Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard, Jr.
Secretary

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE

Georgia-Pacific Consumer Operations, LLC
P.O. Box 919
Palatka, FL 32178

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

Air Permit No. 1070005-067-AC
PSD-FL-380C
Permit Expires: December 31, 2012
Georgia-Pacific Palatka Mill
No. 4 Lime Kiln Burner Replacement Project
Putnam County, Florida

PROJECT

This is the final air construction permit, which authorizes: replacement of the fuel oil burner on the No. 4 Lime Kiln with a combination fuel oil/natural gas burner; replacement of the primary fan; and replacement of the induced draft fan. This project does not authorize the increase any production rates for the No. 4 Lime Kiln. The proposed work will be conducted at the existing Palatka Mill, which is a Kraft pulp and paper mill categorized under Standard Industrial Classification Code No. 2611. The existing facility is located in Putnam County at 215 County Road 216 in Palatka, Florida. The UTM coordinates are Zone 17, 434.00 km East and 3,283.4 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); 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.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

_____ _____
(Date)

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 Final Air Permit package (including the Final Determination and Final Permit) 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 _____ to the persons listed below.

Mr. Gary L. Frost, Georgia-Pacific Consumer Operations, LLC (gary.frost@gapac.com)
Mr. Ron Reynolds, Georgia-Pacific Consumer Operations, LLC (ron.reynolds@gapac.com)
Mr. David A. Buff, Golder Associates (dbuff@golder.com)
Mr. Christopher Kirts, Northeast District Office (christopher.kirts@dep.state.fl.us)
Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
Ms. Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)
Ms. Lynn Scearce, DARM OPC Reading File (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.

_____ _____
(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

The existing facility is a pulp and paper mill. The mill includes the No. 4 Lime Kiln, which recalcines the spent lime cake (a.k.a. lime mud solids) which is primarily calcium carbonate to produce the quicklime (calcium oxide), which is used to convert the green liquor to cooking liquor. The kiln currently fires residual fuel oil and has a maximum processing rate of 41.5 tons of lime mud solids per hour based on a 24-hour average. Particulate matter emissions are controlled by a cyclonic dust collector followed by a venturi scrubber.

The proposed project will: replace the existing fuel oil burner with a combination fuel oil/natural gas burner; replace the existing induced draft fan; and replace the existing primary fan. This project will modify the following emissions unit.

Facility ID No. 1070005	
ID No.	**Emission Unit Description**
017	No. 4 Lime Kiln

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- 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 (PSD), F.A.C.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District at: 7825 Baymeadows Way, Suite 200B, Jacksonville, FL 32256-7590.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District at: 7825 Baymeadows Way, Suite 200B, Jacksonville, FL 32256-7590.

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. 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.]

8. Application for Title V Permit: This permit authorizes construction of the permitted emissions units 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 at least 90 days prior to expiration of this permit, but no later than 180 days after commencing 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.]

9. 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 identified below that could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected as specified below; 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 years following resumption of regular operations after the change. 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 as calculated pursuant to the provisions of Rule 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.

   For this project, the Department requires the annual reporting of actual CO, NOx, PM and VOC emissions for the No. 4 Lime Kiln (EU-017).

   [Application 1070005-067-AC; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

A. Emissions Unit 017

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
017	No. 4 Lime Kiln: This unit recalcines the lime mud solids or spent lime cake (calcium carbonate) to produce the quicklime (calcium oxide), which is used to convert the green liquor to cooking liquor. After completing the project, the kiln will fire natural gas and residual fuel oil. The No. 4 Lime Kiln has a maximum processing rate of 41.5 tons of lime mud solids per hour based on a 24-hour average. Particulate matter emissions are controlled by a cyclonic dust collector followed by a wet venturi scrubber. Emissions of total reduced sulfur (TRS), the scrubber pressure drop, and the scrubber flow rate are continuously monitored and recorded. At permitted capacity, the exhaust gas flow rate is 54,200 dscfm at 10% oxygen with an exit temperature of 161° F. The maximum burner capacity is 130 MMBtu/hour. Exhaust gases exit a stack that is 4.4 feet in diameter and 131 feet tall. The nitrogen oxides emissions will be monitored with a continuous emissions monitoring system (CEMS).

