Georgia Department of Natural Resources
Environmental Protection Division • Air Protection Branch
4244 International Parkway • Suite 120 • Atlanta • Georgia 30354
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Noel Holcomb, Commissioner
Carol A. Couch, Ph.D., Director

December 18, 2007

Mr. Mark S. Sajer
Managing Director
Summit Energy Partners, LLC
99 Summit Avenue, Suite 2C
Summit, New Jersey 07901

Re: PSD Application No. 17700 dated September 27, 2007
Yellow Pine Energy Company, LLC (Yellow Pine) Fort Gaines, Georgia (Clay County)

Dear Mr. Sajer:

Technical review of the above referenced application for the construction and operation of a 110-megawatt (MW) power plant has begun. As a result, the Division has the following comments:

1. The application indicates that limestone will be injected into the fluidized bed boiler(s) when firing any fuel other than biomass and that sand will be injected when firing biomass only. However, the application does not provide any proposed monitoring and/or record keeping ensuring compliance with such operational flexibility.

2. Emission calculations indicate that the *California Air Toxics Emission Factors Search Result – Coke in Fluidized Bed Combustor* was used to estimate potential emissions resulting from the combustion of petroleum coke (Pet Coke). A review of the emission factors obtained from this information indicates that Yellow Pine used the *Mean Emission Factor* provided. Yellow Pine must conservatively estimate potential emissions, and therefore should recalculate emissions resulting from the combustion of Pet Coke using the *Maximum Emission Factors* available.

3. Yellow Pine Energy used AP-42 information to estimate cooling tower emissions and drift removal efficiency. AP-42 is not suitable for portraying the characteristics of current cooling tower designs. Yellow Pine should use project-specific data such as drift elimination guarantees/specifications provided by the vendor.

4. One Best Achievable Control Technology (BACT) option that should be evaluated is restricting the project to use of biomass fuel only. Since the project is apparently designed for 100% biomass as well as for use of fuel blends, the option of restricting the project just to biomass would not be a re-design of the project and would therefore be an appropriate BACT option.

5. Particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), which will be emitted from this facility, is a regulated New Source Review (NSR) pollutant with a National Ambient Air Quality Standard (NAAQS). In accordance with Appendix S of 40 CFR 51.166, all particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) may be assumed to be $PM_{2.5}$. Yellow Pine must amend its application to explicitly quantify $PM_{2.5}$ (even if this quantity is equal to PM_{10} emissions), to explicitly describe how compliance with NAAQS for $PM_{2.5}$ is a comparison of modeling results of PM_{10} evaluated against the PM_{10} NAAQS, and to explicitly state whether this method of evaluation shows compliance with the PM_{10} and thus the $PM_{2.5}$ standard, and why.

6. On April 2, 2007, the U.S. Supreme Court issued its decision in *Commonwealth of Massachusetts v. EPA*. In this decision, the court ordered EPA to reconsider its conclusion that it should not regulate greenhouse gases from new motor vehicles. Yellow Pine should address greenhouse gas emissions resulting from the project and how it proposes to curtail them and their potential environmental impact.

7. Yellow Pine must finalize the number of fluidized boilers that will be included in the final design for this project. A review of Yellow Pine's top-down BACT analysis cannot be performed at this time for the fluidized boiler(s) until this issue is resolved. In addition, modeling at various operating loads for the multi-fuel boiler(s) cannot be completed until the total number of boilers and their respective sizes are determined.

8. This application does not address the potential applicability of any of the following regulations to this facility:

   - *40 CFR Part 60 Subpart Eb—Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996*:
     This facility has processes/equipment potentially applicable to this regulation.

   - *40 CFR Part 60 Subpart AAAA—Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001*:
     This facility has processes/equipment potentially applicable to this regulation.

   - *40 CFR Part 60 Subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001*:
     This facility has processes/equipment potentially applicable to this regulation.

   - *40 CFR Part 63 Subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations*:
     This facility has processes/equipment potentially applicable to this regulation.

   Yellow Pine must address the potential applicability of each of these regulations to the proposed facility.

The Division requests a response to these comments within thirty (30) business days following receipt of this letter. If you have any questions or need more information, please contact me at (404) 362-2700 or via email at tyneshia_tate@dnr.state.ga.us.

Sincerely,

Tyneshia Tate
Environmental Engineer
Stationary Source Permitting Program

cc: Peter Courtney
Ronald Vaughn, P.E. CH2M Hill