One Energy Place Pensacola, Florida 32520

Tel 850.444.6111

RECEIVED

APR 07 2003

BUREAU OF AIR REGULATION GULF Certified Mail

Certified Mail

A SOUTHERN COMPANY

April 3, 2003

Mr. Michael P Halpin, P.E.
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Mail Station #5510
Tallahassee, Florida 32399-2400

Dear Mr. Halpin:

RE: STANTON A COMBINED CYCLE; PERMIT # 0950137-002-AC (PSD-313) CEM AND STARTUP REVISIONS

The purpose of this correspondence is to request several permit revisions to the Stanton A Combined Cycle PSD Permit referenced above. The requested changes are pursuant to new information recently made available regarding the operation of the CEM monitoring system and the amount of excess emissions during startup. These issues have all recently been discussed with you by telephone and have been drafted pursuant to those conversations. As representative of OUC/KUA/FMPA/Southern Company – Florida, LLC, I hereby request the permit be revised to incorporate the following changes:

- 1) Please revise the NOx CEM span values outlined in Specific Condition #41 which currently states; "The span for the lower range shall not be greater than 10 ppm, and the span for the upper range shall not be greater than 30 ppm, as corrected to 15% O₂" to values between 10 and 20 ppm for the low range and between 200 and 250 ppm for upper range. These values were suggested in your last correspondence dated December 20, 2002.
- 2) Please revise the CO CEM span values outlined in Specific Condition #41 which currently states; "The span for the lower range shall not be greater than 20 ppm, and the span for the upper range shall not be greater than 100 ppm, as corrected to 15% O₂" to values between 20 and 30 ppm for the low range and between 500 and 1000 ppm for upper range. These values were suggested in your last correspondence dated December 20, 2002.
- 3) Please add a statement under Specific Condition #41 which indicates that <u>any future</u> revision of CFR Part 60 or 75 by EPA shall set a precedent over the above outlined span values or conditions.

- 4) Please revise Condition #26 Excess Emissions as follows: Excess emissions resulting from startup, shutdown, fuel switches and malfunction of the combustion turbines and heat recovery steam generators 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 as for the following specific cases:
 - a) During any calendar day in which a start-up or shutdown occurs with natural gas as the exclusively fired fuel, an alternative NOx limit of 127 lb/hr (370 lb/hr if fuel oil is fired during the calendar day) on the basis of a 24 hour average shall apply. The 24 hour average shall be based on all available data excluding calibration data.
 - b) Excess emissions for CO resulting from startup, shutdown and fuel switching is allowed providing that best operational practices are adhered to. The 24 hour block CO emissions standards outlined in Specific Condition # 22 <u>Carbon Monoxide</u> (CO) <u>Emissions</u>: are applicable beginning on the following calendar day (or the following hour for any fuel switching episode) after a unit startup is considered "complete" as defined below:

Startup is considered "complete" for the purposes of measuring NOx and CO emissions for normal operations when all of the following conditions are met:

- 1) the DLN (Dry Low NOx) combustors are in full service meeting the manufacturer's design specifications;
- 2) the inlet to the Selective Catalytic Reduction system has reached 600 degrees F allowing ammonia injection and optimum NOx control; and
- 3) the combustion turbine is operating at 50% load or greater.
- c) Excess emissions for fuel switching is allowed but shall not exceed 2 hours in any 24 hour period.
- d) Excess emissions for malfunction is allowed but shall not exceed 2 hours in any 24 hour period unless authorized by the DEP Central District.

Operation below 50% output per turbine shall otherwise be limited to 2 hours in any 24 hour period. [BACT, Rule 62-210.700, F.A.C.]

(Permitting Note: During a startup of the steam turbine system, each gas turbine/HRSG system (i.e. Unit 25 & 26) is sequentially or separately brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue.)

Page 3 Mr. Michael P. Halpin, P.E. April 3, 2003

Information to support these revisions are included as attachments to this document. Also included are certifications provided under reasonable inquiry by Robert G. Moore, the Authorized Representative and Greg N. Terry, Professional Engineer.

As you may be aware, Stanton A is scheduled for startup during the week of April 22-28, 2003, thus your quick response to these revisions would be greatly appreciated. Please let me know if you have any questions or need additional information.

Sincerely,

G. Dwain Waters, Q.E.P.

Air Quality Programs Supervisor

mai vate 080

cc: James O. Vick, <u>Gulf Power Company</u>
James A. Tucker, <u>Gulf Power Company</u>
Robert A. Schaffeld, <u>Southern Company</u>
Ronnie H. Walston, Southern Company
Danny Herrin, <u>Southern Company Services</u>

