results in a minor source air construction permit.

The Department distributed an Intent to Issue Permit package on September 3, 2008. The applicant published the Public Notice of Intent to Issue in The Florida Times-Union on September 16, 2008. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed. Timely comments were received from the applicant during the Public Notice period, but were subsequently retracted.

I recommend your approval of the attached Final Permit for this project.

Attachments

FINAL DETERMINATION

PERMITTEE

JEA
21 West Church Street
Jacksonville, Florida 32202-3139

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation, New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Air Permit No. PSD-FL-386A
Project No. 0310047-018-AC
Kennedy Generating Station

This project authorizes changes to some specific conditions, which are mainly minor in nature and the rewrites and edits are generally clarifications of these specific conditions. The proposed work will be conducted at the existing JEA Kennedy Generating Station, which is located in Duval County, Florida. The project results in a minor source air construction permit.

NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Permit package on September 3, 2008. The applicant published the Public Notice of Intent to Issue in the The Florida Times-Union on September 16, 2008. The Department received the proof of publication on September 25, 2008. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed.

COMMENTS

Applicant

On September 29, 2008, the Department received timely comments on the Draft Permit Revision from the applicant via an e-mail. On December 2, 2008, the Department received a retraction of the comments via an e-mail.

CONCLUSION

The final action of the Department is to issue the permit as proposed.

NOTICE OF FINAL AIR CONSTRUCTION PERMIT REVISION

In the Matter of an
Application for Permit Revision:

Mr. James M. Chansler, P.E., D.P.A.	Permit Project No.: 0310047-018-AC
	Permit Revision No. PSD-FL-386A
JEA 21 West Church Street Jacksonville, Florida 32202	Kennedy Generating Station Duval County

JEA operates the existing Kennedy Generating Station in Duval County located at 4215 Talleyrand Avenue, in Jacksonville, Florida. Air construction permit, No. PSD-FL-386 (DEP File 0310047-015-AC), authorized the construction of combustion turbine No. 8, which is a General Electric PG7241(FA) simple cycle combustion turbine generator with a nominal output of 172 megawatts. This final air construction permit revision authorizes changes to some specific conditions, which are mainly minor in nature and the rewrites and edits are generally clarifications of these specific conditions. The project results in a minor source air construction permit. This permit revision is issued pursuant to Chapter 403, Florida Statutes (F.S.). Comments were received from the applicant during the Public Notice period, but subsequently retracted.

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

Executed in Tallahassee, Florida.



Trina L. Vielhauer
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

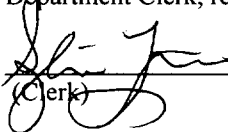
Permit Project No. 0310047-018-AC

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL AIR CONSTRUCTION PERMIT REVISION (including the Final Determination and the Final Permit Revision Letter) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on 12/4/08 to the persons listed below:

Mr. James M. Chansler, P.E., D.P.A., JEA (chanjm@jea.com)
Mr. Bert Gianazza, P.E., JEA (giannb@jea.com)
Mr: Chris Kirts, DEP-NED (christopher.kirts@dep.state.fl.us)
Mr. Richard Robinson, P.E., Duval County Environmental Quality Division (robinson@coj.net)
Ms. Ms. Heather Abrams, U.S. EPA Region 4 (abrams.heather@epamail.epa.gov)
Ms. Kathleen Forney, U.S. EPA Region 4 (forney.kathleen@epa.gov)
Ms. Catherine Collins, Fish and Wildlife Service (catherine_collins@fws.gov)
Ms. Vickie Gibson, DEP-BAR (victoria.gibson@dep.state.fl.us) (for read file)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



(Clerk)

12/4/08
(Date)



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

December 3, 2008

Sent by Electronic Mail – Received Receipt Requested

Mr. James M. Chansler, P.E., D.P.A.
Chief Operating Officer, JEA
21 West Church Street
Jacksonville, Florida 32202

Re: DEP File No. 0310047-018-AC/PSD-FL-386A
Kennedy Generating Station – Combustion Turbine No. 8

Dear Mr. Chansler:

The Department received your request to modify the current construction permit for Combustion Turbine (CT) No. 8 (Emission Unit No. 016) at the Kennedy Generating Station. The ongoing combustion turbine project was approved under permit PSD-FL-386 (DEP File 0310047-015-AC). CT No. 8 is a General Electric PG7241(FA) simple cycle combustion turbine generator with a nominal output of 172 megawatts.

Based on the above and as explained in the technical evaluation and preliminary determination, the Department will modify PSD-FL-386, previously issued on May 4, 2007, as follows. Please note that double underlined words are additions and strikethrough words are deletions.

