

21 West Church Street
Jacksonville, Florida 32202-3139

October 12, 2005

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Mr. Jeffrey F. Koerner, P.E.
Program Administrator
Permitting North
Bureau of Air Regulation
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

ELECTRIC

WATER

RE: Northside Generating Station/St. Johns River Power Park
Project Nos. 0310045-015-AC/PSD-FL-265 and 0310045-016-AV

SEWER

Dear Mr. Koerner:

This purpose of this letter is to request a revision to the conditions related to Northside Units 1 and 2 circulating fluidized bed (CFB) boilers in the above referenced permits. These are state-of-the-art, low-emitting, clean coal technology units and are the largest CFBs in the world.

Currently, Northside Units 1 and 2 CFBs are permitted to allow 2 hours of excess emissions for shut and malfunction. Statistical analyses have revealed that during shut down or in the event of a malfunction resulting in a loss of limestone feed to these units the inertia associated with the large mass of bed material (typically on the order of 300 tons) results in a longer response time than a traditional solid fuel unit.

We request that the permit language pertaining to allowable excess emissions resulting from malfunction and shut down be revised as summarized below. The basis for the conclusion that this permit revision is necessary was presented to EQD staff during a meeting on June 8th and, subsequently, to DEP permitting personnel in Tallahassee on June 17th. As always, best operating practices will be adhered to at all times and excess emissions will be minimized. The suggested language changes to specific condition 26 on page 11 of permit 0310045-015-015-AC and specific conditions H.19 and H.21 on page 63 of permit 0310045-016-AV are as follows:

Specific condition H.19 of 0310045-011-AV:

From: "Excess emission resulting from startup, shutdown or malfunction of any

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emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration [Rule 62-210.700(1), F.A.C.]”

To: “Excess emission resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized. All excess emissions resulting from a documented malfunction shall be excluded when calculating 24-hour and 30-day SO₂ averages for permit compliance.” [Rule 62-210.700(1), F.A.C.]

Specific Condition 26 of PSD-FL-265 and Specific Condition H.21 of 0310045-011-AV

From: “Authorized Emissions. Notwithstanding other emission limits and standards established by this permit, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized but in no case exceed twelve (12) hours in any 24-hour period for a startup on CFB Boilers Nos. 1 and 2 (which shall not be started up at the same time) or two (2) hours in any 24-hour period for other reasons unless specifically authorized by DEP or RESD for longer duration. The permittee shall submit a written procedure summarizing the current best operational practices to be followed and the anticipated emissions for startup and shutdown conditions within one year after initial startup of CFB Boiler No. 2, and shall update this document every 5 years (at operating permit renewal). The twelve (12) hours duration of excess emissions may be reduced through a permit revision based on the operating experience on CFB Boilers Nos. 1 and 2. [Rule 62-210.700 FAC; and, 0310045-003-AC/PSD-FL-265.]”

To: “Authorized Emissions. Notwithstanding other emission limits and standards established by this permit, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized but in no case exceed twelve (12) hours in any 24-hour period for a startup or shut down on CFB Boilers Nos. 1 and 2 (which shall not be started up at the same time). All excess emissions resulting from a documented malfunction shall be excluded when calculating 24-hour and 30-day SO₂ averages for permit compliance. For every emissions exceedance resulting from malfunction of two hours or longer in duration, the following information will be

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submitted to the appropriate enforcement authority in writing (such as email) within one business day of correcting the malfunction: hourly data (CEM data) showing the extent and duration of excess emissions, pertinent information as to the cause of the problem, and action taken to minimize excess emissions and correct the malfunction. In addition, for every emissions exceedance resulting from malfunction of two hours or longer in duration, the following information, certified by the R.O., will be submitted to the appropriate enforcement authority in writing within ten (10) business days of correcting the malfunction: hourly data (CEM data) showing the extent and duration of excess emissions, pertinent information as to the cause of the problem, action taken to minimize excess emissions and correct the malfunction, steps being taken to prevent recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. The permittee shall submit a written procedure summarizing the current best operational practices to be followed and the anticipated emissions for startup and shutdown conditions within one year after initial startup of CFB Boiler No. 2, and shall update this document every 5 years (at operating permit renewal). The twelve (12) hours duration of excess emissions may be reduced through a permit revision based on the operating experience on CFB boilers Nos. 1 and 2. [Rule 62-210.700 FAC; and, 0310045-003-AC/PSD-FL-265.]”

The frequency of CFB malfunctions and related excursions has been reduced significantly since these units were commissioned. In conjunction with the major capital investments made to date (approximately \$58M), operating experience with these scaled up CFBs improves daily and every effort is being made to minimize upsets. Overall these units have contributed measurably to improved air quality in our area while providing the necessary power for a growing community.

If you have any questions, please call Bert Gianazza at (904) 665-6247.

Sincerely,



James M. Chansler, P.E., D.P.A.
Responsible Official
Vice President, Operations and Maintenance

cc: Bruce Mitchell, FDEP
Mike Halpin, P.E., FDEP
Steve Pace, P.E., RESD