



February 28, 2008

Ms. Wanda Parker-Garvin
State of Florida
Department of Environmental Protection
Central Florida District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

RE: **Florida Power & Light**
Annual Visible Emissions Evaluations
Particulate Matter Emissions Test Report
Cape Canaveral Plant, Unit No. 2

Dear Ms. Parker-Garvin ,

Enclosed please find the Annual Visible Emissions Evaluations for the referenced unit conducted February 13, 2008, during steady state and soot blowing conditions, as required by Section 17-2.700(2)(a)4. and 17-2.700(1) (d)1.b, F.A.C.

- Steady State

Highest 6-minute average - 10.00%
2nd highest 6-minute average - 10.00%

- Soot Blowing

Highest 6-minute average – 10.00%
2nd highest 6-minute average – 10.00%

Also enclosed are the results of particulate matter emissions compliance tests conducted at the referenced generating unit by FPL's Technical Services, Emission Test Group on February 13, 2008. The annual particulate matter emissions compliance testing was performed under both steady state and soot blowing conditions while firing with 100 percent fuel oil.

Particulate Emissions Test Report
Cape Canaveral, Unit No. 2
February 28, 2008
Page 2

During steady state conditions, EPA Methods 1 through 4 and 17 were used for sampling and analysis. The unit heat input during the test averaged 3620 million Btu per hour. The average particulate matter emission rate for the three runs was 0.04 pounds per million Btu heat input. The particulate matter emission limitation for this Unit is 0.10 pounds per million Btu heat input.

During soot blowing conditions, EPA Methods 1 through 4 and 17 were used for sampling and analysis. The unit heat input during the test averaged 3620 million Btu per hour. The average particulate matter emission rate for the three runs was 0.04 pounds per million Btu heat input. The particulate matter emission limitation for this unit while soot blowing is 0.30 pounds per million Btu heat input. During the course of the test, the following soot blowing procedures were conducted:

Run No. 1: IK's
Run No. 2: IK's
Run No. 3: IK's

Please note that this unit operates while using the EES SFT-2200 Ultra-Fine Organo-Metallic Magnesium Complex fuel additive. The injection rate for the emissions compliance test was 1:2100 or approximately 11.4 gal/hr.

Pursuant to rule 62-213.420 (4) F.A.C., I hereby certify, based on information and belief formed after reasonable inquiry, the statements and information in this stack test report are true, accurate, and complete.

Should you have any questions, or need any additional information, you may contact Augie de la Vega with the Emission Test Group at (305) 242-3896.

Sincerely,



Brad Williams
Plant General Manager
Florida Power & Light Company
Cape Canaveral Plant

Enclosure

cc: Plant Mgr.
Emission Test Group

PARTICULATE EMISSIONS TEST REPORT

UNIT: CAPE CANAVERAL UNIT 2: STEADY STATE / SOOT BLOW

COMPLIANCE TEST FOR THE 2008 TEST YEAR

CONDUCTED ON FEBRUARY 13th, 2008

1. Type: Steam Generator
2. Location: Brevard County , FL.
3. Designation: Existing
4. Facility Name: Cape Canaverl Power Plant
5. Owned and Operated by Florida Power & Light Company
6. Type and amount of fuels: Included (F factor)
7. Means, raw data and computations of fuels: Included
8. Stack sketch: Included
9. Date, time, and duration of run: Included
10. Method: EPA One through Four and Seventeen
11. Number and location of sampling points: Included
12. Readings and sample time: Included
13. Sampling equipment: R.A.C. and custom designed / manufactured
14. Equipment calibration data: Included
15. Filter data: Included
16. Chemical solutions: Reagent grade acetone
17. Pollutants collected: Included
18. Test crew: Included
19. Measured and calculated data: Included
20. Relation of data to emission rate: Included
21. Applicable standard and maximum emission rate: Included
22. Certification: Included

CERTIFICATION OF VALIDITY

Particulate Test Report

Plant: Cape Canaveral

Unit No.: 2

Test date: February 13th, 2008

I hereby certify the information and data provided in the stack test report for tests conducted at the above facility on the above date are true and correct, to the best of my knowledge.

