

December 28, 2005

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EUREAU OF AIR REGULATION

Via FedEx Airbill No. 7913 2053 4955

Mr. Tom Cascio, Florida Department of **Environmental Protection** 111 South Magnolia Drive, Suite 4 Tallahassee, FL 32301

Tampa Electric Company Re: **Big Bend Station Consent Decree** Civil Action No. 99-2524 CIV-T-23F Air Construction Permit Application for Unit 1 Selective Catalytic Reduction (SCR) Project

0570039-1124-AC

Dear Mr. Cascio,

Tampa Electric Company (TEC) requests an air construction permit to install a selective catalytic reduction (SCR) system for nitrogen oxides (NO_x) control on its Big Bend Station Unit 1 coalfired boiler. TEC entered into the agreements with the Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP) concerning the installation of additional air pollution control systems at Big Bend Station. These agreements (EPA Consent Decree and FDEP Consent Final Judgment) included requirements to install additional air pollution control systems for NO_x control on Unit 1. In response to these requirements, TEC determined that the installation of low NO_x burners (LNB) and an SCR system are the technologies to be utilized to reduce the NO_x emissions on Big Bend Unit 1 to satisfy the requirements of the agreements.

Additionally, TEC reviewed the impacts with the operation of the SCR, associated combustion controls and associated systems (sulfur trioxide control) to determine the affects on the coal combustion byproducts and found that the fly ash would have limited marketability due to high ammonia content and carbon content. Therefore, a large portion of the fly ash could potentially need to be disposed of in a landfill. TEC researched this issue and found that several other companies mitigate the SCR impacts on fly ash by using carbon burnout (CBO) technology to reduce the carbon content. TEC has evaluated this technology and determined it to be feasible at Big Bend Station. A separate air construction permit for the CBO technology was submitted.

As stated in a letter sent to the FDEP dated April 4, 2003 and as mentioned in the meeting between TEC and FDEP on May 31, 2005, TEC reviewed the effects of installing the future NO_x P. O. BOX 111 TAMPA, FL 33601-0111

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control and SO₃ control systems and determined that there is a potential for increase in particulate matter (PM) and opacity. Therefore, a request for higher permit limits may be submitted in the future.

Please find the enclosed air construction permit application for Big Bend Station's Unit 1 SCR.

TEC appreciates the cooperation of the Department in this matter. If you have any questions or comments, please contact Shelly Castro or me at (813) 228-4408.

Sincerely,

Byron T. Burrows

Manager - Air Programs

Environmental, Health & Safety

EHS/rlk/SSC

Enclosure

c/enc: Ms. Alice Harman, EPCHC

Mr. Jason Waters, FDEP SW

Med for

Mr. David Lloyd, EPA

Mr. Scott Sheplak, FDEP

Ms. Trina Vielhauer, FDEP

Mr. Sterlin Woodard, EPCHC