



Palatka Pulp and Paper Operations
Consumer Products Division
P.O. Box 919
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February 9, 2011

Mr. Jeffrey Koerner, PE
Permitting North Administrator
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED
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BUREAU OF
AIR REGULATION

Re: No. 4 Combination Boiler Replacement of No. 6 Fuel Oil-Fired Burners with Natural Gas-Fired Burners – Proposed Replacement of Superheater Section Tubes and Project Greenhouse Gas Emissions

Dear Mr. Koerner:

The Georgia-Pacific Consumer Operations LLC pulp and paper mill in Palatka, Florida (Palatka Mill) submitted a permit application on January 7, 2011 outlining the Palatka Mill's plans to replace the No. 6 fuel oil-fired burners in the No. 4 Combination Boiler with natural gas-fired burners. This replacement will allow the Palatka Mill to meet the requirements of its Best Available Retrofit Technology exemption, previously authorized under Permit No. PSD-FL-393.

Since the time of the submittal, the Palatka Mill has determined that twenty-eight (28) pendants (continuous tube sections) in the secondary superheater section of the boiler must be replaced in order to withstand the higher temperatures associated with burning natural gas in the boiler. The higher temperatures result from natural gas burning with less radiant heat release than No. 6 fuel oil. These higher temperatures, in turn, result in more convective heat reaching the superheater section of the boiler. The secondary superheater section of the boiler experiences the hottest steam temperatures within the boiler. If these 28 pendants are not replaced, the boiler must be derated from a steam capacity of 300,000 pounds per hour (lbs/hr) to 266,000 lbs/hr in order to assure the safe operation of the boiler. The replacement pendants will consist of approximately 4,370 square feet (surface area) of SA213T11 steel tubing (with chromium for high temperature resistance). This amount of surface area represents approximately one-half of the heating surface area in the secondary superheater section of the boiler, or approximately 10% of the total heating surface area for the entire boiler. By replacing these 28 pendants, the No. 4 Combination Boiler will be able to reliably maintain its design steaming capacity of 300,000 lbs/hr and burn natural gas without any safety-related issues due to overheating the secondary superheater section. The replacement of these pendants will not affect the actual or potential emissions generated by the No. 4 Combination Boiler, and thus all of the emissions analyses contained in the

January 7, 2011 application remain unchanged. The Palatka Mill requests incorporation of the pendant replacements into the January 7, 2011 application.

The Palatka Mill is also addressing the greenhouse gas (GHG) emission changes associated with the No. 4 Combination Boiler BART exemption supplemental fuel burner replacement project in accordance with the Environmental Protection Agency's (EPA's) Tailoring Rule. Step 1 of the Tailoring Rule is effective from January 2, 2011 through June 30, 2011 and requires only those sources or projects already triggering permitting under the Prevention of Significant Deterioration (PSD) program to evaluate GHG emissions for permitting. For those projects that do not trigger PSD permitting for any criteria pollutants during Step 1 (*i.e.*, minor New Source Review [NSR] projects), a permit must be issued and actual construction must begin prior to July 1, 2011 in order to avoid having to reanalyze GHG emissions during Step 2 of the Tailoring Rule, which begins July 1, 2011. Step 2 of the Tailoring Rule requires that GHG emissions associated with each project be evaluated for PSD applicability regardless of the level of criteria pollutant emission increases. In both Step 1 and Step 2 of the Tailoring Rule, GHG emission increases are compared to a significant emission rate (SER) of 75,000 tons of carbon dioxide equivalents (CO₂e). Additionally, total mass-based GHG emission increases must also be greater than zero to trigger PSD permitting for GHGs. While this project does not trigger PSD permitting for any criteria pollutants and the issuance of a minor NSR permit will likely occur before July 1, 2011, construction of the project is not expected to begin until the fourth quarter of 2011. Therefore, the Palatka Mill has analyzed GHG emissions changes associated with the project, as described below.

Baseline actual GHG emissions for the No. 4 Combination Boiler were determined for the baseline period of 2002 – 2003 using the annual No. 6 fuel oil and bark usage rates provided in the January 7, 2011 permit application and the GHG emission factors set forth in EPA's Mandatory Reporting Rule for GHGs (GHG MRR). Specifically, GHG emissions were estimated both on an individual GHG basis (*i.e.*, emissions of carbon dioxide [CO₂], methane [CH₄], and nitrous oxide [N₂O]) as well as in terms of total CO₂e. Projected actual emissions were determined for bark and natural gas using the projected actual usage rates described in the January 7, 2011 permit application and emission factors from EPA's GHG MRR. These calculations demonstrate that the portion of GHG emissions from the No. 4 Combination Boiler attributable to fossil fuel combustion is expected to decrease on account of the switch from No. 6 fuel oil to natural gas.

EPA has recently announced a deferral of permitting requirements for biogenic CO₂ emissions for at least three years. This deferral is expected to be finalized by July 1, 2011, well before construction of the proposed BART project will begin. Therefore, biogenic CO₂ emissions associated with bark combustion are excluded from the analysis. Future projected actual usage of bark is greater than the baseline actual bark usage, as presented in the January 7, 2011, permit application, due to Georgia-Pacific's conservative estimates of future bark usage which are entirely unrelated to the proposed BART (gas conversion) project. In addition, the resulting CH₄ and N₂O emissions increases from bark combustion are not considered to be biogenic emissions,

Mr. Jeffrey Koerner, PE
February 9, 2011

Page 3

but would still be less than 300 tons of CO₂e per year, which is much less than the PSD SER of 75,000 tons of CO₂e per year.

In summary, because the switch from No. 6 fuel oil to natural gas will result in a decrease in GHG emissions attributable to the fossil fuel component of the boiler's fuel supply, the proposed project will not trigger PSD permitting requirements for GHGs in either Step 1 or Step 2 of EPA's Tailoring Rule, and thus no permit is required for GHG emissions.

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If you have any questions regarding the proposed superheater pendant material replacement or the GHG emissions analysis, please contact Ron Reynolds at (386) 329-0967.

Sincerely,



Gary L. Frost  
Vice President - Palatka Operations

cc: Jeremy Alexander, Georgia-Pacific (Palatka, Florida)  
Ron Reynolds, Georgia-Pacific (Palatka, Florida)  
Wayne J. Galler, Georgia-Pacific (Atlanta, Georgia)  
Melissa Antoine, Georgia-Pacific (Atlanta, Georgia)