AIR CONSTRUCTION PERMIT APPLICATION

For Pulp Production Increase
Rayonier Fernandina Beach

Prepared For: Rayonier Performance Fibers, LLC
P.O. Box 2002
Fernandina Beach, FL 32035

Submitted By: Golder Associates Inc.
6026 NW 1st Place
Gainesville, FL 32607 USA

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September 2010

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Golder Associates

APPLICATION FOR AIR PERMIT

LONG FORM

Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **Rayonier Performance Fibers LLC**	
2. Site Name: **Fernandina Beach Dissolving Sulfite Pulp Mill**	
3. Facility Identification Number: **0890004**	
4. Facility Location... Street Address or Other Locator: **Foot of Gum Street** City: **Fernandina Beach** County: **Nassau** Zip Code: **32034**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **David Rogers, Manager, Environmental Operations**
2. Application Contact Mailing Address... Organization/Firm: **Rayonier Performance Fibers LLC** Street Address: **P.O. Box 2002** City: **Fernandina Beach** State: **FL** Zip Code: **32035**
3. Application Contact Telephone Numbers... Telephone: **(904) 277-1346** ext. Fax: **(904) 261-0333**
4. Application Contact E-mail Address: **david.rogers@rayonier.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

☒ Air construction permit.

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).

☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

☐ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☐ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

☐ Air construction permit and Title V permit revision, incorporating the proposed project.

☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

This application is being submitted to request an increase in the maximum permitted pulp production rate from 162,000 to 166,000 air-dried metric tons (ADMT) per year until the HCE blow heat recovery system is installed and the facility is allowed to produce 175,000 ADMT/yr. PSD review does not apply to the proposed project.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
005	Vent Gas Scrubber and Direct Contact Condenser	AC1D	N/A
010	Biological Effluent Treatment System	AC1D	N/A
011	Dissolving-Grade Bleaching System	AC1D	N/A
021	Evaporator Vents Methanol Condenser	AC1D	N/A

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☒ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name:
   C.A. McDonald, General Manager
2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Rayonier Performance Fibers LLC**
   Street Address: **P.O. Box 2002**
   City: **Fernandina Beach** State: **FL** Zip Code: **32035**
3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(904) 277-1405** ext. Fax: **(904) 277-1411**
4. Owner/Authorized Representative E-mail Address: **ca.mcdonald@rayonier.com**
5. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.

C.A. McDonald — Signature

9/21/10 — Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
   - ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
   - ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
   - ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
   - ☐ The designated representative at an Acid Rain source or CAIR source.

3. Application Responsible Official Mailing Address...
   Organization/Firm:
   Street Address:
   City: State: Zip Code:

4. Application Responsible Official Telephone Numbers...
   Telephone: ( ) ext. Fax: ( )

5. Application Responsible Official E-mail Address:

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

Signature Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6026 NW 1st Place**
   City: **Gainesville** State: **FL** Zip Code: **32607**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext. **21145** Fax: **(352) 336-6603**
4. Professional Engineer E-mail Address: **dbuff@golder.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

David A. Buff
Signature

9/22/10
Date

(seal)

Attach any exception to certification statement.

*Board of Professional Engineers Certificate of Authorization #00001670.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone **14** East (km) **454.7** North (km) **3392.2**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **30 / 39 / 44** Longitude (DD/MM/SS) **81 / 29 / 03**	
3. Governmental Facility Code: **N/A**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **26**	6. Facility SIC(s): **2611**
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: **David Rogers, Manager, Environmental Operations**
2. Facility Contact Mailing Address... Organization/Firm: **Rayonier Performance Fibers LLC** Street Address: **P.O. Box 2002** City: **Fernandina Beach** State: **FL** Zip Code: **32035**
3. Facility Contact Telephone Numbers: Telephone: **(904) 277-1346** ext. Fax: **(904) 261-0333**
4. Facility Contact E-mail Address: **david.rogers@rayonier.com**

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) ext. Fax: ( )
4. Facility Primary Responsible Official E-mail Address:

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. ☐ Small Business Stationary Source	☐ Unknown
2. ☐ Synthetic Non-Title V Source	
3. ☒ Title V Source	
4. ☒ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. ☒ Major Source of Hazardous Air Pollutants (HAPs)	
7. ☐ Synthetic Minor Source of HAPs	
8. ☒ One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. ☐ One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. ☒ One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Particulate Matter Total – PM	**A**	**N**
Particulate Matter less than 10 microns – PM10	**A**	**N**
Particulate Matter less than 2.5 microns – PM2.5	**A**	**N**
Sulfur Dioxide – SO2	**A**	**N**
Nitrogen Oxides – NOx	**A**	**N**
Carbon Monoxide – CO	**A**	**N**
Volatile Organic Compounds – VOC	**A**	**N**
Total Hazardous Air Pollutants – HAPs	**A**	**N**
H001 – Acetaldehyde	**A**	**N**
H038 – Chlorine	**B**	**N**
H115 – Methanol	**A**	**N**

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility-Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **RPF-FI-C1** ☐ Previously Submitted, Date:_____

2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **RPF-FI-C2** ☐ Previously Submitted, Date:_____

3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **RPF-FI-C3** ☐ Previously Submitted, Date:_____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location:
   ☐ Attached, Document ID:_____ ☒ Not Applicable (existing permitted facility)

2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):
   ☒ Attached, Document ID: **Attachment A**

3. Rule Applicability Analysis:
   ☒ Attached, Document ID: **Attachment A**

4. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☒ Not Applicable (no exempt units at facility)

