FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PERMITTEE

Fernandina Beach Mill
RockTenn CP, LLC
600 North 8th Street
Fernandina Beach, Florida 32034

Authorized Representative:
Mr. Thomas Sweetser, General Manager

Permit No. 0890003-046-AC
Permit Expires: March 31, 2018
Fernandina Beach Mill
Project: SO_2 Emissions Reduction Project
Nassau County, Florida

PROJECT

This is the final air construction permit, which is for the Sulfur Dioxide (SO_2) Emissions Reduction Project at the Fernandina Beach Mill. Specific physical and operational changes at the mill will be undertaken to reduce SO_2 emissions and ambient impacts.

RockTenn CP, LLC operates an existing Kraft Pulp Mill (SIC No. 2611) in Fernandina Beach at 8th Street North in Nassau County, Florida 32304. The UTM coordinates are zone 17, 456.2 kilometers (km) East, and 3394.2 km North. This facility is a fully integrated Kraft linerboard mill that consists of major activities areas such as: wood yard, pulp mill, recycle plant, chemical recovery, power house and paper mill. A corrugated container plant is also located at the site.

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.). 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 requirements for major new source review in Chapter 62-212, F.A.C.

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

for: Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/dlr

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 with Appendices) 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. Thomas Sweetser, RockTenn: tsweetser@rocktenn.com
Ms. Michele Rundlett, RockTenn, mrundlett@rocktenn.com
Mr. Robert Fox, P.E., Environmental Resource Management: bob.fox@erm.com
Mr. Richard Rachal, DEP NED: Richard.Rachal@dep.state.fl.us
Ms. Heather Ceron, U.S. EPA Region 4: ceron.heather@epa.gov
Ms. Lorinda Shepherd, EPA Region 4: shephard.lorinda@epa.gov

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.

FACILITY DESCRIPTION

This existing facility is a Kraft Pulp Mill (SIC No. 2611) in Fernandina Beach at 8th Street North in Nassau County, Florida 32304. This facility is a fully integrated Kraft linerboard mill that consists of major activities areas such as: wood yard, pulp mill, recycle plant, chemical recovery, power house and paper mill. A corrugated container plant is also located at the site.

PROPOSED PROJECT

RockTenn CP, LLC will implement the physical and operational changes identified in the SO_2 Emissions Reduction Project to reduce SO_2 emissions and ambient impacts from the Mill. The SO_2 emissions standards specified in this permit are the basis for the SO_2 attainment demonstration in the State Implementation Plan (SIP). This existing facility consists of the emissions units (EU) shown in below. The emission units affected by this permitting action are highlighted in yellow.

EU No.	Brief Description
Regulated Emissions Units	
006	No. 5 Power Boiler
007	No. 4 Recovery Boiler
011	No. 5 Recovery Boiler
013	No. 4 Smelt Dissolving Tank
014	No. 5 Smelt Dissolving Tank
015	No. 7 Power Boiler
020	Tall Oil Plant
021	No. 4 Lime Kiln
024	C-Line Brownstock Washer System
033	Pulping System MACT I
035	Wide-web Flexographic Printers
038	John Deere 210 BHP Diesel Engine- Model JU6H-UF50
039	Caterpillar 292 BHP Diesel Engine– Model 3406c
040	Caterpillar 292 BHP Diesel Engine – Model 3406c
041	Coal Handling System
042	John Deere, Diesel Engine (125 BHP) – Model 6466DF-00
043	Wisconsin, Diesel Engine (65 BHP) – Model V465D
Unregulated Emissions Units and Activities	
025	Wood yard
026	Brownstock Washing
028	Chemical Recovery Area
029	Converting Area/Warehouse
030	Facility-Wide miscellaneous
031	Secondary Fiber Pulp
032	Papermaking

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 operates units that are subject to the New Source Performance Standards (NSPS) at 40 Code of Federal Regulations, Part 60 (40 CFR 60), and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR 63.

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 for the Office of Permitting and Compliance is 2600 Blairstone 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 Compliance Authority, the Department's Northeast District Office. The Compliance Authority's mailing address is:

   Northeast District Office
   8800 Baymeadows Way West, Suite 100
   Jacksonville, FL 32256-7590
   Phone: (904) 256-1700
   Fax: (904) 256-1588

3. Appendices: The following Appendices are attached as a part of this permit and the permittee must comply with the requirements of the appendices:
   a. Appendix A. Citation Formats and Glossary of Common Terms
   b. Appendix B. General Conditions
   c. Appendix C. Common Testing Requirements
   d. Appendix D. Standard CEMS 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: No emissions unit shall be constructed or 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. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit. 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. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

PREVIOUS APPLICABLE REQUIREMENTS

8. Effect on Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions, rules and regulations. [Rule 62-4.070(1) & (3), Reasonable Assurance, F.A.C.]

