



Florida Department of Environmental Protection

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Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeffrey Labrecque
Deputy Governor

Victoria W. Soble
Secretary

February 18, 2008

Mr. Jason M. Goodwin
Calpine Corporation
717 Texas Avenue, Suite 1000
Houston, TX 77002

Re: Title V Air Operation Permit Revision
Proposed Permit Project No. 1050221-014-AV
Auburndale Energy Complex

Dear Mr. Goodwin:

One copy of the Proposed Determination for the Title V Air Operation Permit Renewal for the Auburndale Energy Complex located at 1501 and 1651 Derby Avenue in Auburndale, Polk County, is enclosed. This letter is only a courtesy to inform you that the Draft Permit has become a Proposed Permit. An electronic version of this determination has been posted on the Division of Air Resources Management's web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is: "<http://www.dep.state.fl.us/air/eproducts/ards/default.asp>". Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the Proposed Permit is made by the USEPA within 45 days, the Proposed Permit will become a Final Permit no later than 55 days after the date on which the Proposed Permit was mailed (posted) to USEPA. If USEPA has an objection to the Proposed Permit, the Final Permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Bruce Thomas at 850/488-0114.

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

TLV/jfk/bt

Enclosures

Copy furnished to:

Mr. Jason Goodwin, Calpine Corporation (jgoodwin@calpine.com)

Ms. Heidi Whidden, Calpine Corporation (hwhidden@calpine.com)

Mr. Thomas Davis, ECT (tdavis@ectinc.com)

Ms. Cindy Zhang-Torres, Southwest District Office (Cindy.Zhang-Torres@dep.state.fl.us)

Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)

PROPOSED DETERMINATION

I. Public Notice.

An Intent to Issue a Title V Air Operation Permit Revision to Vandolah Power Company L.L.C., which is located in Polk County at the existing Auburndale Energy Complex, 1501 Derby Avenue (Auburndale Power Plant and Auburndale Peak Energy Center) and 1651 Derby Avenue (Osprey Energy Center), Auburndale, was clerked on December 21, 2007. The project will revise Title V Air Operation Permit No. 1050221-013-AV. The Public Notice of Intent to Issue Title V Air Operation Permit Revision was published in The Ledger on January 5, 2008. The Draft Permit was available for public inspection at the Southwest District in Temple Terrace and the permitting authority's office in Tallahassee. Proof of publication of the Public Notice of Intent to Issue Title V Air Operation Permit Revision was received on January 7, 2008.

II. Comments.

No comments on the Draft Permit were received from the public or the Department's Southwest District Office. On January 2 and January 31, 2008 the applicant submitted comments which are summarized below with the Department's corresponding response.

1. *Comment:* The applicant requested the NO_x limit for EU-001 in Section 3, Condition A.8a. be defined as a 12 month *equivalent* average consistent with the definition and calculation of the 12 month rolling NO_x average in Condition A.8.e.

Response: Section 3, Condition A.8a. has been modified as follows:

- a. *Natural Gas:* 15 ppmvd corrected to 15% oxygen based on a 24-hour block average as defined below; 9 ppmvd corrected to 15% oxygen based on a 12-month rolling equivalent average as defined below; 78.6 lb/hour; and 177 tons/year based on a 12-month rolling total for the combined total of natural gas and distillate fuel oil firing.
2. *Comment:* The applicant requested clarifying language stating the span and range requirements for the EU-006 NO_x and O₂ monitor shall be based on the 40 CFR 75 requirements.

Response: Section 3, Condition B.12a. has been modified as follows:

The NO_x monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. ~~The span for the lower range shall not be greater than 30 ppmvd corrected to 15% oxygen and the span for the and upper range shall not be greater than 100 ppmvd corrected to 15% oxygen.~~ Annual RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60. The permittee shall conduct an annual RATA test at 100% output in accordance with the applicable CEMS requirements. The NO_x monitor shall be a dual range monitor.

