



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

4APT-ATMB

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BUREAU OF AIR REGULATION

Mr. Joseph Kahn, Director  
Division of Air Resources Management  
Florida Department of Environmental Protection  
Mail Station 5500  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Mr. Kahn:

We have received a request from U.S. Sugar Corporation for an alternative opacity monitoring procedure for Boiler No. 8 at the company's Clewiston Sugar Mill and Refinery, located in Clewiston, Florida. The boiler is subject to New Source Performance Standards (NSPS) Subpart Db - "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units." As an alternative to the use of a continuous opacity monitoring system (COMS) as required by Section 60.48b(a), U.S. Sugar proposes a procedure for monitoring the total power input to the electrostatic precipitator (ESP). Based on a review of the U.S. Sugar proposal, the Environmental Protection Agency (EPA) Region 4 approves the monitoring of total power input to the ESP as an alternative to a COMS for Boiler No. 8. The requirements of an acceptable alternative monitoring procedure are discussed in this letter.

Boiler No. 8 has a heat input capacity of 1,185 mmBtu/hr and currently fires bagasse as a primary fuel. No. 2 fuel oil with a sulfur content of 0.05 percent or less by weight is used during startup and as a supplemental fuel, with an annual capacity factor of ten percent or less. U.S. Sugar proposes an annual capacity factor of 30 percent or less while firing wood chips. Emissions from Boiler No. 8 are controlled by wet sand separators followed by an ESP. The boiler is subject to the Subpart Db standard for opacity while firing wood chips and No. 2 fuel oil, and Subpart Db requires a COMS to demonstrate compliance with the opacity standard. Boiler No. 8 is not subject to the particulate matter (PM) emission limits in Subpart Db. The boiler was constructed prior to February 28, 2005, and is therefore not subject to the PM emission limits in Section 60.43b(h). Since the maximum heat input capacity of the boiler is greater than 250 mmBtu/hr and the annual capacity factor for wood chips will be restricted to less than 30 percent, the Subpart Db PM emission limits in Section 60.43b(c) do not apply. Although the Subpart Db emission limits for PM are not applicable, the Prevention of Significant Deterioration preconstruction permit issued for Boiler No. 8 on November 21, 2003, requires compliance with a Best Available Control Technology PM emission limit of 0.025 lb/mmBtu.

Due to the high moisture content of the bagasse and wood chip fuels and the moisture from the wet sand separators, U.S. Sugar indicates that water droplets in the flue gas will interfere with reliable opacity measurements when using a COMS. Section 60.13(i)(1) allows EPA to approve alternative monitoring procedures when liquid water interference does not provide accurate measurements with a continuous monitoring system, and U.S. Sugar proposes

an alternative based on monitoring of the total power input to the ESP. To justify the alternative monitoring proposal, U.S. Sugar has referenced the provisions of 40 CFR Part 63 Subpart DDDDD – “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters” (promulgated on September 13, 2004). When wet control systems are used in combination with an ESP, Subpart DDDDD allows a parametric monitoring procedure based on monitoring the total power input to an ESP as an alternative to the use of a COMS.

EPA Region 4 approves the use of the Subpart DDDDD procedure for monitoring the total power input to the ESP for Boiler No. 8, as an alternative to a COMS. This approval includes a requirement for U.S. Sugar to demonstrate continuous compliance by following the provisions in Table 8 of Subpart DDDDD. Table 8 of Subpart DDDDD requires a facility to continuously collect secondary current and voltage or total power input monitoring system data, reduce the data to 3-hour block averages, and maintain the 3-hour average values at or above the limits established during the performance test. A similar alternative monitoring procedure was approved by EPA Region 4 on February 1, 2008, for Boiler No. 7 at the U.S. Sugar Corporation’s Clewiston Sugar Mill and Refinery.

If there are any questions regarding this letter, please contact Mr. Keith Goff of the Region 4 staff at (404)562-9137.

Sincerely,



Beverly H. Banister  
Director  
Air, Pesticides, and Toxics  
Management Division

cc: Jeffery Koerner, FDEP  
David A. Buff, Golder Associates Inc.