Golder Associates Inc.

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JUL 30 2007

Florida Department of Environmental Protection South District 2295 Victoria Avenue Fort Myers, Florida 33901

BUREAU OF AIR REGULATION

Attention: Mr. Carter Endsley

RE: BOILER NO. 8 SEMI-ANNUAL REPORT - JANUARY 2007 TO JUNE 2007

Dear Mr. Endsley:

July 27, 2007

Enclosed is the United States Sugar Corporation (USSC) Boiler No. 8 Semi-Annual Report for the first half of 2007. This report covers the period from January 1, 2007 to June 30, 2007. Please do not hesitate to give us a call if you have any questions (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff, P.E., Q.E.P.

am Book

Principal Engineer

Claire Booth, E.I.

Staff Engineer

Enclosures

cc: Peter Briggs

Keith Tingberg

Jeff Koerner, FDEP

40 CFR Part 63, Subpart DDDDD

Semi-Annual Report – United States Sugar Corporation – Boiler No. 8 (July 27, 2007)

Required Information [40 CFR 63.7550(c)]:

- United States Sugar Corporation (U.S. Sugar)
 111 Ponce de Leon Avenue
 Clewiston, Florida 33440
- 2. I, the responsible official, certify the truth, accuracy, and completeness of the content of this report.

Responsible Official Name: Neil Smith

Responsible Official Title: Vice President and General Manager, Sugar Manufacturing

Operations

Responsible Official Signature:

4. Date of Report: July 27, 2007

Reporting Period: January 1, 2007 – June 30, 2007.

5. The total fuel usage for each calendar month within the semi-annual reporting period:

Boiler No. 8 – Fuel Usage	Bagasse (tons) ^a	Wood Chips (tons) ⁿ	No. 2 Fuel Oil (gallons) b		
January 2007	84,517	0	47,023		
February 2007 76,831		0	57,239		
March 2007	83,021	0.	51,331		
April 2007	35,178	0	24,971		
May 2007	61	49	2,394		
June 2007	19,931	15,945	25,141		
Total	299,538	15,994	208,099		

^a Based on a heating value of 3,600 Btu/lb for bagasse and 4,500 Btu/lb for wood chips. Bagasse represents approximately 100% of the total carbonaceous fuel burned during the crop season from January 1, 2007 through April 15, 2007. Wood chips represent approximately 50% of the total carbonaceous fuel burned during the off-crop season from April 16, 2007 through June 30, 2007 with bagasse representing the other 50% of fuel burned. At the start of the off-crop season, the Boiler No. 8 was shutdown until June 1, 2007.

- 6. Please refer to Table A for a summary of the performance test conducted January 5, 2007 (crop season) while burning bagasse in Boiler No. 8. Through this performance test, the scrubber water flow rates were reestablished for crop season operation. Table A presents the results of the test as well as the reestablished parameters.
- 7. U.S. Sugar did not burn any new type of fuel in Boiler No. 8.

^b Heating value of 136,000 Btu/gal, density of 6.83 lb/gal, 0.05% sulfur.

- 8. The hours of operation for each calendar month within the semi-annual reporting period for Boiler No. 8 are not included since this is not a limited use boiler or process heater.
- 9. SSM Report [40 CFR 63.10(d)(5)(i)]:
 - a. There were no instances where any actions taken by an owner or operator during SSM events were not consistent with the affected source's SSM plan.
 - b. There were no malfunctions that caused or may have caused an emission limitation to be exceeded.
 - c. The name, title, and signature of the responsible official certifying the accuracy of this report is shown in Item 2 above.
- 10. There were no deviations from the ESP total secondary power input minimum operating limits, however, there were deviations from the wet cyclone water flow rate minimum operating limit (see Table 1, attached).
- 11. There were no periods when the CMS was out of control as specified in 40 CFR 63.8(c)(7) during the reporting period.
- 12. Deviation Summary:

EMISSION LIMITS/WORK PRACTICE STANDARDS

CO Deviations (400 ppmvd – 30 day rolling average)

Excluding SSM: No deviations Including SSM: No deviations

NO_x Deviations (0.14 lb/MMBtu – 30 day rolling average)

Excluding SSM: No deviations Including SSM: No deviations

PM Deviations (0.025 lb/MMBtu) – No deviations based on the January 2007 performance test (see Table A).

HCl Deviations (0.02 lb/MMBtu) – No deviations based on the January 2007 performance test (see Table A).

Hg Deviations $(3x10^{-6} \text{ lb/MMBtu})$ – No deviations based on the January 2007 performance test (see Table A).

OPERATING LIMITS — Because the semi-annual reporting period includes portions of the off-crop and crop seasons, the minimum operating limits established during each representative season are used to determine deviations. This semi-annual report covers the period from January 1, 2007 to June 30, 2007, and the crop season ended April 15, 2007. Therefore, all deviations during the crop season (i.e., January 1, 2007 to April 15, 2007) are based on the minimum operating limits established during crop season performance tests. Because lower ESP power inputs were not reestablished with the January 2007 crop season testing, the minimum ESP power inputs from the January 2006 crop season testing remain the current minimum operating parameters. The operating parameters from the January 2006 testing were

included in a pervious semi-annual report. The scrubber water flow rates were reestablished in the January 2007 crop season testing.

All deviations during the off-crop season (April 16, 2007 to June 30, 2007) are based on the minimum operating limits established during the off-crop season performance tests. Because lower scrubber water flows were not reestablished in the August 2006 off-crop testing, the minimum scrubber flows from the June 2006 off-crop testing remain the current minimum operating parameters. The operating parameters from the June 2006 testing were included in a previous semi-annual report.

<u>CROP SEASON OPERATING LIMITS (1/1/07 – 4/15/07)</u> – Based on the January 2006 and January 2007 performance tests. A deviation is a 3 hour block average.

Total Secondary Power Input Deviations (25 kW – January 2006 test)

Excluding SSM: 0 deviations Including SSM: 0 deviations

Scrubber 1 Water Flow Deviations (10,801 gal/hr – January 2007 test)

Excluding SSM: 0 deviations Including SSM: 0 deviations

Scrubber 2 Water Flow Deviations (10,800 gal/hr – January 2007 test)

Excluding SSM: 2 deviations (see Table 1) Including SSM: 2 deviations (see Table 1)

OFF-CROP SEASON OPERATING LIMITS (4/16/07 – 6/30/07) – Based on the June 2006 and August 2006 performance tests. A deviation is a 3 hour block average.

Total Secondary Power Input Deviations (18 kW – August 2006 test)

Excluding SSM: 0 deviations Including SSM: 0 deviations

Scrubber 1 Water Flow Deviations (7,695 gal/hr – June 2006 test)

Excluding SSM: 0 deviations Including SSM: 0 deviations

Scrubber 2 Water Flow Deviations (8,685 gal/hr - June 2006 test)

Excluding SSM: 0 deviations Including SSM: 0 deviations

Table 1 shows the date and time duration of each deviation as well as the reason for each deviation.

Total deviation time in hours and deviation time as a percentage of operating time of the source are shown in Table 2. One deviation is the equivalent to 3 hours.

There were no time periods for which the CMS was inoperative/out-of-control for the operating limit for which there was a deviation. In addition, the ESP total power input CMS did not experience any inoperative/out-of-control periods.

Date of latest CMS certification or audit: On January 5-6, 2007 a Relative Accuracy Test Audit (RATA) for NOx and CO on the CEMS was performed while firing bagasse.

TABLE 1 OPERATING LIMIT DEVIATIONS, BOILER NO. 8, SCRUBBER 2, WATER FLOW RATE, INCLUDING SSM

Start Date/Time	End Date/Time	Nunber of 3-Hour Block Deviations	Parameter Deviation Value (gal/hr)	During startup, shutdown, control equipment problems, process problems, other known causes, or other unknown causes?	Parameter
1/19/07 15:00	1/19/07 17:00	1	10,067	Unknown	Scrubber 2 – Water Flow Rate - 10,800 gal/hr (3-hour
1/19/07 18:00	1/19/07 20:00	. 1	4,380	Unknown	block average) – before April 16, 2007

TABLE 2 OPERATING LIMIT DEVIATIONS, BOILER NO. 8

Parameter	Total Deviation	Time (hours) ^a	% Total Deviation b		
	Excluding SSM	Including SSM	Excluding SSM	Including SSM	
Scrubber 2 - Water Flow Rate	6	6	0.2%	0.2%	

^a Total deviation is determined by adding up the 3-hour block average deviations and multiplying by 3 since one deviation is comprised of 3 hours.

