## Halpin, Mike

From: Halpin, Mike

Sent: Tuesday, October 30, 2001 7:35 AM

Mulkey, Cindy; Kuberski, Garry

To: 'Waters, Glenn D.'; 'Reggie Davis'

Subject: RE: Stanton A CEM Issues

Dwain Waters-

Cc:

Here are my responses, in CAPITAL LETTERS (after the questions) to the CEMS questions Spectrum has raised (which I have left below), related to the recently issued Stanton Unit A PSD permit:

1. The permit says that CO2 will be the diluent for both NOX and CO. This is currently not the case. O2 is being used as a diluent for the CO system. Will this be allowed or do we need to see about a having a CO2 monitor for that diluent as well. I was surprised to see the diluent spelled out as usually they give you the choice of using CO2 or O2.

**O2 WILL BE ALLOWED** 

2. The CO2 monitor is to be RATA'd using Method 3B. This is not the normal reference method for CO2, usually method 3A is utilized. Method 3B is for determining excess air and uses an ORSAT. Method 3A is much more accurate, it uses a CO2 monitor, and is typically used for RATA testing under part60 and part75.

**METHOD 3A IS ALLOWED** 

- 3. The CO monitor will be ranged 0-20ppm for the low range and 0-100 for the high range. This meets the requirements of permit as you can see from the language. The 0-20 is low end for the Siemens analyzers and the 0-100 is a permit cap.

  NO RESPONSE REQUIRED, AS THIS MEETS THE PERMIT REQUIREMENTS
  - 4. NOx will be ranged 0-10 low and 0-30 high. NO RESPONSE REQUIRED, AS THIS MEETS THE PERMIT REQUIREMENTS
- 5. The language regarding conversion of the wet based numbers to dry based is somewhat confusing. This is the way we have done this to date and it appears to work well at Dahlberg. We use a set of formulas that were actually developed between Gainesville Regional Utilities and Spectrum but are right out of the CFR. Clark Mitchell is very familiar with these. Estimating moisture will not give as accurate a number I do not believe.

I CANNOT DETERMINE WHETHER THERE IS A QUESTION HERE FOR FDEP, HOWEVER FOR CLARITY THE PERMIT (SPECIFIC CONDITION 41) STATES: "If the CEM system measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEM system shall be expressed as ppmvd, corrected to 15% oxygen."

These issues will ultimately require a revision to the PSD permit. However, you may assume that this e-mail represents FDEP's official responses to your questions, such that you can procure necessary equipment. Invariably, we find that permittee's need to make minor, incidental changes to permits as construction is commenced and continues. "OUC/KUA/FMPA/Southern Company - Florida, LLC" will need to ensure that the changes above, along with other incidental construction changes, are included within the PSD permit, prior to the completion of construction.

Michael P. Halpin FDEP/BAR



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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JUN 21 2001

BUREAU OF AIR REGULATION

**4APT-ARB** 

Al Linero, P.E. Florida Department of Environmental Protection Mail Station 5500 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Dear Mr. Linero:

Thank you for sending to the U.S. Environmental Protection Agency (EPA) a copy of the preliminary determination and draft prevention of significant deterioration (PSD) permit for a project at the Curtis H. Stanton Energy Center in Orange County, Florida. The proposed project will consist of two combined cycle combustion turbine units. The following equipment is associated with the project: two General Electric (Model PG7241FA) combined cycle combustion turbines with heat recovery steam generators, supplemental duct firing, a 10-cell cooling tower, and a No. 2 distillate fuel oil storage tank. Natural gas will be the primary fuel for each unit, with No. 2 fuel oil as a backup. Based on the applicant's emission estimates, the pollutants subject to PSD review are nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC).

We have reviewed the preliminary determination and draft permit and have the following comments. These comments were discussed by telephone with Mr. Mike Halpin of the Florida Department of Environmental Protection (FDEP) on June 5, 2001.

- 1. Condition 30 in the draft permit (page 10 of 20) requires testing to confirm the accuracy of formaldehyde emission estimates for the combustion turbines/duct burners. Since the applicant used a formaldehyde emission factor that is far below the nominal AP-42 emission factor and thereby avoided a section 112(g) case-by-case maximum achievable control technology determination, EPA agrees that a performance test is appropriate.
- 2. Condition 21 in the draft permit (page 8 of 20) specifies NO<sub>x</sub> emission limits on a 3-hour block average basis. A compliance averaging period of 3 hours for NO<sub>x</sub> emissions has been specified in many combined cycle combustion turbine permits and is appropriate.

If you have any questions regarding these comments, please call Daphne Wilson at (404) 562-9118.

Sincerely,

R. Douglas Neeley

Chief

Air and Radiation Technology Branch

Air, Pesticides and Toxics Management Division

Cc: M. Halpen
C. Halladay
R. Morres, bulf Pauce
Q. Vich, bulf Pauce
R. Unruh, Black & Veatch
Q. Buryah, NP3
J. Kozlow, CD
J. Buford
B. Omen, DEP

Orlando Utilities Commission 500 South Orange Avenue P.O. Box 3193 Orlando, Florida 32802

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Administrative Fax: 407.236.9616
Purchasing Fax: 407.384.4141

Website: www.ouc.com

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BUREAU OF AIR REGULATION



Via AirBorne Express Airbill No. 9054965721

May 30, 2001

Mr. Mike P. Halpin Bureau of Air Regulations Florida Department of Environmental Protection MS #5505 2600 Blair Stone Road Tallahassee, FL 32399-2400

Dear Mr. Halpin:

Pursuant to Chapter 50, Florida Statutes, the Public Notice of the intent to issue PSD Permit No. PSD-FL-313 for the Curtis H. Stanton Energy Center Unit A was published in the Orlando Sentinel on May 27, 2001.

Attached is the proof of publication as received from the Orlando Sentinel on May 29, 2001.

If you have any questions, please contact me at 407/423-9133.

Very truly yours,

Robert F. Hicks

Sr. Environmental Engineer

RFH:rc Attachment

XC:

D. M. Stalls

Myron Rollins, B&V

James O. Vick, Gulf Power

Tasha Q. Buford, YVAV&B

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J. Korlow, CD B. Daum, BEP

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The Department will issue the FINAL permit with the attached conditions and other approval of the certification pursuant to the Florida Power Plant String Act (Sections') 403,501-319. F. S. I unless a response received in accordance with the following procedures results in a different decision's or significant change of terms or conditions:

\* The Department will occept written comments and requests for a public meeting concerning the proposed eermit, issuance action for a period of Intery (39) days from the one of publicion of \*Public Notice of Interto Issue PSD operation of \*Public Notice of Interto Issue PSD periment's Bureau of Air Reputation of 1466 Bitar Stone Road. Mail Station 4555. Tallothouses F. 12399 1200 Any written comments filed shall be made evaluable for public inspection. If without comments received result in a synallcont change in the proposed openic action, the Department Control of the Public Section of Testing 1 (a positicals.

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