



Florida Power & Light Company, 950 S. Hwy. 17-92, DeBary, FL 32713

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BUREAU OF AIR REGULATION

November 24, 2009

Trina L. Vielhauer, Chief
Bureau of Air Regulation
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, FL 32399-2400

Re: Comments to Draft Air Operating Permit; Sanford Power Plant, Permit No. 1270009-018-AV received Oct 30, 2009

Dear Trina,

As an initial matter, FPL addresses again concern for the change in format which increases review time and concern for interpretation changes that can occur by moving conditions into new areas of the permit. The new format decreases the clarity of compliance requirements making it more difficult for the operations level to readily utilize the operating permits. FPL specifically requests confirmation from FDEP that these formatting changes are not intended to, and in fact do not, result in any changes to the substantive requirements applicable to this facility.

On November 24, 2009, Jeff Koerner and Tammy McWade of FDEP discussed the issues in this letter with Mary Archer and Melissa Hochmuth of FPL. Each item lists any decisions made concerning the specific issue.

Regarding the Draft Title V Permit referenced above, FPL has the following comments:

Item 1. Statement of Basis: Please provide a list of all changes made in the draft permit no. 1270009-018-AV received Oct 30, 2009 as compared to the current air operating permit no. 1270009-011-AV. Changes cannot be listed as each Title V starts over every 5-years as discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009. The Department is not required to list changes for renewals and time is not available for them to do so.

Item 2. Pages 3-4, Subsections B and C. Applicable Regulations: FPL requests that the Table indicating Regulation and EU No(s) be removed from the permit. If the table cannot be removed we request a qualifier such as "only applicable parts of the listed rules are enforceable". A foot note or similar notation will be listed in or at the bottom of the table indication that as "only applicable parts of the listed rules are enforceable" as discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009.

Item 3. Page 7, Specific Condition No.A.1 Permitted Capacity: FPL requests the Department replace the note in Specific Condition A.1 with the following note.

{Permitting Note: The heat input limitations have been placed in the permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted at the appropriate operating rate specified in Rule 62-297.310(2), F.A.C. Regular recordkeeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required,}

The requested change will be considered and the initial Sanford Title V permit will be checked for the format of the permitting note as discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009.

Item 4. Page 7, Specific Condition No.A.1 Permitted Capacity: at the end of this specific condition Air Operating permit number AO64-217877 is listed as a reference document. FPL believes this is not appropriate as this is neither a construction permit nor the most recent air operating permit. FPL requests reference to this document be removed from the draft permit since it was not considered for revisions to address any modification made to future air operating permits issued for the facility by FDEP.

This request will be reviewed and it is favorable the reference will be removed as discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009.

Item 5. Page 9, Specific Condition No.A.10: Facility-wide Emissions Caps: This specific condition is listed under conditions for emissions unit 001 where as it is actually a facility-wide emissions caps and should be located in that portion of the permit. FPL requests this specific condition be moved to the Facility-Wide section of the permit.

This request will be considered as discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009.

Item 6. Page 12, Specific Condition No.A.21.b. Annual Tests required, Opacity: This condition is new and not previously required. FPL requests that current permit 1270009-011-AV language from specific condition A.20 and the first paragraph of A.27 be condensed to the following:

Please add the following in place of **A.21.b**

“ Visible Emissions (VE). The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. . A transmissometer shall be used, certified and calibrated according to Rule 62-297.520, F.A.C.

Compliance testing during soot blowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. [Rule 62-296.405(1)(e)1., F.A.C. And 1270009-011-AV]”

FDEP suggested the addition of a note to the condition to use COMS for compliance purposes and not be required to perform a Method 9 during compliance testing. This request will be reviewed internally at FPL as discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009.

Item 7. Page 16, Specific Condition No.B.1. Turbine Capacity. B. *Distillate Oil*. The last paragraph in this condition should apply to both natural gas and distillate. FPL requests that the following condition be changed as indicated.

Current Specific condition No.B.1.

B.1. Turbine Capacity.

a. *Natural Gas.*

(1) *Base Load* -----

b. *Distillate Oil.* When firing distillate oil, the maximum heat input rate is 1930 MMBtu per hour for Repowered Unit 5 when firing distillate oil.

The maximum heat input rates are based on 100% load, the higher heating value (HHV) of each fuel, and compressor inlet conditions of 59°F, 60% relative humidity and 14.7 psia. Heat input rates will vary depending upon the compressor inlet conditions and characteristics. Manufacturer’s curves corrected for site conditions or equations for correction to other compressor inlet conditions shall be maintained on site.
[Rule 62-210.200(PTE), F.A.C., Permit Nos. 1270009-004-AC (PSD-FL-270) and 1270009-009-AC]

Change Specific condition No.B.1 to the following.

