FINAL DETERMINATION

PERMITTEE

Progress Energy Florida
299 First Avenue North, CN77
St. Petersburg, FL 33701

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Bureau of Air Regulation, New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Air Permit No. 0170004-026-AC
Air Construction Permit (PSD-FL-383D)
Crystal River Power Plant

This project authorizes miscellaneous revisions to original Permit No. PSD-FL-383 for the ongoing air pollution control project being installed on Units 4 and 5. Specifically, the permit authorizes the following:

- The temporary installation and operation of a demonstration injection system at Units 4 and 5 using alternative sorbents to evaluate additional methods for reducing SAM emissions;
- Establish a temporary opacity limit effective during the alternative sorbent trials;
- Temporary trials of several fuel additives to evaluate each for anti-slagging properties, which may enhance boiler operation as well as reduce the initial conversion of fuel sulfur to SAM; and
- Revise the current 3.13% maximum coal sulfur specification to an equivalent of 5.5 lb SO_2/million British thermal units (MMBtu).

NOTICE AND PUBLICATION

The Department distributed a draft air construction permit package on April 26, 2011. The applicant published the Public Notice in the Citrus County Chronicle on April 28, 2011. The Department received the proof of publication on May 9, 2011.

COMMENTS

No comments on the Draft Permit were received from the public or the EPA Region 4 Office. On May 11, 2011, the Department received comments from the applicant. The following summarizes the comments and the Department's response.

1. *Comment*: The term "AAM" was used multiple times throughout the permit. The term needs to be replaced with "AMM" representing Acid Mist Mitigation.

   Response: The Department agrees and will correct the typographical errors.

2. *Comment*: In Section 3.G. Condition 3 – As a point of clarification, the anti-fouling (Breen) probes may only be installed on one unit (either Unit 4 or 5) as a means of evaluating the alternative sorbents and establishing an operating protocol that will be used to operate both Units 4 and 5. Clarifying language, such as "on at least one of the units" may need to be added to the end of the first sentence in this condition (or other clarifying language elsewhere in the conditions).

   Response: The Department agrees and revised the first sentence in this condition to read "The permittee shall install, operate and maintain anti-fouling probes (e.g., Breen probes or equivalent) on at least one unit

designed to measure conduction across the probe surface resulting from condensed hydrated bisulfate (ammonia bisulfate and sulfuric acid)."

3. *Comment*: In Section 3.G. Condition 16 – Please clarify as necessary, the intent that this condition applies to both Units 4 and 5's ability to request temporary continued use of an alternative sorbent under an established operating protocol that demonstrates compliance (based on the evaluation of either Unit 4 or Unit 5).

   Response: The Department agrees and revised the second sentence in this condition to read "The request shall include the supporting data and the performance curves, which shall be based on SAM emissions performance test data conducted for a given alternative sorbent and set of operating conditions <u>for Units 4 and/or 5</u>."

CONCLUSION

The final action of the Department is to issue the permit with the minor changes, corrections and clarifications as described above.