

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

I. GENERAL INFORMATION

A. APPLICANT

Evergreen Paper and Energy, LLC
111 Riverside Ave.
Jacksonville, FL 32202

Draft Permit No: 0310537-001-AC
County: Duval

B. PROJECT

The applicant, Evergreen Paper and Energy, LLC, applied on November 18, 2005, to the Department for a permit to construct a bubbling fluidized bed boiler to generate steam, which will run an electrical generator capable of generating approximately 18 megawatts of power. Evergreen Paper and Energy, LLC is located at 4300 Talleyrand Ave., Jacksonville, FL 32202. The facility emits criteria and hazardous air pollutants.

II. RULE APPLICABILITY

The facility is located in an area unclassifiable for the air pollutant particulate matter less than or equal to ten (10) micrometers, in the area of influence of an air quality maintenance area for particulate matter, and in an air quality maintenance area for ozone pursuant to Chapter 62-204, Florida Administrative Code (FAC), and Jacksonville Environmental Protection Board (JEPB), Rule 2.201.

The facility is a major source of air pollution because the potential emissions of regulated criteria air pollutants are greater than 100 tons per year. The facility is classified as major for Hazardous Air Pollutants (HAP) since the potential emissions of Hazardous Air Pollutants (HAP) are equal to or greater than 10 tons per year for a single HAP in accordance with Rule 62-210, FAC, and JEPB Rule 2.301. Potential emissions are less than 25 tons per year for total HAPs.

Prevention of Significant Deterioration (PSD) requirements do not apply since the facility is classified as a minor emitting facility for PSD purposes (i.e., potential to emit any one pollutant is less than 250 tons per year). Annual capacity factor restrictions have been requested in order to maintain the potential to emit criteria pollutants below 250 TPY.

The bubbling bed boiler is subject to Reasonably Available Control Technology (RACT) requirements including **Specific RACT Emission Limiting Standards for Stationary Emissions Units** [Rule 62-296.700(3), FAC, and Rule 2.1001, JEPB]; **Maximum Allowable Emission Rates** [Rule 62-296.700(4), FAC, and Rule 2.1001, JEPB]; **Circumvention** [Rule 62-296.700(5), FAC, and Rule 2.1001, JEPB], and **Operation and Maintenance Plan** [Rule 62-296.700(6), FAC, and Rule 2.1001, JEPB].

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The bubbling bed boiler is subject to 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units and 40 CFR 60, Subpart A, General Provisions.

The bubbling bed boiler is not subject to 40 CFR 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 exemption is in accordance with 40 CFR 60.50b(e) which exempts small qualifying power production facilities.

The bubbling bed boiler is subject to 40 CFR, Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, and 40 CFR Part 63, Subpart A, General Conditions.

The flyash and sand material handling operations are subject to RACT requirements in Rule 62-296.711, FAC, and Rule 2.1001, JEPB.

Miscellaneous material handling operations including truck dumping of bark/wood, front end loader movement, hogger operations, and conveyor transfer points are subject to RACT and are subject to the VE standard.

III. TECHNICAL EVALUATION

The bubbling bed boiler is a bubbling fluidized bed boiler with a design heat input rate of 302 MMBtu per hour. The boiler will fire No. 2 distillate fuel oil and/or natural gas as startup fuel and for additional heat input as necessary. Primary fuels will be yard waste and clean wood/bark. The annual capacity factor for No. 2 distillate fuel oil and natural gas (combined) is 10%. The annual capacity factor for all fuels is 62%. By restricting the No. 2 distillate fuel oil and natural gas usage the permittee escapes numerous provisions of the NSPS for this boiler including oxides of nitrogen restrictions. By restricting the overall fuel usage the permittee escapes being classified as major for PSD purposes.

No. 2 distillate fuel oil sulfur content is restricted by rule to 0.5% by weight. The applicant proposes to combust only 0.05% No. 2 distillate fuel oil. Records (fuel receipts) are required to be maintained to verify the No. 2 distillate fuel oil sulfur content does not exceed 0.05% by weight.

The most restrictive PM standard currently applicable is 0.10 lbs per MMBtu. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 5, 5B, or 17 (as described in 40 CFR 60, Appendix A), for the determination of the PM emissions rate. The method chosen shall comply with the procedures and protocol described in 40 CFR 60.46(b)(d). The method chosen shall be used for the life of the permit.

hour. The most restrictive VE standard is 20% opacity continuous and 27% opacity for six minutes per hour. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. The procedures in 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system. Span values shall be in accordance with 40 CFR 60.48(e)(1).

the The 40 CFR, Part 63, Subpart DDDDD, compliance date is September 13, 2007. Compliance with emission limiting standards of this subpart shall be demonstrated by September 13, 2007 or startup, whichever is later. Compliance with notification requirements as referenced in 40 CFR 63.7545

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may be required at an earlier date.

The flyash and sand material handling operations are subject to RACT and are subject to a PM standard of 0.03 gr/dscf and a VE standard of 5% opacity.

Miscellaneous material handling operations including truck dumping of bark/wood, front end loader movement, hogger operations, and conveyor transfer points are subject to RACT and are subject to the VE standard of 5% opacity.

All notifications, reports, testing, and other information shall be submitted to the permitting authority.

IV. CONCLUSION

Based upon information provided by the Evergreen Paper and Energy, LLC, the Department has reasonable assurance that the proposed installation of the bubbling bed boiler and appurtenances at the Evergreen Paper and Energy, LLC facility, as described in this evaluation and subject to the conditions proposed herein, will not cause, or contribute to a violation of any ambient air quality standard or other technical provision of Chapters 62-296 and 62-297, FAC, JEPB Rules 2.1001 and 2.1101.