5. Fugitive Emissions Identification:
   ☐ Attached, Document ID:_____ ☒ Not Applicable

6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable

7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable

8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable

9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):
   ☐ Attached, Document ID:_____ ☒ Not Applicable

10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
    ☐ Attached, Document ID:_____ ☒ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:
   ☐ Attached, Document ID:_____ ☐ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)
   ☐ Attached, Document ID:_____ ☐ Not Applicable (revision application)

2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)
   ☐ Attached, Document ID:_____
   ☐ Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)
   ☐ Attached, Document ID:_____
   Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)
   ☐ Attached, Document ID:_____
   ☐ Equipment/Activities Onsite but Not Required to be Individually Listed
   ☐ Not Applicable

5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)
   ☐ Attached, Document ID:_____ ☐ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☐ Attached, Document ID:_____ ☐ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid Rain Program Forms:

   Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable (not an Acid Rain source)

   Phase II NO_X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable

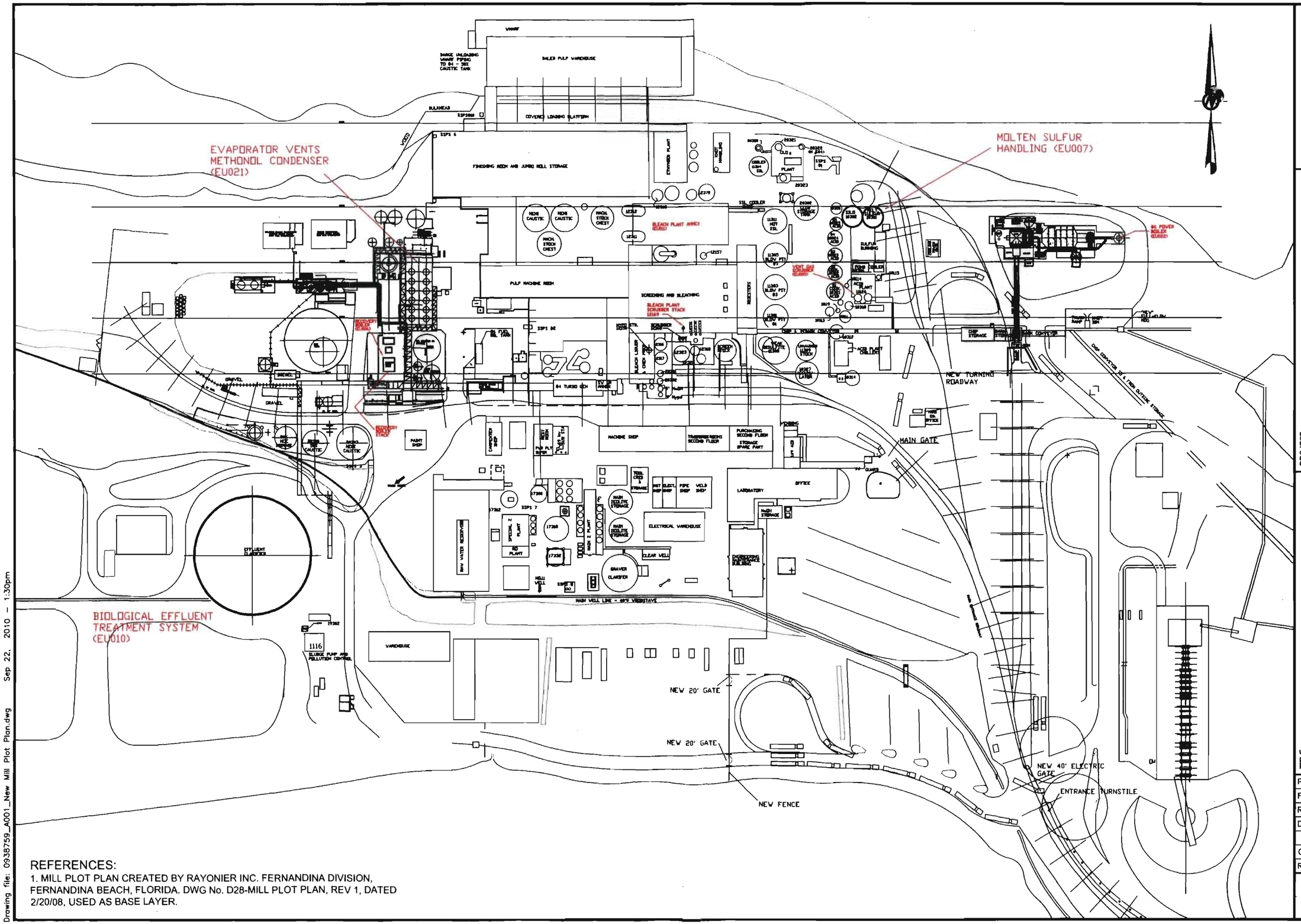
   New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):
   ☐ Attached, Document ID:_____ ☐ Previously Submitted, Date:_____
   ☒ Not Applicable (not a CAIR source)

Additional Requirements Comment

ATTACHMENT RPF-FI-C1

FACILITY PLOT PLAN



REFERENCES:

1. MILL PLOT PLAN CREATED BY RAYONIER INC. FERNANDINA DIVISION, FERNANDINA BEACH, FLORIDA. DWG No. D28-MILL PLOT PLAN, REV 1, DATED 2/20/08, USED AS BASE LAYER.

