

INTEROFFICE MEMORANDUM

TO: Michael Cooke

THRU: Trina Vielhauer *TV*
Jeff Koerner *JK*

FROM: Bruce Mitchell *BM*

DATE: March 1, 2006

SUBJECT: JEA - Kennedy Generating Station
Simple Cycle Combustion Turbine No. 7
Final Air Construction Permit Project No.: 0310047-013-AC
Amendments to Air Construction Permit No.: 0310047-002-AC

Attached is the Final Air Construction Permit for the purpose of: 1) removing the federally enforceable requirement to analyze the nitrogen in the fuel oil; 2) making a correction to a rule citing within a specific condition for clarity purposes; 3) clarifying when to correct for ISO conditions; and, 4) clarifying when to use data substitution related to compliance demonstration for NO_x. These changes are being made for the Simple Cycle Combustion Turbine #7 located at the JEA's Kennedy Generating Station, located at 4215 Talleyrand Avenue, Jacksonville, Duval County.

The 14-Day Public Notice period is completed on February 27. March 2 is Day 10 on the permitting clock.

NOTICE OF FINAL AIR CONSTRUCTION PERMIT

In the Matter of an
Application for Permit:

Mr. James M. Chansler, P.E., D.P.A.
V.P., Operations and Maintenance, R.O. and D.R.
JEA
21 West Church Street
Jacksonville, Florida 32202

DEP File No.: 0310047-013-AC
Amendments to Air Construction Permit No.: 0310047-002-AC
Kennedy Generating Station
Duval County

Enclosed is the Final Air Construction Permit, No. 0310047-013-AC, which amends air construction permit, No. 0310047-002-AC, for combustion turbine No. 7. The subject of the Air Construction Permit is to: 1) remove the federally enforceable requirement to analyze the nitrogen in the fuel oil (No. 2 diesel, a distillate fuel oil), since there is no permitted allowance for any fuel bound nitrogen; 2) make a correction to a rule citing within a specific condition for clarity purposes; 3) clarify when to correct for ISO conditions; and, 4) when to use data substitution related to compliance demonstration for NO_x. This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received during the Public Notice period.

Any party to this order (permit letter) has the right to seek judicial review of the permit 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

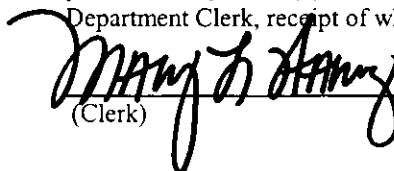
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL AIR CONSTRUCTION PERMIT (including the Final permit) was sent by certified mail (*) and copies were sent by U.S. Mail or electronically (with Received Receipt) before the close of business on 3/6/06 to the person(s) listed or as otherwise noted:

Mr. James M. Chansler, P.E., D.P.A.*, V.P., Operations and Maintenance, R.O. and D.R., JEA
Mr. N. Bert Gianazza, P.E., JEA, Application Contact
Mr. Richard Robinson, P.E., ERMD-EQD

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) 3/6/06
(Date)

Final Determination

JEA
Kennedy Generating Station

Air Construction Permit No.: 0310047-013-AC
Amendments to Air Construction Permit No.: 0310047-002-AC

An Intent to Issue an Air Construction Permit to JEA for the Kennedy Generating Station, located at 4215 Talleyrand Avenue, Jacksonville, Duval County, Florida, was distributed on February 3, 2006. The Public Notice of Intent to Issue an Air Construction Permit was published in The Florida Times-Union on February 13, 2006. No comments were received during the Public Notice period.

The final action of the Department will be to issue the Final Air Construction Permit, as noticed.



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

March 3, 2006

CERTIFIED MAIL – Return Receipt Requested

Mr. James M. Chansler, P.E.
Responsible Official and V.P. of Operations and Maintenance
JEA
Kennedy Generating Station
21 West Church Street
Jacksonville, Florida 32202-3139

Re: Kennedy Generating Station
Final Air Construction Permit Project No.: 0310047-013-AC
Amendments to Air Construction Permit No.: 0310047-002-AC
Simple Cycle Combustion Turbine No. 7

Dear Mr. Chansler:

The Department has reviewed the letters received on November 5, 2004, and August 29, 2005, and an e-mail correspondence received January 24, 2006. Based on the review of the requests and their rationale, the following are changed:

A. Letter received November 5, 2004:

1. **Section III. Specific Condition 42.: 0310047-002-AC.** Requested deletion of "and nitrogen content" in the 1st sentence. Due to a revision to the federal regulations at 40 CFR 60, Subpart GG, the Department agrees with your request regarding the removal of the fuel-bound nitrogen requirement; therefore, and pursuant to 40 CFR 60.334(i)(1), this letter modification removes the federally enforceable requirement to analyze the nitrogen in the fuel oil (No. 2 diesel, a distillate fuel oil), since there is no permitted allowance for any fuel bound nitrogen. Therefore, the following is changed:

FROM:

42. Fuel Oil Monitoring Schedule. The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 or superior grade fuel oil received at the Kennedy Generating Station, an analysis which reports the sulfur content and nitrogen content of the fuel, shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d).
[0310047-002-AC]

TO:

42. Fuel Oil Monitoring Schedule. The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 or superior grade fuel oil received at the Kennedy Generating Station, an analysis which reports the sulfur content of the fuel, shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d).
[0310047-002-AC; 0310047-013-AC; and, 40 CFR 60.334(i)(1)]

"More Protection, Less Process"

Printed on recycled paper.

