



Florida Department of Environmental Protection

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PERMITTEE:

Rayonier Performance Fibers, LLC
PO Box 2002
Fernandina Beach, Florida 32035

Air Permit Number: 0890004-026-AC
Date of Issue: January 20, 2011
Expiration Date: January 20, 2012

Authorized Representative:
Mr. C.A. McDonald

Project: Addition of Mill WWT Sludge as Fuel in No.
Power Boiler

PROJECT AND LOCATION

This is the final air construction permit, authorizes the use of the Fernandina Beach Pulp Mill's effluent treatment system solids (Primary and Secondary Sludges only) as a fuel in the Bubbling Fluidized Bed No. 6 Power Boiler. The maximum heat input to the No. 6 Power Boiler will remain at 525 MMBtu per hour (24-hr average) and 450 MMBtu/hr (annually). The proposed work will be conducted at Fernandina Beach Pulp Mill, which is a Sulfite Pulp Mill (Standard Industrial Classification No. 2611). The existing facility is located in Nassau County at the foot of Gum Street in Fernandina Beach, Florida. The UTM coordinates are Zone 14: 454.7 km East; 3392.2 km North.

As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

This final permit is organized by 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.

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 permit supplements all other air construction and operation permits for the subject emissions unit and does not alter any requirements from such previously issued air permits.

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

SECTION 1. GENERAL INFORMATION

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 Jacksonville, Florida



Christopher L. Kirts, P.E.
Air Program Administrator

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 January 20, 2011 to the persons listed below.

Mr. C.A. McDonald, Rayonier Performance Fibers, LLC (CA.Mcdonald@rayonier.com)

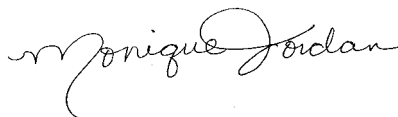
Mr. David Rogers, Rayonier Performance Fibers, LLC (david.rogers@rayonier.com)

Ms. Debra Lane, Rayonier Performance Fibers, LLC (Debra.Lane@rayonier.com)

Mr. David Buff, P.E., Golder Associates, Inc. (dbuff@golder.com)

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.



1/20/2011

(Clerk)

(Date)

Rayonier Performance Fibers, LLC
Mill Effluent Treatment Solids as Fuel w/bark,
and/or wood waste, and/or TDF and/or No. 6 fuel oil in the No. 6 Power Boiler

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SECTION 2. ADMINISTRATIVE REQUIREMENTS

FACILITY DESCRIPTION

The mill uses a sulfite (ammonia-base) process to produce various grades of chemical cellulose from pine wood-chips. There are only two other pulp mills located in the United States that produce products similar to the Fernandina Mill and neither of these mills use the same type of manufacturing process. This plant produces approximately 10 different grades of cellulose each with different specifications and customers. The amount of each grade of product that is produced is based on market demand. The cellulose produced at this mill goes into such products as plastics, photographic film, LCD screens, paints, cigarette filters, pharmaceuticals, food products, cosmetics and textiles. Customers of these products have stringent quality requirements. This mill produces approximately 150,000 tons of performance fibers annually.

The existing facility consists of the following emissions units.

E.U. ID No.	Brief Description
-005	Vent Gas Scrubber and Direct Contact Condenser
-006	Sulfite Recovery Boiler firing RLS, No. 6 fuel oil, and No. 2 fuel oil
-007	Molten sulfur handling area.
-010	Biological Effluent Treatment System
-011	Dissolving-Grade Bleaching System
-021	Evaporator Vents Methanol Condenser
-022	Bubbling Fluidized Bed No. 6 Power Boiler

The proposed project will affect the following emissions unit.

E.U. ID No.	Brief Description
-022	Bubbling Fluidized Bed No. 6 Power Boiler

PROPOSED PROJECT

The Bubbling Fluidized Bed No. 6 Power Boiler (Emission Unit No. 022) is rated at a maximum operational heat input rate of 525 MM Btu per hour (24-hour average) and 450 MMBtu/hr (annually). This unit is authorized to fire biomass (green bark, chips, knots, fines, and landscape waste), tires, No. 2 fuel oil for startup, No. 6 fuel oil with a maximum sulfur content of 2.5% by weight, spent sulfite liquor, and small quantities of facility-generated on-specification used oil (to be blended with the No. 6 fuel oil).

