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April 10, 2006

BUREAU OF AIR REGULATION

Mr. Richard A. Banks FDEP-Northeast District 7825 Baymeadows Way, Suite B200 Jacksonville, FL 32256

Dear Mr. Banks:

This letter is written as a response to your recent email inquiry concerning the excess opacity associated with the Seminole Generating Station Unit 2 startup on March 23, 2006. The response will follow the questions posed in your email:

**FDEP Question 1**: What events took place?

Seminole Response:

During this 2006 spring outage Seminole performed a controls upgrade to the Unit 2 furnace and boiler controls. This new control system replaced technology that was over 20 years old, with a state-of-the-art Distributive Controls System (DCS). The new system will allow greater control over the many processes required to fire the furnace and control the boiler which will improve safety and operational efficiency.

As an initial phase of the startup, the new DCS required testing to insure proper operation once the unit was returned to service. A portion of this testing involved firing the ignition oil system which required that 36 burners (18 pairs) be individually tested to insure that each area of control and all safety systems were operating properly. This testing took place intermittently from March 22-25, 2006 and can be verified by the attached Table indicating specific times. Also, note that there was no operating load during these test periods.

FDEP Question 2: What best engineering practices were followed?

Seminole Response:

Seminole follows written procedures for startup / shutdown and plant operation based on environmental and safety requirements and the equipment manufacturer's recommended guidelines. The startup / shutdown and scrubber operating procedures are attached to the Title V Air Operating Permit No. 1070025-002-AV. The Electrostatic Precipitator (ESP) Startup Procedure (No. SS-EO-28RO, attached) based on Hammon Research-Cottrell

recommendations, was followed. The procedure requires that the ESP not be energized until boiler exhaust gas in the ESP reaches 225 degrees F and the O2 is at an acceptable safe level. This procedure must be followed for prevention of fire and explosion as energizing transformer rectifiers prematurely would likely induce sparking and could lead to fire and / or explosion. Due to their type of application, ESP's do not have fire protection systems within, therefore fire and explosion are controlled through prevention by strictly following safety procedures.

**FDEP Question 3**: What control devices were operated, and when?

Seminole Response:

The scrubber modules were placed in service on March 22, 2006 before the burner tests. This FGD System was operated according to the above referenced procedures.

When only oil is being fired, as during these recent startup tests, the ESP would have minimal if any control over "oil" opacity and as stated above, it cannot be safely energized until temperature and O2 levels are acceptable. These acceptable levels cannot be reached on oil alone but they are achieved once coal is fired. The ESP was operated according to the procedure referenced above and was energized on March 25, 2006.

**FDEP Question 4**: What made this startup different from others?

Seminole Response:

This startup involved testing of a new controls system that replaced one which operated for over 20 years. Once in 20 years is a rare event and Seminole may not have a similar startup for many years to come. However, if we do, the Department will be notified in advance.

Please be assured that Seminole operates all facilities according to Best Engineering Practices (based on environmental, safety, and the equipment manufacturing recommendations) and makes every effort to minimize excess emissions during startup. If you have any further questions or require additional information please contact me at (813) 739-1224 or email at wmroddy@seminole-electric.com.

Sincerely

Mike Roddy

Senior Environmental Engineer

## cc: <u>FDEP</u>

- C. Kirts-Jax
- J. Gay-Jax
- T. Vielhauer- Tall.
- H. Oven- Tall.
- M. Halpin- Tall.

## **SEMINOLE**

- M. Opalinski- Tampa
- J. Frauen- Tampa
- B. Shiver- SGS
- K. Thompson- SGS