Mr. James M. Chansler
Kennedy Generating Station
Simple Cycle Combustion Turbine No. 7
Final Air Construction Permit Project No.: 0310047-013-AC
Amendment to Air Construction Permit No.: 0310047-002-AC
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B. Letter received August 29, 2005:

1. Section II. Specific Condition 12.: 0310047-002-AC. Correction to a rule citing. For clarity purposes and correctness, a change to a rule citing within a specific condition will be made. Therefore, the following is changed:

FROM:

12. Quarterly Reports. Quarterly excess emission reports, in accordance with 40 CFR 60.7(a)(7)(c) (1997 version), shall be submitted to the DEP's Northeast District and Jacksonville RESD's Air & Water Quality Division offices. [0310047-002-AC; and, 40 CFR 60.7]

TO:

12. Quarterly Reports. Quarterly excess emission reports, in accordance with 40 CFR 60.7(c) (1997 version), shall be submitted to the DEP's Northeast District and Jacksonville's ERMD-EQD offices. [0310047-002-AC; 0310047-013-AC; and, 40 CFR 60.7(c)(1997 version)]

2. Section II. Specific Conditions 17.: Bullets #1 and #2, 19., 20. and 21.: 0310047-002-AC. The Department finds the request acceptable to remove the "ISO correction" requirement for the pollutants CO, VOC and SO₂, because the "ISO correction" equation in 40 CFR 60, Subpart GG, is only required initially and for the pollutant NO_x. Therefore, the ISO correction requirement will be removed from the pollutants CO, VOC and SO₂. In addition, the preamble to the 2004 amendments states the ISO correction only applies to diffusion flame burners, which is used by the CT #7 when burning fuel oil. Dry low-NO_x burners are used when burning natural gas. Therefore, there should be no requirement to impose ISO correction when burning natural gas. Therefore, the following are changed:

FROM:

17. Nitrogen Oxides (NO_x) Emissions: The concentration of NO_x concentrations in the exhaust gas of this CT shall not exceed 15 ppm at 15% O₂ (on a 24-hr block average) as measured by the CEMS (maintained in accordance with 40 CFR 75) while burning natural gas. In addition, NO_x emissions calculated as NO₂ (at ISO conditions) shall exceed neither 15 ppm at 15% O₂ nor 99 lbs/hr to be demonstrated by stack test. Total annual NO_x emissions shall not exceed 200 tons on a 12-month rolling average basis (gas/oil or gas or oil). [0310047-002-AC; and, Rule 62-212.400(2)(g), F.A.C.]

NO_x Emissions. The concentration of NO_x concentrations in the exhaust gas of this CT shall not exceed 42 ppm at 15% O₂ (on a 24-hr block average) as measured by the CEMS (maintained in accordance with 40 CFR 75) while burning fuel oil. In addition, NO_x emissions calculated as NO₂ (at ISO conditions) shall exceed neither 42 ppm at 15% O₂ nor 318 lbs/hr to be demonstrated by stack test. Total annual NO_x emissions shall not exceed 200 tons on a 12-month rolling average basis (natural gas/fuel oil or natural gas or fuel oil). [0310047-002-AC; and, Rule 62-212.400(2)(g), F.A.C.]

19. Carbon Monoxide (CO) Emissions: The concentration of CO in the exhaust gas shall not exceed 15 ppmvd (natural gas) and 20 ppmvd (fuel oil) as measured by EPA Method 10. CO emissions (at ISO conditions) shall not exceed 48 lbs/hr (natural gas) and 97 lbs/hr (fuel oil) to be demonstrated by stack test. [0310047-002-AC]

20. Volatile Organic Compounds (VOC) Emissions: The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd (natural gas) and 3.5 ppmvd (fuel oil) as determined by EPA Methods 18, 25 or 25 A. VOC emissions (at ISO conditions) shall not exceed 2.9 lbs/hr (natural gas) and 19 lbs/hr (fuel oil). [0310047-002-AC]