A. No. 5 Power Boiler (EU No. 006)

This subsection of the permit addresses the following emission unit:

EU No.	Brief Description
006	No. 5 Power Boiler. This power boiler primarily fires carbonaceous fuel and oil with a total maximum operational heat input rate of 805 MMBtu/hour. Particulate matter emissions are controlled by a multiple cyclone (without fly ash reinjection) followed by a single-chamber, three-field, electrostatic precipitator. The fly ash collected in the electrostatic precipitator is injected into one of the No. 7 Power Boiler coal pulverizers. The boiler bottom ash is transported to the wastewater treatment plant or off-site landfill. Low-volume, high-concentration non-condensable gases (NCGs) from the batch digester system, continuous digester system, turpentine recovery system, evaporator systems, and foul condensate collection tank are collected and burned in the No. 4 Lime Kiln in accordance with 40 CFR 63, Subpart S. The No. 5 Power Boiler currently serves as a backup NCGs control device.

1. Authorized Fuels: Effective January 31, 2016, the No. 5 Power Boiler shall no longer fire No. 6 fuel oil. [Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

2. Operation as Backup NCGs Control Device for the No. 4 Lime Kiln: Effective December 1, 2017, the No. 5 Power Boiler is prohibited from use as a backup NCGs control device unless otherwise approved by the Division of Air Resource Management. As part of a request for approval, RockTenn shall submit an engineering analysis that provides reasonable assurance that the No. 5 Power Boiler can comply with the SO_2 emissions standard specified in **Specific Condition 3** of this subsection while combusting NCGs. The engineering analysis shall include pertinent operational and technical information including but not limited to: white liquor scrubber design details, design and actual total reduced sulfur (TRS) compounds removal efficiency of white liquor scrubber, expected and maximum TRS concentration in NCGs stream, restrictions on boiler fuels and firing rates when operating as a backup control device, etc. [Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

3. SO_2 Emissions Standard: Effective January 31, 2016 through November 30, 2017, SO_2 emissions from the No. 5 Power Boiler shall not exceed 15.0 lb/hour based on a 3-hour block average as determined by data collected from a continuous emissions monitoring system (CEMS), during all periods of operation except when operating as a backup control device firing NCGs. Effective December 1, 2017, SO_2 emissions from the No. 5 Power Boiler shall not exceed 15.0 lb/hour based on a 3-hour block average as determined by data collected from a CEMS during all periods of operation. The CEMS shall be measuring and recording in units of the SO_2 emissions standard by the first effective date for this new emissions standard. Compliance with this new emissions standard will ensure compliance with the SO_2 emissions standard established in Permit No. 0890003-018-AC, which resulted in an exemption from the requirements of Best Available Retrofit Technology (BART) pursuant to Rule 62-296.340, F.A.C.

{Permitting Note: This new emissions standard reduces SO_2 emissions and ambient impacts in and around the SO_2 non-attainment area in Nassau County.}

[Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

4. Emissions Reporting: Within one business day of occurrence, the permittee shall notify the Compliance Authority of any exceedance of the SO_2 emissions standard. Within 15 days of occurrence, the permittee shall submit a report to the Compliance Authority detailing the exceedance, identifying the likely cause, describing any corrective actions taken, and noting when the unit was returned to compliance. [Rules 62-4.070(3) and 62-4.130, F.A.C.; SO_2 Attainment SIP]

5. Other Requirements: For additional recordkeeping, reporting, and notification requirements, see Appendix B (General Conditions), Appendix C (Common Testing Requirements) and Appendix D (Standard CEMS Requirements). [Rules 62-4.070(3) and 62-4.130, F.A.C.]

B. No. 7 Power Boiler (EU No. 015)

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
015	No. 7 Power Boiler: Firing coal, oil, and/or natural gas, this power boiler is capable of generating 825,000 pounds per hour of steam with a nominal temperature of 825 degrees Fahrenheit (°F) and a nominal pressure of 850 pounds per square inch gage (psig). Auxiliary equipment includes an economizer, fans and drives, air preheater, instrumentation, breaching and duct work, and related piping. Particulate matter emissions are controlled by a two-chamber, 6-field per chamber, electrostatic precipitator manufactured by Hamon Research-Cottrell. Low-volume, high-concentration NCGs from the batch digester system, continuous digester system, turpentine recovery system, evaporator systems, and foul condensate collection tank are collected and burned in the No. 4 Lime Kiln in accordance with 40 CFR 63, Subpart S. Upon completion of this project, the No. 7 Power Boiler will serve as the backup NCGs control device.

