

January 28, 2013

123-87714

Mr. Jeffery F. Koerner, New Source Review Section
Florida Department of Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**RE: UNITED STATES SUGAR CORPORATION – CLEWISTON MILL
BOILER NO. 8; PERMIT NO. 0510003-047-AC
ALTERNATIVE METHOD FOR DETERMINING FLUE GAS MOISTURE CONTENT**

Dear Mr. Koerner:

On December 30, 2009, United States Sugar Corporation (U.S. Sugar) was issued air construction permit No. 0510003-047-AC, which established an alternative method for determining flue gas moisture content in the exhaust gases of Boiler No. 8. The conditions of this permit have been incorporated into current Title V operating permit No. 0510003-053-AV, Section 3, Condition D.14.d. The condition specifies that the permittee may estimate flue gas moisture content as 26.0 percent for the crop season (high load operation) and 22.7 percent for the off-crop season (low-load operation). Whenever new data for flue gas moisture content become available, the permittee shall adjust these estimates for use in determining emissions rates and report the new moisture content estimates to the compliance authority.

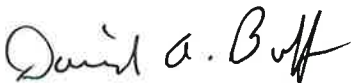
Boiler No. 8 is tested annually at high load operation. Additional stack tests have been performed at low load operation. The request for the alternative method submitted in 2009 included a table of historical stack test data at both high load and low load. The table has been updated to add the additional testing, and the updated average stack test percent moisture data is presented in Table 1.

The data presented in Table 1 show the average stack gas moisture content of 26.3 percent for 2007-2012 operations at high load (on-crop) and 22.6 percent for low load (off-crop) operations (2005-2012). Since there has been no significant change in the average moisture content of the flue gas, U.S. Sugar is requesting to maintain the current permitted flue gas moisture content of 26.0 percent for the crop season (high load operation) and 22.7 percent for the off-crop season (low-load operation).

Please confirm the Department's determination in this case, and if you have any questions or need additional information, please do not hesitate to email me at dbuff@golder.com or call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.



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



Ram Iyer
Air Engineer

cc: Keith Tingberg, U.S. Sugar
Ajaya Satyal, FDEP

Attachment

RI/DB/tz

Y:\Projects\2012\123-87714 USSC\Moisture Ltr\Final\012813_714 USSC moisture content.docx

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**Table 1. Boiler 8 Stack Test Moisture Data
U.S. Sugar, Clewiston Mill**

