



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 4  
 ATLANTA FEDERAL CENTER  
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LARRY

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SEP 30 1999

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

RECEIVED

OCT 03 1999

October 4, 1999

DEPARTMENT OF AIR  
 RESOURCES MANAGEMENT

SUBJ: Bay County Resource Recovery Facility

Dear Mr. Rhodes:

This letter is in response to your request for an Environmental Protection Agency (EPA) determination of whether a proposal to derate the two existing municipal waste combustor (MWC) units at the Bay County Resource Recovery Facility (RRF) is acceptable. This proposal was submitted to EPA Region 4 and the Florida Department of Environmental Protection (DEP) on June 16, 1999, and supplemented by information on July 13, 1999. In response to our most recent correspondence, dated July 30, 1999, Bay County submitted further information on August 9, 1999, and participated in a conference call with representatives of EPA and the Florida DEP on August 11, 1999, to discuss details of the derating proposal.

To ensure national consistency, EPA Region 4 consulted with the Office of Enforcement and Compliance Assurance (OECA), the Office of General Counsel (OGC), and the EPA Office of Air Quality Planning and Standards (OAQPS) in preparing this response. Based on our review of the information submitted and the discussions held regarding the proposal, EPA has determined that the Bay County proposal to derate the combustion capacity of each of its two existing MWC units from 255 tons per day to 245 tons per day of municipal solid waste (MSW) is approved in accordance with the operating conditions and monitoring requirements outlined in this correspondence. To finalize this approval, your agency must incorporate these operational and monitoring items as enforceable permit conditions for the Bay County RRF. Derating the units will allow the facility to avoid the requirements set forth in the State of Florida's Clean Air Act (CAA) section 111(d)/129 plan for large MWC units. The Bay County RRF will remain subject to 40 C.F.R. part 60, subpart E (Standards of Performance for Incinerators) and subpart BBBB (Emission Guidelines: Small Municipal Waste Combustion Units), unless modified or reconstructed in the future.

Derated Units: Operating, Testing, and Monitoring Requirements

Bay County's proposal involves physically modifying the MWC units to permanently change the capacity of each unit to below the applicability threshold level of greater than 250 tons

per day for large MWC units. As approved, Bay County will reduce the full load flue gas flow rate and the corresponding steam flow from the units by physically modifying the forced draft (FD) fan wheel, as described in letters dated October 1, 1998, and June 1, 1999, to Bay County from the Howden Fan Company, manufacturer and vendor of the FD fan. Bay County will complete the physical change of the FD fan wheel from an existing "A" blade arrangement to a "C" blade arrangement. The revolutions per minute (rpm), static and dynamic pressures of the FD fan, and unit capacities before and after the modification will be as follows:

<u>Full Load Capacity:</u>	<u>Existing</u>	<u>Derated</u>
FD Fan Wheel - rpm	1404	1404
FD Fan Wheel - Diameter (inches)	50.75	49.38
FD Fan Wheel - Static Pressure (inches H <sub>2</sub> O)	14.25	12.80
FD Fan Wheel - Dynamic Pressure (inches H <sub>2</sub> O)	16.37	14.58
Combustion Air Flow Rate (scfm)	22,800	20,780
Steam Flow (pounds per hour)	68,000	65,333
Tons per day of MSW (at 4500 British thermal units per pound)	255	245

We have determined that the County's proposal to derate its units is acceptable based on agreement by the County to conduct a demonstration test, to monitor the units as provided below, and to the establishment of these operating and monitoring requirements as enforceable permit conditions by your agency. As approved, Bay County must achieve final compliance with all operating restrictions and monitoring requirements for the derated units by December 19, 2000 (the final compliance date of the emission guidelines and the Florida CAA section 111(d)/129 state plan).

A demonstration test will be performed to verify the hourly steam flow rate at full load and establish the maximum demonstrated MWC unit load. As approved, Bay County is required to submit a protocol for testing which includes: (1) testing occurring over a 72-hour period; (2) testing conducted in accordance with the applicable requirements of 40 C.F.R. § 60.8 (Performance tests); and (3) an opportunity for a Florida DEP and/or EPA observer to be present at the demonstration test.

