Florida Department of Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

PERMITTEE

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

Authorized Representative:
Mr. C. A. McDonald, General Manager

Air Permit No. 0890004-035-AC
Permit Expires: April 30, 2013
Issue Date: DRAFT
Fernandina Beach Sulfite Pulp Mill
ARMS ID No. 0890004
Nine Temporary Emergency Generators

PROJECT AND LOCATION

The permittee is authorized to relocate and operate up to nine temporary emergency generators for the production of electricity. The generators will be brought on-site and used during periods of power supply disruptions. Generator engines will normally be Caterpillar model no. 3516 or similarly sized engines firing 15 ppm (maximum) by weight sulfur content No. 2 fuel oil. Each engine is nominally rated at 2682 hp with a maximum fuel consumption capacity of 126.6 gallons per hour. The proposed work will be conducted at the Fernandina Beach 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.

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 and as described in the application, approved drawings, plans, and other documents on file with the Department. 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.

CONTENTS

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Executed in Jacksonville, Florida

DRAFT

_____

Khalid Al-Nahdy, P.E.
District Air Program Administrator

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.

DRAFT

_____ _____

(Clerk) (Date)

SUBSECTION A. 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 165,000 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

Unregulated Emissions Units and/or Activities: *Refer to Appendix U-1, List of Unregulated Emissions Units and/or Activities*

The proposed project adds the following emissions unit.

E.U. ID No.	Brief Description
024	Nine Temporary Emergency Generators (New)

PROJECT DESCRIPTION

The permittee is authorized to relocate and operate up to nine temporary emergency generators for the production of electricity. The generators will be brought on-site and used during periods of power supply disruptions. Generator engines will normally be Caterpillar model no. 3516 or similarly sized engines firing 15 ppm (maximum) by weight sulfur content No. 2 fuel oil. Each engine is nominally rated at 2682 hp with a maximum fuel consumption capacity of 126.6 gallons per hour.The new generator units are not intended or expected to result in an increase in production capacity.

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 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

1. Permitting Authority: The permitting authority for this project is the Florida Department of Environmental Protection (Department), Northeast District Office, Air Resources Section. The Northeast District Office's mailing address is 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256-7590. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office. The mailing address and phone number of the District Office is: 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256. The Permitting Authority's telephone number is 904/256-1700.

3. 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

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 of the new equipment. 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.]

NINE EMERGENCY GENERATORS (EU 024)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
024	Nine Temporary Emergency Generators

Emission Unit 024 identifies up to Nine Temporary Emergency Generators. The permittee is authorized to relocate and operate up to nine temporary emergency generators for the production of electricity. The generators will be brought on-site and used during periods of power supply disruptions. Generator engines will normally be compression ignition Caterpillar model no. 3516 or similarly sized engines firing 15 ppm (maximum) by weight sulfur content No. 2 fuel oil. Biofuel is also a permitted fuel. Each engine is nominally rated at 2682 hp with a maximum fuel consumption capacity of 126.6 gallons per hour. The nominally sized generator is rated at approximately 2000 kilowatts (kW).

Rule Applicability

New Source Performance Standards (NSPS) / National Emission Standards for Hazardous Air Pollutants (NESHAP)

The temporary emergency generators are not subject to NSPS 40 CFR 60, Subpart IIII, Stationary Performance Standards for Compression Ignition Engines nor NESHAP 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines since the engines meet the definition of non road engines and will not be located at the site for longer than 12 months.

NSPS Definition (40 CFR 60, Subpart IIII) - *Stationary internal combustion engine* means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

NESHAP Definition (40 CFR 63, Subpart ZZZZ)- *Stationary reciprocating internal combustion engine (RICE)* means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Nonroad Engines Definition (40 CFR 1068, GENERAL COMPLIANCE PROVISIONS FOR HIGHWAY, STATIONARY, AND NONROAD PROGRAMS), 1068.30 - *Nonroad engine* means:

(1) Except as discussed in paragraph (2) of this definition, a nonroad engine is an internal combustion engine that meets any of the following criteria:

(i) It is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers).

(ii) It is (or will be) used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).

(iii) By itself or in or on a piece of equipment, it is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

(2) An internal combustion engine is not a nonroad engine if it meets any of the following criteria:

(i) The engine is used to propel a motor vehicle, an aircraft, or equipment used solely for competition.

(ii) The engine is regulated under 40 CFR part 60, (or otherwise regulated by a federal New Source Performance Standard promulgated under section 111 of the Clean Air Act (42 U.S.C. 7411)).

(iii) The engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. See §1068.31 for provisions that apply if the engine is removed from the location.

Prevention of Significant Deterioration (PSD)

Since all regulated pollutant increases are below the significant level, PSD requirements are not applicable. Individual generators may be larger or smaller than the typical unit however the annual emission rate related to this project shall always be maintained below the PSD significant level as determined during the permitting action.