B.1. Turbine Capacity. : “The maximum heat input rates are based on 100% load, the higher heating value (HHV) of each fuel, and compressor inlet conditions of 59°F, 60% relative humidity and 14.7 psia. Heat input rates will vary depending upon the compressor inlet conditions and characteristics. Manufacturer’s curves corrected for site conditions or equations for correction to other compressor inlet conditions shall be maintained on site. [Rule 62-210.200(PTE), F.A.C., Permit Nos. 1270009-004-AC (PSD-FL-270) and 1270009-009-AC]”

a. *Natural Gas.*

(1) *Base Load* -----

b. *Distillate Oil.* When firing distillate oil, the maximum heat input rate is 1930 MMBtu per hour for Repowered Unit 5 when firing distillate oil.

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the paragraph of concern will be moved to apply to all fuel types in SC B.1.

Item 8. Page 17, Specific condition B.8. Emission Limitations for Firing Natural Gas.. FPL requests changes to the Emissions Standard table.

Issues of concern in the table include:

For NO_x NSPS Subpart GG: FPL requests that the emissions standard listed be modified to remove the “4-hour rolling CEMs average”. Units 4 and 5 were previously permitted to use CEMS for compliance purposes with a 24-hr block average and a 30-day rolling average depending on the mode of operation for reporting of excess emissions when firing natural gas. FPL elects to continue use of that approved procedure per 40 CFR 60.332(c).^A

^A 60.332 (c) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO_x emissions, the owner or operator may, but is not required to, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. Also, if the owner or operator has previously submitted and received EPA, State, or local permitting authority approval of a procedure for monitoring compliance with the applicable NO_x emission limit under §60.332, that approved procedure may continue to be used.

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the NSPS issue will be evaluated at FPL and brought back to the Department for renewed discussion.

SC B.8 continued:

SO₂ - Please explain the agency’s intent with the addition of the SO₂ line in the Emissions Standard table and the comment at B.8.g. [Page18, B.8.g. *Fuel Specifications*. The firing of natural gas as the primary fuel serves as surrogate standard for minimizing SO₂ emissions.]

It does not appear to be required as a part of the permit conditions.

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the Emissions standard comment will be changed to “The SO₂ emissions will be minimized by complying with fuel specifications”.

Item 9. Page 17, Specific condition B.8.b. **STACK TESTS:** The condition as written is in conflict with the PSD/construction permit for Unit 4 and 5. FPL requests this condition be replaced as follows.

Current Specific condition **B.8.b.:**

b. *Stack Tests.* Compliance with the CO and VOC emissions standards shall be demonstrated by conducting three, 1-hour test runs in accordance with the applicable

method. The permittee satisfied the permit requirement to conduct initial stack tests (only) at base load conditions to determine compliance with the VOC standard.

Change to Specific condition **B.8.b.** to the following:

“b. Stack Tests.

i. Compliance with the VOC emission limit. Full Load (Normal/Base Load). An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit will be employed as a surrogate for VOC and no annual testing is required. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**

ii. High-Temperature Peaking Mode. No initial performance test for VOC is required. {Permitting Note: Testing under normal conditions for VOC and CO provides reasonable assurance of compliance under high-temperature peaking mode operation.}

iii. Unless otherwise stated, the initial (I) performance tests shall be performed pursuant to 40 CFR 60, Subparts A and GG. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on each CT as indicated. The following reference methods shall be used in accordance with 40 CFR 60, Appendix A. No other test methods may be used for compliance testing unless prior Department approval is received in writing.

iv. EPA Reference Method 10, “Determination of Carbon Monoxide Emissions from Stationary Sources.”

v. EPA Reference Method 20, “Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines.” (Initial test only for compliance with 40 CFR 60, Subpart GG). See the “Permitting Note”, below. d. EPA Reference Method 18, and/or 25A, “Determination of Volatile Organic Concentrations.” Initial test only. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**

vi. EPA Reference Method 19. “Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates”. Method 19 shall be used only for the calculation of lbs/MMBtu and 40 CFR 75 shall be used to calculate MMBtu/hr and lbs/hr emissions rates from stack tests. Initial test only. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**

{Permitting Note: For Specific Condition **B.8.b.**, above, the annual calibration Relative Accuracy Test Audit (RATA) associated with the NOX CEMS may be used in lieu of the required annual compliance test using EPA Reference Method 20, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.).}

[40 CFR 60.11(b); 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC] “

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the facility is required to test CO annually and testing of VOC is not required. Method requirements are located in the table associated with the condition.