Denise Stalls, Orlando Utility Commission

ESTIMATED NOX EMISSIONS DURING STARTUP OF STANTON A ON GAS & Oil

	Actual Data 12 hour Episode		Actual Data 14 hour Episode		Estimated Data 12 hour Episod	trom GE Curve le Oil Startup
	Uncontolled NOx lb/hr	If Controlled	Uncontrolled NOx lb/hr	If Controlled NOx Ib/hr	Uncontrolled NOx lb/hr	If Controlled NOx lb/hr
j	85.3	85.3	106.0	106.0	660	660
	135.2	135.2	135.3	135.3	660	660
	138.1	138.1	130.2	130.2	660	660
		137.3	130.2	138.8	660	660
	137.3				660	660
	138.7	138.7	138.2	138.2		660
	145.2	145.2	155.2	155.2	660	
	148.8	148.8	168.1	168.1	660	660
	148.3	148.3	111.3	111.3	660	660
	225.9	225.9	133.9	133.9	660	660
	218.1	218.1	141.3	141.3	660	660
	457.9	457.9	322.5	322.5	660	660
	482.2	482.2	523.1	523.1	660	660
	57.8	14.8	524.0	524.0	350	81
	59.7	15.9	169.2	169.2	350	81
	58.9	15.0	60.3	14.5	350	81
	57.8	15.4	61.4	14.5	350	81
	56.6	15.8	60.4	14.5	350	81
	54.4	14.8	60.3	14.5	350	81
	54.1	14.7	59.1	14.5	350	81
	54.1	14.7	58.4	14.6	350	81
	54.1	14.7	58.9	14.4	350	81
	58.9	17.7	57.8	14.4	350	81
1	59.3	19.2	57.7	14.4	350	81
	56.2	15.3	57.7 57.8	14.4	350	81
Averag	130.95	110.38	145.38	126.74	505.00	370.50

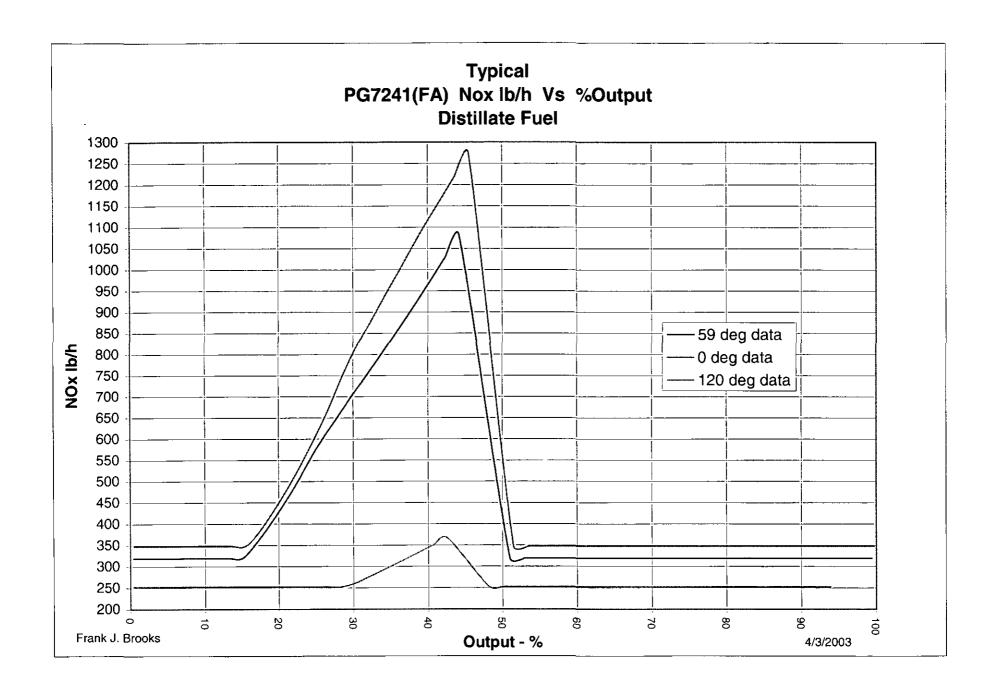
^{*} Bold Data is estimated based on SCR control of NOX at 3.5 ppm limit (gas) or 10 ppm limit (oil).

Natural Gas Estimate:

Highest estimated startup NOx emissions based on actual data at a sister unit of Stanton A operated on natural gas is = 127 lb/hr

Fuel Oil Estimate:

Highest estimated startup NOx emissions based on GE data extrapolated for 12 hours startup on oil is = 370 lb/hr



STANTON A CEMS AND STARTUP EXCESS EMISSIONS ISSUES CERTIFICATION BY PROFESSIONAL ENGINEER

"I, the undersigned, am a registered professional engineer in the State of Florida and hereby certify to the best of my knowledge that all information being submitted to revise the construction permit for the Stanton A combined cycle unit is true, accurate and complete."

Gregory/N. Terry 3-31-03 Date

CERTIFICATION BY AUTHORIZED REPRESENTATIVE OR RESPONSIBLE OFFICIAL **STANTON A**

"I, the undersigned, am the authorized representative or responsible official, as defined in Chapter 62-210.200, F.A.C., for the PSD source for which this information is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this submission are true, accurate and complete."

Responsible Official Signature:

Robert G. Moore

Senior Vice-President Southern Company Services & Senior Production Officer Southern Power

Date: