

21 West Church Street
Jacksonville, Florida 32202-3139

RECEIVED

JUL 11 2008

July 9, 2008

BUREAU OF AIR REGULATION

Via Certified Mail and E-Mail



Ms. Trina L. Vielhauer, Chief
Bureau of Air Regulation
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

ELECTRIC

RE: JEA Kennedy Generating Station Combustion Turbine No. 8
Permit No PSD-FL-386, Project No. 0310047-015-AC

WATER

PSD-FL-386A / 0310047-018-AC

Dear Ms. Vielhauer:

SEWER

The purpose of this letter is to request revisions to the above-referenced construction permit.

As JEA nears completion of the Combustion Turbine No. 8 (CT 8) construction project at the Kennedy Generating Station, there are several important issues associated with the construction permit that JEA would like to discuss with the Department of Environmental Protection (FDEP) and that should be addressed through permit revisions. Each of those issues is discussed below. After FDEP has an opportunity to review this information, JEA requests a meeting for further discussion.

BACKGROUND

Permit PSD-FL-386 authorizes the construction of a simple cycle combustion turbine generator, CT 8, with a nominal output of 172 MW at the existing Kennedy Generating Station. CT 8 is a General Electric PG7241(FA) simple cycle combustion turbine generator with a nominal output of 172 MW. CT 8 may operate for a total of 3,500 hours per year with natural gas as the primary fuel. The use of low sulfur distillate oil (0.05 % sulfur) as a restricted alternate fuel is allowed for up to 500 hours per year. The unit is being designed and constructed with dry low-NO_x burner technology for the control of NO_x emissions. The advanced burner design will also reduce incomplete combustion and minimize carbon monoxide (CO), PM₁₀, and volatile organic compound (VOC) emissions. Prevention of Significant Deterioration (PSD) review was triggered only for PM/PM₁₀. Note that this project also requires the permanent retirement of CT Nos. 3, 4, and 5 (EU-003, 004, and 005).

Permit Revision Request #1:

Currently, specific condition 29.b. reads as follows:

“Malfunction Notification: For each malfunction resulting in excess emissions, 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.”

The actual rule referenced in the specific condition, 62.210.700(6), F.A.C., reads as follows:

“In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.”

Rule 62-4.130, F.A.C., cited in this rule provides that if the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department.

It is our belief that this change in language substantively changes the meaning and intent of the rule and causes undue confusion as to what is required under the regulations. Rule 62-4.130, F.A.C., has typically been interpreted to require the reporting of excess emissions resulting from malfunctions only if the excess emissions exceed 2 hours in 24 hours; otherwise, the emissions are allowed and the permittee remains in full compliance with the conditions of the permit. No notice is required under Rule 62-4.130, F.A.C. The Department’s rewording of Rule 62-210.700(6) and the elimination of the reference to Rule 62-4.130, F.A.C., indicates that all excess emissions resulting from a malfunction must be reported immediately, even if the emissions are allowable because the duration is for less than 2 hours in a 24-hour period.

If it is the Departments intent to change the rule, we request that the Department provide the reason and authority for the change, and an explanation of exactly what the Department is trying to accomplish by changing the rule language. If it is not the Department’s intent to change the meaning and intent of the rule, we request that the language be changed to quote the actual rule language to avoid any confusion as to the meaning and intent of the permit language.

Permit Revision Request #2:

The current expiration date of the subject construction permit is December 31, 2008. The expected commercial operation date is early 2009 which will be followed by a request for a permit revision to the Title V permit for this facility to include this new turbine. We request that the expiration date of the construction permit be revised to December 31, 2009.

Permit Revision Request #3:

Under specific condition 12, the basis of the NO_x limits should be NSPS Subpart KKKK. The lb/hour limits should be omitted because there is no regulatory basis and these additional limits were not needed to “avoid PSD.” Also, the permit should clearly state that excess emissions during startups, shutdowns and malfunctions are allowed. While emissions during startups, shutdowns, and malfunctions are to be included in determining the 30-day rolling average for excess emissions reporting purposes, emissions attributable to startups, shutdowns, and malfunctions should not be used for determining compliance with the emission limit.

In Appendix C “Common Conditions” of the permit, FDEP does include some discussion regarding excess emissions during startup, shutdown and malfunction; however, this discussion is directly pertinent to the table of emission limits in Section 3 of the permit and should be included therein – probably in Special Condition 12 or the “EXCESS EMISSION” sub-section.