Test Date	Fuel	Run	Run Times	Stack Test Data	
				Heat Input ^a (MMBtu/hr)	% H ₂ O
01/05/07	Bagasse	C-1	1059-1203	919.5	24.2
01/05/07	Bagasse	C-2	1346-1450	960.3	23.9
01/05/07	Bagasse	C-3	1623-1727	948.0	24.4
01/05/07	Bagasse	Gases-4	1821-1922	859.2	24.4
01/06/07	Bagasse	RATA-4	0937-1007	954.1	26.2
01/06/07	Bagasse	RATA-5	1018-1048	954.1	26.2
01/06/07	Bagasse	RATA-6	1138-1208	961.1	25.6
01/06/07	Bagasse	RATA-7	1222-1251	961.1	25.6
01/06/07	Bagasse	RATA-8	1325-1355	912.5	26.1
01/06/07	Bagasse	RATA-9	1430-1459	912.5	26.1
11/29/07	Bagasse	RATA-1	1122-1226	968.3	26.9
11/29/07	Bagasse	RATA-2	1317-1420	980.7	24.8
11/30/07	Bagasse	RATA-4	0806-0913	1,377.0	24.4
11/30/07	Bagasse	C-5	1016-1116	1,061.9	26.6
11/30/07	Bagasse	C-6	1246-1346	1,011.6	25.7
11/30/07	Bagasse	C-7	1534-1634	1,063.3	24.8
11/30/07	Bagasse	RATA-8	1741-1755	977.0	25.2
12/11/08	Bagasse	RATA-1	0850-0915	1,037.9	28.8
12/11/08	Bagasse	RATA-2	0940-1001	1,037.9	28.8
12/11/08	Bagasse	RATA-3	1030-1051	1,037.9	28.8
12/11/08	Bagasse	RATA-4	1130-1151	992.3	27.3
12/11/08	Bagasse	RATA-5	1210-1231	992.3	27.3
12/11/08	Bagasse	RATA-6	1300-1321	992.3	27.3
12/11/08	Bagasse	RATA-9	1700-1721	983.7	27.6
12/11/08	Bagasse	RATA-10	1755-1815	1,001.5	26.9
12/11/08	Bagasse	RATA-12	1920-1941	1,001.5	26.9
01/30/09	Bagasse	C-1	0831-1021	980.0	25.5
01/30/09	Bagasse	C-2	1256-1432	922.0	24.9
01/30/09	Bagasse	C-3	1531-1701	984.0	24.5
12/02/09	Bagasse	C-1	0910-1024	923.7	30.0
12/02/09	Bagasse	C-2	1330-1441	939.6	29.1
12/03/09	Bagasse	C-3	1415-1524	929.6	30.2
12/03/09	Bagasse	C-4	1620-1724	891.6	27.1
12/04/09	Bagasse	C-5	0845-1031	963.7	28.3
12/04/09	Bagasse	RATA-4	1400-1421	857.1	28.3
12/04/09	Bagasse	RATA-5	1445-1506	857.1	27.3
12/04/09	Bagasse	RATA-6	1533-1554	857.1	27.7
12/04/09	Bagasse	RATA-7	1730-1751	692.2	25.2
12/05/09	Bagasse	RATA-8	0825-0846	924.0	27.8
12/05/09	Bagasse	RATA-9	0910-0931	924.0	28.6
12/05/09	Bagasse	RATA-10	1030-1051	911.5	26.6
12/05/09	Bagasse	RATA-11	1117-1138	911.5	28.5
12/05/09	Bagasse	RATA-12	1201-1222	911.5	31.5
12/05/09	Bagasse	RATA-13	1242-1303	811.0	26.2
11/30/10	Bagasse	C-1	0905-1010	895.9	27.8
11/30/10	Bagasse	C-2	1105-1211	937.6	26.3
11/30/10	Bagasse	C-3	1355-1502	907.3	27.2
12/02/10	Bagasse	RATA-1	0910-1010	943.0	24.0
12/02/10	Bagasse	RATA-2	1050-111	791.6	23.6
12/02/10	Bagasse	RATA-3	1138-1159	791.6	24.7
12/02/10	Bagasse	RATA-4	1230-1251	867.4	25.0
12/02/10	Bagasse	RATA-5	1310-1331	867.4	24.8
12/02/10	Bagasse	RATA-6	1350-1411	867.4	23.6
12/02/10	Bagasse	RATA-7	1435-1456	874.5	23.2
12/02/10	Bagasse	RATA-8	1515-1536	874.5	24.4
12/02/10	Bagasse	RATA-9	1620-1641	870.6	23.4
11/30/11	Bagasse	C-1	0910-1028	851.3	26.8
11/30/11	Bagasse	C-2	1325-1436	920.5	25.0
12/01/11	Bagasse	C-4	0840-0953	938.2	25.3
12/01/11	Bagasse	RATA-2	1125-1146	856.6	25.9
12/01/11	Bagasse	RATA-3	1218-1239	856.6	25.5
12/01/11	Bagasse	RATA-4	1300-1321	856.6	25.9
12/01/11	Bagasse	RATA-5	1345-1406	846.0	25.6
12/01/11	Bagasse	RATA-6	1425-1446	846.0	25.7
12/01/11	Bagasse	RATA-7	1502-1523	846.0	25.5
12/01/11	Bagasse	RATA-8	1545-1606	850.6	26.6
12/01/11	Bagasse	RATA-9	1622-1643	850.6	25.5
03/23/12	Bagasse	RATA-1	0805-0835	915.6	27.1
03/23/12	Bagasse	RATA-2	1100-1121	907.8	27.2
03/23/12	Bagasse	RATA-3	1141-1211	907.8	26.5
03/23/12	Bagasse	RATA-4	1238-1308	887.2	25.1
12/07/12	Bagasse	C-1	0900-1007	975.1	26.2
12/07/12	Bagasse	C-2	1100-1205	989.7	25.0
12/07/12	Bagasse	C-3	1330-1437	965.5	27.2
12/05/12	Bagasse	RATA-1	0900-10:00	908.1	27.6
12/05/12	Bagasse	RATA-2	1205-1305	914.2	28.8
12/05/12	Bagasse	RATA-3	1418-1518	950.7	27.5
			Average =	927.0	26.3
50% Load - Off-Season					
6/1/2006	Bagasse	1	1244-1350	507.2	26.7
6/1/2006	Bagasse	2	1712-1818	466.4	24.1
6/2/2006	Bagasse	3	0843-0948	547.0	21.6
6/2/2006	Bagasse	4	1124-1232	481.3	21.7
6/2/2006	Bagasse	5	1337-1444	428.3	20.0
09/16/05	Wood Chips	1	0944-1050	427.2	26.1
09/16/05	Wood Chips	2	1149-1253	421.3	30.6 ^b
09/16/05	Wood Chips	3	1327-1433	424.2	26.6
8/22/2006	Wood Chips	1	1036-1142	403.5	21.3
8/22/2006	Wood Chips	2	1320-1426	383.6	21.1
8/22/2006	Wood Chips	3	1530-1636	411.4	20.9
12/11/2012	Bagasse	1	0950-1028	426.6	19.7
12/11/2012	Bagasse	2	1100-1139	474.7	21.6
12/11/2012	Bagasse	3	1200-1239	477.1	22.4
			Average =	450.6	22.6

^a Based on stack test calculations using 62 percent boiler efficiency.

^b Considered an outlier; not used in averages.