



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

November 25, 2009

*Electronically Sent – Received Receipt Requested*

Mr. Tom Trickey, Plant Manager  
City of Lakeland, Department of Electric Utilities  
3030 East Lake Parker Drive  
Lakeland, Florida 33805

Re: Project No. 1050004-027-AC  
City of Lakeland, C.D. McIntosh, Jr. Power Plant, Unit 3  
Installation of Selective Catalytic Reduction (SCR) and Sorbent Injection Systems  
Revised Authorization for Initial Sulfuric Acid Mist (SAM) Testing

Dear Mr. Trickey:

On November 6, 2009, the Department issued a letter of authorization to conduct initial SAM testing for existing Unit 3. Subsequently, the City of Lakeland provided additional information regarding the vendor recommendations for sorbent injection. Based on the information provided, the Department revises the initial letter of authorization as follows.

1. The permittee shall conduct at least two, 1-hour test runs at each of the following operating scenarios to determine SAM emissions.

Scenario	Load	Sorbent Injection
1A	100% load	Off
<b>1B</b>	<b>100% load</b>	<b>ON</b>
2A	88% load	Off
<b>2B</b>	<b>88% load</b>	<b>ON</b>
3A	69% load	Off
<b>3B</b>	<b>69% load</b>	<b>ON</b>

The operator shall use best efforts to obtain and maintain the approximate target unit load throughout the test run for each operating scenario.

2. All test runs shall be conducted while injecting ammonia for the control of nitrogen oxides (NO<sub>x</sub>).
3. The sorbent injection rate used for each operating scenario shall be determined by the equipment vendor.
4. For each SAM test run the operator shall:
  - a. Record the ammonia injection rate;
  - b. Record the sorbent injection rate;

- c. Determine the fuel firing rate and heat input rate;
  - d. Use the stack CEMS to determine controlled NO<sub>x</sub> and SO<sub>2</sub> emissions; and
  - e. Attempt to sample uncontrolled SO<sub>2</sub> emissions before the flue gas desulfurization system. If unable to gather meaningful uncontrolled SO<sub>2</sub> data for these initial tests, the permittee shall determine the uncontrolled SO<sub>2</sub> emissions by actual fuel flow and sulfur content.
5. Appropriate reference test methods shall be used to determine SAM and SO<sub>2</sub> emissions as necessary for the given operating conditions.
  6. At a minimum, the permittee shall submit a test report within 45 days of completing the initial performance tests to include the following information for each SAM test run: the load; the heat input rate; the test method with any variations noted; the fuel blend fired and the average sulfur content; the actual sorbent injection rate; the controlled SO<sub>2</sub> emissions rate as determined by the CEMS; the uncontrolled SO<sub>2</sub> emissions rate as determined by stack test (if not available, then as determined by fuel flow and sulfur content); the ammonia injection rate for NO<sub>x</sub> control by the SCR; the controlled NO<sub>x</sub> emissions rate as determined by CEMS; the stack opacity as determined by the continuous opacity monitoring system (COMS). The report shall discuss the relative influence of operating parameters and how the sorbent injection rate will be adjusted for differing operating scenarios.
  7. Until the test results are known, the permittee shall continue to operate the sorbent injection system based on the sorbent injection rate recommended by the equipment vendor. Once the test results are known, the permittee may begin to operate the sorbent injection system based on the performance indicated by the data collected during the initial tests such that SAM emissions increases from the project will be less than 7 tons/year. The permittee shall identify and monitor the operating conditions that would result in an adjustment of the sorbent injection rate.
  8. The Department requires additional performance tests to satisfy the requirements of Condition 15. Within 60 days of conducting this initial round of performance tests, the permittee shall propose a new schedule and revised test protocol for conducting the originally proposed tests including the determination of the SAM conversion rate across the SCR catalyst.

The Department will clarify the revised testing and reporting requirements in the pending request for an extension of Permit No. 1050004-019-AC.

Nothing in this action waves any federal requirements of the applicable New Source Performance Standards (NSPS) for this unit.

The Department will consider the above-noted action final unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, of the Florida Statutes (F.S.). Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, MS #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this notice. Petitions filed by any other person must be filed within 14 days of receipt of this proposed action. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.



## Letter of Authorization - Revised

---

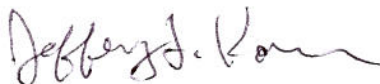

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by the filing of a Notice of Appeal, under Rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty days from the date this notice is filed with the Clerk of the permitting authority.

Executed in Tallahassee, Florida.

  
For  Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/jfk

## Letter of Authorization - Revised

---

### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this authorization was sent by electronic mail (or a link to this document was made available electronically on a publicly accessible server) with received receipt requested before the close of business on 11/25/09 to the persons listed below.

Mr. Tom Trickey, Lakeland Electric (tom.trickey@lakelandelectric.com)  
Ms. Farzie Shelton, Lakeland Electric (farzie.shelton@lakelandelectric.com)  
Mr. Bret Galbraith, Lakeland Electric (bret.galbraith@lakelandelectric.com)  
Mr. Bill Schroeder, DEP Southwest District (bill.schroeder@dep.state.fl.us)  
Ms. Cindy Zhang-Torres, DEP Southwest District (cindy.zhang-torres@dep.state.fl.us)  
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date,  
pursuant to §120.52(7), Florida Statutes, with the designated  
Department Clerk, receipt of which is hereby acknowledged.

  
(Clerk)

11/25/09  
(Date)