ADDITIONAL REQUIREMENTS

1. Existing Permits and Regulations: This permit supplements other previously issued air permits for the No. 4 Lime Kiln, which include the following applicable state and federal regulations.

   a. Pursuant to Rule 62-212.400, F.A.C. and Permit No. PSD-FL-380, the No. 4 Lime Kiln is subject to the Best Available Control Technology (BACT) determinations for carbon monoxide (CO), nitrogen oxides emissions (NOx), particulate matter with a mean particle diameter of 10 microns or less (PM_{10}) and volatile organic compounds (VOC) emissions.

   b. Pursuant to Rule 62-296.404(3)(e), F.A.C., the No. 4 Lime Kiln is subject to the applicable requirements for TRS emissions from a lime kiln at a Kraft pulp mill.

   c. Pursuant to 40 CFR 63.862(a)(1), the No. 4 Lime Kiln is subject to the applicable requirements for controlling HAP emissions from the pulping system at Kraft processes. [NESHAP Subpart MM in 40 CFR 63]

EQUIPMENT

2. Replacement Burner: The permittee is authorized to replace the existing fuel oil burner with a combination natural gas/fuel oil burner in the No. 4 Lime Kiln. [Application No. 1070005-067-AC]

3. Replacement Fans: The permittee is authorized to replace the existing induced draft (ID) fan and the primary fan for the No. 4 Lime Kiln. [Application No. 1070005-067-AC]

4. CEM Systems: The permittee shall install, calibrate, operate, and maintain a continuous emission monitoring system (CEMS) to measure and record the emissions of NO_X from the lime kiln in terms of the applicable standards. The monitoring system shall be installed, and functioning within 90 days of completing construction and physical shakedown of the new burner, but no later than 180 days after first fire. [Rule 62-4.070(3), F.A.C.]

PERFORMANCE RESTRICTIONS

5. Authorized Fuel: After installation of the replacement burner, ID fan, and primary fan, the permittee is authorized to continuously fire natural gas or residual fuel oil at the No. 4 lime kiln. [Application No. 1070005-067-AC and Rule 62-210.200(PTE), F.A.C.]

6. Restricted Operation: The hours of operation of the No. 4 lime kiln are not limited (8760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

7. Permitted Capacity: After completing the modifications, the maximum heat input rate to the No. 4 Lime Kiln is 130 MMBtu/hours based on a 24-hour average. *{Permitting Note: This is equivalent to approximately 867 gallons per hour of residual fuel oil (based on a heating value of 150,000 Btu/gallon) or 130,000 cubic feet of natural gas per hour (based on a heating value of 1,000 Btu/cubic feet).}* [Application No. 1070005-067-AC; and Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

8. Nitrogen Oxides (NOx): When firing any authorized fuel, NOx emissions from the No. 4 Lime Kiln shall not exceed:

   a. *Initial Shakedown Period*: 140 ppmvd corrected to 10% oxygen based on a 30-day rolling average determined by CEMS data for the first 180 operating days after first fire upon completing replacement of the burner system.

   b. *Final*: 114 ppmvd corrected to 10% oxygen based on a 30-day rolling average determined by CEMS data after completing the initial shakedown period.

   This standard supersedes all previous BACT standards for NOx emissions from the No. 4 Lime Kiln. [Application No. 1070005-067-AC; Rule 62-212.400(BACT), F.A.C.]

EXCESS EMISSIONS

9. Definitions:

   a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.

   b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.

   c. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

   [Definitions, Rule 62-210.200, F.A.C.]

10. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]

11. NOx Data Exclusion Procedures: As specified in Condition 12, limited amounts of CEMS emissions data may be excluded from the NOx BACT standard (30-day rolling average), provided that best operational practices to minimize emissions are adhered to and the duration of data excluded is minimized. As provided by the authority in Rule 62-210.700(5), F.A.C., these conditions replace the provisions in Rule 62-210.700(1), F.A.C.

    a. *Limiting Data Exclusion*. If the 30-day rolling average using all valid CEMS emission data indicates that the emission unit is in compliance, then no CEMS data shall be excluded from the compliance average.

    b. *Event-Driven Exclusion*. There must be an underlying event (startup, shutdown, malfunction, or fuel switching) that causes excess emissions in order to exclude data. If there is no underlying event, then

no data may be excluded.

c. *Continuous Data*. If an authorized underlying event causes emissions in excess of the NOx standard (30-day rolling average), then the data collected during the authorized underlying event may be excluded to demonstrate compliance. The duration of the event shall be identifiable and data shall be excluded for the continuous period.

[Rule 62-210.700, F.A.C.]

12. Allowable NOx Data Exclusions: In accordance with the NOx Data Exclusion Procedures of condition 11 and for each of the events listed below, the following data may be excluded from the NOx BACT standard (30-day rolling average):

    a. *Startup and Shutdown*: Up to eight hours of NOx CEMS data may be excluded due to each startup and each shutdown of the lime kiln.

    b. *Malfunction*: In any calendar day, up to two hours of NOx CEMS data may be excluded due to a malfunction.

    c. *Fuel Switching*: Up to one hour of CEMS data may be excluded due to a fuel switch.

