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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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APR 13 2009

AIR PROTECTION BRANCH

April 9, 2009

Mr. James Capp, Chief
Air Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
4244 International Parkway, Suite 120
Atlanta, Georgia 30354

Dear Mr. Capp:

Thank you for sending the preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for Yellow Pine Energy Company, LLC to be located in Fort Gaines, (Clay County) Georgia. The applicant proposes to construct and operate a 110 MW biomass-fired power plant. The new facility will include one circulating fluidized bed (CFB) boiler, steam turbine generator, auxiliary boiler, mechanical draft cooling towers, and other ancillary equipment. Additionally, the PSD permit includes provisions to allow the facility to conduct a 30-day trial burn co-firing up to 15% (on a heat input basis) of 95% metal-free tire-derived fuel (TDF). The proposed project is subject to PSD review for the following pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter (PM, PM₁₀, and PM_{2.5}), sulfur dioxide (SO₂), sulfuric acid mist (SAM), volatile organic compounds (VOC), and lead (Pb).

EPA appreciates the analyses performed by the Georgia Department of Natural Resources, which supplemented those supplied by the applicant. While we concur with many of your comments made to the applicant, we specifically agree with the inclusion of regenerative selective catalytic reduction and catalytic oxidation as technically feasible control options that were included in the best available control technology (BACT) analyses for the boiler's NO_x and CO emissions, respectively. Based on our review of the preliminary determination, draft PSD permit, and supplemental information provided by the applicant and the department, we have the following comments:

General Comments:

- 1. Cooling Tower limits** - It does not appear that sufficient information has been provided to set a BACT emission limit for PM emissions from the mechanical draft cooling tower. We concur with the conclusion that drift eliminators are the most effective method of controlling PM emissions from cooling towers; however, BACT by definition is an emission limitation. Only in situations where it is infeasible to set an emission limitation is a work practice/design standard set as BACT instead. Since this is not the case for drift eliminators controlling PM emissions from cooling towers, sufficient information should

be provided by the applicant and an emission limit set before the final PSD permit is issued.

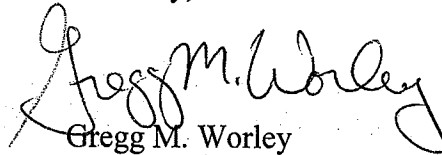
2. **Section 4.0 (page 27)** – It is unclear why the preliminary determination makes the statement “...for each delivery of TDF to verify the metal content is at or below 95 percent.” It is our understanding that the metal content of the TDF should be at or below 5%, not 95%. Please verify this assumption and correct the preliminary determination as necessary.

Permit Specific Comments:

1. **Condition 2.5** – It is our understanding that the boiler will not operate less than 80% load, except during periods of startup and shutdown. However, according to this permit condition, the minimum operational load is 80MW. Based on the maximum operating load of 110MW, this is 72.7% of the load. 80% of the maximum load is 88 MW. This discrepancy should be corrected along with any underlying analyses, if necessary.
2. **Condition 2.8 & 2.10** – Based on the public notice language and the summary of the project on the first page of the permit, it is our understanding that only low sulfur distillate fuel or propane (*i.e.*, no biomass or TDF) will be fired in the boiler during periods of startup and shutdown. Based on the two permit conditions referenced above, the boiler seems to be able to fire only an exact mixture of 15% fuel oil/propane and 85% biomass during startup and shutdown conditions. Please provide information regarding the intended operation of the boiler during startup and shutdown conditions. We recommend clarifying the preliminary determination and the PSD permit conditions to reflect the emissions scenario used in the applicability, BACT, and air quality analyses of the permit application.
3. **Condition 2.23** – The condition limits the auxiliary boiler to no more than 250 hours per calendar year. Since operational limits are normally based on a rolling 12-month basis, please provide an explanation for the calendar year basis.
4. **Condition 5.5** – Use of the phrase “each of the fluidized bed boiler...” implies there is more than one boiler being constructed at the facility. For clarity, we recommend this be corrected in the final permit.

If you have any questions regarding these comments or need additional information, please feel free to contact Katy Forney at 404-562-9130.

Sincerely,



Gregg M. Worley

Chief

Air Permits Section