Florida Department of Environmental Protection

Northeast District
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Jacksonville, Florida 32256-7590
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Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE:

Georgia Pacific Consumer Operations LLC
215 County Road 216
Palatka, FL 32178-0919

I.D. Number:	1070005
Permit/Cert Number:	1070005-059-AC
Date of Issue:	January 30, 2009
Expiration Date:	January 30, 2011
County:	Nassau
Latitude/Longitude:	29°41′ 0" N; 81°40'45"W
UTM:	E-(17) 434.0; N-3283.4
Project:	ULSD Blend w/BLS @ No. 4 Recovery Boiler

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-210, 62-212, 62-296, 62-297 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

PROJECT 059:

This project authorizes the continuous addition of virgin, ultra low sulfur diesel fuel (No. 2 fuel oil) into the piping that feeds black liquor into the No. 4 Recovery Boiler (Emission Unit 018), thus forming a blended fuel of black liquor and virgin, ultra low sulfur diesel to be fired by the boiler. The virgin ultra low sulfur diesel (ULSD) will have a maximum sulfur content of 15 parts per million (0.0015 percent by weight) as defined in 40 CFR 80.150(b), and be normally injected into the black liquor at a rate between 0.1% to 0.2% (by volume), but not to exceed 1% (by volume) or 280 gallons per hour (24-hour average).

The project requires the addition of pipes and valves so that the virgin ULSD can be injected into the black liquor feed line. The project also requires the installation of a storage tank for the ULSD.

The combustion of the ULSD will result in the emissions of carbon monoxide (CO), nitrogen oxides (NOx), Particulate Matter (PM), Sulfur Dioxide (SO2), Volatile Organic Compounds (VOC), as well as metals. However, the mill will reduce the maximum black liquor flow rate to the No. 4 Recovery Boiler by 4 gallons for each gallon of ULSD actually fired in the boiler to ensure that this project does not cause 1), an increase in the hourly maximum emissions rates from the Recovery Boiler, 2) an increase in facility emissions on an actual future basis above any PSD significant emissions rate; and 3) an increase in the hourly heat input to the Recovery Boiler above the current, maximum hourly rate.

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FACILITY DESCRIPTION

This facility is a Kraft pulp and paper mill that consists of major activities areas such as: chip handling, pulping, bleaching, chemical recovery, utilities, paper machines, converting, turpentine and tall oil production.

REGULATED EMISSIONS UNITS AFFECTED BY PROJECT 059:

Emission Unit	Description
018	No. 4 Recovery Boiler

REGULATORY CLASSIFICATION

The No. 4 Recovery Boiler is regulated under Rule 62-296.404, F.A.C. – Kraft Pulp Mills, Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit(s) No(s). PSD-FL-171, PSD-FL-226, PSD-FL-380, PSD-FL-380(A), PSD-FL-380(B), ; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, 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.

OPERATING LOCATION

The facility is operating at 215 County Road 216, Palatka, Putnam County, Florida.

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department:

Application for Air Permit – Long Form received December 18, 2008
Additional Information received via email on January 8, 2009
Additional Information received via email on January 10, 2009
Construction Permit No. 1070005-038-AC
Construction Permit No. 1070005-050-AC

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GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any record that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

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GENERAL CONDITIONS:

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the
Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards (NSPS)
( ) Compliance with National Emission Standards for Hazardous Air Pollutants/ Maximum Available Control Technology (MACT)

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GENERAL CONDITIONS:

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurement;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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The following specific conditions apply to the emissions unit(s) listed below:

E.U. ID No.	Brief Description
018	No. 4 Recovery Boiler is a low odor design (non-direct contact evaporator) recovery boiler. This unit fires black liquor solids (BLS) as the primary fuel to facilitate the recovery of the cooking liquor. Residual fuel oil is fired as a startup, shutdown and supplemental fuel (e.g. maintain the flame stability of the boiler) The total maximum operational rate of this emissions unit is 210,000 lbs Black Liquor Solids/hr (equivalent to 5.04×10^6 lb/day BLS). This emissions unit is capable of serving the mill with a maximum steam production rate of 789,000 lb/hour (24-hour average) for steam conditions of 850° F to 900° F at 1250 psi. Particulate matter emissions are controlled by an electrostatic precipitator (ESP) with automatic voltage control, 2-chambers, and 6 electric fields per chamber. Total reduced sulfur emissions are reduced by the low-odor design. NOX emissions are controlled by a four-level overfire air system. CO and VOC emissions are controlled by good combustion design and operating practices. CO, NOX, SO2, TRS, and opacity are continuously monitored and recorded. At permitted capacity, the exhaust gas flow rate is 294,000 dscfm at 8% oxygen with an exit temperature of 400° F. Exhaust gases exit a stack that is 12 feet in diameter and 230 feet tall.