- I. The expiration date of the construction permit is extended from December 31, 2008 to December 31, 2009.
- II. The following Section 3 Specific Conditions of the construction permit PSD-FL-386 are modified:
 12. Emission Standards: Emissions from each combustion turbine shall not exceed the following emissions standards.

Pollutant	Emission Standard ^e	Averaging Time	Compliance Method	Basis
CO ^a (Gas)	9.0 ppmvd @ 15% O ₂	3-hour test avg.	EPA Method 10 Test	Avoid PSD
	32.0 lb/hour			
CO ^a (Oil)	20.0 ppmvd @ 15% O ₂	3-hour test avg.	EPA Method 10 Test	
	66.0 lb/hour			
NO _x ^b (Gas)	15.0 ppmvd @ 15% O ₂	4 hour rolling average	CEMS	Avoid PSD
	108.3 lb/hour	3-hour test avg.	CEMS and EPA Method 19	Avoid PSD
NO _x ^b (Oil)	42 ppmvd @ 15% O ₂	4 hour rolling average	CEMS	Avoid PSD
	335.0 lb/hour	3-hour test avg.	CEMS and EPA Method 19	
PM/PM ₁₀ ^c	10% Opacity	6-minute block	EPA Method 9 Test	BACT

Pollutant	Emission Standard ^e	Averaging Time	Compliance Method	Basis
	Fuel sulfur specifications	N/A	Record Keeping	
SO ₂ ^d (Gas)	2 grains S/100 SCF of gas	N/A	Record Keeping	Avoid PSD
SO ₂ ^d (Oil)	0.05% sulfur by weight	N/A	Record Keeping	Avoid PSD

- a. The permittee shall conduct an initial test to demonstrate compliance with the CO emissions limits for the unit as constructed. Subsequent compliance tests shall be conducted during the year prior to renewing the Title V operating permit.
- b. Continuous compliance shall be demonstrated with the 4-hour rolling average NO_x emissions limit (ppmvd @ 15% O₂) by data collected from the required continuous emissions monitoring system (CEMS). If the CEMS data indicates that the 4-hour rolling average is in excess of the emission limit, excess emission reports must be filed. Compliance with the NO_x emissions limit (lb/hr) shall be demonstrated only during the initial compliance test by converting the NO_x CEMS data collected during the initial CO test by using the applicable F-Factor and EPA Method 19.
- c. The fuel sulfur specifications combined with the efficient combustion design and operation of the combustion turbine represents BACT for PM/PM₁₀ emissions. No stack tests are required. Compliance with the CO and visible emissions standards shall serve as indicators of good combustion. *{Permitting Note: Maximum expected PM/PM₁₀ emissions are approximately 19 lb/hour on natural gas and 45.0 lb/hr on oil.}*
- d. The fuel sulfur specifications effectively limit the potential emissions of sulfur dioxide (SO₂) from each combustion turbine. No stack tests are required.
- e. The mass emission rate standards are based on a turbine inlet condition of 59° F and the higher heating value of each fuel. Mass emission rates may be adjusted for actual test conditions in accordance with the performance curves and/or equations on file with the Department.

[Rule 62-212.400 (BACT), F.A.C.; Rule 62-4.070(3), F.A.C.]

23. CEM Systems: The permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of NO_x from the combustion turbine in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this section. All continuous monitoring systems shall be installed and functioning within the required performance specification by the time of the initial performance tests.
 - a. *NO_x Monitor*: Each NO_x monitor shall be certified pursuant to the specifications of 40 CFR 75 and comply with the applicable requirements of 40 CFR 60 Subpart KKKK. Quality assurance procedures shall conform to the requirements of 40 CFR 75. The ~~annual and required~~ RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.
 - b. *Diluent Monitor*: The oxygen (O₂) or carbon dioxide (CO₂) content of the flue gas shall be monitored at the location where NO_x is monitored to correct the measured emissions rates to 15% oxygen. If a CO₂ monitor is installed, the oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75. For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂ (or the hourly average CO₂ concentration is less than 1.0

percent CO₂, a diluent cap value of 19.0 percent O₂ or 1.0 percent CO₂ (as applicable) may be used in the emission calculations.

- c. For purposes of determining compliance with the CEMS emissions standards of the permit, missing or excluded data shall not be substituted and bias corrected data shall not be used.

[Rules 62-4.070(3), 62-210.800, 62-212.400(BACT), ~~and~~ 62-297.520, F.A.C. and 40 CFR 60.4350]

25. Monthly Operations Summary: By the ~~fifth~~ 15th calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the combustion turbine for the previous month of operation: hours of operation for the month and for the rolling 12-month total. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. The fuel consumption shall be monitored in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-212.400(PSD), F.A.C.]