Significant Emission Rate Definition (Rule 62-210.200, F.A.C.) - (274) "Significant Emissions Rate" –
(a) With respect to any emissions increase or any net emissions increase, or the potential of a facility to emit any of the following pollutants, significant emissions rate means a rate of pollutant emissions that would equal or exceed:
1. A rate listed at 40 CFR 52.21(b)(23)(i), adopted by reference at Rule 62-204.800, F.A.C.; specifically, any of the following rates:
a. Carbon monoxide: 100 tons per year (tpy);
b. Nitrogen oxides: 40 tpy;
c. Sulfur dioxide: 40 tpy;
d. Particulate matter:
(I) 25 tpy of particulate matter emissions;
(II) 15 tpy of PM10 emissions;
e. Ozone: 40 tpy of volatile organic compounds or nitrogen oxides;
f. Lead: 0.6 tpy;
g. Fluorides: 3 tpy;
h. Sulfuric acid mist: 7 tpy;
i. Hydrogen sulfide (H2S): 10 tpy;
j. Total reduced sulfur (including H2S): 10 tpy;
k. Reduced sulfur compounds (including H2S): 10 tpy;
31
l. Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and

dibenzofurans): 3.2 × 10-6 megagrams per year (3.5 × 10-6 tons per year);
m. Municipal waste combustor metals (measured as particulate matter): 14 megagrams per year (15 tons per year);
n. Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride): 36 megagrams per year (40 tons per year);
o. Municipal solid waste landfills emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year); or
2. A rate previously listed at Table 62-212.400-2; specifically, Mercury: 0.1 tpy.
(b) Significant emissions rate also means, for the pollutants listed above in paragraph (a), any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 g/m3, 24-hour average.
(c) For purposes of substances listed in paragraph (d) of the definition of "Regulated Air Pollutant" that do not otherwise have a threshold at paragraph (a) or (b), above, or for which 40 CFR 52.21(b)(50)(iv) prohibits regulation under the prevention of significant deterioration program, "Significant Emissions Rate" shall have the rate specified at 40 CFR 52.21(b)(23)(ii), adopted and incorporated by reference at Rule 62-204.800, F.A.C.

PERFORMANCE RESTRICTIONS

1. Capacities and Fuels: The proposed work shall not result in any increase in the mill pulp production rate.

   [Rule 62-4.070(3), F.A.C. and Application No. 0890004-35-AC]

2. The permittee shall limit the number of temporary emergency generators relocated to the Fernandina Beach mill site to nine at any given time.

   [Rule 62-4.070(3), F.A.C. and Application No. 0890004-35-AC]

3. Fuel combusted in the temporary emergency generators shall be limited as follows:

   - Fuel containing a maximum of 15 ppm by weight sulfur content.
   - Fuel types shall be limited to virgin No. 2 fuel oil or biodiesel fuel (each fuel shall meet federal specifications for diesel fuel).
   - The quantity of fuel combusted in this emission unit shall be limited to 272,500 gallons per calendar year

   [Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-35-AC]

RECORDKEEPING AND REPORTING REQUIREMENTS

4. The permittee shall record the following information:

   a. Manufacturer name and date of manufacture of engine(s)
   b. Model No. of each engine
   c. Generating capacity in kW of each engine
   d. No. of cylinders and displacement per cylinder (liters or cubic inches)
   e. Quantity of fuel combusted and kWh generated while located at the site (total engines)
   f. Date and number of generators relocated to the site during each power supply disruption

g. Description of each power supply disruption event, including magnitude of event affecting existing emission unit(s)
h. Estimate of the quantity of the following pollutants (total from all engines) generated while located at the site:
   i. Carbon Monoxide
   ii. Oxides of Nitrogen
   iii. Sulfur dioxide
   iv. Volatile Organic Compounds
   v. Particulate Matter (PM), PM_{10}, and $PM_{2.5}$
i. Date each generator is removed from the site during each power supply disruption
j. Maintain fuel record receipts and supplier certifications for the fuel combusted in the temporary emergency generators. Receipts and certifications shall include the supplier name, type of fuel supplied and sulfur content of fuel supplied.

Provide calculations for each pollutant estimate including supporting documentation for any emission factors used.

[Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-35-AC]

5. The permittee shall submit to the Permitting Authority the date and number of generators relocated to the site during each power supply disruption. The report shall be submitted within 30 days of the delivery of the relocated generator(s).

   [Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-35-AC]

6. The permittee shall submit to the Permitting Authority the records maintained in specific condition No. 4 above. The report shall be submitted on or before April 1st of the year following the calendar year in which the data was recorded.

   [Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Application No. 0890004-35-AC]

7. If generator(s) remain onsite for 12 months or longer or otherwise are no longer classified as temporary, applicable portions of NSPS 40 CFR 60, Subpart IIII, Stationary Performance Standards for Compression Ignition Engines and NESHAP 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines apply.

   [40 CFR 60, Subpart IIII, 40 CFR 63, Subpart ZZZZ, Rule 62-4.070(3), Rule 62-212.300, F.A.C., and Rule 62-204.800, F.A.C.]