August 24, 2005

JEA

Mr. Jeffrey F. Koerner, P.E.
Program Administrator
Permitting North
Bureau of Air Regulation
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Kennedy Generating Station
Project No. 0310047-011-AV

Dear Mr. Koerner:

This purpose of this letter is to request a revision to the conditions related to Kennedy combustion turbine #7 (CT 7) in the above referenced permit.

The requested changes to the CEM language in the permit are summarized in the attachment to this letter.

If you have any questions, please call Bert Gianazza at (904) 665-6247.

Sincerely,

James M. Chansler

James M. Chansler, P.E., D.P.A.
Responsible Official
Vice President, Operations and Maintenance

cc: Bruce Mitchell, FDEP
Steve Pace, P.E., RESD

## APPLICATION INFORMATION

**Professional Engineer Certification**

1. Professional Engineer Name: N. Bert Gianazza
   Registration Number: 38640
2. Professional Engineer Mailing Address...
   Organization/Firm: JEA
   Street Address: 21 W. Church Street
   City: Jacksonville State: FL Zip Code: 32202
3. Professional Engineer Telephone Numbers...
   Telephone: (904) 665 - 6247 ext. Fax: (904) 665 - 7376
4. Professional Engineer Email Address: giannb@jea.com
5. Professional Engineer Statement:

*I, the undersigned, hereby certify, except as particularly noted herein*, that:*

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.*

*(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Signature 8/24/05
Date

(seal)

* Attach any exception to certification statement.

**Permit 0310047-012-AV Condition B.11**

**From:**

**B.11.** 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% $O_2$ (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 $NO_2$ (at ISO conditions) shall exceed neither 15 ppm at 15% $O_2$ 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).

**To:**

**B.11.** 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% $O_2$ (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 $NO_2$ shall exceed neither 15 ppm at 15% $O_2$ 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).

**Justification:**

The ISO condition correction equation in Subpart GG of 40 CFR Part 75 only applies to $NO_X$ emissions from diffusion flame burners. The ISO condition correction equation in Subpart GG of 40 CFR Part 75 only applies to $NO_X$ emissions from diffusion flame burners. It was not developed for nor does it apply to current low $NO_X$ burner technology used when the unit fires natural gas. The specification that the emissions be expressed "at ISO conditions" should, therefore, be eliminated for the natural gas $NO_X$ limit.

**Permit 0310047-012-AV Condition B.13**

| |
|---|
| **From:** |
| **B.13.** 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. |
| **To:** |
| **B.13.** 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. |
| **Justification:** |
| The ISO condition correction equation in Subpart GG of 40 CFR Part 60 only applies to $NO_X$ emissions. It was never intended to apply to CO emissions, so the "at ISO conditions" specification should, therefore, be eliminated. |

**Permit 0310047-012-AV Condition B.14**

| |
|---|
| **From:** |
| **B.14.** 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). |
| **To:** |
| **B.14.** 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). |
| **Justification:** |
| The ISO condition correction equation in Subpart GG of 40 CFR Part 60 only applies to $NO_X$ emissions. It was never intended to apply to VOC emissions, so the "at ISO conditions" specification should, therefore, be eliminated. |

**Permit 0310047-012-AV Condition B.15**

| |
|---|
| **From:** |
| **B.15.** Sulfur Dioxide ($SO_2$) Emissions. $SO_2$ 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… |
| **To:** |
| **B.15.** Sulfur Dioxide ($SO_2$) Emissions. $SO_2$ 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… |
| **Justification:** |
| The ISO condition correction equation in Subpart GG of 40 CFR Part 60 only applies to $NO_X$ emissions. It was never intended to apply to $SO_2$ emissions, so the "at ISO conditions" specification should, therefore, be eliminated. |

**Permit 0310047-012-AV Condition B.32**

| |
|---|
| **From:** |
| **B.32.** 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:** |
| **B.32.** [Reserved]. |
| **Justification:** |
| This Condition should be removed because it conflicts with Condition B.20 that states that the averages should be based "***valid*** hourly emission rates." While missing data substitution is required under Part 75 for allowance calculation purposes, including the isolated reference in the permit where the focus is compliance with separate, non-allowance related emission limits is potentially confusing.<br><br>It would be incongruous to include Part 75 missing data substitution in the averages used to determine compliance with the permit limits. Only valid data can be used for determining compliance with an emissions standard. If data are invalid or missing, a compliance determination simply cannot be made. To suggest that substitute data should be used to calculate averages for compliance purposes is potentially tantamount to implying a violation without credible evidence. The Part 75 missing data substitution provisions represent a conservative scheme to fill in periods when data are unavailable specifically for allowance tracking purposes. The values represent "made up" numbers that inherently have no place in determining compliance with permit limits and should not be included in any block compliance average. |