29. NSPS Emissions Reports

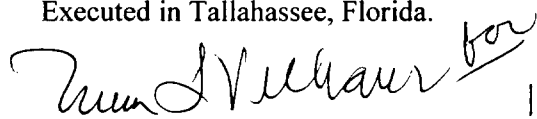
- a. NSPS Emissions Report: Within thirty (30) days following each calendar semiannual period, the permittee shall submit a report including any applicable periods of excess emissions and monitoring systems performance as defined in 40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines) that occurred during the previous semiannual period to the Compliance Authority.
- b. Malfunction Notification: For each malfunction resulting in excess emissions that exceed two hours in any 24 hour period, the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.

[Rules 62-4.070(3), 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C.; and 40 CFR 60.7 and 60.4395]

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

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

Executed in Tallahassee, Florida.

 for

Joseph Kahn, Director
Division of Air Resource Management

12/3/08

Date

Livingston, Sylvia

From: Chansler, James M. - Chief Operating Officer [ChanJM@jea.com]
To: Livingston, Sylvia
Sent: Friday, December 05, 2008 7:56 AM
Subject: Read: JEA-Kennedy Generating Station; 0310047-018-AC (PSD-FL-386A)

Your message

To: ChanJM@jea.com
Subject:

was read on 12/5/2008 7:56 AM.

Livingston, Sylvia

From: Gianazza, N. Bert [GianNB@jea.com]
Sent: Friday, December 05, 2008 8:19 AM
To: Livingston, Sylvia
Subject: RE: JEA-Kennedy Generating Station; 0310047-018-AC (PSD-FL-386A)

My R.O. and I have received this email.

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Thursday, December 04, 2008 4:36 PM
To: Chansler, James M. - Chief Operating Officer; Gianazza, N. Bert
Cc: Kirts, Christopher; robinson@coj.net; forney.kathleen@epa.gov; abrams.heather@epamail.epa.gov; catherine_collins@fws.gov; Arif, Syed; Walker, Elizabeth (AIR); Gibson, Victoria; Mitchell, Bruce
Subject: JEA-Kennedy Generating Station; 0310047-018-AC (PSD-FL-386A)

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send". **We must receive verification that you are able to access the documents.** Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0310047.018.AC.F_pdf.zip

Owner/Company Name: JEA
Facility Name: KENNEDY
Project Number: 0310047-018-AC (PSD-FL-386A)
Permit Status: FINAL
Permit Activity: CONSTRUCTION/ Modifications to PSD-FL-386/0310047-015
Facility County: DUVAL
Processor: Syed Arif

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at <http://www.dep.state.fl.us/air/eproducts/apds/default.asp>.

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

<<0310047-018-AC_Signatures.pdf>>

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506

12/5/2008

Permit Activity: CONSTRUCTION/ Modifications to PSD-FL-386/0310047-015

Facility County: DUVAL

Processor: Syed Arif

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<<0310047-018-AC_Signatures.pdf>>

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506
sylvia.livingston@dep.state.fl.us

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <<http://www.adobe.com/products/acrobat/readstep.html>> .

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

Livingston, Sylvia

From: Robinson, Richard [ROBINSON@coj.net]
Sent: Friday, December 05, 2008 1:33 PM
To: Livingston, Sylvia
Subject: RE: JEA-Kennedy Generating Station; 0310047-018-AC (PSD-FL-386A)

Hi Sylvia,

I was able to view the documents in the e-mail link below.

Thanks,

Richard

Richard L. Robinson, P.E.
Environmental Engineering Manager
Air Quality Branch
Environmental Quality Division
Environmental and Compliance Department
City of Jacksonville, Florida
117 West Duval Street, Suite 225
Jacksonville, FL 32202

Phone: (904) 630-4900
Fax: (904) 630-3638
E-Mail: robinson@coj.net

Please note: that under Florida's very broad public records law, e-mail communications to and from City officials may be subject to public disclosure.



Please consider the environment before printing this email.

From: Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]
Sent: Thursday, December 04, 2008 4:36 PM
To: chanjm@jea.com; giannb@jea.com
Cc: Kirts, Christopher; Robinson, Richard; forney.kathleen@epa.gov; abrams.heather@epamail.epa.gov; catherine_collins@fws.gov; Arif, Syed; Walker, Elizabeth (AIR); Gibson, Victoria; Mitchell, Bruce
Subject: JEA-Kennedy Generating Station; 0310047-018-AC (PSD-FL-386A)

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send". **We must receive verification that you are able to access the documents.** Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

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Owner/Company Name: JEA
Facility Name: KENNEDY
Project Number: 0310047-018-AC (PSD-FL-386A)
Permit Status: FINAL

12/5/2008