1. SO_2 Emissions Standard: Effective January 31, 2016, SO_2 emissions from the No. 7 Power Boiler shall not exceed 1225.20 lb SO_2/hour based on a 3-hour block average as determined by the current compliance demonstration methods in the Title V air operation permit (e.g., stack testing, fuel sulfur monitoring and fuel consumption monitoring). The new emissions standard applies at all times including periods of startup and shutdown. Effective December 1, 2017, SO_2 emissions from the No. 7 Power Boiler shall not exceed 1225.20 lb SO_2/hour based on a 3-hour block average as determined by data collected from a certified CEMS. The new emissions standard applies at all times including periods of startup, shutdown, and the firing of NCGs.

{Permitting Note: This new emissions standard reduces SO_2 emissions and ambient impacts in and around the SO_2 non-attainment area in Nassau County.}

[Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

2. Primary NCGs Backup Control Device: Effective December 1, 2017, the No. 7 Power Boiler will be used as the primary backup NCGs control device for the No. 4 Lime Kiln to ensure compliance with 40 CFR 63, Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. The following associated work is authorized.

a. Piping System. The permittee shall install, operate and maintain a NCGs piping system to transport NCGs for combustion in the No. 7 Power Boiler comprised of piping and related equipment. Based on the preliminary design, the new piping system will tie into the existing NCGs line downstream of the existing steam ejector and just upstream of the existing entrainment separator at the No. Power Boiler and shall use similar equipment and safety interlocks as those currently in place at the No. 5 Power Boiler. All work on the NCGs piping system shall be complete by December 1, 2017. By December 30, 2017, the permittee shall submit the final design details of the new piping system (as installed) including a schematic of the interconnections of from existing NCG piping system to the scrubber and combustion units. [Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

b. White Liquor Scrubber System. Upstream of the introduction of NCGs to the No 7 Power Boiler, the permittee shall install, operate and maintain a white liquor scrubber system to remove TRS compounds from the NCGs stream before combustion in the No. 7 Power Boiler. The preliminary design of the white liquor scrubber includes a counter-flow, spray tower with the white liquor sprayed into the top of scrubber vessel using nozzles and the NCG stream entering the bottom of the vessel and flowing up across the packing material. The preliminary scrubber location is near the lime kiln, next to the existing NCGs condenser. The white liquor scrubber shall be designed to remove at least 50% of the TRS based on the design TRS concentration. The white liquor scrubber shall be designed as a closed system that does not exhaust to the atmosphere. All work on the white liquor scrubber system shall be complete by December 1, 2017. By December 30, 2017, the permittee shall submit the final design details of the new scrubber

system (as installed) including specific design details (e.g., scrubber liquor flow, spray nozzle arrangement, NCG exhaust flow, TRS concentration, pH levels, etc.). [Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

3. SO_2 CEMS Required for Demonstrating Compliance. The permittee shall install, calibrate, maintain and operate a CEMS to measure and record SO_2 emissions and exhaust flow for reporting in units of the applicable standard. Emissions shall be monitored and recorded during all periods of boiler operation including startup, shutdown and malfunction. The permittee shall install and operate the CEMS in accordance with the applicable performance specifications, quality assurance procedures, and quality control requirements summarized in Appendix D (Standard CEMS Requirements) of this permit. The CEMS shall be installed, certified and recording valid data in units of the SO_2 emissions standard prior to the No. 7 Power Boiler being connected to the NCG piping for use as a backup control device, but no later than December 1, 2017.

{Permitting Note: This specific condition replaces the SO_2 annual stack testing requirements for No. 7 Power Boiler specified in Construction Permit No. AC45-35532; PSD-FL-062; and Construction Permit No. 0890003-019-AC/ PSD-FL-062B with and SO_2 CEMS to show compliance with the SO_2 emission limits.}

[Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

4. Emissions Reporting: Within one business day of occurrence, the permittee shall notify the Compliance Authority of any exceedance of the SO_2 emissions standard. Within 15 days of occurrence, the permittee shall submit a report to the Compliance Authority detailing the exceedance, identifying the likely cause, describing any corrective actions taken, and noting when the unit was returned to compliance. [Rules 62-4.070(3) and 62-4.130, F.A.C.; SO_2 Attainment SIP]

5. Other Requirements: For additional recordkeeping, reporting, and notification requirements, see Appendix B (General Conditions), Appendix C (Common Testing Requirements) and Appendix D (Standard CEMS Requirements). [Rules 62-4.070(3) and 62-4.130, F.A.C.]

