

Scearce, Lynn

From: Hunter, John J (Jamie) [John.Hunter@pgnmail.com]
Sent: Tuesday, August 30, 2011 12:30 PM
To: Koerner, Jeff
Subject: RE: Crystal River SAM Testing

Jeff,

The letter authorization attached to your email below was designed to allow Unit 5 to operate for a limited time without that unit's AMM (ammonia based operation) system in operation in an attempt to establish a baseline SAM emissions level under current operating conditions. As you may know, that effort was not considered successful as the results of the SAM testing conducted during that time still showed levels lower than what was expected for baseline conditions.

The new request is not directly related to the above referenced request. As you know, PEF has been conducting a temporary demonstration project to evaluate non-ammonia based sorbent materials (i.e., hydrated lime) per the authorization recently established in Air Permit PSD-FL-383D (Project No. 017004-026-AC). This demonstration project is currently being conducted at Unit 4. The ammonia based AMM system operation has been temporarily replaced with the use of the hydrated lime injection system. Subsequent stack testing for SAM at varying hydrated lime injection rates, including a one-hour test run with no hydrated lime injection, all showed that SAM emissions levels at the stack are very low (0.0010 – 0.0015 lb/MMBtu). While interference from ammonia previously injected from the AMM system is not expected to be of concern during this round of testing (due to the length of time since ammonia injection ceased, as well as a significant decrease in the ammonia level found in the fly ash), there may be some residual effect of ammonia slip from the SCR system and/or the hydrated lime itself during the zero-flow hydrated lime stack test run.

In order to accurately evaluate the effects of the hydrated lime injection during the trial demonstration period, it will be necessary to establish a true baseline SAM emission level. It is anticipated that a period of up to two weeks without any add-on acid mist controls (ammonia or hydrated lime) may be necessary to re-establish an accurate SAM baseline under current operational conditions. Section 3.G.6. of the above referenced permit allows for "short-term SAM excursions that may occur while evaluating given sorbent injection modes during the demonstration period". PEF is requesting that the preceding use of "short-term" be defined to allow for up to two weeks without acid mist controls in operation (to establish the new baseline), or that separate additional authorization be provided to allow for the necessary operation to establish the new baseline SAM emissions level.

Once stack testing has established on new baseline SAM emissions level, incremental levels of hydrated lime injection will be evaluated until compliance with the SAM limit is achieved.

Thanks for your consideration of this request. Please let me know if additional information is required.

Jamie Hunter
Lead Environmental Specialist
Progress Energy Florida
Phone: (727) 820-5764
Cell: (727) 409-5829
John.Hunter@PGNmail.com

From: Koerner, Jeff [<mailto:Jeff.Koerner@dep.state.fl.us>]
Sent: Monday, August 29, 2011 10:32 AM
To: Hunter, John J (Jamie)
Subject: Crystal River SAM Testing

Jamie,

Attached is the last letter we gave you regarding SAM testing and authorization to turn temporarily turn-off the AMM system to clear residual ammonia.

Let me know if you need something additional.

Jeff

Jeffery F. Koerner, Program Administrator

Office of Permitting and Compliance

Division of Air Resource Management

Florida Department of Environmental Protection

Phone: 850-717-9083 / Fax: 850-717-9001

Email: Jeff.Koerner@dep.state.fl.us

Web: <http://www.dep.state.fl.us/air/>

Please take a few minutes to share your comments on the service you received from the department by clicking on this link [DEP Customer Survey](#).