3. *Comment:* The applicant requested EU-006 be exempt from the annual CO RATA testing if the unit runs less than 400 hours per year, or requested language that would require testing in conjunction with the 40 CFR 75 NO_x RATA requirements.

Response: Section 3, Condition B.14d. has been modified as follows:

- d. If the unit does not combust natural gas for greater than 400 hours during the federal fiscal year, the annual compliance tests are not required, and the annual CO RATA test shall be conducted in conjunction with the next required Part 75 NO_x RATA. Annual RATA testing at 100% output may be utilized to satisfy the annual testing requirements for CO and NO_x. No other methods may be used for compliance testing without prior written approval from the Department.
4. *Comment:* The applicant requested we add language to the fuel sulfur monitoring requirements in Section 3, Conditions A.15 and B.15 to clarify the methods used must be in accordance with

PROPOSED DETERMINATION

the approved 40 CFR 75 methods.

Response: Section 3, Conditions A.15 and B.15 have been modified as follows:

A.15 Fuel Sulfur Monitoring. The permittee shall determine compliance with the sulfur content standard of 0.05% by weight for liquid fuels as follows: ASTM D129-91, D1552-90, D2280-71, D2880-96, D2622-92, D4292, D4294-90, D5453, or the latest editions, or in accordance with approved 40 CFR Part 75 methods. ~~The permittee shall determine compliance with the sulfur content standard of gaseous fuels as follows: shall be used to determine the sulfur content of liquid fuels, and ASTM D1072-80/90/94, D3031-81/86, D3246-81/92, D4084-82/94, D4468-85, D5504-94, or the latest editions, or in accordance with approved 40 CFR Part 75 methods, shall be used to determine the sulfur content of gaseous fuels.~~ The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. [40 CFR 60.335 and PSD-FL-185]

B.15 Fuel Sulfur Monitoring. The permittee shall demonstrate compliance with the fuel sulfur limit for natural gas specified in this permit by maintaining records of the average sulfur content of the natural gas being supplied for each month of operation in accordance with the following methods: ASTM D1072-80/90/94, D3031-81/86, D3246-81/92, D4084-82/94, D4468-85, D5504-94, or the latest editions, or in accordance with approved 40 CFR Part 75 methods. The owner or operator shall determine compliance with the sulfur content standard of 0.05% by weight for distillate oil in accordance with the following methods: ASTM D129-91, D1552-90, D2280-71, D2880-96, D2622-92, D4292, D4294-90, or the latest editions, or in accordance with approved 40 CFR Part 75 methods. These methods shall be used to determine the sulfur content of the natural gas fired in accordance with any EPA-approved custom fuel monitoring schedule or natural gas supplier data or the natural gas sulfur content referenced in 40 CFR 75 Appendix D. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335. However, the permittee is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used to determine the fuel sulfur content for compliance with the 40 CFR 60.333 SO₂ standard. [Rules 62-4.070(3) and 62-4.160(15); and 1050221-004-AC]

5. *Comment:* The applicant has requested greater flexibility in determining the ammonia injection flowrate to EU-008 and EU-009 during periods of NO_x CEMS downtimes or malfunctions. The applicant has requested we include language to allow the ammonia injection rate to be based on the previous quarter's operating hours for NO_x, ammonia flow and load during periods of NO_x CEMS downtimes or malfunctions, and adjust the ammonia flow rate as necessary to comply with NO_x standard.

Response: Section 3, Condition C.19c. has been modified as follows:

c. Similarly, the permittee shall conduct tests for a range of load conditions and shall determine and report the ammonia flow rate required to comply with the ammonia and NO_x standards. During periods of NO_x CEMS downtimes or malfunctions, the permittee shall adjust the ammonia injection rate based on the previous quarter's operating hours for NO_x, ammonia flow and load and adjust the ammonia flow rate as necessary to comply with NO_x standard. ~~operate at an acceptable ammonia flow rate as established stack test.~~

III. Conclusion.

Since only the minor revisions were made to the Draft permit, the Draft Permit becomes the Proposed Permit with the changes described above.