In the Title 40 CFR Part 60, Subpart KKKK promulgation, the Environmental Protection Agency (EPA) clearly excludes excess emissions for the purposes of determining compliance. In the preamble of Subpart KKKK, some commenters wanted clarification on the applicability of the NO_x standards during periods of startup, shutdown and malfunction. Other commenters pointed out that while these periods of excess emissions were not considered violations, they might appear to be by a State regulatory agency or the public.

In response, EPA stated that, “We recognize that even for well-operated units with efficient NO_x emission controls, **excess emission “spikes” during unit startup and shutdown are inevitable, and malfunctions of emission controls and process equipment occasionally occur.** However, at all times, including periods of startup, shutdown, and malfunction, 40 CFR 60.11(d) requires affected units to be operated in a manner consistent with good air pollution control practice for minimizing emissions. Excess emissions data may be used to determine whether a facility’s operation and maintenance procedures are consistent with 40 CFR 60.11(d). While **continuous compliance is not required**, excess emissions during startup, shutdown, and malfunction must be reported.” EPA later states, “Regarding the negative stigma, we cannot determine how other parties interpret the final rule. It is clear that **continuous compliance is not a requirement of the final rule during periods of startup, shutdown, and malfunction.**” In essence, the excess emissions during startup, shutdown and malfunction must be reported but they are not considered compliance violations.

The permit already addresses any potential for poor maintenance scenarios in Section 3, Special Conditions 19 and 21. These conditions provide for additional testing if the excess emissions being reported indicate that there may be a problem and ensure that excess emissions resulting from poor maintenance efforts are prohibited.

To confirm how excess emissions during startup, shutdown, and malfunctions are to be treated based on EPA’s explanation in the preamble, we suggest that the following changes be made and new language included:

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	Avoid PSD
	66.0 lb/hour			
NO _x ^b (Gas)	15.0 ppmvd @ 15% O ₂	4 hour rolling average	CEMS	<u>NSPS Subpart KKKK</u> Avoid PSD
	408.3 lb/hour	3-hour test avg.	CEMS and EPA Method 19	<u>Avoid PSD</u>
NO _x ^b (Oil)	42 ppmvd @ 15% O ₂	4 hour rolling average	CEMS	<u>NSPS Subpart KKKK</u> Avoid PSD
	335.0 lb/hour	3-hour test avg.	CEMS and EPA Method 19	<u>Avoid PSD</u>
PM/PM ₁₀ ^c	10% Opacity	6-minute block	EPA Method 9 Test	BACT
	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

Emission Standards: Emissions from each combustion turbine shall not exceed the following emissions standards.

- 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~~ is not required for the 4-hour rolling average NO_x emissions limit (ppmvd @ 15% O₂) by based on data collected from the required continuous emissions monitoring system (CEMS). Excess emissions may occur due to startup, shutdown, or malfunctions, and such emissions will not cause a violation of the emission limit. If the CEMS data indicates that the 4-hour rolling average is in excess of the emission limit, excess emission reports must be filed; non-compliance does not occur if the excess emissions are attributable to emission spikes resulting from startup, shutdown, or malfunctions. Compliance with the NO_x emissions limit (lb/hr) shall be demonstrated 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.]

In addition, under the provisions of Rule 62-210.700, F.A.C., Unit 8 should be allowed 2 hours of excess emissions of particulate matter and opacity. We therefore suggest that the following language be added:

Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, and malfunctions shall be permitted, provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. Excess emissions of PM/PM₁₀ resulting from startup, shutdown, and malfunctions shall not exceed two hours in any 24-hour period unless specifically authorized by the Department or the local program for a longer duration.

Permit Revision Request #4:

In Section 3, Special Condition 23, the words “annual and” should be removed from the statement “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.” Depending on how often the turbine operates, the Part 75 RATA tests may not be required annually. Compliance is demonstrated using CEMS, so annual stack testing should not be required.

Permit Revision Request #5:

JEA believes that it is important to state in the permit (as is stated in all of EPA’s compliance monitoring requirements) that substituted data and bias corrected data required for purposes of 40 CFR Part 75 are not to be used for purposes of demonstrating compliance with emission limits under this permit. This request could be accomplished through the addition of a new subparagraph c. for specific condition 23: “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.”

Permit Revision Request #6:

KKKK allows the use of a diluent cap when determining compliance with the NO_x emission limits in Section 3 of the permit. We request that the following language be added to clarify that use of a diluent cap is allowed:

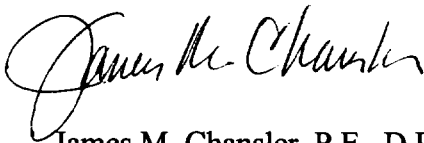
For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂ (or the hourly average CO concentration is less than 1.0 percent CO₂), a diluent cap value of 19.0 percent O₂ or 1.0 percent CO₂ (as applicable) may be used in the emission calculations.

