Tel 850.444.6111

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MAY 13 2002

BUREAU OF AIR REGULATION



May 06, 2002

Mr. Mike Halpin
Florida Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400Northwest District

Dear Mr. Halpin:

RE: LANSING SMITH ELECTRIC GENERATION FACILITY UNIT 4 & 5 COMBINED CYCLE UNITS DEP File No. 99-40, PSD-FL-269

Gulf Power requests that the above referenced PSD Permit be revised to increase the allowable heat input pursuant to actual test results and revised information from General Electric. Gulf Power has completed the initial compliance test and CEM certification on these units and has determined that the units are operating within the emissions standards outlined in the permit. A summary of the Unit 4 & 5 test results are attached for your review. The official compliance test report will be filed within 10 days with the District. Also enclosed are graphs with proposed new limits for heat input for the two modes of operation outlined in the PSD permit, i.e., Normal Mode (CT+DB) and Power Augmentation. Additionally, there is a proposed 95-100% Test Curve for future reference tests.

Please note that the original PSD permit outlines a maximum heat input for the CT at 1751 MBTU/HR (LHV at 65°F) and 275 MBTU/HR (LHV at 65°F) for the Duct Burner. The new requested values at an equivalent temperature (using a HHV) is 1775 and 299 MBTU/HR, respectively. This data was extrapolated using GE performance design data and test results to 15°F. and 95°F. and is outlined in the heat input curves attached.

If you have any questions or need further information regarding this request for modification of the Smith Unit 4 & 5 PSD permit, please call me at (850) 444.6527.

Sincerely,

G. Dwain Waters, Q.E.P.

Air Quality Programs Supervisor

cc: w/att: James O. Vick, Gulf Power Company

William T. Hall, <u>Gulf Power Company</u> Marie Largilliere, <u>Gulf Power Company</u>. Mike Smith, <u>Gulf Power Company</u>

Sandra Veazey, FDEP Northwest Florida District Office, Pensacola, Florida

CERTIFICATION BY RESPONSIBLE OFFICIAL

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

Responsible Official Signature:

Robert G. Moore

Vice-President of Power Generation/Transmission

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Plant Smith

Unit 4

Turbine and Duct Burner

Date of Test: March 21, 2002

Run #	Heat Input MMBTU/Hour	NOx (lb/Hour)	NOx Standard (lb/hour)	VOC (ppm)	VOC Standard (ppm)	CO (ppm)	CO Standard (ppm)
1	2056.499	69.6	82.9	0.16	4.00	0.98	16.00
2	2079.813	66.9	82.9	0.15	4.00	1.31	16.00
3	2082.882	67.0	82.9	0.15	4.00	1.34	16.00
Average:	2073.064667	67.8	82.9	0.15	6.00	1.21	23.00

Plant Smith

Unit 5

Turbine and Duct Burner

Date of Test: March 27, 2002

Run #	Heat Input MMBTU/Hour	NOx (lb/Hour)	NOx Standard (Ib/hour)	VOC (ppm)	VOC Standard (ppm)	CO (ppm)	CO Standard (ppm)
1	2048.608	64.4	82.9	0.54	4.00	1.30	16.00
2	2080.659	65.0	82.9	0.23	4.00	1.25	16.00
3	2094.599	64.0	82.9	0.15	4.00	1.21	16.00
Average:	2074.622	64.5	82.9	0.31	4.00	1.26	16.00

*Note: The VOC and CO concentrations have been corrected to 15% O₂.

Plant Smith

Unit 4

Power Augmentation

Date of Test: April 5, 2002

Run #	Heat Input MMBTU/Hour	NOx (lb/Hour)	NOx Standard (lb/hour)	VOC (ppm)	VOC Standard (ppm)	(ppm)	CO Standard (ppm)
1	2106.136	58.5	113.2	1.11	6.00	4.62	23.00
2	1981.548	55.6	113.2	0.22	6.00	4.67	23.00
3	2003.594	69.1	113.2	0.5	6.00	6.26	23.00
Average:	2030.426	61.0	113.2	0.61	6.00	5.18	23.00