Item 10. Page 18, Specific condition B.8.e.: FPL requests that the **S.C.B.8.e.** be removed as a requirement for natural gas firing and replaced with the SC C.48 from the previous permit no. 1270009-011-AV. Units 4 and 5 were previously permitted to use CEMS for compliance purposes with a 24-hr block average and a 30-day rolling average for reporting of excess emissions when firing natural gas. FPL elects to continue use of that approved procedure allowed per 40 CFR 60.332(c) and approved in *Permit No. 1270009-004-AC and PSD-FL-270.*

Replacement for **S.C.B.8.e** previous permit no. 1270009-011-AV condition C.48 in that permit.

“ NOX CEMS for Reporting Excess Emissions. The NOX CEMS may be used in lieu of the requirement for reporting excess emissions in 40 CFR 60.334(c)(1), Subpart GG (1998 version). Thirty day rolling average periods when NOX emissions (ppmvd at 15% oxygen) are above the standards, listed in Specific Condition **B.8.**, shall be provided to the DEP Central District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternately by facsimile). Excess Emissions and Monitoring System Performance Reports shall be submitted as specified in 40 CFR 60.7(c). CEMS downtime shall be calculated and reported according to the requirements of 40 CFR 60.7(c)(3) and 40 CFR 60.7(d)(2). Upon request from Department, the CEMS emission rates for NOX on each CT shall be corrected to ISO conditions to demonstrate compliance with the NOX standard established in 40 CFR 60.332. [Rule 62-204.800 F.A.C.; 1270009-004-AC/PSD-FL-270; 40 CFR 75; and, 40 CFR 60.7]”

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the NSPS issue will be evaluated at FPL and brought back to the Department for renewed discussion.

Item 12. Page 19, Specific condition B.9.d. FPL requests the condition be changed to address that distillate fuel has not been fired initially.

Current Specific condition B.9.d.:

d. *NSPS Subpart GG - NOX Standard.* The permittee satisfied the permit requirement to conduct initial stack tests to determine compliance with the NSPS Subpart GG standard. Continuous compliance with the NSPS Subpart GG NOX emissions standard when firing distillate oil shall be demonstrated by data collected from a CEMS certified pursuant to 40 CFR 75. Excess emissions shall be reported based on a 4-hour rolling average NOX concentration. Pursuant to 40 CFR 60.334, “... a “4-hour rolling average NOX concentration” is the arithmetic average of the average NOX concentration measured by

the CEMS for a given hour (corrected to 15% O₂ and, if required under §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NOX concentrations immediately preceding that unit operating hour. However, the missing data substitution methodology provided in Subpart D of 40 CFR Part 75 is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data shall be reported as monitor downtime in the excess emissions and monitoring performance report required in 40 CFR 60.7(c). Upon request from Department, the CEMS emission rates for NOX shall be corrected to ISO conditions to demonstrate compliance with the NOX standard established in 40 CFR 60.332.

Change to Specific condition B.9.d.:

d. *NSPS Subpart GG - NOX Standard.* The permittee satisfied the permit requirement to conduct initial stack tests on natural gas to determine compliance with the NSPS Subpart GG standard. When distillate fuel is initially fired continuous compliance with the NSPS Subpart GG NOX emissions standard shall be demonstrated by data collected from a CEMS certified pursuant to 40 CFR 75. Excess emissions shall be reported based on a 4-hour rolling average NOX concentration. Pursuant to 40 CFR 60.334, "... a "4-hour rolling average NOX concentration" is the arithmetic average of the average NOX concentration measured by the CEMS for a given hour (corrected to 15% O₂ and, if required under §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NOX concentrations immediately preceding that unit operating hour. However, the missing data substitution methodology provided in Subpart D of 40 CFR Part 75 is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data shall be reported as monitor downtime in the excess emissions and monitoring performance report required in 40 CFR 60.7(c). Upon request from Department, the CEMS emission rates for NOX shall be corrected to ISO conditions to demonstrate compliance with the NOX standard established in 40 CFR 60.332.

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the NSPS issue will be evaluated at FPL and brought back to the Department for renewed discussion.

Item 13. Page 20, Specific condition B.10. Facility-wide Emissions Caps: This specific condition is listed under conditions for emissions unit 005 - 012 where as it is actually a facility-wide emissions cap and should be located in that portion of the permit. FPL requests this specific condition be moved to the Facility-Wide section of the permit.

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the Department will consider putting the facility wide caps condition in its own subsection.

Item 14. Page 21, Specific condition B.13.e. needs administrative changes to enhance the description of the tuning allowance. All references to tuning should be preceded by the word **major** to differentiate these events from daily tuning activities.

Current to Specific condition B.13.e.:

“e. Subject to the following conditions, the Department authorizes limited periods of excess emissions resulting from tuning of the dry low-NO_x combustion systems and/or full speed no load (FSNL) testing:

- (1) The permittee notifies the Compliance Authority for each day that tuning or FSNL testing is required;
- (2) The duration of excess emissions shall not exceed 15 hours for the entire tuning period or entire FSNL test period; and
- (3) The permittee submits a report to the Compliance Authority summarizing the hourly NO_x emissions during the tuning period or FSNL test period.”