This project is to authorize the firing of the mill's effluent treatment system solids as a fuel in the No. 6 Power Boiler. The solids consist of primary effluent treatment sludge with approximately 30 percent secondary sludge returned from the aeration stabilization basin. The sludge is pressed to have varying moisture that ranges from 60 to 80 percent prior to being fired as a fuel in the No. 6 Power Boiler. The applicant has requested that the No. 6 Power Boiler be allowed to fire a maximum of 60 tons per day (dry) of the effluent treatment system sludge with a daily average of 45 tons per day (dry). The firing of the sludge will require no physical changes to be made to the No. 6 Power Boiler. The maximum design

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heat input rates and the capacity of the boiler will not be affected by this change. Sludge from the mill's effluent treatment system will be loaded onto the existing biomass feed conveying system through an existing front-end loader dump hopper. The sludge will commingle with the biomass on the conveyor and then will be fed into the No. 6 Power Boiler along with the biomass.

The applicant received Construction Permit No. 0890004-021-AC which authorized a temporary trial burn of effluent treatment system solids in this boiler to gather emissions and operational data. The applicant conducted emissions testing under baseline (without sludge) and firing sludge as a fuel conditions. The methodology in 40 CFR 60 Appendix C was used to demonstrate whether an increase or no increase in the emission level occurred as a result of sludge burning.

The NESHAP standards of 40 CFR 61 Subpart E are applicable to stationary sources that incinerate or dry wastewater treatment plant sludge. Since the No. 6 Power Boiler will incinerate primary and secondary sludges from the Fernandina Beach Mill effluent treatment system, the No. 6 Power Boiler will be subject to these standards, which limits mercury emissions to a maximum of 7.1 pounds per 24-hour period. This allowable (equivalent of 1.3 tons per year) however, is greater than the 0.1 tons per year PSD applicability threshold. As such, the mercury emissions are restricted in the construction permit to less than this threshold in order to avoid PSD review.

Pursuant to Rule 62-212.400, F.A.C., Rayonier Performance Fibers, LLC provided information to show that the project will not exceed the significant emissions rates that require preconstruction review for the Prevention of Significant Deterioration (PSD) of Air Quality. In accordance with Rule 62-212.300, F.A.C., the permit requires Rayonier Performance Fibers, LLC to provide reports summarizing the actual NO_x and PM emissions for each year during the 5-year period following completion of the project. This is to ensure that the project remains minor with respect to PSD preconstruction review.

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.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- This facility is a major source of air pollutants, other than HAPs.
- This facility has one or more emissions units subject to NSPS (40CFR 60).
- This facility has one or more emissions units subject to NESHAP (40 CFR 61 or Part 63)

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting & Compliance Authority: The permitting and compliance authority for this project is the Northeast District Office, Florida Department of Environmental Protection (Department). The mailing address is 7825 Baymeadows Way, Suite B-200, Jacksonville, Florida 32256-7590. The telephone number is (904) 256-1700. All documents related to applications for permits to operate an emissions unit shall be submitted to this District office. All documents related to compliance activities such as reports, tests, and notifications shall be submitted to this District Office.
2. Appendices: The following Appendices are attached as part of this permit:
 - a. Appendix A. Citation Formats and Glossary of Common Terms;
 - b. Appendix B. General Conditions;
 - c. Appendix C. Common Conditions; and
 - d. Appendix D. Common Testing Requirements.
 - e. EPA Determination dated December 7, 2007
 - f. 40 CFR 61 Subpart A – General Provisions
3. 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.
4. Permit Expiration: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Northeast District Office at least sixty (60) days prior to the expiration of this permit.

[Rules 62-4.070(4), 62-4.080 and 62-210.300(1), F.A.C.]
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.]

SECTION 2. ADMINISTRATIVE REQUIREMENTS

7. 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.]

8. Source Obligation:

- (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 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.
- (c) 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)(b) and (c), F.A.C.]

9. 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 and Compliance Authority.

[Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

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

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

This section of the permit addresses the following emissions units:

Emission Unit Number	Brief Description
022	<p><i>Description:</i> The No. 6 Power Boiler is a Bubbling Fluidized Bed boiler that produces steam for electrical generation and usage in the manufacturing process. The total maximum operational heat input of this emissions unit is 525 MMBtu/hr (24-hr average). The boiler was originally constructed in 1983 as a traveling grate coal-fired boiler.</p> <p><i>Fuel:</i> This unit is authorized to fire biomass (green bark, chips, knots, fines, and landscape waste), tires, No. 2 fuel oil for startup, No. 6 fuel oil with a maximum sulfur content of 2.5% by weight, spent sulfite liquor, and small quantities of facility-generated on-specification used oil (to be blended with the No. 6 fuel oil). This construction permit authorizes the firing of mill effluent treatment system solids (primary and secondary sludge only) as a fuel in this boiler.</p> <p><i>Controls:</i> Particulate matter emissions are controlled with a large settling chamber followed by an electrostatic precipitator (ESP). Large ash particles settle out in the chamber and are removed from the bottom hopper by a screw conveyor system. The design includes a four-field ESP with collector plates and rigid electrodes. Each field will have a dedicated transformer/rectifier (T/R) set and ash hopper. Ash will be removed by a screw conveyor system. NO_x emissions are reduced by staged combustion and flue gas recirculation (FGR). A selective non-catalytic reduction (SNCR) system has been installed to control NO_x emissions. This would generally consist of an ammonia tank, pumps, piping, compressed air delivery, injectors, and a control system. Acid gases are controlled by a wet alkaline scrubber located after the ESP and induced draft fan. The wet scrubber sprays approximately 4000 gpm of re-circulated alkaline scrubber water over a series of chevrons and louver-type packings to reduce acid gas emissions. The design pressure drop across the system is approximately 2 inches of water column.</p> <p><i>Monitors:</i> A continuous opacity monitoring system (COMS); a fuel flow monitor; continuous monitoring of ESP total power (CAM); exhaust flow rate monitor; a continuous emissions monitoring system (CEMS) for SO₂ emissions, a CEMS for NO_x emissions, a CEMS for CO emissions, and a CEMS for oxygen.</p> <p><i>Stack Parameters:</i> Exhaust gas exits at 150°F with a volumetric flow rate of 183,421 acfm through a single wet scrubber stack that is approximately 10 feet in diameter and 190 feet above ground level.</p>

APPLICABILITY OF PREVIOUS PERMITS

1. Existing Permits and Regulations: The conditions of this permit supplements all other previously issued air construction and operation permits for this emissions units. These conditions are in addition to all other applicable permit conditions and regulatory requirements. The Permittee shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, recordkeeping, reporting, and the like. For the above named emissions unit, the following applicable state and federal regulations continue to remain applicable:

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SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

Specific Condition No. 1. Continued:

- a. The applicable provisions for fossil fuel fired steam generators with a maximum heat input rate more than 250 MMBtu per hour as specified in Rule 62-296.405, F.A.C.;
- b. The applicable provisions for carbonaceous fuel burning equipment as specified in Rule 62-296.410, F.A.C.; and
- c. The applicable NSPS provisions for fossil-fuel fired steam, generators specified in Subpart D and the corresponding General Provisions in Subpart A of 40 CFR 60.

[Rules 62-4.070, 62-212.400, 62-296.405, and 62-296.410, F.A.C.; and NSPS Subparts A, and D in 40 CFR 60]

PERFORMANCE RESTRICTIONS

2. Capacities and Fuels: The proposed work shall not result in any increase in the boiler heat input rate, fuel consumption rates and steam generation rates.

[Rule 62-4.070(3), F.A.C. and Application No. 0890004-026-AC]

3. Authorized Fuels: The Permittee is authorized fire mill effluent treatment system solids in the No. 6 Power Boiler consisting of primary effluent treatment sludge with approximately 30 percent secondary sludge returned from the aeration stabilization basin. The total maximum firing rate shall not exceed 60 tons per day (dry) and a daily average of 45 tons per day (dry). Prior to firing in the No. 6 Power Boiler, both the primary and secondary sludges shall be pressed to approximately 70 percent solids by weight or less.

[Construction Permit No. 0890004-021-AC, Application No. 0890004-026-AC]

4. Co-firing with other Approved Fuels – No. 6 Power Boiler: The Permittee is authorized to co-fire mill effluent treatment system solids with Biomass, and/or Tire-Derived Fuel, and/or No. 6 fuel oil as authorized in the current Title V Operation Permit.