Monitoring will provide assurance that the units are effectively derated. During the demonstration test and after completion of the derating, the affected units will be monitored in accordance with the following requirements:

- (1) Demonstration Test
  - (a) The maximum demonstrated MWC unit load will be the highest 24-hour rolling average MWC unit load calculated from six consecutive 4-hour block arithmetic averages demonstrated during the performance test.

- (b) This maximum MWC unit load is not to exceed 65,333 lb/hr (245 tons per day) for each unit.
  - (c) Steam flow shall not exceed an average of 66,667 lb/hr (250 tons per day) over any 4-hour block averaging period for each unit during the demonstration test.
- (2) Operational Requirements
- (a) The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in pounds per hour on a continuous basis, and record the output of the monitor.
  - (b) Steam flow shall be calculated in 24-hour rolling averaging periods, calculated from six consecutive 4-hour block arithmetic averaging periods for each unit.
  - (c) Steam flow shall not exceed an average of 65,333 lb/hr over any 24-hour rolling average period for each unit (provided the demonstrated full load steam flow rate/maximum demonstrated MWC unit load is less than or equal to 65,333 lb/hr; otherwise, the full load steam flow rate determined from the demonstration test will be used).
  - (d) Steam flow shall not exceed an average of 66,667 lb/hr over any 4-hour block arithmetic averaging period for each unit.
  - (e) The monitoring data must be maintained for periodic inspections by Florida DEP and/or EPA.
  - (f) Any 24-hour average steam flow in excess of 65,333 lb/hr for each unit (or the full load steam flow rate determined from the demonstration test) must be reported within seven calendar days to Florida DEP and EPA.
  - (g) Any 4-hour block arithmetic average steam flow in excess of 66,667 lb/hr for each unit must be reported within seven calendar days to Florida DEP and EPA.

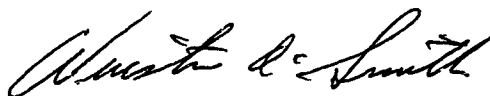
### Conclusion

A derated unit should not exceed a threshold applicability level. According to information in the Bay County proposal, the steam output level corresponding to 250 tons per day is equivalent to a steam flow of 66,667 lb/hr for each unit. Therefore, EPA maintains the position that, consistent with prior EPA determinations for derate actions, if this MWC unit exceeds

66,667 lb/hr over any 4-hour block averaging period (demonstration period or operational), the unit would no longer be considered a derated unit. Based on the information presented, and as we stated in our previous correspondence, meetings, and discussions with the Florida DEP and Bay County on the issue of derating, if the Bay County RRF exceeds the steam output level corresponding to 250 tons per day (equivalent to a steam flow of 66,667 lb/hr) after completing the proposed modification to the FD fan wheel, the facility will be required to be in compliance with all applicable federal and state MWC requirements for large MWC units on schedule. Section 129 of the CAA and the federal MWC regulations, as well as the approved Florida section 111(d)/129 plan, require all large MWC units to be in compliance with all applicable requirements or close by December 19, 2000.

If you have any questions regarding this approval, please contact Mr. Scott Davis of the EPA Region 4 staff at (404) 562-9127. Due to litigation filed by Bay County against EPA (Petition for Review dated July 2, 1999, Case No. 99-12083-I, and Petition for Review dated September 28, 1999), if any representative of Bay County or the Bay County RRF has any questions or comments concerning this correspondence, he or she must contact Mr. Joshua Levin of the United States Department of Justice at (202) 514-4198 or Ms. Michiko Kono of the Office of Regional Counsel at (404) 562-9558.

Sincerely,



Winston A. Smith  
Director  
Air, Pesticides and Toxics  
Management Division

cc: James M. Leddy, Plant Manager  
Bay County RRF  
Zofia Kosim, OECA  
Walt Stevenson, OAQPS  
Rick Vetter, OGC  
Joshua Levin, DOJ  
Charles Perry, Hunton & Williams  
Nevin A. Zimmerman, Burke & Blue