



TAMPA ELECTRIC

June 3, 2005

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

RECEIVED

JUN 13 2005

BUREAU OF AIR REGULATION

Via FedEx  
Airbill No. 7922 9890 5641

**Re: Tampa Electric Company  
Big Bend Station  
Consent Decree  
Civil Action No. 99-2524 CIV-T-23F  
Air Construction Permit Application for  
Unit 3 Selective Catalytic Reduction (SCR) Project**  
*0570039-022-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<sub>x</sub>) control on its Big Bend Station Unit 3 coal-fired 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<sub>x</sub> control on Unit 3. In response to these requirements, TEC determined that the installation of low NO<sub>x</sub> burners (LNB) and an SCR system are the technologies to be utilized to reduce the NO<sub>x</sub> emissions on Big Bend Unit 3 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 will be 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<sub>x</sub>

TAMPA ELECTRIC COMPANY  
P. O. BOX 111 TAMPA, FL 33601-0111

(813) 228-4111

AN EQUAL OPPORTUNITY COMPANY  
HTTP://WWW.TAMPAELECTRIC.COM

CUSTOMER SERVICE:  
HILLSBOROUGH COUNTY (813) 223-0800  
OUTSIDE HILLSBOROUGH COUNTY 1 (888) 223-0800

Mr. Tom Cascio  
June 3, 2005  
Page 2 of 2

control and SO<sub>3</sub> 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 3 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/rk/SSC222

Enclosure

c/enc: Ms. Alice Harman, EPCHC  
Mr. Jerry Kissel, FDEP SW  
Mr. David Lloyd, EPA  
Mr. Scott Sheplak, FDEP  
Ms. Trina Vielhauer, FDEP  
Mr. Sterlin Woodard, EPCHC