

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

September 1, 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Neil Smith, Vice President of Sugar Processing Operations
U.S. Sugar Corporation
Clewiston Sugar Mill and Refinery
111 Ponce DeLeon Avenue
Clewiston, Florida 33440

Re: Project No. 0510003-040-AC
U.S. Sugar Corporation - Clewiston Sugar Mill and Refinery
Approval of Request to Cease Continuous Monitoring the Cyclone Pressure Drop on Boiler 8

Dear Mr. Smith:

In a letter to EPA Region 4 dated May 17th, 2006, U.S. Sugar Corporation requested approval to cease continuous monitoring the pressure drop across the pair of wet cyclones on Boiler 8. The wet cyclones are used to remove sand from the flue gas to prevent erosion of downstream equipment such as the induced draft (ID) fan and electrostatic precipitator (ESP). Although water removes some particulate matter from the flue gas, its main function is to wash the cyclones free of collected dust. The primary removal mechanism is cyclonic flow and changes in flue gas direction. NESHAP Subpart DDDDD requires continuous monitoring of the pressure drop and flow rate for scrubbers that control particulate matter. Installed as "pre-controls" before the ESP, the wet cyclones are static devices with no moving parts. The plant has no direct control over the cyclone pressure drop, which is a function of the exhaust flow rate and unit load on the boiler. Continuously monitoring and recording this parameter is burdensome and provides limited useful information with regard to ensuring compliance with the particulate matter standard.

As a related issue, the Department recently issued an air construction permit authorizing the installation of a third cyclone as a pre-control device for Boiler 8. The additional cyclone is "dry" and will lower velocities across the existing wet cyclones to prevent water carryover into the existing ESP. The Department understands that U.S. Sugar plans to conduct additional particulate matter testing with no water to the existing wet cyclones to demonstrate compliance as "dry" cyclones. Depending on test results, U.S. Sugar may submit a subsequent request to cease continuous monitoring of the water flow rate to the wet cyclones.

Determination: In July of 2006, the Department contacted EPA Region 4 regarding the status of this request. Subsequent conversations indicate that EPA Region 4 considers this request to be a "minor change" to the NESHAP Subpart DDDDD monitoring provisions, which are handled by the states. Based on the information provided, the Department agrees with U.S. Sugar's position and authorizes U.S. Sugar to cease continuous monitoring of the pressure drop across the wet cyclones on Boiler 8. Please be advised that Permit No. PSD-FL-333B requires the following monitoring for these wet cyclones, "At least once each 8-hour work shift, the flow rate and pressure drop shall be observed and recorded in a written log." This permitting determination is issued pursuant to Chapter 403, Florida Statutes.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35,

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Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this written notice of intent. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

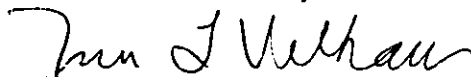
This determination is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Department.

Mediation: Mediation is not available in this proceeding.

Appeals: Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty (30) days after this order is filed with the clerk of the Department.

If you have any questions, please contact the Project Engineer, Jeff Koerner, at 850/921-9536.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

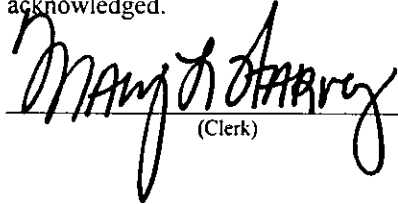
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this determination was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9/1/06 to the persons listed below.

Mr. Neil Smith, U.S. Sugar*
Mr. Don Griffin, U.S. Sugar
Mr. Peter Briggs, U.S. Sugar
Mr. David Buff, Golder Associates Inc.
Mr. Ron Blackburn, SD Office
Mr. Joydeb Majumder, EPA Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.