EXISTING APPLICABLE REGULATIONS

1. Existing Permits and Regulations: This permit supplements other previously issued air permits issued for the No. 4 Recovery Boiler, which include the following applicable State and Federal Regulations:

   a. The applicable provisions for recovery boilers at Kraft Pulp Mills as specified in Rule 62-296.404, F.A.C.; and

   b. The applicable provisions for recovery boilers at Kraft Pulp Mills as specified in the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart MM and the General Provisions in Subpart A of Title 40 of the Code of Federal Regulations (CFR) Part 63.

   c. PSD Permits: Unless otherwise specified by condition in this permit, the No. 4 Recovery Boiler remains subject to the applicable requirements of Permit Nos. PSD-FL-171, PSD-FL-226, PSD-FL-380, PSD-FL-380A, PSD-FL-380B.

   [Rule 62-296.404, F.A.C.; Rule 62-212.400, F.A.C.; 40 CFR 63 Subpart A, 40 CFR 63 Subpart MM]

AUTHORIZED CHANGES BY THIS CONSTRUCTION PERMIT

2. Authorized Changes: The permittee is authorized to install additional pipes and valves in order to be able to inject the virgin Ultra Low Sulfur Diesel (ULSD) into the black liquor feed line. This permit does not authorize any physical modification of the No. 4 Recovery Boiler in order to accommodate the ULSD.

   [Rule 62-4,070, F.A.C.; Application No. 1070005-059-AC]

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

3. Authorized Fuels: The No. 4 Recovery Boiler is authorized to fire the listed fuels as specified below:

   a. Black Liquor Solids (Black Liquor at approximately 66% BLS content and 11.37 lb/gallon density) ;

   b. Ultra Low Sulfur Diesel with a maximum sulfur content not to exceed 15 ppm (0.0015 percent by weight) prior to injection into the black liquor feed line, i.e. a USLD/BLS blend;

   c. Natural Gas as a startup fuel;

   d. No. 6 Fuel Oil with a maximum sulfur content not to exceed 2.35% by weight (with or without any prior blending with on-specification used oil as stated in paragraph f. below). This fuel shall be fired as a startup, shutdown, and supplemental fuel (e.g. maintain the flame stability of the boiler);

   e. Facility generated crude tall oil blended with No. 6 fuel oil. The maximum sulfur content of the blend shall not exceed 2.35% by weight[1];

   f. Subject to the requirements of Appendix G of Construction Permit No. 1070005-038-AC, limited amounts of on-specification used oil may be blended and fired with the No. 6 fuel oil.

   [1] Sulfur content of facility-generated crude tall oil is 0.14-0.28% by weight based on composite sampling conducted by the applicant on May 7, 2008

   [Rules 62-4.070(3), 62-4.160, 62-210.200(Definitions - PTE), Construction Permit No. 1070005-038-AC; Construction Permit No. 1070005-050-AC; Construction Permit No. 1070005-051-AC; FINAL Title V Permit No. 1070005-054-AV]

4. Permitted Capacity & Fuel Restrictions:

a. Black Liquor Solids: The maximum operating capacity is 210,000 lb/hour of BLS based on a 24-hour average, which is equivalent to a heat input rate of 1345 MMBtu per hour based on a fuel heating value of 6,410 Btu/lb of BLS. This is also equivalent to approximately 27,984 gallons per hour of black liquor.

b. No. 6 Fuel Oil: The maximum firing rate shall not exceed 67,680 gallons of No. 6 fuel oil (including that blended with on-spec used oil) during any consecutive rolling 24 hours.[1]

c. Virgin ULSD. The maximum total addition rate of virgin ULSD into the black liquor feed line is 1%, by volume of the maximum BLS firing rate, i.e. no more than 280 gallons per hour [based on a 24-hour average].

- The maximum permitted firing rate of the ULSD/Black Liquor Solids Blend shall not exceed 203,637 lbs/hr [201,593 lb BLS/hour + 2044 lb ULSD/hour]. This is equivalent to a flow rate of no more than 27,427 gallons per hour of black liquor and USLD blended [26,864 gal BL/hr + 280 gal ULSD/hr][2,3]

- The maximum consumption of ULSD shall not exceed 2,452,800 gallons during any consecutive 12-month period.

d. On-spec Used Oil. The on-specification used oil shall be blended with residual oil (No. 6 Fuel Oil), and shall not exceed 10% of the oil consumed.

e. All Fuel Oil. The maximum consumption of all fuel oil (No. 6 -residual oil, on-specification used oil, and virgin ULSD) shall not exceed 7,860,640 gallons during any consecutive 12-month period[4].

f. Annual Heat Input. The heat input rate to the No. 4 Recovery Boiler from firing oil shall be less than 1,178,220 MMBtu during any consecutive 12 months[4].

[1] This is equivalent to a 24-hour average of 47 gpm, which was the basis of the air quality analysis for ensuring compliance with the Ambient Air Quality Standards as stated in Construction Permit No. 1070005-050-AC. The oil firing system consists of 4 burners each rated at 250 gph for startup, and 8 load burners each rated at 480 gph.
[2] Assumes a heating value of 140,161 Btu/gallon and a density of 7.3 lb/gallon for ULSD.
[3] A reduction of 4 gallons of black liquor for each gallon of ULSD actually fired in the boiler.
[4] As stated in Construction Permit Nos. 1070005-038-AC and 1070005-050-AC, the oil firing restriction and maximum annual heat input rate maintains an annual capacity factor of less than 10% for fossil fuel firing at the emissions unit.