Plant Smith

Unit 5

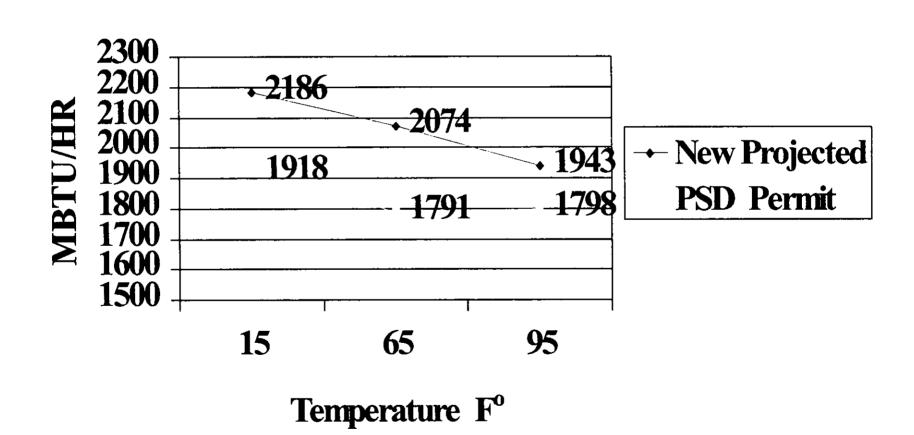
Power Augmentation

Date of Test: April 12, 2002

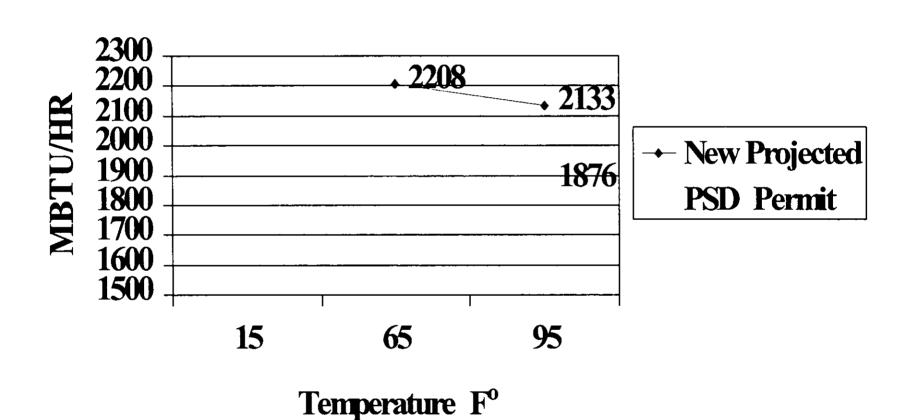
Run #	Heat Input MMBTU/Hour	NOx (lb/Hour)	NOx Standard (lb/hour)	VOC (ppm)	VOC Standard (ppm)	(ppm)	CO Standard (ppm)
1	1949.635	56.5	113.2	0.34	6.00	8.97	23.00
2	1949.085	59.5	113.2	0.38	6.00	8.12	23.00
3	1952.644	58.5	113.2	0.42	6.00	8.76	23.00
Average:	1950.455	58.2	113.2	0.38	6.00	8.61	23.00

*Note: The VOC and CO concentrations have been corrected to 15% O₂.

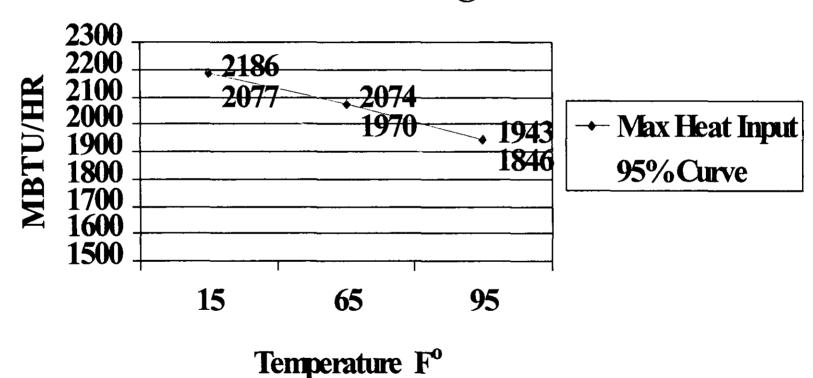
Smith Unit 4 & 5 Heat Input CT+DB Mode



Smith Unit 4 & 5 Heat Input PA Mode

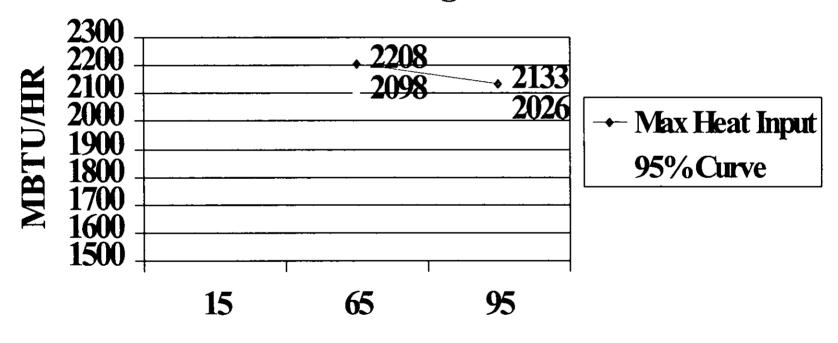


Smith Unit 4 & 5 Heat Input Normal Mode (CT+DB) 100-95% Testing Curve



Smith Unit 4 & 5 Heat Input

PA Mode 100-95% Testing Curve



Temperature F°