(Clerk)

9/1/06
(Date)

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Neil Smith, V.P. of Sugar Processing Operations
 Clewiston Sugar Mill and Refinery
 United States Sugar Corporation
 111 Ponce DeLeon Avenue
 Clewiston, Florida 33440

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee
Rachel Selha

B. Received by (Printed Name) C. Date of Delivery
Rachel Selha 9-7-6

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 If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) **7000 7670 0013 3110 1199**

**U.S. Postal Service
 CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)**

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Postage	\$	Postmark Here
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Mr. Neil Smith, V.P. of Sugar Processing Operations
 Clewiston Sugar Mill and Refinery
 United States Sugar Corporation
 111 Ponce DeLeon Avenue
 Clewiston, Florida 33440

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL USA 32653
Telephone (352) 336-5600
Fax (352) 336-6603
www.golder.com



RECEIVED

063-7563

MAY 18 2006

May 17, 2006

U.S. Environmental Protection Agency, Region 4
61 Forsythe St. SW 9th
Atlanta, GA 30303

BUREAU OF AIR REGULATION

Attention: Mr. Doug Neeley

RE: UNITED STATES SUGAR CORPORATION
CONTROL EQUIPMENT PARAMETER DELETION - PRESSURE DROP
BOILER NO. 8 WET CYCLONES

Dear Mr. Doug Neeley:

United States Sugar Corporation (U.S. Sugar) is requesting that the pressure drop operating limit for the two wet cyclone sand separators on Boiler No. 8 be revised to reflect actual operation. More specifically, U.S. Sugar is requesting to delete pressure drop as a control equipment parameter under 40 CFR 63, Subpart Db (Boiler MACT), which requires operating limits be determined for wet scrubbers.

The control equipment on Boiler No. 8 is best described as a wet cyclone sand separator and not a traditional wet scrubber. Its main function is to provide protection for downstream equipment [(i.e., inside diameter (ID) fan and electrostatic precipitator (ESP)] against erosion wear from fine sand particles contained in the bagasse fuel. Once fired in the furnace, these sand particles become entrained in the flue gas, and experience has shown that if this sand is not removed before entering the ID fan, the fan's rotating parts will be damaged due to premature erosion.

The sand-removal principle of the wet cyclones is a combination of velocity/momentum change and also water droplet/sand particle coalescing. As the gas enters the separator vessel, it passes through a water-spray section, evaporatively cools, and decreases in velocity, allowing sand to fallout.

Next, the gas changes direction and spirals upward through the vessel. Coarse abrasive ash and sand particles adhere to the periphery of the vessel, from where they are washed down to the discharge hopper. While the unit does include spray nozzles, the water spray not only 'scrubs' the sand from the gas stream, but is also used to wash the vessel out on a continuous basis (the mill uses a wet sluice system for ash handling). The primary method of sand (particulate matter) collection is gas velocity reduction and sand particle/gas momentum change within the separator vessel. The water scrubbing action is secondary to the sand collection.

Pressure drop is one indicator parameter for wet scrubbers under the Boiler MACT rule (the other parameter is water flow rate). However, this requirement is believed to be for traditional wet scrubbers (i.e., venturi, packed bed, etc.). For the wet cyclones on Boiler No. 8, the collection efficiency of particulate matter is not primarily related to pressure drop. The wet cyclones are static devices (i.e., no moving parts); therefore pressure drop is primarily a function of the flue gas flow rate through the cyclone (i.e., the velocity through the cyclone).



As a result, pressure drop varies as the steam load changes on Boiler No. 8. U.S. Sugar has found that the pressure drop is correlated with steam production (i.e., boiler load). Plots of the wet cyclone pressure drop versus boiler load for both wet cyclones are attached as Figures 1 and 2. It is also noted that U.S. Sugar has very little control, if any, over the pressure drop across the wet cyclones. This presents a problem when performance testing under the Boiler MACT rule and setting minimum pressure drop limits. The Boiler MACT testing is performed at close to maximum load, when the pressure drop across the cyclones is highest. However, under normal operation the boiler load can range from 25 percent up to 100 percent of maximum, with corresponding changes (reductions) in pressure drop. This causes deviations for the pressure drop parameter under the Boiler MACT rules.

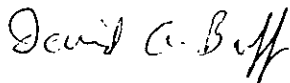
U.S. Sugar could conduct Boiler MACT performance testing over a range of load conditions and develop minimum pressure drop values as a function of load. However, the wet cyclone is designed to maintain efficiency over the range of operating loads of the boiler. Developing minimum pressure drop values as a function of load could require extensive testing, and even such testing may not reflect all conditions that may affect pressure drop (i.e., air density, relative humidity, etc.). As stated previously, U.S. Sugar has no way of controlling the pressure drop that the wet cyclones experience.

Based on the foregoing discussion, it is requested that pressure drop be deleted as a control equipment parameter under the Boiler MACT rules for the Boiler No. 8 wet cyclones. Scrubber water flow rate will continue to be monitored and subject to the requirements of the MACT rule.