    Only those minutes attributable to an authorized event shall be excluded. All valid emissions data (including data collected during startup, shutdown, malfunction, and fuel switching) shall be used to report annual emissions for the Annual Operating Report (Rule 62-210.370, F.A.C.) and the report comparing Actual Emissions to Baseline Actual Emissions (Rule 62-212.300(1)(e), F.A.C.).

    [Rules 62-210.200(BACT), 62-210.370, and 62-210.700, F.A.C.]

13. Notification Requirements: The owner or operator shall notify the Compliance Authority within one working day of discovering any emissions that demonstrate non-compliance for a given averaging period. [Rule 62-4.070, F.A.C.]

TESTING AND CONTINUOUS MONITORING REQUIREMENTS

{Permitting Note: The permittee will continue to conduct compliance tests in accordance with the methods and frequency specified in the current Title V air operation permit.}

14. Continuous Compliance: The permittee shall demonstrate continuous compliance with the 30-day NOx standard with data collected from the required CEMS. [Rules 62-4.070 and 62-212.400(BACT), F.A.C.]

15. Performance Specifications: The owner or operator shall evaluate the acceptability of each CEMS by conducting Performance Specification 2 for NOx in Appendix B of 40 CFR Part 60. CEMS determined to be unacceptable by this performance specification shall not be considered installed for purposes of meeting the timelines of this permit. [Rules 62-4.070 and 62-212.400(BACT), F.A.C.]

16. Quality Assurance: The owner or operator shall follow the quality assurance procedures of Appendix F in 40 CFR Part 60. For NOx monitors, the required relative accuracy test audit (RATA) tests shall be performed using EPA Method 7E in Appendix A of 40 CFR Part 60. NO_X shall be expressed "as NO_2." [Rules 62-4.070 and 62-212.400(BACT), F.A.C.]

17. Moisture Correction: If necessary, the owner or operator shall determine the moisture content of the exhaust gas and develop an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). [Rule 62-4.070(3), F.A.C.]

18. Gas Flow Rate: The permittee shall submit to the Department for review a development plan for determining the F-Factor for the gas flow rate from the No. 4 Lime Kiln. Once approved by the Department, the permittee shall implement the development plan to determine the F-Factor. If the

methodology in the development plan cannot be confirmed to be within 20% of the mean value of the reference method test data in terms of the units of the emission standard, or 10% of the applicable standard as compared to actual stack flow measurements, whichever is greater, the permittee shall either use actual stack flow data gathered during the most recent compliance test or install an approved gas flow meter in the lime kiln exhaust stack. [Rules 62-4.070(3) , F.A.C. and 40 CFR 60 Appendix B]

19. CEMS Data Requirements:

    a. Data Collection: Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions shall be monitored and recorded during all operation including startup, shutdown, and malfunction.

    b. Operating Hours and Operating Days: An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Any day with at least one operating hour for an emissions unit is an operating day for that emission unit.

    c. Valid Hour: Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement for each 15-minute period. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.

        1) Hours that are not operating hours are not valid hours.

        2) For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data and the 1-hour block average is not valid.

        3) During fuel switching, any hour in which fuel oil is fired is attributed towards compliance with the permit standards for oil firing.

        4) All valid measurements shall be in accordance with 40 CFR 60.13.

        5) The 30-day rolling average shall be determined using 30 consecutive 24-hour block averages for operating days. The 24-hour block average shall begin at midnight of each operating day and shall be calculated from the valid hourly average concentration values. If a unit operates less than 24 hours during the block, or there are less than 24 valid hourly averages available, the 24-hour block average shall be the average of all available valid hourly average concentration values.

    d. Data Exclusion*:* Each CEMS shall monitor and record emissions during all operations including episodes of startup, shutdown, malfunction, and fuel switches. Limited amounts of the CEMS emissions data recorded during these authorized events may be excluded from the NOx BACT emissions standard subject to the provisions of conditions 11 and 12 of this subsection.

    e. Availability: The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter.

    [Rules 62-4.070(3)]

20. CEMS Annual Emissions Requirement: The owner or operator shall use data from the NO_X CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions, and net

emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rule 62-210.370(3), F.A.C. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit. [Rules 62-210.200, and 62-210.370(3), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

21. Malfunction Notification: If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction (data exclusion), the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. [Rules 62-4.130, 62-210.700(6) and 62-212.400(BACT), F.A.C.]

22. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility in accordance with 62-210.370. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]