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

5. Fuel Handling:

- a. This permit does not authorize any physical modifications to the No. 6 Power Boiler in order to accommodate the mill effluent treatment system solids nor does it authorize the addition of any equipment to burn the mill effluent treatment system solids.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

Specific Condition No. 5. Continued:

- b. The Permittee shall load the sludge from the mill's effluent treatment system onto the existing biomass feed conveying system through an existing front-end loader dump hopper. The sludge shall commingle with the biomass on the conveyor and then fed into the No. 6 Power Boiler along with the biomass.

[Rule 62-4.070, F.A.C.; Application No. 0890004-026-AC]

AIR POLLUTION CONTROL EQUIPMENT

6. ESP: The permittee shall operate and maintain the settling chamber followed by the ESP to control particulate matter emissions and minimize opacity from the boiler to achieve the emissions standards specified previously issued air construction and operation permits. The permittee shall monitor and record the total power input (kW) to the ESP. Based on emissions testing authorized by Construction Permit No. 0890004-021-AC, and to escape PSD NSR for this project for Particulate Matter emissions, an excursion is defined as an ESP power input less than 45.0 kW, (excluding those events defined as startup, shutdown, and malfunction events) when mill effluent treatment system solids are co-fired with fuels as specified in Condition 4 of this construction permit in the No. 6 Power Boiler. For the purposes of this permit condition, the averaging period shall be a running one-hour average.
7. SNCR: The permittee shall operate and maintain the selective non-catalytic reduction (SNCR) system, as needed, to control NO_x emissions from the boiler to achieve the emissions standards specified previously issued air construction and operation permits.
8. Wet Scrubber: The permittee shall operate and maintain the wet alkaline scrubber to control acid gas emissions (including HCl) and Dioxin/furans from the boiler. The scrubber shall be functioning when the boiler is in operation with any fuel firing configuration.

[Rules 62-4.070(3), F.A.C.; 62-212.400(12), F.A.C.; Construction Permit No. 0890004-021-AC, Application No. 0890004-026-AC; Applicant Comments 8/18/10]

EMISSION LIMITING STANDARDS

{Permitting Note: Unless otherwise specified, the averaging times for these conditions are based on the specified averaging time of the applicable test method.}

9. Mercury Emissions.
 - a. Mercury emissions, when effluent treatment system solids (sludge) are fired, shall not exceed 3.2 kg (7.1 lb) of mercury per 24-hour period.

[40 CFR 61.52(b)]

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Specific Condition No. 9. Continued:

- b. In order to escape PSD NSR, and as determined by test methods of 40 CFR 61 Subpart E, Mercury Emissions shall be less than 0.1 tons per consecutive 12-month rolling total.

Permitting Note: Mercury emissions testing conducted on September 10 and October 1, 2008 (60 TPD (dry) sludge firing rate with bark), resulted in average emissions below the test method detection limit, i.e. < 0.30 µg/dscm. The facility did not use the additional test procedures specified in the EPA Determination dated December 7, 2007 during these emissions tests.

[Rules 62-4.160(2), 62-210.200(PTE), and 62-212.400(2)(g), F.A.C.]

10. This emissions unit is subject to the applicable requirements of 40 CFR Part 61, Subpart A, General Provisions.

TEST METHODS AND PROCEDURES

11. Mercury Emissions- Stack Testing: The Permittee shall either conduct testing in accordance with the terms of this Specific Condition or Specific Condition 12. or as an alternative conduct sludge sampling in accordance with Specific Condition 13.
- (1) Method 101A of 40 CFR 61 Appendix B shall be the test method.
 - (2) A test shall be performed within 90 days of startup under the terms of this construction permit.
 - (3) The Permittee shall notify the Compliance Authority in writing at least 30 days prior to an emission test, so that he may at his option observe the test.
 - (4) Samples shall be taken over such a period or periods as are necessary to determine accurately the maximum emissions which will occur in a 24-hour period. No changes shall be made in the operation which would potentially increase emissions above the level determined by the most recent stack test, until the new emission level has been estimated by calculation and the results reported to the Department.
 - (5) All samples shall be analyzed and mercury emissions shall be determined within 30 days after the stack test. Each determination shall be reported to the Compliance Authority by a registered letter dispatched within 15 calendar days following the date such determination is completed.
 - (6) Records of emission test results and other data needed to determine total emissions shall be retained at the source and shall be made available, for inspection by the Compliance Authority, for a minimum of 2 years.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

Specific Condition No. 11. Continued:

Permitting Note: Previously conducted emissions testing that meets the terms of this permit condition may be submitted to satisfy the performance testing within 90 days of startup requirement in paragraph (2).