Change to:

“e. Subject to the following conditions, the Department authorizes limited periods of excess emissions resulting from major tuning of the dry low-NO_x combustion systems and/or full speed no load (FSNL) testing:

- (1) The permittee notifies the Compliance Authority for each day that major tuning or FSNL testing is required;
- (2) The duration of excess emissions shall not exceed 15 hours for the entire major tuning period or entire FSNL test period; and
- (3) The permittee submits a report to the Compliance Authority summarizing the hourly NO_x emissions during the major tuning period or FSNL test period.”

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, the additions requested will be added.

Item 15. Page 22, Specific condition B.21 requires annual testing of each fuel. Fuel oil can only be burned in unit 5 when natural gas is not available. FPL requests to retain previous language for test requirements from operating permit 1270009-011-AV which also includes the permitting note.

Current to Specific condition **B.21**:

“**B.21. Annual Compliance Tests Required.** During each federal fiscal year (October 1st to September 30th), each combustion turbine shall be tested on each fuel to demonstrate compliance with the standards for CO and visible emissions. For each CO test run, the permittee shall report the NO_x emissions as determined by the CEMS. Annual CO testing may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NO_x RATA, which is performed pursuant to 40 CFR 75. For the visible emissions compliance test under HTPM conditions, only one representative combustion turbine must be tested. [Rule 62-297.310(7), F.A.C.; and Permit Nos. 1270009-004-AC (PSD-FL-270) and 1270009-009-AC]

Change Specific condition **B.21** to the following including the permitting note:

B.21. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each combustion turbine shall be tested on the primary fuel to demonstrate compliance with the standards for CO and visible emissions. For each CO test run, the permittee shall report the NO_x emissions as determined by the CEMS. Annual CO testing may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NO_x RATA, which is performed pursuant to 40 CFR 75. For the visible emissions compliance test under HTPM conditions, only one representative combustion turbine must be tested. [Rule 62-297.310(7), F.A.C.; and Permit Nos. 1270009-004-AC (PSD-FL-270) and 1270009-009-AC]

{Permitting Note: For Specific Condition **B.21.**, above, the annual calibration Relative Accuracy Test Audit (RATA) associated with the NO_x CEMS may be used in lieu of the required annual compliance test using EPA Reference Method 20, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.).}

As discussed with Jeff Koerner and Tammy McWade of FDEP on November 24, 2009, a construction application may be needed prior to burning liquid fuel.

Item 16. Page 23, Specific condition **B.22:** FPL requests the following change.

Current to Specific condition **B.22:**

B.22. Compliance Tests Prior To Renewal. Prior to obtaining a renewed operating permit, each combustion turbine shall be tested on each fuel to demonstrate compliance with the standards for CO and visible emissions. For each CO test run, the permittee shall report the NO_x emissions as determined by the CEMS. For the visible emissions compliance test under HTPM conditions, only one representative combustion turbine must be tested. The most recent annual compliance test conducted during the 5-year term of the permit may be used to satisfy this requirement. [Rule 62-297.310(7), F.A.C.; and Permit Nos. 1270009-004-AC (PSD-FL-270) and 1270009-009-AC]

Change to Specific condition **B.22**

B.22. Compliance Tests Prior To Renewal. Prior to obtaining a renewed operating permit, each combustion turbine shall be tested on the primary fuel to demonstrate compliance with the standards for CO and visible emissions. For each CO test run, the permittee shall report the NO_x emissions as determined by the CEMS. For the visible emissions compliance test under HTPM conditions, only one representative combustion turbine must be tested. The most recent annual compliance test conducted during the 5-year term of the permit may be used to satisfy this requirement. [Rule 62-297.310(7), F.A.C.; and Permit Nos. 1270009-004-AC (PSD-FL-270) and 1270009-009-AC]

Item 17. Page 23, Specific condition **B.25:** Please note the spelling error in the first line.

“Within 30 days following each 6-~~m~~month.....”

Item 18. Page 25, Specific condition C.1.b: Please note the spelling error in the

“The two propane-fired spark ignition emergency generators (33.5 bHP) are new units as defined by NESAHP Subpart ZZZZ.....”

Item 19. FPL suggests an addition to the Appendices: Compliance Plan for Distillate Oil Firing. The CTs for Repowered Unit 5 have not yet been tested on fuel oil. Therefore, Appendix CP-1, Compliance Plan for Repowered Unit 5, has been attached for the Departments consideration.

Thank you for your consideration in this matter, and, if you should have any questions, please do not hesitate to contact Mary Archer at (561) 691-7057.

Sincerely,



Gary Kowalczyk
Plant General Manager
Sanford Power Plant
Florida Power and Light Company

Cc: Tammy McWade, FDEP;
Central District Office, FDEP