If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.



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

cc: Ron Blackburn, FDEP South District
Jeff Koerner, FDEP South District
Don Griffin
Peter Briggs

Enclosures

DB/CB/all

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FIGURE 1
SCRUBBER 1 - PRESSURE DROP VS. STEAM PRODUCTION

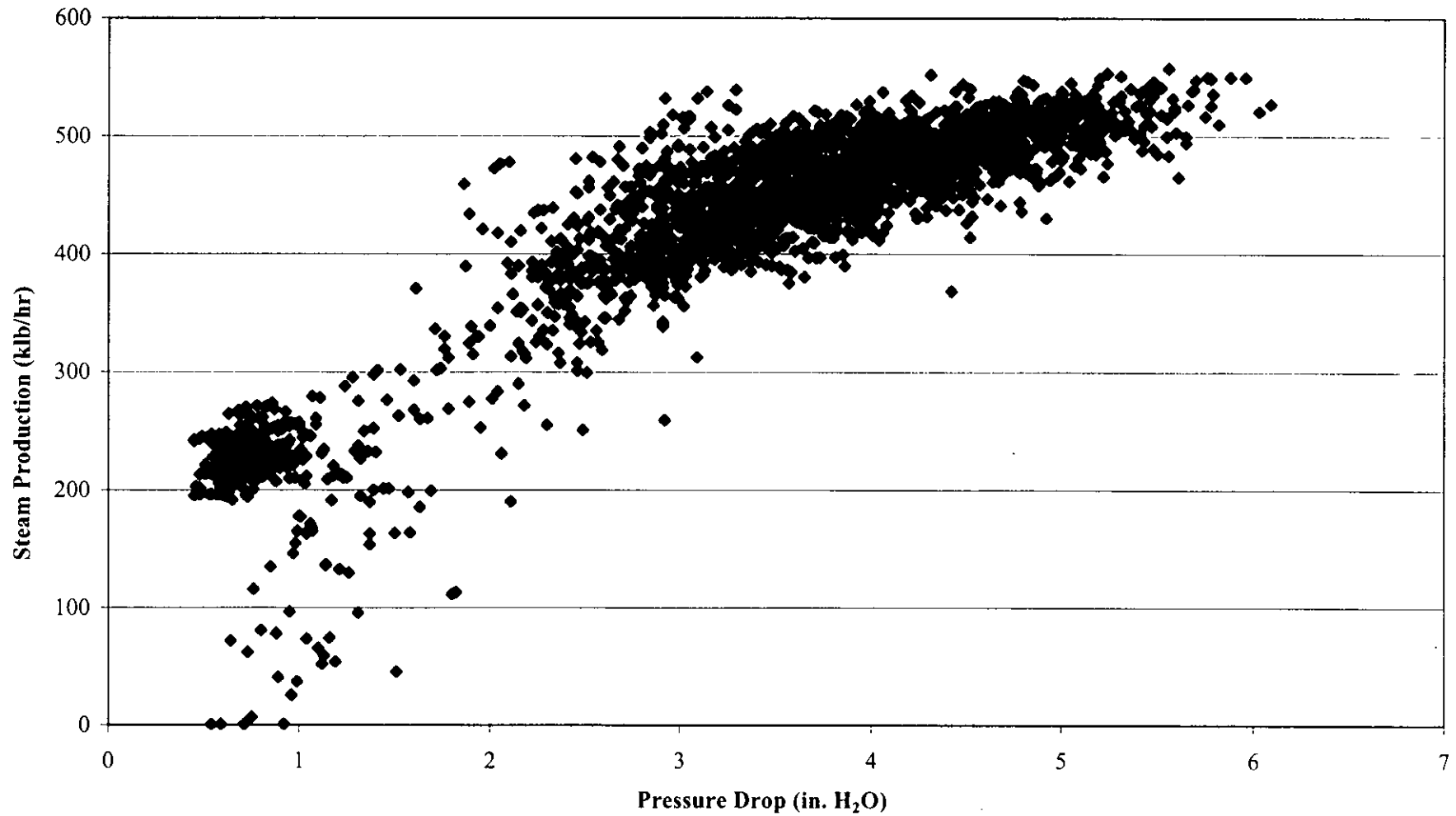


FIGURE 2
SCRUBBER 2 - PRESSURE DROP VS. STEAM PRODUCTION