Drawing file: 0938759_A001_New Mill Plot Plan.dwg Sep 22, 2010 - 1:30pm

Golder Associates
Gainesville, Florida

PROJECT

RAYONIER INC.,
FERNANDINA DIVISION,
FERNANDINA BEACH, FLORIDA

TITLE

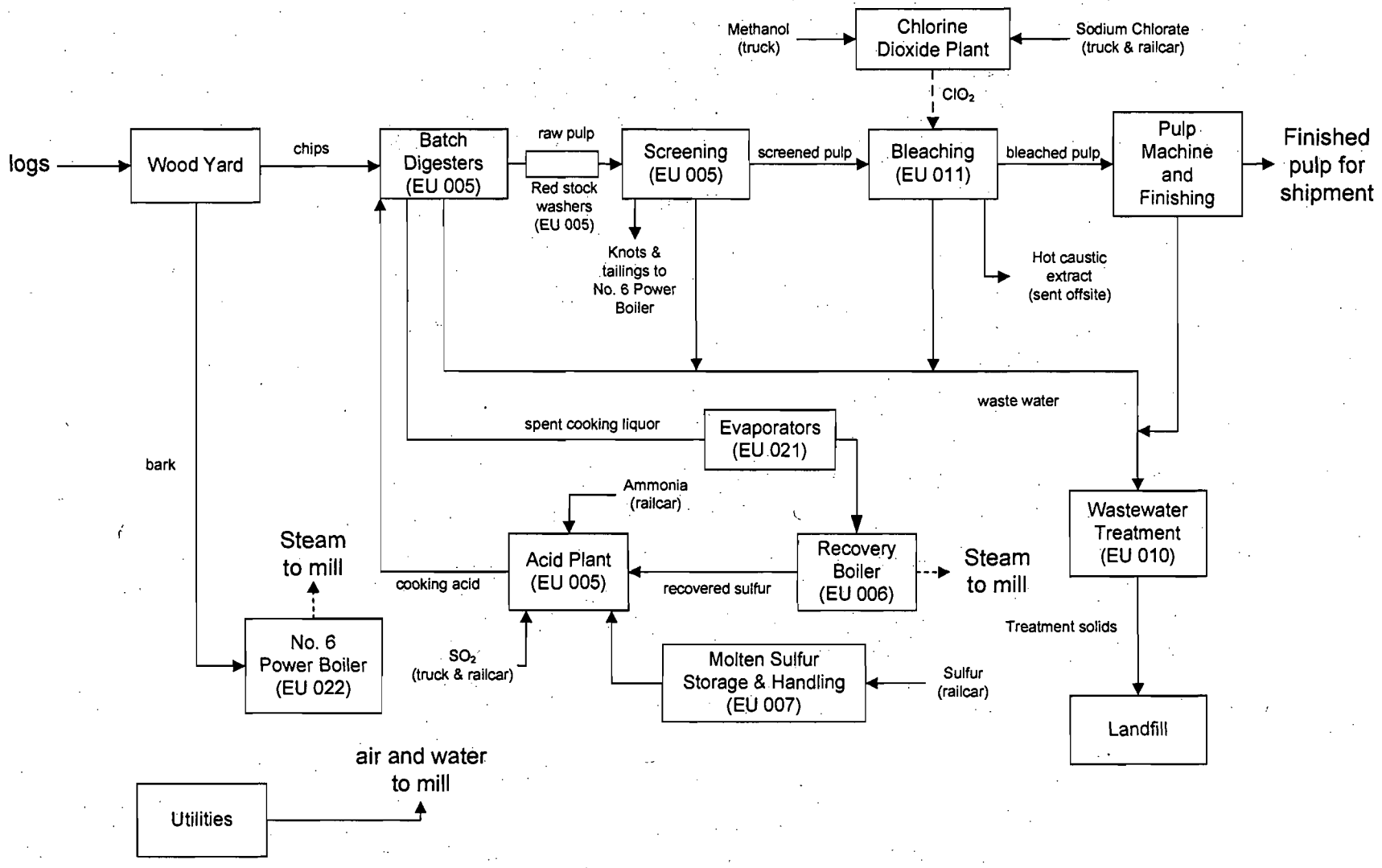
FACILITY
PLOT PLAN

PROJECT No. 093-87759		
FILE No. 09387759_A001		
REV. 0	SCALE AS SHOWN	
DESIGN	JDP	01/26/10
CADD	NRL	03/10/10
CHECK	JDP	03/10/10
REVIEW	DB	03/10/10

RPF-FI-C1

ATTACHMENT RPF-FI-C2

PROCESS FLOW DIAGRAM



Attachment RPF-FI-C2
Process Flow Diagram – Facility
Rayonier Performance Fibers LLC
Fernandina Beach Mill

Process Flow Legend
Solid/Liquid
Gas
Steam

Golder Associates

Y:\Projects\2009\093-87759 Rayonier\Applications\Pulp Increase\Final\Attachments\FI\RPF-FI-C2.vsd

ATTACHMENT RPF-FI-C3

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

ATTACHMENT RPF-FI-C3

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Reasonable precautions to include the following:

Emissions Point Vent Number	Emissions Point Name	Description and Control Measures
WY001	Chip pit blower	Fresh chips are pneumatically conveyed to a chip pile by a blower. Chipping technology minimizes the production of fines. Also, chips are made from freshly cut pine trees having a moisture content of about 50 percent. This moisture aids in keeping any dust that might be made airborne.
WY004	Chip pile	Chipping technology minimizes the production of fines. Chips are made from freshly cut pine trees having a moisture content of about 50 percent. This moisture aids in keeping any dust that might be made airborne. Also, frequent rains keep the chip pile sufficiently wet to control windborne particulate.
WY006	Bark pile	Bark has at least 50 percent moisture and is created in large pieces. Some of the bark must be hogged before burning. Therefore, little becomes airborne from the pile. Furthermore, frequent rains maintain the pile at sufficient moisture to suppress dusting.
AP003	Molten sulfur handling area	Fugitive emissions from the molten sulfur handing areas are regulated by Rule 62-296.411, F.A.C. These rules require curbing and drip pans at unloading areas. Cleanup of spills must occur periodically. Logs must be kept on spills. All of these actions are implemented. They provide the means of minimizing the release of unconfined particulate matter from this source.

