

Mitchell, Bruce

From: Galler, Wayne J. [WJGALLER@GAPAC.com]
Sent: Friday, April 04, 2008 2:06 PM
To: Mitchell, Bruce
Cc: Koerner, Jeff; Curtis, Michael; Reynolds, Ron E.
Subject: Comments on Proposed Emission Rates for No. 4 Combination Boiler at Georgia-Pacific Consumer Operations LLC-Palatka, FL Mill

Bruce-below are Georgia-Pacific's (GP) comments regarding the proposed permit limits for the No.4 Combination Boiler when it is burning bark and/or No. 6 Fuel Oil. These comments reflect the telephone conversation that Ron Reynolds and I held with you Thursday morning:

Carbon Monoxide-GP proposed an emission rate of 0.5 lb/MM Btu in its July 2006 PSD permit application during all fuel firing scenarios. FL DEP agrees with GP's proposed emission rate and will make it a condition in the draft permit for the No. 4 Combination Boiler.

Nitrogen Oxides-GP proposed an emission rate of 0.27 lb/MM Btu when burning 100% No. 6 fuel oil and 0.24 lb/MM Btu when burning 100% bark/wood in its July 2006 PSD permit application. FL DEP agrees with GP's proposed emission rate for 100% No. 6 fuel oil firing and will make it a condition in the draft permit for the No. 4 Combination Boiler. FL DEP has proposed to lower GP's emission rate for 100% bark/wood from 0.24 lb/MM Btu to 0.22 lb/MM Btu. Since the Palatka Mill has very limited test data operating the boiler with 100% bark/wood firing, we request the state to allow the Mill to perform further testing in the boiler while burning 100% bark/wood to determine if the boiler can reliably meet the proposed limit of 0.22 lb/MM Btu. The testing is scheduled for April 8, 2008 and test results should be available within a day or two of the end of the testing. At that time, GP will provide the state with a summary of the test results. If the boiler is able to operate on 100% bark/wood and comply with the 0.22 lb/MM Btu value, with an adequate margin (10% or more) of safety, then GP will agree to meet a NOx emission rate of 0.22 lb/MM Btu when firing 100% bark/wood. If the boiler cannot meet the 0.22 lb/MM Btu value, then GP will request the state to set the NOx emission limit at a value that the boiler can meet plus a 10% safety margin up to the originally proposed level of 0.24 lb/MM Btu.

Particulate Matter-GP proposed an emission rate of 0.04 lb/MM Btu in its July 2006 PSD permit application during all fuel firing scenarios. FL DEP has proposed to lower GP's emission rate from 0.04 lb/MM Btu (22.6 lb/hr) to 0.03 lb/MM Btu (16.9 lb/hr). As you are aware, GP plans to utilize the ESP from the No. 5 Power Boiler in combination with the existing ESP for the No. 4 Combination Boiler in order to improve the overall collection efficiency of the No. 4 Combination Boiler once it has been modified to burn more bark than it is presently capable of burning. GP does not believe that the lower emission rate is appropriate in this case for the following reasons:

Both chambers of the ESPs consist of 3 fields each with dimensions of 11.25 ft long x 41 ft tall, and as such, the aspect ratio (Length/Height) is 0.82 $((11.25 \times 3) / 41 = 0.82)$. The ESPs were designed this way in order to fit into the space available between the existing powerhouse and the existing bark bin when they were installed in 1986. A new ESP similar to the ones in service would be designed with an aspect ratio of not less than 1.0 and more likely between the range of 1.0 - 1.2. An emission rate equivalent to 0.03 lb/MM Btu calculates to be approximately 0.006 grains/acfm. ESP vendors will not generally guarantee outlet loadings below 0.005 for new ESPs that are designed to be "state-of-the-art" control devices. In this regard, FL DEP is asking GP to meet an emission limit close to that for a new, "state-of-the-art" ESP with two existing ESPs that are more than 20 years old. GP cannot be assured that it can reliably operate the two ESPs in such a manner that will be able to meet the proposed emission rate of 0.03 lb/MM Btu on a continuous basis.

For the reasons discussed above, GP requests FL DEP to reconsider its proposal for the particulate matter emission rate for the No. 4 Combination Boiler when it is burning bark/wood and or No. 6 fuel oil.

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