Mr. James M. Chansler
Kennedy Generating Station
Simple Cycle Combustion Turbine No. 7
Final Air Construction Permit Project No.: 0310047-013-AC
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21. Sulfur Dioxide (SO₂) Emissions: SO₂ emissions (at ISO conditions) shall not exceed 9.7 lbs/hr when firing pipeline natural gas and 98 lbs/hr when firing maximum 0.05 percent, by weight, sulfur content No. 2 or superior grade distillate fuel oil. Initial tests shall be performed by applicable compliance methods described below. Compliance with this requirement in conjunction with implementation of the Custom Fuel Monitoring Schedules in Specific Conditions 41 and 42 will demonstrate compliance with the applicable NSPS SO₂ emissions limitations. Confirmation by the Custom Fuel Monitoring Schedule that the actual sulfur content is less than 2 grains per 100 standard cubic feet (gas) and 0.05 %, by weight, sulfur content (fuel oil) will demonstrate compliance with the permit limits for SO₂. Emissions of SO₂ shall not exceed 62 tons per year.
[0310047-002-AC; and, Rule 62-212.400(2)(g), F.A.C.]

TO:

17. Nitrogen Oxides (NO_x) Emissions: The concentration of NO_x concentrations in the exhaust gas of this CT shall not exceed 15 ppm at 15% O₂ (on a 24-hr block average) as measured by the CEMS (maintained in accordance with 40 CFR 75) while burning natural gas. In addition, NO_x emissions calculated as NO₂ shall exceed neither 15 ppm at 15% O₂ nor 99 lbs/hr to be demonstrated by stack test. Total annual NO_x emissions shall not exceed 200 tons on a 12-month rolling average basis (gas/oil or gas or oil).
[0310047-002-AC; and, Rule 62-212.400(2)(g), F.A.C.]

NO_x Emissions. The concentration of NO_x concentrations in the exhaust gas of this CT shall not exceed 42 ppm at 15% O₂ (on a 24-hr block average) as measured by the CEMS (maintained in accordance with 40 CFR 75) while burning fuel oil. In addition, NO_x emissions calculated as NO₂ shall exceed neither 42 ppm at 15% O₂ nor 318 lbs/hr to be demonstrated by stack test. Total annual NO_x emissions shall not exceed 200 tons on a 12-month rolling average basis (natural gas/fuel oil or natural gas or fuel oil).
[0310047-002-AC; and, Rule 62-212.400(2)(g), F.A.C.]

19. Carbon Monoxide (CO) Emissions: The concentration of CO in the exhaust gas shall not exceed 15 ppmvd (natural gas) and 20 ppmvd (fuel oil) as measured by EPA Method 10. CO emissions shall not exceed 48 lbs/hr (natural gas) and 97 lbs/hr (fuel oil) to be demonstrated by stack test.
[0310047-002-AC]

20. Volatile Organic Compounds (VOC) Emissions: The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd (natural gas) and 3.5 ppmvd (fuel oil) as determined by EPA Methods 18, 25 or 25 A. VOC emissions shall not exceed 2.9 lbs/hr (natural gas) and 19 lbs/hr (fuel oil).
[0310047-002-AC]

21. Sulfur Dioxide (SO₂) Emissions: SO₂ emissions shall not exceed 9.7 lbs/hr when firing pipeline natural gas and 98 lbs/hr when firing maximum 0.05 percent, by weight, sulfur content No. 2 or superior grade distillate fuel oil. Initial tests shall be performed by applicable compliance methods described below. Compliance with this requirement in conjunction with implementation of the Custom Fuel Monitoring Schedules in Specific Conditions 41 and 42 will demonstrate compliance with the applicable NSPS SO₂ emissions limitations. Confirmation by the Custom Fuel Monitoring Schedule that the actual sulfur content is less than 2 grains per 100 standard cubic feet (gas) and 0.05 %, by weight, sulfur content (fuel oil) will demonstrate compliance with the permit limits for SO₂. Emissions of SO₂ shall not exceed 62 tons per year.
[0310047-002-AC; and, Rule 62-212.400(2)(g), F.A.C.]

Mr. James M. Chansler
Kennedy Generating Station
Simple Cycle Combustion Turbine No. 7
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3. Section II. Specific Condition 17.: Bullet #4: 0310047-002-AC. The Department finds the request acceptable to delete the specific condition related to compliance demonstration for NO_x for the JEA's KGS CT No. 7, specifically remove the use of missing data substitution, which is acceptable for purposes for Acid Rain allowances, to avoid the conflict when determining the compliance average with the emission limit and the associated timeframe that was established. The use of valid data is found in specific condition 27., 0310047-002-AC.

FROM:

17. When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the specified average time.

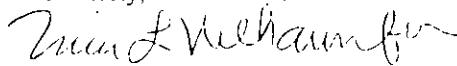
TO:

17. Reserved.

This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Sincerely,



Michael G. Cooke, Director
Division of Air Resource Management

MGC/rbm

cc: Mr. Richard Robinson, ERMD-EQD
Mr. N. Bert Gianazza, P.E., JEA

U.S. Postal Service
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Mr. James M. Chansler
V.P. Operations and Maintenance
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St. Johns River Power Park
21 West Church Street
Jacksonville, Florida 32202