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DIVISION OF AIR RESOURCE MANAGEMENT

April 24, 2013

Mr. Jeff Koerner, P.E.
Program Administrator
Office of Permitting and Compliance
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road (MS #5505)
Tallahassee, Florida 32301

Via FedEx Airbill No. 7995-9875-9947

Re: Tampa Electric Company - Polk Power Station High-Temperature Syngas Cleanup/Carbon Capture and Sequestration Demonstration Project Air Construction Permit No. 10500233-027-AC Notification of Project Design Change

Dear Mr. Koerner:

The Department issued Air Permit No. 1050233-027-AC on November 17, 2011 authorizing the installation and initial operation of a pre-commercial scale demonstration high temperature syngas cleanup (HTSC) system at the Tampa Electric Company (TEC) Polk Power Station (PPS) Integrated Gasification Combined Cycle (IGCC) facility. The demonstration project, which has received Department of Energy funding, also includes an integrated carbon dioxide capture (CO2) system. Air Permit No. 1050233-027-AC was administratively corrected by the Department to remove references to CO₂ sequestration – reference Project No. 1050233-033-AC dated on September 26, 2012.

Further design review of the pre-commercial scale demonstration HTSC system has resulted in a change with respect to disposition of the high-temperature desulfurization process (HTDP) regenerator stream during startups. The August 2011 air construction permit application indicated that after ignition of the ULSD fuel oil is confirmed, the addition of excess air will be reduced and the HTDP regenerator offgas will be routed to the existing PPS flare for the remainder of the startup cycle. Due to moisture present in the HTDP regenerator offgas, routing this offgas to the existing PPS flare could result in corrosion of the flare piping system. For this reason, during startups the HTDP regenerator offgas, containing primarily nitrogen and some SO₂ due to partial oxidation of sulfur that is present on the regenerator sorbent, will be vented through a 150 foot stack rather than through the PPS flare (which also has a height of 150 feet). This notification is provided as a courtesy since TEC does not believe that this minor design change requires a revision to Air Permit No. 1050233-027-AC.

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

(813) 228-41**1**1

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Please contact me at (813) 228-4858 or by email at <u>plcarpinone@tecoenergy.com</u> or Lyndsey Baldyga at (813) 228-4740 if there are any questions regarding this notification.

Sincerely,

Paul Carpinone, P.E.

Director, Environmental, Health &

Safety

Tampa Electric Company

EHS/iym/LMB128

cc: Cindy Mulkey,

Program Administrator (w/enc) FDEP Siting Coordination Office