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [1]
Vent Gas Scrubber

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
   - ☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
   - ☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
   - ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
   - ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
   - ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.
2. Description of Emissions Unit Addressed in this Section:
   Vent Gas Scrubber and Direct Contact Condenser
3. Emissions Unit Identification Number: **005**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A			**26**

8. Federal Program Applicability: (Check all that apply)
   - ☐ Acid Rain Unit
   - ☐ CAIR Unit
9. Package Unit:
   Manufacturer: Model Number:
10. Generator Nameplate Rating: MW
11. Emissions Unit Comment:
    The vent gas scrubber (wet scrubber and direct contact condenser) controls emissions from numerous vents from the cooking acid plant, the red stock washers, the unwashed stock tank, the spent sulfite liquor storage tanks, the spent sulfite liquor washer area, the digesters (6), and the blow pits.

EMISSIONS UNIT INFORMATION
Section [1]
Vent Gas Scrubber

Emissions Unit Control Equipment/Method: Control 1 of 3

1. Control Equipment/Method Description: **Packed bed scrubber containing 10 ft of packing consisting of two packed sections. The lower section is designed for SO_2 emissions control via gas absorption using alkaline scrubber media.**
2. Control Device or Method Code: **050**

Emissions Unit Control Equipment/Method: Control 2 of 3

1. Control Equipment/Method Description: **The upper section of the packed bed scrubber is designed to condense methanol from the gas stream by direct contact with fresh water.**
2. Control Device or Method Code: **047**

Emissions Unit Control Equipment/Method: Control 3 of 3

1. Control Equipment/Method Description: **Process Enclosed – "Closed Vent" Enclosure System**
2. Control Device or Method Code: **054**

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

	Maximum Process or Throughput Rate:
2.	Maximum Production Rate: **166,000 air-dried metric tons (ADMT) of pulp per year**
3.	Maximum Heat Input Rate: million Btu/hr
4.	Maximum Incineration Rate: pounds/hr tons/day
5.	Requested Maximum Operating Schedule: **24** hours/day **7** days/week **52** weeks/year **8,760** hours/year
6.	Operating Capacity/Schedule Comment: **Maximum production rate requested in interim period prior to installing blow heat recovery system.**

EMISSIONS UNIT INFORMATION
Section [1]
Vent Gas Scrubber

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU 005**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **110** feet	7. Exit Diameter: **3.0** feet
8. Exit Temperature: **122**°F	9. Actual Volumetric Flow Rate: **28,350** acfm	10. Water Vapor: **5.6** %
11. Maximum Dry Standard Flow Rate: **24,279** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type): **Industrial Processes; Pulp and Wood Products; Sulfite Pulping; Digester/Blow Pit/Dump Tank: NH3**		
2. Source Classification Code (SCC): **3-07-002-14**	3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **41.6**	5. Maximum Annual Rate: **254,143**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Segment represents mill digesters (6) and blow pits. Maximum annual throughput based on requested facility-wide maximum 12-month rolling total pulp production. 166,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =254,143 tons per year air-dried unbleached pulp**		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): **Industrial Processes; Pulp and Wood Products; Sulfite Pulping; Acid Plant: NH3**		
2. Source Classification Code (SCC): **3-07-002-31**	3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **41.6**	5. Maximum Annual Rate: **254,143**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Segment represents cooking acid plant. Maximum annual throughput based on requested facility-wide maximum 12-month rolling total pulp production. 166,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =254,143 tons per year air-dried unbleached pulp**		

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type): **Industrial Processes; Pulp and Wood Products; Sulfite Pulping; Knotters/Washers/Screens**		
2. Source Classification Code (SCC): **3-07-002-34**	3. SCC Units: **Tons Air-Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **41.6**	5. Maximum Annual Rate: **254,143**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Segment represents knotters, red stock washers, and screens. Maximum annual throughput based on requested facility-wide maximum 12-month rolling total pulp production.** **166,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =254,143 tons per year air-dried unbleached pulp**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO2	050	054	EL
VOC	047	054	NS
H001-Acetaldehyde	047	054	NS
H115-Methanol	047	054	EL
HAPs	047	054	NS

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **SO2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **63.18** lb/hour **276.7** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **250 parts per million (ppm)** Reference: **Permit No. 0890004-028-AV**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): **65.42** tons/year	8.b. Baseline 24-month Period: From: **Jan 2000** To: **Dec 2001**
9.a. Projected Actual Emissions (if required): **73.01** tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

Hourly: (250 ppm/10^6) x 2,116.8 lb_f/ft^2 x 60 min/hr x 28,350 dscfm x 64 lb/lb-mol x 1/1,545.6 ft-lb_f/lb_m-°R x 1/590 °R = 63.18 lb/hr

Annual: 63.18 lb/hr x 8,760 hr/yr x 1 ton/2,000 lbs = 276.72 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