A handwritten signature in cursive script, reading "A. J. de la Vega", written over a horizontal line.

A. J. de la Vega

Emission Crew Supervisor

FLORIDA POWER AND LIGHT COMPANY
EMISSION TEST GROUP
700 UNIVERSE BLVD.
JUNO BEACH, FLORIDA 33408

PARTICULATE EMISSION TEST

PLANT: CAPE CANAVERAL
UNIT: 2
TEST: STEADY STATE
METHOD: 17

	RUN 1	RUN 2	RUN 3
DATE OF RUN	2/13/08	2/13/08	2/13/08
GROSS LOAD (AVG MMBTU/HR)	3620	3620	3620
START TIME (24-HR CLOCK)	806	1125	1242
END TIME (24-HR CLOCK)	912	1231	1318
VOL DRY GAS SAMPLED METER COND (DCF)	42.921	42.736	44.271
BAROMETRIC PRESSURE (IN. HG)	29.86	29.86	29.86
AVG ORIFICE PRESSURE DROP (IN. H2O)	1.767	1.579	1.603
AVG GAS METER TEMP (F)	83.0	87.4	89.6
GAS METER CALIBRATION FACTOR	0.9833	0.9833	0.9833
VOL GAS SAMPLED STD COND (DSCF)	41.115	40.595	41.883
TOTAL WATER COLLECTED (G)	108.9	110.3	108.7
VOL WATER COLLECTED STD COND (SCF)	5.13	5.20	5.13
MOISTURE IN STACK GAS (% VOL)	11.10	11.36	10.90
MOLE FRACTION DRY GAS	0.889	0.886	0.891
CO2 VOL PERCENT DRY	13.4	13.9	13.8
O2 VOL PERCENT DRY	3.9	3.2	3.3
N2 VOL PERCENT DRY	82.75	82.85	82.96
MOL. WT. DRY STACK GAS (LB/LB-MOLE)	30.30	30.36	30.34
MOL. WT. WET STACK GAS (LB/LB-MOLE)	28.93	28.95	28.99
ELEV. DIFF. FROM MANOM. TO BAROM. (FT)	0.00	0.00	0.00
STACK GAS STATIC PRESSURE (IN. H2O GAGE)	-1.60	-1.60	-1.60
STACK GAS STATIC PRESSURE (IN. HG ABS.)	29.74	29.74	29.74
AVERAGE SQUARE ROOT VELOCITY HEAD	0.918	0.856	0.859
PITOT TUBE COEFFICIENT	0.84	0.84	0.84
AVG STACK TEMP (F)	309.5	294.7	293.5
STACK GAS VELOCITY STACK COND (FT/SEC)	62.36	57.55	57.69
CROSS SECTION STACK AREA (SQ FT)	351.9	351.9	351.9
STACK GAS FLOW RATE STD COND (DSCFM)	798334.5	749143.8	755943.9
STACK GAS FLOW RATE STACK COND (ACFM)	1316750.0	1215274.1	1218042.9
NET TIME OF RUN (MIN)	60	60	60
NOZZLE DIAMETER (IN)	0.240	0.240	0.240
PERCENT ISOKINETIC	96.20	101.22	103.49
PARTICULATE COLLECTED (MG)	97.1	50.7	53.4
WEIGHTED AVERAGE F FACTOR (DSCF/MILL. BTU)	9190	9190	9190
HEAT INPUT OIL (%)	100.0	100.0	100.0
HEAT INPUT GAS (%)	0.0	0.0	0.0
PARTICULATE EMISSIONS (GRAINS/SCF)	0.036	0.019	0.020
PARTICULATE EMISSIONS (LB/MILL. BTU)	0.059	0.030	0.031

AVG PARTICULATE EMISSIONS (LB/MMBTU) 0.04

NOTE: STANDARD CONDITIONS -- 68F, 29.92 in. Hg