LAKELAND ELECTRIC

Farzie Shelton, ChE; REM
Associate GM Technical Support

FEDEX OVERNIGHT

April 26, 2010

Mr. Jeff Koerner, P.E.
Bureau of Air Regulation
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJECT: **Selective Catalytic Reduction System Construction Permit #1050004-019-AC**
C.D. McIntosh, Jr. Power Plant – facility ID #1050004; E.U. 006
Sulfuric Acid Mist PSD Analysis

Dear Mr. Koerner:

On August 31, 2007, Lakeland Electric (Lakeland) received the above referenced construction permit to install an ammonia injection system using the principle of selective catalytic reduction (SCR) on Unit 3 (E.U. 006) in order to provide Lakeland full flexibility in complying with the federal cap and trade program for nitrogen oxides (NO_x) under the Clean Air Interstate Rule (CAIR). Specific Condition 15 of the above referenced construction permit requires Lakeland to perform emissions testing to determine sulfuric acid mist (SAM) emissions under varying operating conditions. This test data would then be utilized to assist Lakeland in adjusting the sorbent injection quantity to maintain SAM emissions at or below a seven (7) ton per year emission increase in excess of Unit 3's baseline SAM emissions. The baseline actual emission of SAM was identified as 136 tons per year based on the 24-month period from calendar years 2001 and 2002 as reported in the Annual Operating Report (AOR).

In compliance with the permit, emission testing on Unit 3 was conducted from February 1 through February 10, 2010. Stack test results from this period were submitted to the Department on March 26, 2010 and the additional emissions testing data for the other process locations (e.g., pre- and post-SCR) are included with this cover letter. Messrs. Ken Kosky and Sal Mohammad of Golder Associates assisted Lakeland Electric in determining PSD applicability regarding future actual emissions calculations for SAM emissions from Unit 3. A review of the stack test results demonstrate that at nominal load with coal being burned and with the sorbent injection system off, Unit 3 will experience an approximate 94-98% reduction in SAM emissions from the baseline actual emissions (see Table 3). Messrs. Kosky and Mohammad, using a linear relationship, calculated that even if Unit 3's fuel sulfur content was increased to 3.4% sulfur content by weight, Unit 3's emissions without sorbent injection would still be approximately 40-52% less than the baseline actual emissions (see Table 4). These test results show similar reductions in SAM emissions as experienced during the interim SAM tests conducted in December 2009 and submitted to the Department in January 2010 which also demonstrated reductions in SAM emissions.

The installation of the sorbent injection system was to prevent SAM emissions in excess of the PSD significant threshold (7 tons per year) and test results demonstrate that even in the absence of sorbent injection

there is a further reduction from the baseline in SAM emissions with the installation of the SCR. Since the installation and operation of the SCR does not trigger PSD for SAM, Lakeland wishes to remove the sorbent injection system from Unit 3. Accordingly, Lakeland is requesting that the Department remove all requirements and permit conditions associated with the sorbent injection system from the Unit 3 above referenced permit since the sorbent injection system has been very maintenance intensive, costly, and may affect the operational reliability of Lakeland's system. Furthermore in all honesty, Lakeland cannot reasonably expect its customers to shoulder the cost for a system which is not required to prevent a PSD significant threshold increase.

As always Lakeland appreciate your cooperation in this matter. Please feel free to contact me at your earliest convenience.

Sincerely,

Farzie Shelton

Enclosure: Golder Baseline Review (K. Kosky/S. Mohammad); S.A.M. Test Report