



BY CERTIFIED MAIL RETURN RECEIPT  
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March 15, 2002

Mr. Alvaro Linero, P. E.  
Administrator, New Source Review  
Bureau of Air Regulation  
Division of Air Resource Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 5505  
Tallahassee, FL 32399-2400

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MAR 18 2002

BUREAU OF AIR REGULATION

Re: Submittal of Emissions Data for the Second Year Following Pulverizer Replacement at Deerhaven Unit #2 in Accordance with Fla. Admin. Code 62-10.200(12)(d)

Dear Mr. Linero:

On January 22, 2001, Gainesville Regional Utilities (GRU) submitted to the Florida Department of Environmental Regulation (FDEP) a notification letter of the above referenced pulverizer replacement. Details of the replacement were contained in that letter along with two attachments containing the results of analyses of actual and projected emissions before and after the pulverizer replacement. The purpose of this letter is to submit to the FDEP the "actual" emissions for the second year of operation following pulverizer replacement

Attachment 1 shows the projected actual emissions for each pollutant, and the comparison to the baseline, for the five years after the pulverizer replacement. This attachment was included in the submittal of January 22, 2001. The amended Attachment 2 provides the first two years of actual emissions following the pulverizer replacement, from the third quarter of 1999, through the second quarter of 2001. Attachment 2 also calculates the actual increase or decrease in emissions for each pollutant as compared to the baseline emissions. For all pollutants with the exception of SO<sub>2</sub> in year two, there was either a decrease in emissions or a slight increase in emissions that was well below the significance thresholds.

During year two, SO<sub>2</sub> increased by 249.50 tons above baseline. This was caused entirely by a slight increase in the concentration of sulfur in the coal from 0.625% by weight (baseline period average) to 0.692% by weight (year two post-project). This increase in SO<sub>2</sub> was completely unrelated to the pulverizer replacement and the increase in the sulfur content could have been accommodated without the replacement of the pulverizers. Additionally, if the sulfur content of the coal had been the same during year two as the coal that was burned during the baseline period, the SO<sub>2</sub> emissions would have decreased.

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This additional actual post-project emissions data continues to validate GRU's projected post-project emissions and demonstrates that the pulverizer replacement project is not subject to the PSD requirements. If you have any questions about the enclosed emissions data or the contents of this letter, please do not hesitate to contact me at (352) 334-3400, ext. 1283.

Sincerely,

A handwritten signature in black ink that reads "Robert W. Klemans". The signature is written in a cursive style with a large, sweeping initial "R".

Robert W. Klemans, P.E.  
Electric Utility Environmental Engineer, II

RWK

Attachments

cc: D. Beck  
R. Casserleigh  
Y. Jonynas  
S. Manasco  
J. Shaw  
D. Jezouit (Baker, Botts)

file: DHNSR

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**Gainesville Regional Utilities  
Deerhaven Generating Station - Unit 2  
PSD Emissions Analysis**

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**Actual Emissions Before Pulverizer Replacement vs. Projected Actual Emissions After Pulverizer Replacement**

BUREAU OF AIR REGULATION

Regulated Air Pollutant	=====>	CO	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>total</sub>	Ozone (VOCs)	Lead	Fluorides	H <sub>2</sub> SO <sub>4</sub> Mist	Mercury
PSD Significance Level	Emissions Increase (tons/yr)	100	40	40	15	25	40	0.6	3	7	0.1
<b>Baseline</b>	<b>Emissions (tons/yr)</b>	152.64	3,861.06	7,452.00	9.52	161.59	17.81	0.120	43.01	41.66	0.0244
	Time Period	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98
	Ann. Heat Input (mmBtu/yr)	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390
<b>After Modification Year 1</b>	<b>Emissions (tons/yr)</b>	157.99	3,756.56	6,968.79	9.59	161.74	18.41	0.124	44.40	42.69	0.0252
	Time Period	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00
	Ann. Heat Input (mmBtu/yr)	15,786,930	15,786,930	15,786,930	15,786,930	15,786,930	15,786,930	15,786,930	15,786,930	15,786,930	15,786,930
	Inc.(+)/Dec.(-) (tons)	+5.35	-104.51	-483.21	+0.07	+0.14	+0.60	+0.0039	+1.39	+1.03	+0.0008
<b>After Modification Year 2</b>	<b>Emissions (tons/yr)</b>	147.86	3,515.85	6,522.25	8.97	151.38	17.23	0.116	41.56	39.96	0.0235
	Time Period	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01
	Ann. Heat Input (mmBtu/yr)	14,775,348	14,775,348	14,775,348	14,775,348	14,775,348	14,775,348	14,775,348	14,775,348	14,775,348	14,775,348
	Inc.(+)/Dec.(-) (tons)	-4.77	-345.22	-929.75	-0.55	-10.22	-0.58	-0.0041	-1.45	-1.71	-0.0008
<b>After Modification Year 3</b>	<b>Emissions (tons/yr)</b>	149.85	3,563.02	6,609.77	9.09	153.41	17.47	0.118	42.12	40.49	0.0239
	Time Period	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02
	Ann. Heat Input (mmBtu/yr)	14,973,601	14,973,601	14,973,601	14,973,601	14,973,601	14,973,601	14,973,601	14,973,601	14,973,601	14,973,601
	Inc.(+)/Dec.(-) (tons)	-2.79	-298.04	-842.23	-0.43	-8.19	-0.35	-0.0025	-0.90	-1.17	-0.0005
<b>After Modification Year 4</b>	<b>Emissions (tons/yr)</b>	150.62	3,581.41	6,643.88	9.14	154.20	17.56	0.119	42.33	40.70	0.0240
	Time Period	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03
	Ann. Heat Input (mmBtu/yr)	15,050,876	15,050,876	15,050,876	15,050,876	15,050,876	15,050,876	15,050,876	15,050,876	15,050,876	15,050,876
	Inc.(+)/Dec.(-) (tons)	-2.82	-279.65	-808.12	-0.38	-7.40	-0.26	-0.0019	-0.68	-0.98	-0.0004
<b>After Modification Year 5</b>	<b>Emissions (tons/yr)</b>	151.97	3,613.40	6,703.23	9.22	155.58	17.71	0.120	42.71	41.07	0.0242
	Time Period	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04
	Ann. Heat Input (mmBtu/yr)	15,185,320	15,185,320	15,185,320	15,185,320	15,185,320	15,185,320	15,185,320	15,185,320	15,185,320	15,185,320
	Inc.(+)/Dec.(-) (tons)	-0.67	-247.66	-748.77	-0.30	-6.02	-0.10	-0.0008	-0.30	-0.60	-0.0002