^b Boiler No. 8 operated 3,256 hours during period of January 1, 2007 - June 30, 2007.

TABLE A
SUMMARY OF JANUARY 5, 2007 BOILER MACT COMPLIANCE TEST RESULTS ON BAGASSE FOR BOILER NO. 8, U.S. SUGAR CLEWISTON

Parameter	Source of Data	C-1 1/5/2007 1058-1158	C-2 1/5/2007 1345-1445	C-3 1/5/2007 1622-1722	C-1 thru C-3 Average	Permit or Subpart DDDDD Limit
Fuel Type		Bagasse	Bagasse	Bagasse		•
Steam Production (lb/hr)	DAHS	495,700	520,349	517,492	511,180	
Heat Input (MMBtu/hr) (62% eff.) a	DAHS	918	962	961	947	
Stack Flow (acfm)	DAHS	405,983	409,422	428,583	414,663	-
Stack Flow (dscfm)	DAHS	239,666	244,069	241,440	241,725	-
Stack Temp. (deg. F)	DAHS	270	265	309	281	-
Oxygen (%) - wet basis	DAHS	7.75	7.65	7.09	7.50	-
F-Factor (dscf/MMBtu)	Fuel Analysis	10,904	10,804	10,843	10,850	-
Steam Production (lb/hr)	Stack Test	499,726	520,274	510,811	510,270	550,000
Heat Input (MMBtu/hr) (62% eff.) a	Stack Test	920	960	948	943	
Stack Flow (acfm)	Stack Test	421,959	429,330	443,786	431,692	-
Stack Flow (dscfm)	Stack Test	216,073	216,113	219,030	217,072	_
Oxygen (%) - dry basis	Stack Test	9.29	8.72	7.57	8.53	-
Heat Input from F-Factor (MMBtu/hr)	Stack Test	795	832	831	820	1,030
Particulate Matter based on F-Factor (lb/MMBtu)	Stack Test	0.012	0.009	0.012	0.011	0.025
Nitrogen Oxides (lb/MMBtu)	Stack Test	N/A	N/A	N/A	N/A	0.14 °
Carbon Monoxide (ppmvd @ 7% O ₂)	Stack Test	N/A	N/A	N/A	N/A	-
Sulfur Dioxide (lb/MMBtu)	Stack Test	N/A	N/A	N/A	. N/A	0.06
Volatile Organic Compounds (lb/MMBtu) ^f	Stack Test	N/A	N/A	N/A	N/A	0.05
Chlorine (inlet) (lb/MMBtu)	Stack Test	0.0031	0.0027	0.0026	0.0028	N/A
Hydrogen Chloride (inlet) (lb/MMBtu)	Stack Test	0.0011	0.0043	0.0015	0.0023	N/A
Hydrogen Chloride (oulet) (lb/MMBtu)	Stack Test	N/A	N/A	N/A	N/A	0.02
Mercury (lb/MMBtu)	Fuel Analysis	2.6E-06	1.2E-06	1.2E-06	1.7E-06	3.0E-06
Ammonia Slip (ppmvd @ 7% O ₂)	Stack Test	N/A	N/A	N/A	N/A	20
NOx CEMS						
NOx (lb/hr)	DAHS	129	135	130	131	131 b
NOx (lb/MMBtu)	DAHS	0.14	0.14	0.14	0.14	0.14 °
CO CEMS						
CO (ppmvd @ 7% O ₂)	DAHS	423	356	505	428	400 °
						Operating Limits @ 90% d
Urea Injection Rate (gal/hr)	DAHS	55.9	61.1	51.6	56.2	-
Total ESP Power Input (kW) e	DAHS	30	29	36	32	25
Scrubber 1 Water Flow (gal/hr)	DAHS	26,642	26,640	12,001	21,761	10,801
Scrubber 2 Water Flow (gal/hr)	DAHS	27,001	26,999	12,000	22,000	10,800

^a Calculated using steam parameters and 62% thermal efficiency.

^b Applicable only during initial compliance test.

^c Based on a 30-day rolling average.

d Based on 40 CFR 63, Subpart DDDDD: limit is 90% of minimum test value. Although 90 percent of the minimum test run for total ESP power input is 26 kW, the minimum operating limit remains at 25 kW, which was established in the January 2006 crop season testing.

^eThree fields in operation for C-1, C-2 and C-3.

f VOC as propane.