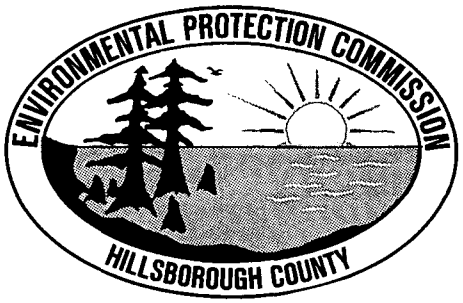

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-file-

October 25, 2001

Scott Sheplak. P.E.
Florida Department of Environmental Protection
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, FL 32399

RE: F.J. Gannon Station Byproduct Beneficiation and Re-use
Reference Permit No. 0570040-014-AV
DEP File No. 0570040-016-AC

Dear Mr. Sheplak:

The staff of the Environmental Protection Commission of Hillsborough County (EPC) has completed the review of the above referenced TECO Gannon Facility project. On October 2, 2001 the EPC received TECO's permit application to combust the byproduct materials such as the flyash and the coal slag that is generated at the Gannon Station. Potential fugitive PM and PM10 emissions were calculated for the material handling, however, information was not provided about the combustion process. After reviewing this application, the following are EPC staff's concerns that relate to this project:

1. In accordance with Permit No. 0570040-014-AV, TECO is only allowed to use coal as its primary fuel. However, Specific Condition G.6. and H.6. state that "All fly ash will be directed to the silo, no re-injection of fly ash to the boiler system will occur during the tests." In order to better evaluate the overall environmental effects from the combustion of these materials, TECO should provide the following information:

A) Based on current operations, what percentage of the fly ash is re-injected into the boiler system(s) on an hourly and annual basis? What is the estimated percentage of byproduct to be burned on an hourly basis?
B) Characterization/Composite analysis of the flyash and the coal slag that will be introduced into their furnaces.
C) What are the potential emissions increase that will result from this combustion process for pollutants listed in the Rule 62-212, Table 212.400-2?

2. The following questions relate to the material handling operations:

   A) The PM/PM10 emissions calculations were based on AP-42 Chapter 13.2. EPC staff noted that the silt content and moisture content were not in the range of the allowable source conditions for the equation(s). As such, the quality rating should be lowered at least one quality rating and the emissions estimates should be adjusted accordingly (Reference "Using the AP-42 Data Base for Making Exclusionary Rule Applicability Determinations" by Eric Noble 3/2/95).

   B) In the emissions calculations, TECO used a control efficiency of 99% for water spray. As noted in AP-42 Appendix B-2, the maximum control efficiency for dust suppression by water sprays for particle sizes 6-10μm is 90%. In addition, the US Department of Energy, "Technical Guide to Estimating Fugitive Dust Impacts from Coal Handling Operations", Table 4-3 list a maximum control efficiency of 90% for micron droplet water spray systems. The EPC staff believes that it is more appropriate to use the 90% control efficiency listed in AP-42 and the DOE document, since the equation used to estimate emission is from AP-42. In addition, the 99% control efficiency used in the application is not appropriate. Its use would imply that the control efficiency of a water spray system is equivalent to that of a high efficiency wet scrubber (Reference AP-42 Appendix B-2). If the emissions are adjusted using the 90% control efficiency, then PM emissions from the project would exceed 200 tpy and PM10 emissions would exceed of 100 tpy, and the project would be subject to PSD.

   C) Per the process description on page 1-2, it states that a "front in loader will place the screened material on the portable conveyor". After screening if the material is placed on a "new" pile prior to conveyor, then this transfer point needs to be included in Table 1 and 2 for emissions estimates.

D) In the application, TECO states that the material will be sufficiency wet. What measures will be employed by TECO to keep the material wet during handling and storage? . Is the 5% moisture content used in the emission estimate before or after the application of water? If the 5% moisture content is after the application of water, then the 90% control efficiency estimate used in the application is not appropriate since it is double counting the water spray controls.

E) As listed on page 1-3, TECO states that emissions from the slag loading/unloading operations were negligible. Similar to the flyash handling, EPC believes that there are emissions associated with the slag handling. What are the emissions estimates and assumptions taken for the slag handling?

3. How does TECO plan to demonstrate compliance with Rules 62-212.300(1) and 62-212.400(1), F.A.C.?

EPC staff will like to thank you for your consideration of our questions on this project. If you have any questions please feel free to contact Diana M. Lee, P.E. at (813)272-5530.

Sincerely,

Alice H. Harman, P.E.
Chief, Air Permitting Section

dml