[40 CFR 61.53(d)]

12. Mercury Emissions- Alternative Stack Testing Method: As an alternative to Method 101A of 40 CFR 61 Appendix B as stated in Specific Condition 11. above, the Permittee may use Method 29 of 40 CFR 60 Appendix A and the procedures specified in this Specific Condition to demonstrate compliance with the standard in Specific Condition No. 9.

- (1) The procedures for preparation of mercury standards and sampling analysis in sections 13.4.1.1 through 13.4.1.3 of ASTM D6784-02 shall be followed instead of the procedures in sections 7.5.33 and 11.1.3 of Method 29
- (2) The Quality Assurance/Quality Control procedures in section 13.4.2. of ASTM D6784-02 shall be performed instead of the procedures in section 9.2.3 of Method 29
- (3) At the testers option, the sample recovery and preparation procedures in ASTM D6784-02 may be used instead of the Method 29 procedures, as follows:
 - a. Sections 8.2.8 and 8.2.9.1 of Method 29 may be replaced with sections 13.2.9.1 through 13.2.9.3 of ASTM D6784-02;
 - b. Sections 8.2.9.2 and 8.2.9.3 of Method 29 may be replaced with sections 13.2.10.1 through 13.2.10.4 of ASTM D6784-02;
 - c. Section 8.3.4 of Method 29 may be replaced with section 13.3.4 or 13.3.6 of ASTM D6784-02 (as appropriate);
 - d. Section 8.3.5 of Method 29 may be replaced with section 13.3.5 or 13.3.6 of ASTM D6784-02 (as appropriate).

Permitting Note: Previously conducted emissions testing that meets the terms of this permit condition may be submitted to satisfy the performance testing within 90 days of startup requirement in paragraph (2) of Specific Condition No. 11.

[EPA Determination dated December 7, 2007]

13. Mercury Emissions- Sludge Sampling: As an alternative means for demonstrating compliance with the standard in Specific Condition No. 9., the Permittee shall use Method 105 of 40 CFR 61 Appendix B and the procedures specified in this Specific Condition:

- (1) A test shall be performed within 90 days of startup under the terms of this construction permit.

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Specific Condition No. 13. Continued:

- (2) The Permittee shall notify the Compliance Authority in writing at least 30 days prior to an emission test, so that he may at his option observe the test.
- (4) Sampling: The sludge shall be sampled according to Method 105-Determination of Mercury in Wastewater Treatment Plant Sewage Sludges. A total of three composite samples shall be obtained within an operating period of 24 hours. When the 24-hour operating period is not continuous, the total sampling period shall not exceed 72 hours after the first grab sample is obtained. Samples shall not be exposed to any condition that may result in mercury contamination or loss.
- (5) Sludge Charging Rate: The maximum 24-hour period sludge incineration or drying rate shall be determined by use of a flow rate measurement device that can measure the mass rate of sludge charged to the incinerator or dryer with an accuracy of ± 5 percent over its operating range. Other methods of measuring sludge mass charging rates may be used if they have received prior approval by the Administrator.
- (5) Sludge Analysis: The sampling, handling, preparation, and analysis of sludge samples shall be accomplished according to Method 105 of 40 CFR 61 Appendix B.
- (6) The mercury emissions shall be determined by use of the following equation:

$$EHg = MQ F_{sm}(\text{avg})/1000$$

where:

EHg=Mercury emissions, g/day.

M=Mercury concentration of sludge on a dry solids basis, $\mu\text{g/g}$.

Q=Sludge changing rate, kg/day.

F_{sm}=Weight fraction of solids in the collected sludge after mixing.

1000=Conversion factor, $\text{kg } \mu\text{g/g}^2$.

