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Georgia-Pacific Consumer Operations, LLC
Post Office Box 919
Palatka, Florida 32178

Authorized Representative:
Gary L. Frost, Vice-President Operations

Air Permit No. 1070005-080-AC
Permit Expires: January 1, 2015
Minor Air Construction Permit

Palatka Mill
No. 4 Recovery Boiler Conversion of Oil Burners to Natural Gas Burners

PROJECT

This is the final air construction permit, which authorizes the removal of the existing oil burners and the installation of new burners and associated equipment that will allow the No. 4 Recovery Boiler to burn natural gas instead of fuel oil during startup, shutdown and as a supplemental fuel. The proposed work will be conducted at the existing Palatka Mill, which is a Kraft pulp and paper mill categorized under Standard Industrial Classification Nos. 2611 and 2621. The existing facility is located in Putnam County at 215 County Road 216 in Palatka, Florida. The UTM coordinates are Zone 17, 434.0 kilometers (km) East, and 3283.4 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Executed in Tallahassee, Florida

David L. Read, P.E.
2013.06.11
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for Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Mr. Gary L. Frost, Vice-President, Georgia-Pacific Consumer Operations, (gary.frost@gapac.com)
Mr. Ron Reynolds, Environmental Engineer, Georgia-Pacific Consumer Operations, (ron.reynolds@gapac.com)
Mr. Philip D. Cobb, P.E., Golder Associates, (pcobb@golder.com)
Ms. Merrilee L. Palcic, Northeast District Office, (merrilee.l.palcic@dep.state.fl.us)
Ms. Kathleen Forney, EPA Region 4, (forney.kathleen@epa.gov)
Ms. Heather Ceron, US EPA Region 4, (ceron.heather@epa.gov)
Ms. Barbara Friday, DEP OPC, (barbara.friday@dep.state.fl.us)
Ms. Lynn Scearce, DEP OPC, (lynn.scearce@dep.state.fl.us)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Lynn Scearce
2013.06.11
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FACILITY DESCRIPTION

The Palatka Mill is an existing Kraft pulp and paper mill that consists of major activity areas such as: chip handling, pulping, bleaching, chemical recovery, utilities, paper machines, converting, and turpentine and tall oil production. The mill includes the No. 4 Recovery Boiler, which fires black liquor solids (BLS) as the primary fuel to facilitate the recovery of the cooking liquor. The black liquor is a by-product from the digestion of wood chips. Weak black liquor is concentrated and introduced into a special boiler known as a black liquor recovery boiler. The organic fraction is burned in stages and the energy is recovered for steam production.

PROPOSED PROJECT

The applicant is requesting to install new burners and associated equipment that will allow the No. 4 Recovery Boiler to burn natural gas instead of fuel oil as a supplemental fuel. The applicant is proposing the following changes to the boiler:

- Replace the existing residual oil load burners with burners designed to burn natural gas alone.
- Replace the existing residual oil starter burners with natural gas starter burners.
- Replace the flame scanners on all burners with class 1 igniters with flame rods.
- Install new Programmable Logic solver (PLC)-based burner management system controls.
- Install fuel trains, piping and hardware to support the addition of natural gas as a permitted fuel.

According to the applicant, the proposed project may result in an increase in the utilization of the recovery boiler due to the difference in efficiencies of burning natural gas between the No. 4 Recovery Boiler and the No. 7 Package Boiler. The conversion to natural gas is not intended to increase the overall annual steam production rate or emissions at the mill. The proposed project is scheduled to begin in July 2013 and continue through the annual outage in October 2013.

This project will modify the following emissions unit.

EU No.	Emission Unit Description
018	No. 4 Recovery Boiler

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
- The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office at: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256-7590. Phone: 904/256-1700, Fax: 904/256-1588.

3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Construction and Expiration. The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(4), 62-4.080 & 62-210.300(1), F.A.C.]

8. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

9. Application for Title V Permit: This permit authorizes physical changes to the existing permitted emissions unit No. 018 and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title

V air operation permit revision at least 90 days prior to expiration of this permit, but no later than 180 days after resuming normal operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

B. No. 4 Recovery Boiler (EU 018)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
018	No. 4 Recovery Boiler

This unit fires BLS as the primary fuel to facilitate the recovery of the cooking liquor. Natural gas is fired as a startup, shutdown and supplemental fuel. The maximum operating capacity of BLS is 210,000 pounds/hour (lb/hour) based on a 24-hour average, which is equivalent to a heat input rate of 1,345 million British thermal units/hour (MMBtu/hour) based on a fuel heating value of 6,410 Btu/lb of BLS. This is also equivalent to approximately 27,984 gallons/hour of black liquor.

Emissions of particulate matter (PM) are controlled by an electrostatic precipitator (ESP) with automatic voltage control, 2-chambers, and 6 electric fields per chamber. Total reduced sulfur (TRS) emissions are controlled by the low-odor boiler design. Emissions of nitrogen oxides (NO_X) are controlled by a four-level over-fire air system. Emissions of carbon monoxide (CO) and volatile organic compounds (VOC) are controlled by the combustion design and good operating practices. The following pollutants are monitored with continuous emissions monitoring systems (CEMS): CO, NO_X, sulfur dioxide (SO_2), and TRS. Visible emissions are monitored with a continuous opacity monitoring system (COMS).

{Permitting Note: This emissions unit is regulated under Rule 62-296.404, F.A.C. – Kraft Pulp Mills, Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit Nos. PSD-FL-171, PSD-FL-226 and PSD-FL-380; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination for the following pollutants CO, NO_X, PM, and VOC emissions, dated June 7, 1991, September 18, 1995 and May 29, 2007; and 40 CFR 63, Subpart MM- National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills.}

EQUIPMENT

1. No. 4 Recovery Boiler: The permittee is authorized to remove the existing fuel oil burners and to install natural gas startup burners, natural gas load burners, a new burner management system and associated equipment for the No. 4 Recovery Boiler in order to burn natural gas instead of fuel oil. [Design and Application]

PERFORMANCE RESTRICTIONS

2. Permitted Capacity:

   a. Black Liquor Solids: The proposed work shall not result in any increase in the permitted BLS processing rate of 210,000 lb BLS/hour on a 24-hour average (equivalent to 27,984 gallons/hour of black liquor).

   {Permitting Note: The maximum heat input from firing BLS is 1,345 MMBtu/hour based on the permitted capacity and an average heating value of 6,410 Btu/lb of BLS.}

   b. Natural Gas Burners:

      (1) The total heat input from the combustion of natural gas in the startup and load burners combined shall not exceed 664 MMBtu/hour.

      (2) The annual heat input rate to the No. 4 Recovery Boiler shall not exceed 1,178,220 MMBtu during any consecutive 12 months (equivalent to 10% of the total permitted annual heat input to the boiler).

   {Permitting Note: The average heating value of natural gas is approximately 1,000 MMBtu/million cubic feet of gas.}

[Rule 62-4.070(3); 62-210.200(PTE) and 62-212.400 (PSD), F.A.C.; Permit No. 1070005-038-AC; and Application]

3. Authorized Fuels:

   a. Black Liquor Solids is the primary fuel for the recovery process.

   b. Natural gas shall be used during startup, shutdown and as a supplemental fuel.

   [Rule 62-210.200(PTE), F.A.C.; Permit No. 1070005-038-AC; and Application]

4. Hours of Operation: The hours of operation are not limited (8,760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

TESTING REQUIREMENTS

5. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.

   a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 calendar years following the year in which resumption of regular operations after the change occurred. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.

   b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

      1) The name, address and telephone number of the owner or operator of the major stationary source;

      2) The annual emissions calculations pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;

      3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and

      4) Any other information that the owner or operator wishes to include in the report.

   c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

   d. The permittee shall compute and report annual emissions in accordance with Rule 62-210.370(2), F.A.C. as provided by Appendix C of this permit. For this project, the permittee shall use data collected from the CEMS to determine and report the actual annual emissions of NO_X for the No. 4 Recovery Boiler to show compliance with the established BACT emission limit included in the previous permit PSD-FL-380 (1070005-038-AC) and that the significant emission rate increase of 40 tons per year for NO_X with respect to the PSD program is not exceeded.

   {Permitting Note: For purposes of this project, baseline emissions of NO_X were determined to be 472.18 tons/year.}

   [Application; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]