[Rules 62-4.070(3), 62-4.160, 62-210.200(Definitions - PTE); 62-212.400(12)(c), F.A.C., Construction Permit No. 1070005-038-AC; Construction Permit No. 1070005-050-AC; Construction Permit No. 1070005-051-AC; FINAL Title V Permit No. 1070005-054-AV]

5. Hours of Operation. The hours of operation for No. 4 Recovery Boiler are not restricted, i.e. 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

FUEL MONITORING

6. Fuel Monitoring: The permittee shall install, operate, and maintain equipment to continuously monitor and record the flow/firing rate of each authorized fuel stated in Condition 4 for the No. 4 Recovery Boiler including the fuel firing and heat input rate restrictions.

   The equipment shall be installed and properly functioning prior to the firing of any such fuels. Existing equipment may satisfy this requirement.

   [Rules 62-4.070(3) and 62-4.160(15), F.A.C.; Construction Permit No. 1070005-038-AC, Construction Permit No. 1070005-050-AC]

7. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

   [Rule 62-297.310(5)(b), F.A.C.]

NOTIFICATIONS, RECORDKEEPING AND REPORTING REQUIREMENTS

8. Virgin ULSD: For each delivery of ULSD, the permittee shall retain at least the following records:

   a. ULSD vendor certification;
   b. The analysis identifying the sulfur content of the oil;
   c. Statement that the ULSD is virgin fuel;
   d. Quantity of oil supplied.

   [Rule 62-4.070, F.A.C.]

9. Maintaining of Records. The permittee shall retain a copy of all records used to compute emissions pursuant Rule 62-210.370, F.A.C., for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

   [Rule 62-210.370(2)(h), F.A.C.]

10. Notification of Resumption of Operations. The facility shall provide a written notification to the Department of the actual date regular operations are resumed after the operation change, as authorized by this permit, has been implemented.

    [Rule 62-4.070(3), F.A.C.]

11. Semiannual Monitoring Reports. The permittee shall submit a written report to the Northeast District Office (Compliance Authority) summarizing the following for each calendar quarter:

- Gallons of virgin ULSD fired;
- Gallons of Black Liquor fired (including percent solids, estimated density);
- Total Hours of operation;
- Demonstration that the fuel firing and heat input rate limitations of Specific Condition 4 have been met;
- Copies of vendor certification for each ULSD fuel delivery as required in Specific Condition 8.

The reports shall identify any exceedance of an emissions or performance limitation. The reports shall be submitted no later than 30 days following the second and fourth calendar quarters.

[Rule 62-4.070(3), F.A.C.; Construction Permit No. 1070005-038-AC]

ADMINISTRATIVE

12. The ID Number and Project Name for this source shall be used on all correspondences.

13. All reports, tests, notifications or other submittals required by this permit shall be submitted to the:

Department of Environmental Protection
Northeast District – Air Program
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256
Telephone: 904/807-3300
Fax: 904/448-4366

14. Applicable Regulations. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Florida Administrative Code Chapters 62-4; 62-204; 62-210; 62-212, 62-213, 62-296, and 62-297. Issuance of a permit does not relieve the owner or operator of an emissions unit from complying with any applicable requirement, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state or local law.

[Rule 62-210.300, F.A.C.]

15. General Conditions. The owner and operator is subject to and shall operate under the General Permit Conditions 1 through 15 of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes.

[Rule 62-4.160, F.A.C.]

16. 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.]

17. Construction Permit Required. Unless exempt from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., an air construction permit shall be obtained by the owner or operator of any proposed new, reconstructed, or modified facility or emissions unit, or any new pollution control equipment prior to the beginning of construction, reconstruction pursuant to CFR 60.15 or 63.2, or modification of the facility or emissions unit or addition of the air pollution control equipment; or to establish a PAL; in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-212, F.A.C., and Chapter 62-4, F.A.C.

    [Rule 62-210.300(1)(a), F.A.C.]

18. Previously Issued Air Permits. This permit supplements all previous air permits issued for the affected emissions unit. However, if not specifically regulated by this permit, other standards and permit requirements from previous air construction permits remain valid. In addition, the affected emissions unit remains subject to all applicable standards and regulations as regulated by the Title V air operation permit.

19. Title V Operation Permit Revision Application Submittal. This permit authorizes modification of the permitted emissions units and initial operation to determine compliance with the terms of the permit. The permittee shall apply for a Title V Air Operation Permit Revision by submitting a complete Application for Air Permit - Long Form [DEP Form No. 62-210.900(1), F.A.C.], to the department at least ninety (90) days before the expiration of this construction permit, but no later than one-hundred eighty (180) days after commencing operation as modified. To apply for an operation permit, the applicant shall submit the appropriate application form, any required compliance test results, and such additional information as the Permitting Authority may by law require.

    [Rules 62-4.030, 62-4.050, 62-4.220, and 62-213.420(1)(a)4., F.A.C.]

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Christopher L. Kirts, P.E.