- (7) No changes in the operation of a plant shall be made after a sludge test has been conducted which would potentially increase emissions above the level determined by the most recent sludge test, until the new emission level has been estimated by calculation and the results reported to the Compliance Authority.
- (8) All sludge samples shall be analyzed for mercury content within 30 days after the sludge sample is collected. Each determination shall be reported to the Compliance Authority by a registered letter dispatched within 15 calendar days following the date such determination is completed.
- (9) Records of sludge sampling, charging rate determination and other data needed to determine mercury content of wastewater treatment plant sludges shall be retained at the source and made available, for inspection by the Compliance Authority, for a minimum of 2 years.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

Specific Condition No. 13. Continued:

Permitting Note: Previously conducted sludge sampling that meets the terms of this permit condition may be submitted to satisfy the performance testing within 90 days of startup requirement in paragraph (1) of this permit condition.

[40 CFR 61.54]

14. Mercury Emissions- Annual Compliance Demonstration: The Permittee shall monitor mercury emissions at intervals of at least once per year by using the Sludge Sampling (Method 105 of 40 CFR 61 Appendix B) or the Stack Sampling (Method 101A of 40 CFR 61 Appendix B or the procedures specified in Specific Condition 12.), if the mercury emissions as demonstrated either of these methods exceed 1.6 kg (3.5 lb) per 24-hour period.

The results of monitoring shall be reported and retained according to Specific Condition 11.(5) and (6) or Specific Condition 13.(8) and (9).

[40 CFR 61.55(a)]

RECORDKEEPING AND REPORTING

15. Fuel Usage Recordkeeping: The permittee shall obtain, make, and keep records related to the total quantity of mill effluent treatment system solids fired in the No. 6 Power Boiler on at least a monthly basis. This information shall be in a form suitable for inspection at the facility by the Department.

[Rules 62-210.370(3), 62-4.070(3), 62-212.300(1)(e)1., 62-212.400(12)(c), F.A.C.]

16. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and the project 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 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:

Rayonier Performance Fibers, LLC
Mill Effluent Treatment Solids as Fuel w/bark,
and/or wood waste, and/or TDF and/or No. 6 fuel oil in the No. 6 Power Boiler

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SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

Specific Condition No. 16. Continued:

- (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 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. For this project, baseline factors: 0.048 lb/MMBtu of particulate matter (PM) based on May 15, 2008 compliance test data (bark, knots & TDF fuels); 0.165 lb/MMBtu of oxides of nitrogen (NO_x) based on August 14 & 15, 2008 average CEMS data baseline conditions (bark & TDF fuels -Table 6 in supporting permit application).
- e. The permittee shall compute and report annual emissions in accordance with Rule 62-210.370(2), F.A.C. as provide by Appendix C of this permit. For this project, the permittee shall use the following methods in reporting the actual annual emissions for the No. 6 Boiler (identified as Emission Unit No. 022):
- (1) The permittee shall use the actual, annual heat input to the No. 6 Power Boiler and 0.185 lb NO_x/MMBtu (average from Table 6 in supporting permit application) The report shall also include the annual tons of mill effluent treatment system solids fired.
 - (2) The permittee shall use the data collected from the required stack tests to determine and report the actual annual emissions of PM. The permittee shall follow the stack test methods, test procedures and test frequencies specified in the current Title V air operation permit with the exception that the compliance test shall be conducted while firing mill effluent treatment system solids in the No. 6 Power Boiler at permitted firing rate authorized by this construction permit.
 - (3) As defined in Rule 62-210.370(2), F.A.C., the permittee shall use a more accurate methodology if it becomes available.

[Application No. 0890004-026-AC; Rules 62-212.300(1)(e), and 62-210.370, F.A.C.; Applicant Comments 8/18/10; Applicant Comments 9/29/10]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

CAM PLAN

17. In accordance with 40 CFR 64.7(e), the mill shall apply for and obtain a Title V Revision in order to modify or change the existing CAM plan to define an excursion as an ESP power input less than 45.0 kW, (excluding those events defined as startup, shutdown, and malfunction events) when mill effluent treatment system solids are co-fired with fuels as specified in Condition 4 of this construction permit in the No. 6 Power Boiler. The averaging period shall be a running one-hour average.

The wet alkaline scrubber shall be functioning when the boiler is in operation with any fuel firing configuration.

Permitting Note: The mill may re-establish the parameter value established for monitoring under 40 CFR Part 64 (CAM), through future emissions testing as approved by the Compliance Authority.

[Application No. 0890004-026-AC; Rule 62-4.070(3)]