

Department of Environmental Protection

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

May 16, 2003

David B. Struhs Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Robert G. Moore, Senior Vice President Southern Company Services One Energy Place Pensacola, Fl 32520

Re: DEP File No. 0950137-002-AC, PSD-FL-313 Stanton Unit A Permit Revisions

Dear Mr. Moore:

The Department has reviewed your request to modify the PSD Permit relative to start-up emissions and CEMS span values. As a result of this review, the Department has concluded that a permit modification may be granted. Accordingly, this request is acceptable as indicated herein.

Permit PSD-FL-313 is hereby modified as follows:

- 26. Excess emissions resulting from startup, shutdown, <u>fuel switching</u> or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during a "cold start-up" to combined cycle plant operation. During cold start up to combined cycle operation, up to four hours of excess emissions are allowed. Cold start up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 72 hours. <u>During any 24-hour period in which an hour of start-up or shutdown occurs, the following alternative emission limits shall apply on the basis of a 24-hour rolling average:</u>
 - a) An alternative NO_X limit of 127 lb/hr shall apply if natural gas is the exclusively fired fuel
 - b) An alternative NO_x limit of 370 lb/hr shall apply if any fuel oil is fired
 - c) An alternative CO limit of 155 lb/hr firing either natural gas or fuel oil

The 24-hour averages shall be based on all available data excluding calibration data. Operation below 50% output per turbine shall otherwise be limited to 2 hours in any 24-hour period. [BACT, Applicant Request and Rule 62-210.700, F.A.C.].

41. Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the emissions of NO_X and CO from these emissions units, and the Carbon Dioxide (CO₂) content of the flue gas at the location where NO_X and CO are monitored, in a manner sufficient to demonstrate compliance with the emission limits of this permit. The CEM system shall be used to demonstrate compliance with the emission limits for NO_X and CO established in this permit. Compliance with the emission limits for NO_X shall be based on a 3-hour block average. The 3-hour block average shall be calculated from 3 consecutive hourly average emission rate values. Compliance with the emission limits for CO shall be based on a 24-hour block average starting at midnight of each operating day. The 24-hour block average shall be calculated from 24 consecutive hourly average emission rate values. Each hourly value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit

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combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). The owner or operator shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour. The permittee may use the inlet SCR NO_X monitor as a backup analyzer in determining excess emissions during startup. 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.

The NO_X monitor shall be certified and operated in accordance with the following requirements. 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. For purposes of determining compliance with the emission limits specified within this permit, missing data shall not be substituted. Instead the block average shall be determined using the remaining hourly data in the 3hour block. However, in the event that the permittee maintains 95% or greater availability of the continuous emission monitoring systems used for determining NO_X emissions compliance for the previous quarter, then compliance with the emission limits for NO_X shall be based on 3 valid consecutive hours of data for a 3-hour block average. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO_X monitor shall be performed using EPA Method 20 or 7E, of Appendix A of 40 CFR 60. The NO_X monitor shall be a dual range monitor. The span for the lower range shall not be greater than be between or inclusive of the values of 10 and 20 ppm, and the span for the upper range shall not be greater than 30 be between or inclusive of the values of 200 and 250 ppm, as corrected to 15% O₂. The CO monitor and CO₂ monitor shall be certified and operated in accordance with the following requirements. The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4. The CO₂ monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 3. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of section 7 shall be made each calendar quarter, and reported semi-annually to the Department's Central District Office. The RATA tests required for the CO monitor shall be performed using EPA Method 10, of Appendix A of 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps. The CO monitor shall be a dual range monitor. The span for the lower range shall not be greater than be between or inclusive of the values of 20 and 30 ppm, and the span for the upper range shall not be greater than 100 be between or inclusive of the values of 500 and 1000 ppm, as corrected to 15% O₂. The RATA tests required for the CO₂ monitor shall be performed using EPA Method 3B, of Appendix A of 40 CFR 60.

NO_X, CO and CO₂ emissions data shall be recorded by the CEM system during episodes of startup, shutdown and malfunction. NO_X and CO emissions data recorded during these episodes malfunctions may be excluded from the block average calculated to demonstrate compliance with the emission limits specified within this permit. Periods of data excluded for startup shall not exceed two hours in any block 24 hour period except for "cold startup." A cold startup is defined as a startup following a complete shutdown lasting a minimum of 72 hours. Periods of data excluded for cold startup shall not exceed four hours in any 24 hour block period. Periods of data excluded for malfunctions shall not exceed two hours in any 24 hour block period. Periods of data excluded for any startup, shutdown or malfunction episode shall be consecutive for each episode. Periods of data excluded for all startup,

shutdown or malfunction episodes shall not exceed four hours in any 24-hour block period. The owner or operator shall minimize the duration of data excluded for startup, shutdown and malfunctions, to the extent practicable. Data recorded during startup, shutdown or malfunction events shall not be excluded if the startup, shutdown or malfunction episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented.