**References:**

Analytical Quantities	Coal	No. 2 Fuel Oil	Natural Gas
Quantity burned/Heat input	2Q94 - 4Q94 fuel rpt 1Q95 - 1Q99 EDRs	2Q99 - 2Q04 PSC TYSP 4Q94 fuel rpt.	2Q94 - 4Q94 fuel rpt 1Q95 - 1Q99 EDRs
Heating Value	2Q94 - 1Q99 fuel rpt	2Q99 - 2Q04 Avg. of values 2Q94 - 1Q99	2Q94 - 1Q99 fuel rpt
Sulfur Content	2Q94 - 1Q99 As received fuel analysis	2Q99 - 2Q04 Avg. of values 2Q94 - 1Q99	2Q99 - 2Q04 Avg. of values 2Q94 - 1Q99
Ash Content	2Q94 - 1Q99 As received fuel analysis	2Q99 - 2Q04 Avg. of values 2Q94 - 1Q99	
Emiss. Fact./Measurement	Coal	No. 2 Fuel Oil	Natural Gas
CO	2Q94 - 2Q04 AP-42	4Q94 AP-42	2Q94 - 2Q04 AORs
NO <sub>x</sub>	2Q94 - 4Q94 AORs	4Q94 AP-42	2Q94 - 4Q94 AP-42
SO <sub>2</sub>	2Q94 - 4Q94 %S fuel anal. & AP-42 1Q95 - 1Q99 EDRs	2Q99 - 2Q04 hist avg %S & AP-42 4Q94 AP-42	1Q95 - 1Q99 EDRs 2Q99 - 2Q04 AP-42
PM <sub>10</sub>	2Q94 - 1Q99 % ash fuel anal. & AP-42	2Q99 - 2Q04 hist avg % ash & AP-42 4Q94 AP-42	2Q94 - 4Q94 AP-42 1Q95 - 1Q99 EDRs
PM <sub>total</sub>	2Q94 - 1Q99 % ash fuel anal. & AP-42	2Q99 - 2Q04 hist avg % ash & AP-42 4Q94 AP-42	2Q94 - 2Q04 AP-42 1Q95 - 1Q99 EDRs
VOCs	2Q94 - 2Q04 AP-42	4Q94 AP-42	2Q94 - 2Q04 AP-42
Lead	2Q94 - 2Q04 AP-42	4Q94 AP-42	2Q94 - 2Q04 AP-42
Fluorides (as HF)	2Q94 - 2Q04 AP-42	None Available	None Available
H <sub>2</sub> SO <sub>4</sub> Mist	2Q94 - 1Q99 % S fuel anal. & So. Co. Svcs. rsrch.	2Q99 - 2Q04 hist avg %S & So. Co. Svcs. rsrch.	None Available
Mercury	2Q94 - 2Q04 AP-42	4Q94 AP-42	None Available

PSD Significance Levels: Table 212.400-2 F.A.C.

