



Progress Energy

Robby A. Odom
Plant Manager
Crystal River Fossil Plant & Fuel Operations

July 7, 2011

VIA CERTIFIED MAIL

Ms. Danielle Henry
FL DEP Air Resource Management
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

RECEIVED

JUL 12 2011

**BUREAU OF
AIR REGULATION**

Re: Submittal of "Substitute Coal" Sulfuric Acid Mist Test Report

Florida Power Corporation d/b/a Progress Energy Florida, Inc.
Crystal River Power Plant
Crystal River, Citrus County, Florida
Air Permit No. 0170004-025-AV

Dear Ms. Henry:

Per the requirements of Title V Permit No. 0170004-025-AV, specifically Section III.B.15.b.(1), please find enclosed the report for the additional sulfuric acid mist (SAM) testing conducted at Crystal River Unit 5. This testing was required to be conducted prior to March 18, 2012, without the acid mist mitigation (AMM) system in service and while the unit was firing lower sulfur "substitute coal", as described in the permit condition.

In an effort to minimize the effects of potential residual ammonia build-up in the flue gas ductwork and treatment systems due to historical operation of the ammonia based AMM system, the testing was conducted following the re-start of the unit after an extended outage and several days of normal operation of the unit while firing the "substitute coal", all without the AMM system in service. Based on the test results obtained, it appears that Units 4 and 5 are able to comply with the SAM emissions permitted limit while firing the tested "substitute coal". Section III.B.15.b.(4) of the permit defines the calculation required to determine the maximum percent sulfur of the "substitute coal" allowed to be fired that demonstrates compliance with the permitted SAM emissions limit while the AMM system is out-of-service. This calculation is based on the sulfur content of the tested "substitute coal" (0.94 %), the SAM emissions value obtained from the stack testing (0.00006 lbs/MMBtu) and the permitted SAM emissions value (0.009 lbs/MMBtu).

Completing the defined calculation provides a result that states that the allowed sulfur content of the "substitute coal" that demonstrates compliance with the permitted SAM emissions limit is 141 percent by weight.

Progress Energy Florida, Inc.
Crystal River Steam Plant
15760 W Powerline St
Crystal River, FL 34428

*Joe A - CD
inches*

Submittal of "Substitute Coal" Sulfuric Acid Mist Test Report

Unit 5

Florida Power Corporation d/b/a Progress Energy Florida, Inc.

Crystal River Power Plant

Crystal River, Citrus County, Florida

Air Permit No. 0170004-026-AC

Based on the above, there is an apparent level of concern with the obtained result. It may be possible that the effects of residual ammonia contained in the system have impacted the test results, despite the efforts to eliminate this situation. Additional evaluations of the possible effects of residual ammonia in the system, as well as other possible reasons that may affect the results of the SAM emissions testing are ongoing. Based on the outcome of the continuing investigations, additional testing to confirm compliance with the SAM emissions limit while firing "substitute coal" and the AMM system out-of-service may be warranted.

If you have any questions concerning the contents of this submittal, please contact Mr. Jamie Hunter of Progress Energy Florida at (727) 820-5764.

Sincerely,



For Rob Odom

Robby A. Odom

Plant Manager, Crystal River Fossil Plant & Fuel Operations

Enclosure (CD)

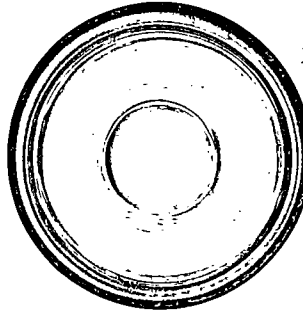
cc: Mr. Jeff Koerner – FL DEP Tallahassee Office
Mr. Bill Schroder – FL DEP Tampa Office



Progress Energy

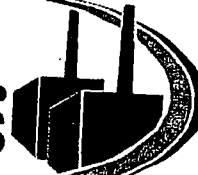
Progress Energy Florida, Inc.
Crystal River EnergyComplex
Unit 5 (EU -003)

Substitute Coal
Sulfuric Acid
Mist Test Report
20-4718-05-001



Test Completed:
May 24,
2011

C.E.M.
SOLUTIONS



Joe A

RECEIVED

JUL 12 2011

BUREAU OF
AIR REGULATION

*Save for
public record*