Best operational practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited.

A summary report of duration of data excluded from the block average calculation, and all instances of missing data from monitor downtime, shall be reported to the Department's Central District office semi-annually, and shall be consolidated with the report required pursuant to 40 CFR 60.7. For purposes of reporting "excess emissions" pursuant to the requirements of 40 CFR 60.7, excess emissions shall be defined as the hourly emissions which are recorded by the CEM system during periods of data excluded for episodes of startup, shutdown and malfunction, allowed above. The duration of excess emissions shall be the duration of the periods of data excluded for such episodes. Reports required by this paragraph and by 40 CFR 60.7 shall be submitted no less than semi-annually, including semi-annual periods in which no data is excluded or no instances of missing data occur. Upon request from the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332. [Rules 62-4.070(3) and 62-212.400., F.A.C., and BACT]

[Note: Compliance with these requirements will ensure compliance with the other CEM system requirements of this permit to comply with Subpart GG requirements, as well as the applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.7(a)(5) and 40 CFR 60.13, and with 40 CFR Part 51, Appendix P, 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60, Appendix F, Quality Assurance Procedures].

No other changes to the permit are authorized by this action.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by the filing of 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 of Appeal must be filed within (thirty) days after this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Sincerely,

Howard L. Rhodes, Director Division of Air Resources

Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this <u>Final PSD Permit</u> <u>Modification</u> was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on <u>5/20/03</u> to the person(s) listed:

Mr. Robert G. Moore, Southern Company *

Mr. Glenn D. Waters, Gulf Power

Mr. Gregg Worley, EPA

Mr. John Bunyak, NPS

Mr. Len Kozlov, CD

Mr. Buck Oven, DEP

Ms. Marie Driscoll, Orange County EPD

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kria Misson May 20, 2003
(Clerk) (Date)

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Received by (Please Print Clearly) B. Date of Delivery C. Signature Agent Addressee D is delivery address different from item 1? Yes If YES, enter delivery address below:
Article Addressed to:	
Robert G. Moore Senior Vice President Southern Company Services One Energy Place	
Pensacola, FL 32520-0328	3. Service Type Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.
	4. Restricted Delivery? (Extra Fee)
7001 0320 0001 3692 5900	
PS Form 3811, July 1999 Domestic Rel	turn Receipt 102595-00-M-0952
¥ .	



Memorandum

TO:

Howard L. Rhodes

THRU:

FROM:

Trina Vielhauer
Al Linero
Michael P. Halpin

DATE:

May 13, 2003

SUBJECT:

OUC/KUA/FMPA/Southern Company - Florida, LLC

Stanton Unit "A" Permit Modification

Attached for approval and signature is a PSD permit modification for the subject (existing) facility. The emissions unit is a gas/oil combined cycle electrical generator. The applicant had requested an increase from 4 hours to 8 hours for excess emissions, during start-up to combined cycle operation. Through many discussions with EPA, I have become aware that they prefer for us to "hold firm" with the allowable 2 hours of excess emissions (State Rule), which limits excess emissions only during certain conditions. As a result of this, I prefer to establish an alternate emission standard during start-up and shutdown, and reduce allowable excess emissions to the 2 hours allowed by rule.

During the original BACT Determination, start-up and shut-down emissions were identified. This modification provides for 24-hour rolling average emission standards for NO_X and CO, based upon those originally identified values. The alternate standard only applies during those days in which startups have occurred and I am reducing the allowable level of excess emissions to 2 hours. This is consistent with the rationale utilized for the recent permit revisions to Lakeland's McIntosh Unit 5 and KUA Cane Island Unit 3. Regarding the CEMS span values, the appropriate method for determining such values was reviewed with BAMMS and the attendant revision complies with their recommendations.

I recommend your approval and signature.

Attachments

/mph

HOWARD - THIS WAS REVIEWED BY
TRINA AT THE DRAFT STACE
AND HAS SINCE BEEN PUBLIC NOTICED, NOTHING HAS CHANGED, MO ONLY EPA COMMENTED (WHICH I MEDPORATED IN THIS FIRM).

J. TVINK THAT 175 OK TO 516NO.

- Mike Hund