SO_2 limited to 250 ppm (28,350 ACFM, 130°F) as a 3-hour average.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions **1** of **1**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **250 ppm (3-hour average)**	4. Equivalent Allowable Emissions: **63.18** lb/hour **276.7** tons/year
5. Method of Compliance: **Continuous Monitoring System**	
6. Allowable Emissions Comment (Description of Operating Method): **Permit No. 0890004-028-AV**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **45.34** lb/hour **53** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.417 lb/ADTUBP** Reference: **See comment**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): **36.62** tons/year	8.b. Baseline 24-month Period: From: **Jan 2003** To: **Dec 2004**
9.a. Projected Actual Emissions (if required): **40.54** tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

Hourly: 41.6 ADTUBP/hr x 0.417 lb/ADTUBP = 17.35 lb/hr

Annual: 254,143 ADTUBP/yr x 0.417 lb/ADTUBP x 1 ton/2,000 lb = 53 TPY

11. Potential, Fugitive, and Actual Emissions Comment:
Emission factor based on emissions from highest baseline year in 2005 application.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **H115 – Methanol**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **82.37** lb/hour **251.6** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **2.2 lb/ODTUBP** Reference: **40 CFR 63.444(c)(2)(i), and permit No. 0890004-028-AV**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Hourly: 41.6 ADTUBP/hr x 0.9 ODTUBP/ADTUBP = 37.44 ODTUBP/hr
37.44 ODTUBP/hr x 2.2 lb Methanol/ODTUBP = 82.37 lb/hr

Annual: 254,143 tons ADTUBP/yr x 0.9 ODTUBP/ADTUBP = 228,729 tons ODTUBP/yr
228,729 tons ODTUBP/yr x 2.2 lb Methanol/ODTUBP x 1 ton/2,000 lbs = 251.6 TPY

ODTUBP = oven-dried tons unbleached pulp

11. Potential, Fugitive, and Actual Emissions Comment:

Potential emissions based on limit for the Vent Gas Scrubber (EU 005), Evaporator Vents Methanol Condenser System (EU 021), and Biological Effluent Treatment System (EU 010). Methanol is a surrogate for total HAPs. Per 40 CFR 63, Subpart S, the production rate is based on the feed rate to the bleaching system (i.e., unbleached pulp).

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2.2 lb/ODTUBP**	4. Equivalent Allowable Emissions: **82.37** lb/hour **251.6** tons/year
5. Method of Compliance: **CMS, NCASI Test Method DI/MEOH-94.03, and Mathematical Model Water9.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on 40 CFR 63.444(c)(2)(i). Methanol is a surrogate for total HAP emissions. Emission limit applies to total methanol emissions for EU Nos. 005, 010, and 021 combined. As an alternative, RPF could choose to meet a limit of 87-percent removal by weight of the total HAP or methanol.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **FDEP Method 9**	
5. Visible Emissions Comment: **Rule 62-296.320(4)(b)(1), F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: **EM**	2. Pollutant(s): **SO2**
3. CMS Requirement:	☐ Rule ☒ Other
4. Monitor Information... Manufacturer: **Siemens** Model Number: **Ultramat SE: SSN-EN-40**	Serial Number:
5. Installation Date: **March 23, 1995**	6. Performance Specification Test Date: **July 2009**
7. Continuous Monitor Comment: **Air Permit No. 0890004-020-AV**	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Rosemont** Model Number: **8712U**	Serial Number: **112442**
5. Installation Date:	6. Performance Specification Test Date: **June 17, 2002**
7. Continuous Monitor Comment: **Continuous monitoring of water flow entering the direct contact condenser. Monitor satisfies the requirements of 40 CFR 63.453(m).**	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: **TEMP**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Rosemont** Model Number: **3144D1NAC2x3** Serial Number: **0548606**	
5. Installation Date:	6. Performance Specification Test Date: **June 17, 2002**
7. Continuous Monitor Comment: **Continuous monitoring of gas temperature discharging the direct contact condenser. Monitor satisfies the requirements of 40 CFR 63.453(m).**	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: RPF-EU1-I1 ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: RPF-EU1-I3 ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   ☐ Attached, Document ID: _____ ☒ Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63,43(d) and (e)): ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable

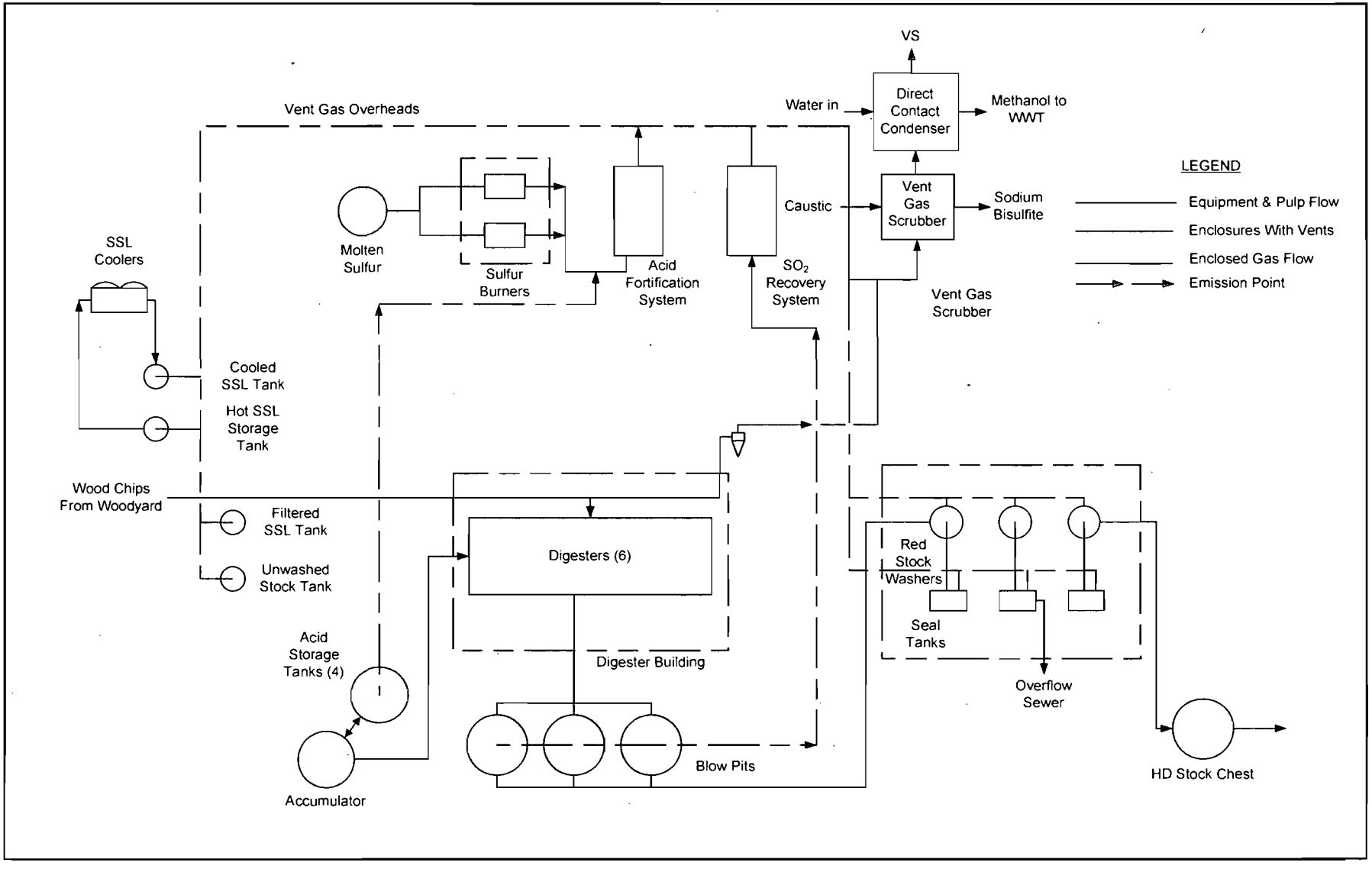
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

ATTACHMENT RPF-EU1-I1

PROCESS FLOW DIAGRAM



Attachment RPF-EU1-I1
Vent Gas Scrubber and Direct Contact Condenser (EU 005)
Process Flow Diagram
Rayonier Performance Fibers LLC
Fernandina Beach Mill

Golder Associates

Y:\Projects\2009\093-87759 Rayonier\Applications\Pulp Increase\Final\Attachments\EU1\RPF-EU1-I1.vsd

ATTACHMENT RPF-EU1-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU1-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT
VENT GAS SCRUBBER

Emissions from the cooking acid plant, the red stock washers, the unwashed stock tank, the spent sulfite liquor tanks, the SSL washer area, digesters, and blow pits are collected and scrubbed in the vent gas scrubber. The vent gas scrubber consists of a packed tower containing 6 feet (ft) of poured packing. Gas flows upward through the packing. Sodium bisulfite/sulfite absorbate is sprayed onto the top of the packing and continues downward through the packing to the bottom of the tower. The absorbate is pumped from the tower sump to the sodium bisulfite storage tank. The loop is completed when the absorbate is pumped from the storage tank back to the top tray of the vent gas scrubber.

The liquid level in the tower sump is controlled by a proportional–integral–derivative (PID) instrument in the acid plant distributive control system (DCS). The DCS has a sequential logic program (sequence table) running in the background that manages operating problems. If the tower sump pump or the sump level control valve fail, the sequence logic opens a bleed off valve to prevent the sump level from building up and flowing down the gas inlet valve, causing the main fan to shut down or be damaged. This allows an orderly shut down for repairs. When soda ash is used as the absorbate, circumstances occasionally arise that cause carbon dioxide to be evolved in the tower sump pump suction. The sequential logic introduces cool water into the pump to re-establish suction.

A continuous sample of absorbate from the bottom of the tower is pumped to a pH instrument. The pH signal is transmitted to the DCS. A PID instrument in the DCS controls the addition of fresh 7 percent caustic soda solution or 9 percent soda ash solution into the absorbate stream entering the top tray. The controller set point is pH 6.5. The pH set point may be increased to respond to an unusually high-gas loading into the vent gas scrubber. The sulfur dioxide (SO_2) concentration in the stack is measured with a continuous emission monitor. The DCS calculates 1-hour and 24-hour running averages of the SO_2 concentration.

The upper section of the scrubber is designed as a direct contact condenser. The condenser collects methanol using relatively cooler raw water. The effluent is sent to the biological treatment system.

A continuous monitoring system is operated to measure the following parameters at the methanol direct contact condenser:

- Water flow entering the direct contact condenser
- Gas temperature discharging the direct contact condenser

The vent gas scrubber stack and direct contact condenser is operated with a minimum water flow rate entering the direct contact condenser of 75 gallons per minute (gpm) and a maximum gas discharge temperature of 108 degrees Fahrenheit (°F).

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [2]
Biological Effluent Treatment System

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Biological Effluent Treatment System

3. Emissions Unit Identification Number: **010**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A			**26**

8. Federal Program Applicability: (Check all that apply)

☐ Acid Rain Unit

☐ CAIR Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
The biological treatment system removes the methanol from the effluent via bacterial digestion. The effluent from the systems required to be treated by 40 CFR 63 Subpart S, combined with other mill effluent, is treated in a primary, open clarifier and the aerated stabilization basin (biological treatment system).