Abbreviations	AOR = FDEP Annual Operating Reports	F.A.C. = Florida Administrative Code
	EDR = EPA Electronic Data Reports based upon CEMS data	TYSP = Ten Year Site Plan

**Gainesville Regional Utilities  
Deerhaven Generating Station - Unit 2  
PSD Emissions Analysis**

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**Actual Emissions Before Pulverizer Replacement vs. Actual Emissions After Pulverizer Replacement**

BUREAU OF AIR REGULATION

Regulated Air Pollutant	=====>	CO	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>total</sub>	Ozone (VOCs)	Lead	Fluorides	H <sub>2</sub> SO <sub>4</sub> Mist	Mercury
PSD Significance Level	Emissions Increase (tons/yr)	100	40	40	15	25	40	0.6	3	7	0.1
<b>Baseline</b>	<b>Emissions (tons/yr)</b>	152.64	3,861.06	7,452.00	9.52	161.59	17.81	0.120	43.01	41.66	0.0244
	Time Period	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98	4Q96 thru 3Q98
	Ann. Avg. Heat Input (mmBtu/yr)	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390	16,004,390
<b>After Modification Year 1</b>	<b>Emissions (tons/yr)</b>	166.86	3,740.40	7,208.60	11.61	159.74	18.12	0.111	39.60	40.80	0.0224
	Time Period	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00	3Q99 thru 2Q00
	Ann. Heat Input (mmBtu/yr)	15,218,112	15,218,112	15,218,112	15,218,112	15,218,112	15,218,112	15,218,112	15,218,112	15,218,112	15,218,112
	Inc.(+)/Dec.(-) (tons)	+14.22	-120.66	-243.40	+2.09	-1.85	+0.31	-0.009	-3.42	-0.87	-0.0019
<b>After Modification Year 2</b>	<b>Emissions (tons/yr)</b>	156.45	3,647.20	7,701.50	10.29	163.73	17.85	0.117	41.84	44.96	0.0237
	Time Period	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01	3Q00 thru 2Q01
	Ann. Heat Input (mmBtu/yr)	15,388,481	15,388,481	15,388,481	15,388,481	15,388,481	15,388,481	15,388,481	15,388,481	15,388,481	15,388,481
	Inc.(+)/Dec.(-) (tons)	+3.82	-213.86	+249.50	+0.78	+2.14	+0.04	-0.003	-1.17	+3.30	-0.0007
			See note below								
<b>After Modification Year 3</b>	<b>Emissions (tons/yr)</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.0000
	Time Period	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02	3Q01 thru 2Q02
	Ann. Heat Input (mmBtu/yr)	0	0	0	0	0	0	0	0	0	0
	Inc.(+)/Dec.(-) (tons)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>After Modification Year 4</b>	<b>Emissions (tons/yr)</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.0000
	Time Period	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03	3Q02 thru 2Q03
	Ann. Heat Input (mmBtu/yr)	0	0	0	0	0	0	0	0	0	0
	Inc.(+)/Dec.(-) (tons)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>After Modification Year 5</b>	<b>Emissions (tons/yr)</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.0000
	Time Period	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04	3Q03 thru 2Q04
	Ann. Heat Input (mmBtu/yr)	0	0	0	0	0	0	0	0	0	0
	Inc.(+)/Dec.(-) (tons)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: SO<sub>2</sub> increase in "Year 2 After Modification" due to increase in coal sulfur content from 0.625 wt.% (baseline period) to 0.692 wt.%, not pulverizer replacement.

**References:**

Analytical Quantities	Coal	No. 2 Fuel Oil	Natural Gas
Quantity burned/Heat input	2Q94 - 4Q94 fuel rpt. 1Q95 - 2Q04 EDRs	2Q94 - 4Q94 fuel rpt. 1Q95 - 2Q04 EDRs	2Q94 - 4Q94 fuel rpt. 1Q95 - 2Q04 EDRs
Heating Value	Fuel report	Fuel report	Fuel report
Sulfur Content	As received fuel analysis	As received fuel analysis	
Ash Content	As received fuel analysis		
Emiss. Fact./Measure	Coal	No. 2 Fuel Oil	Natural Gas
CO	AP-42	AP-42	AORs
NO <sub>x</sub>	2Q94 - 4Q94 AORs 1Q95 - 2Q04 EDRs	2Q94 - 4Q94 AP-42 1Q95 - 2Q04 EDRs	2Q94 - 4Q94 AP-42 1Q95 - 2Q04 EDRs
SO <sub>2</sub>	2Q94 - 4Q94 AP-42 1Q95 - 2Q04 EDRs	2Q94 - 4Q94 AP-42 1Q95 - 2Q04 EDRs	2Q94 - 4Q94 AP-42 1Q95 - 2Q04 EDRs
PM <sub>10</sub>	AP-42	AP-42	AP-42
PM <sub>total</sub>	AP-42	AP-42	AP-42
VOCs	AP-42	AP-42	AP-42
Lead	AP-42	AP-42	AP-42
Fluorides (as HF)	AP-42	None Available	None Available
H <sub>2</sub> SO <sub>4</sub> Mist	Formula from So. Co. Svcs. rsrch.	EPA Guid. Doc., EPA-745-R-97-007, pg. 17	None Available
Mercury	AP-42	AP-42	None Available
<b>PSD Significance Levels: Table 212.400-2 F.A.C.</b>			
<b>Abbreviations</b>	AOR = FDEP Annual Operating Reports F.A.C. = Florida Administrative Code		
	EDR = EPA Electronic Data Reports based upon CEMS data		