C. Nos. 4 and 5 Recovery Boilers (EU Nos. 007 and 011)

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
007	No. 4 Recovery Boiler: This recovery boiler is a Babcock &Wilcox low-odor design boiler with a total maximum operational rate of 137,500 lb/hour of black liquor solids. The boiler is capable of generating 492,000 lb/hour of high-pressure process steam. Particulate matter emissions are controlled by an electrostatic precipitator.
011	No. 5 Recovery Boiler: This recovery boiler is a low-odor design boiler with a total maximum operation rate of 156,780 lb/hour of black liquor solids. The boiler is capable of generating 495,700 lb/hour of high-pressure process steam. Particulate matter emissions are controlled from the North and South stacks by an electrostatic precipitator. The furnace recovers chemicals from Kraft spent liquor (straight mode) and neutral sulfite semi-chemical process liquor (cross mode).

1. Recovery Boiler Upgrades. The permittee shall make the necessary physical improvements to each recovery boiler necessary to achieve a more stable and consistent combustion and chemical recovery process within each unit. The preliminary plans include some or all of the following: adding liquor heaters to raise the as-fired solids content, installing a heavy liquor tank to provide uniform operations, combustion air system improvements, combustion control system upgrades, concentrator pump and associated piping changes, and pump and piping upgrades necessary to fire No. 2 fuel oil. The preliminary design includes plans for a comprehensive, fully integrated air system based on combustion modeling and an upgraded two- or three-level combustion air system. Upgrades on at least one recovery boiler (Nos. 4 and/or 5) shall be complete no later than December 1, 2016. Upgrades on the remaining unit (No. 4 or No. 5) shall be complete no later than December 1, 2017. By December 30, 2016 and December 30, 2017, the permittee shall submit final design details for the newly upgraded recovery boiler to include a description of how the systems will be operated to the Compliance Authority and the Division of Air Resource Management. [Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

2. SO_2 Emission Standard. Effective January 1, 2018, SO_2 emissions from each recovery boiler shall not exceed 150.0 lb/hour based on a 3-hour block average as determined by data collected from a certified CEMS or other methods approved by the Division of Air Resource Management. Alternatively, the permittee may elect to comply with the following combined SO_2 emissions cap: Effective January 1, 2018, combined SO_2 emissions from the Nos. 4 and 5 recovery boilers shall not exceed 300.0 lb/hour based on a 3-hour block average as determined by data collected from a certified CEMS. Note that compliance with the combined SO_2 emissions cap must be demonstrated by certified CEMS data.

{Permitting Note: This new emissions standard reduces SO_2 emissions and ambient impacts in and around the SO_2 non-attainment area in Nassau County.}

[Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

3. SO_2 Compliance Demonstration.

a. *SO_2 CEMS*. Unless otherwise approved by the Division of Air Resource Management, compliance with the SO_2 emissions standard shall be demonstrated by data collected from a certified CEMS. The permittee shall install, calibrate, maintain and operate a CEMS on each recovery boiler to measure and record SO_2 emissions and exhaust flow for reporting in units of the applicable standard. Emissions shall be monitored and recorded during all periods of recovery boiler operation including startup, shutdown and malfunction. The permittee shall install and operate the CEMS in accordance with the applicable performance specifications, quality assurance procedures, and quality control requirements summarized in

Appendix D (Standard CEMS Requirements) of this permit. If the permittee elects the combined SO_2 emissions cap, compliance must be demonstrated with CEMS data. The CEMS shall be measuring and recording valid data in units of the SO_2 emissions standard by January 1, 2018.

b. *Periodic Emissions Testing Plus Parametric Monitoring*: The permittee may elect to complete the physical improvements to the combustion air systems early. This would allow time to conduct engineering tests to gather critical SO_2 emissions data, fuel firing data, and other operational data to establish the SO_2 emissions profile for each unit to identify key parameters that ensure a stable combustion and recovery process. If able to identify a strong relationship between SO_2 emissions and key operating parameters, the permittee may request approval of a combination of periodic compliance testing (e.g., quarterly stack tests that collect 24-hours of continuous data) plus continuous parametric monitoring as an alternative to the installation and operation of a certified CEMS.

[Rules 62-4.070(3) and 62-4.080, F.A.C.; SO_2 Attainment SIP]

4. Emissions Reporting: Within one business day of occurrence, the permittee shall notify the Compliance Authority of any exceedance of the SO_2 emissions standard. Within 15 days of occurrence, the permittee shall submit a report to the Compliance Authority detailing the exceedance, identifying the likely cause, describing any corrective actions taken, and noting when the unit was returned to compliance. [Rules 62-4.070(3) and 62-4.130, F.A.C.; SO_2 Attainment SIP]

5. Other Requirements: For additional recordkeeping, reporting, and notification requirements, see Appendix B (General Conditions), Appendix C (Common Testing Requirements) and Appendix D (Standard CEMS Requirements). [Rules 62-4.070(3) and 62-4.130, F.A.C.]