EMISSIONS UNIT INFORMATION
Section [2]
Biological Effluent Treatment System

Emissions Unit Control Equipment/Method: Control **1** of **1**

1. Control Equipment/Method Description: **Miscellaneous Control Devices: Biological Treatment System**
2. Control Device or Method Code: **099**

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control ____ of ____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

B. EMISSIONS UNIT CAPACITY INFORMATION
(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate: **254,143 ADTUBP/yr**	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year
6. Operating Capacity/Schedule Comment: **ADTUBP = air-dried tons unbleached pulp.** **Represents interim rate prior to installing blow heat recovery system on EU 005.**	

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU 010**	2. Emission Point Type Code: **4**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **F**	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **This emission unit includes the wastewater pump stations, primary clarifier, clarifier discharge flume, and the aerated stabilization basin. These systems collect condensates from the Vent Gas Scrubber (EU 005) and Evaporator Vents Methanol Condenser System (EU 021).**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Pulp and Paper and Wood Products; Sulfite Pulping: Effluent Treatment**		
2. Source Classification Code (SCC): **3-07-002-99**	3. SCC Units: **Air-Dried Tons Unbleached Pulp**	
4. Maximum Hourly Rate: **41.6**	5. Maximum Annual Rate: **254,143**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum annual throughput based on requested facility wide maximum 12-month rolling total pulp production. 166,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =254,143 tons per year air-dried unbleached pulp**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H115 - Methanol	099		EL
HAPs	099		NS
VOC	099		NS

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **H115 - Methanol**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment: **Potential emissions of methanol for Biological Effluent Treatment System included in Vent Gas Scrubber System (EU 005) calculations.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2.2 lb/ODTUBP**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: **CMS, NCASI Test Method DI/MEOH-94.03, and Mathematical Model Water9.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on 40 CFR 63.444(c)(2)(i). Allowable emissions included in Vent Gas Scrubber System (EU 005) calculations**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **28.7** lb/hour **87.68** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.69 lb/ADTUBP** Reference: **See comment**	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): **66.26** tons/year	8.b. Baseline 24-month Period: From: **Jan 2003** To: **Dec 2004**
9.a. Projected Actual Emissions (if required): **73.36** tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

Hourly: 41.6 ADTUBP/hr x 0.69 lb/ADTUBP = 28.7 lb/hr

Annual: 254,143 ADTUBP/yr x 0.69 lb/ADTUBP x 1 ton/2,000 lb = 87.68 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Emission factor based on emissions from highest baseline year in 2005 application.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor **1** of **1**

1. Parameter Code: **OTHER**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date: **June 17, 2002**
7. Continuous Monitor Comment: **Continuous monitoring system monitors the total horsepower for aeration in the Aerated Stabilization Basin (ASB). Total aerator horsepower is monitored as a total summation of amps from each aerator. Monitor satisfies the requirements of 40 CFR 63.453(j)(2) and Permit No. 0890004-028-AV.**	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION
Section [2]
Biological Effluent Treatment System

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: RPF-EU2-I1 ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: RPF-EU2-I3 ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   ☐ Attached, Document ID: _____ ☒ Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable

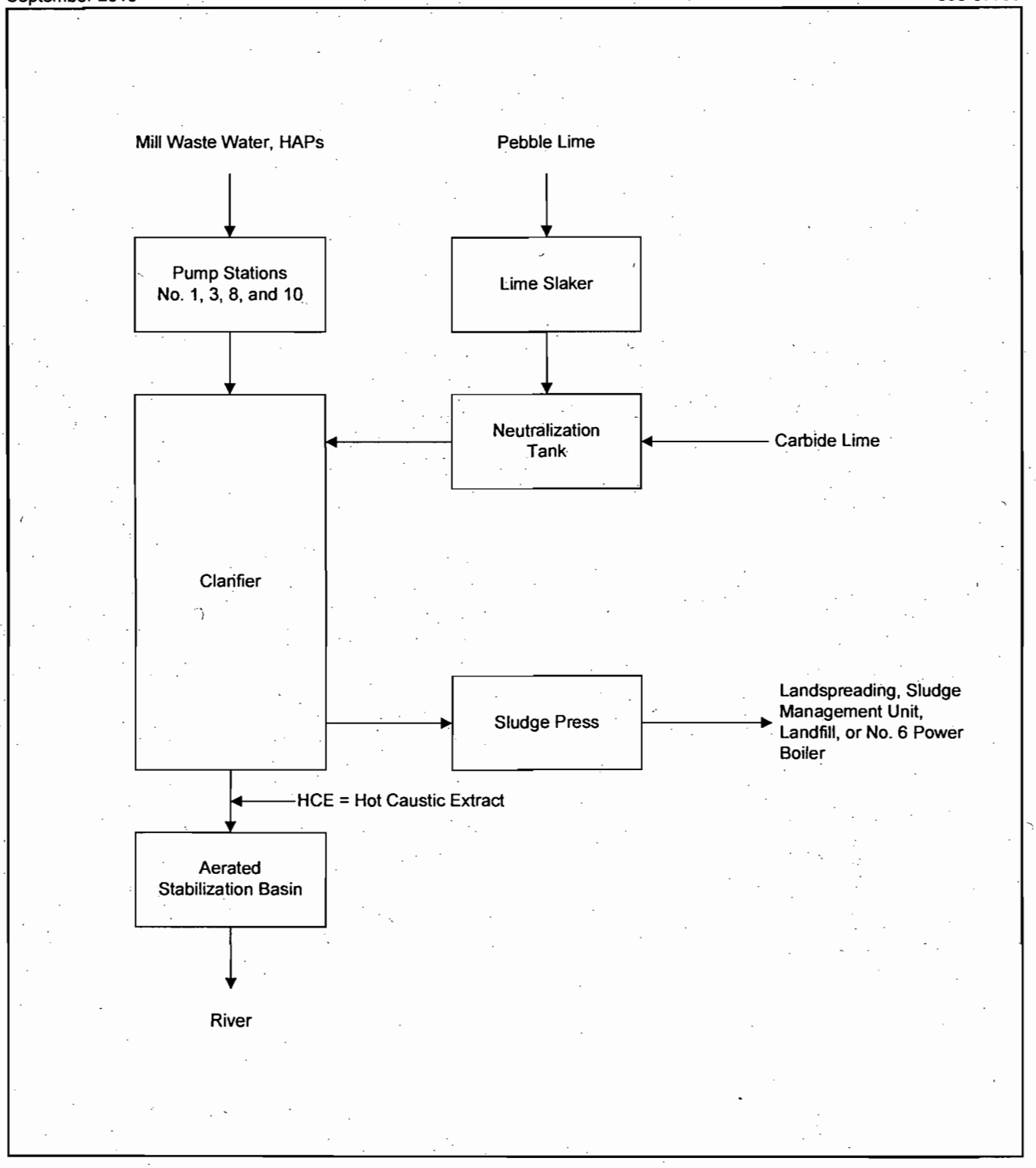
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

