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BUREAU OF AIR REGULATION

December 10, 2003

Mr. David Lloyd
Environmental Scientist
Air Enforcement Section
U.S. Environmental Protection Agency, Region IV
61 Forsyth Street, S.E.
Atlanta, Georgia 30303

Via FedEx
Airbill No. 7904 9476 0669

Re: Tampa Electric Company
Big Bend Station
Consent Decree - Civil Action No. 99-2524 CIV-T-23F
Request for Additional Information
Additional NO_x Reduction Projects - Separated Over-Fired Air (SOFA) and Low NO_x Burner (LNB) Technologies

Dear Mr. Lloyd:

This purpose of this correspondence is to provide a formal response and follow up to our December 8, 2003, electronic mail communication to your request for additional information on the Separate Over Fired Air (SOFA) and Low Nitrogen Oxide (NOx) Burner (LNB) projects for Big Bend Unit 4.

Tampa Electric is seeking approval of the SOFA/LNB projects under Consent Decree Paragraph 52.C.(1)(ii) to allow the costs associated with these projects to apply toward the requirements of Consent Decree Paragraph 50. Currently, Tampa Electric has approximately $2.5 million in expenditures remaining to satisfy the requirements of Paragraph 50.

On November 11, 2003, TEC sent correspondence to you outlining the status, the SOFA/LNB performance expectations, and a cost benefit analysis for the SOFA/LNB versus SCR over compliance projects at Big Bend Station. On December 4, 2003, you discussed additional questions you had related to the assumptions used in our analysis with Laura Crouch. This response attempts to answer these questions.

The gross heat rate (Btu/kW), heat input (mmbtu/hr and mmbtu/year) and capacity factor (%) assumptions are based on projected annual averages which incorporate historical data. The SOFA/LNB and SCR levelized costs have a recovery period of 20 years based upon equipment life assumptions used in TEC's financial models. The levelized cost calculation incorporates capital costs, annual operations and maintenance (O&M) costs, interest rates and other associated costs over the 20-year life of the project and brings the total project cost back to present value to allow for consistent comparison between various projects.

To further compare the SOFA/LNB and SCR projects, it should be recognized that the apparent benefits of the SCR over compliance project will not be seen indefinitely, but only until the expenditure requirements of Consent Decree Paragraph 50 are met. For the SOFA/LNB projects, the emission benefits will occur for 3.5 years, which is the time between installation and operation of the SOFA/LNB equipment and the operation of the SCR. The cost of the SOFA/LNB projects is $4 million which over complies with Consent Decree Paragraph 50. For the SCR over compliance project, emissions benefits will occur for 26 years, which was determined by dividing the remaining required expenditures by the SCR over compliance levelized cost.

Based on this information, the following comparison shows that the SOFA/LNB projects will result in a greater overall NO_x emission reduction versus the SCR over compliance project:

SOFA/LNB Projects
3.5 (years) * 987 NOx Reductions (tons/year) = 3,454.5 NO_x Reductions (tons)

SCR Over Compliance Project
($2.5 Million/$96,564) = 26 years

26 (years) * 123 NO_x Reductions (tons/year) = 3,184 NO_x Reductions (tons)

If you have further questions, please feel free to contact me at 641-5033.

Sincerely,

Shelly Castro

Shelly Castro
Associate Engineer
Environmental, Health & Safety

EA/bmr/SSC171

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