Permit Revision Request #7:

JEA requests that it be allowed ten (10) calendar days after the end of each calendar month to complete the monthly fuel logs required under specific condition 25. The current requirement to record and calculate the monthly operational data within five (5) calendar days is burdensome and not necessary for reasonable assurances that the unit will be operated within the limits established under specific condition 7 (3,500 hours of operation with no more than 500 hours while firing oil). Regardless of when the records are completed, JEA will be held to those operational limits and intends to operate within a reasonable margin of compliance. If the Department requests the operational information, it must be provided within three days. If there is ever a question or the Department is concerned about the operational data, then that information will be provided as required. Four routine recordkeeping, a ten-day window within which to prepare the record and calculations would be more appropriate.

JEA looks forward to an opportunity to discuss these issues with you at your earliest convenience, and we will be calling soon to schedule a meeting. Based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete. If you have any questions regarding the issues stated above or require additional information in the meantime please feel free to contact Bert Gianazza with JEA at 904-665-6247.

Sincerely,



James M. Chansler, P.E., D.P.A.,
Chief Operating Officer
Responsible Official



cc: Kevin Holbrooks, JEA
Bert Gianazza, JEA
Angela Morrison, HGS
Russell Berry, RMB

Walker, Elizabeth (AIR)

From: Walker, Elizabeth (AIR)
Sent: Tuesday, July 22, 2008 12:20 PM
To: 'Forney.Kathleen@epamail.epa.gov'; Felton-Smith, Rita; 'Robinson, Richard'
Cc: 'catherine_collins@fws.gov'; 'meredith_bond@fws.gov'; Arif, Syed
Subject: JEA - Kennedy Generating Station Application/PSD-FL-386A
Attachments: 0310047-018-AC.pdf

Also Sent Electronically?	YES NO
ARMS PA Project ID:	0310047-018-AC
PSD	PSD-FL-386A

Facility Name:	JEA –Kennedy Generating Station
Project Description:	Modifications to PSD-FL-386
Permit Application Processor:	Syed Arif, P.E.
Processor Phone:	850/488-0114
Processor Email Address:	Syed.Arif@dep.state.fl.us /
Received in-house:	July 11, 2008

Elizabeth Walker
Bureau of Air Regulation
Division of Air Resource Management (DARM)
(850)921-9505

Walker, Elizabeth (AIR)

From: Mail Delivery System [MAILER-DAEMON@mseive01.rtp.epa.gov]
Sent: Tuesday, July 22, 2008 12:21 PM
To: Walker, Elizabeth (AIR)
Subject: Successful Mail Delivery Report
Attachments: Delivery report; Message Headers

This is the mail system at host mseive01.rtp.epa.gov.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<Forney.Kathleen@epamail.epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250
OK, sent 488608CF_23409_24226_2 06F0E4438D

Walker, Elizabeth (AIR)

From: Exchange Administrator
Sent: Tuesday, July 22, 2008 12:20 PM
To: Walker, Elizabeth (AIR)
Subject: Delivery Status Notification (Relay)
Attachments: ATT990648.txt; JEA - Kennedy Generating Station Application/PSD-FL-386A

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

catherine_collins@fws.gov

meredith_bond@fws.gov

Walker, Elizabeth (AIR)

From: Exchange Administrator
Sent: Tuesday, July 22, 2008 12:20 PM
To: Walker, Elizabeth (AIR)
Subject: Delivery Status Notification (Relay)
Attachments: ATT990625.txt; JEA - Kennedy Generating Station Application/PSD-FL-386A

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

ROBINSON@coj.net

Walker, Elizabeth (AIR)

From: System Administrator
To: Felton-Smith, Rita; Arif, Syed
Sent: Tuesday, July 22, 2008 12:20 PM
Subject: Delivered:JEA - Kennedy Generating Station Application/PSD-FL-386A

Your message

To: 'Forney.Kathleen@epamail.epa.gov'; Felton-Smith, Rita; 'Robinson, Richard'
Cc: 'catherine_collins@fws.gov'; 'meredith_bond@fws.gov'; Arif, Syed
Subject: JEA - Kennedy Generating Station Application/PSD-FL-386A
Sent: 7/22/2008 12:20 PM

was delivered to the following recipient(s):

Felton-Smith, Rita on 7/22/2008 12:20 PM
Arif, Syed on 7/22/2008 12:20 PM