ATTACHMENT RPF-EU2-I1

PROCESS FLOW DIAGRAM



Attachment RPF-EU2-I1
Process Flow Diagram
Biological Effluent Treatment System
Rayonier Performance Fibers LLC
Fernandina Beach Mill

Process Flow Legend

Solid/Liquid →

Golder Associates

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ATTACHMENT RPF-EU2-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU2-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT BIOLOGICAL EFFLUENT TREATMENT SYSTEM

Effluent from the Vent Gas Scrubber and Direct Contact Condenser (EU 005), containing the collected methanol from the pulping operations, is sent to the No. 1 Pump Station. Effluent containing methanol from the Evaporator Vents Methanol Condenser (EU 021) is sent to the No. 3 Pump Station. The pump stations send the collected methanol and other wastewater to the Biological Effluent Treatment System.

The wastewater is pumped into the clarifier followed by the Aerated Stabilization Basin. This system is approximately 30 acres in size, comprising approximately 140 million gallons. The system transfers oxygen to the wastewater using mechanical aerators. Each aerator is 75 or 100 horsepower and the entire system uses a total of approximately 3,700 horsepower. There are 3 aerated zones and a final settling or quiescence zone to settle remaining suspended solids before discharge to the Amelia River.

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [3]
Dissolving-Grade Bleaching System

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Dissolving-Grade Bleaching System

3. Emissions Unit Identification Number: **011**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A			**26**

8. Federal Program Applicability: (Check all that apply)

☐ Acid Rain Unit

☐ CAIR Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
See Attachment RPF-EU3-A11 for a list of equipment that is vented to the Bleach Plant Scrubber.

EMISSIONS UNIT INFORMATION
Section [3]
Dissolving-Grade Bleaching System

Emissions Unit Control Equipment/Method: Control 1 of 3

1. Control Equipment/Method Description: **Caustic Scrubber**
2. Control Device or Method Code: **130**

Emissions Unit Control Equipment/Method: Control 2 of 3

1. Control Equipment/Method Description: **Mist Eliminator**
2. Control Device or Method Code: **151**

Emissions Unit Control Equipment/Method: Control 3 of 3

1. Control Equipment/Method Description: **Process Enclosed – "Closed Vent" Enclosure System**
2. Control Device or Method Code: **054**

Emissions Unit Control Equipment/Method: Control ___ of ___

1. Control Equipment/Method Description:
2. Control Device or Method Code:

B. EMISSIONS UNIT CAPACITY INFORMATION
(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate: **166,000 air-dried metric tons (ADMT) per year**	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year
6. Operating Capacity/Schedule Comment: **Maximum process rate based on facility-wide requested pulp production rate per consecutive 12-month rolling total. Applies to interim period prior to installation of blow heat recovery system on EU005.**	

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU 011**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **104** feet	7. Exit Diameter: **2** feet
8. Exit Temperature: **118.5**°F	9. Actual Volumetric Flow Rate: **9,725** acfm	10. Water Vapor: **20** %
11. Maximum Dry Standard Flow Rate: **7,101** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **The stack parameters above for the Bleach Plant scrubber stack are based on design data.** **Water vapor content estimated at 20%.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Pulp and Paper & Wood Products; Sulfite Pulping; Bleaching Reactors.**		
2. Source Classification Code (SCC): **3-07-002-99**	3. SCC Units: **Tons Air-Dried Unbleached Pulp produced**	
4. Maximum Hourly Rate: **41.6**	5. Maximum Annual Rate: **254,143**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum annual throughput based on requested facility wide maximum 12-month rolling total pulp production. 166,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =254,143 tons per year air-dried unbleached pulp**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H038 - Chlorine	130	151	EL
H043 – Chloroform	130	054	WP
VOC	130	054	NS
CO	130	054	NS
H115 – Methanol	130	054	NS
HAPs	130	054	NS

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **H038 - Chlorine**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.98** lb/hour **4.29** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **10 ppm** Reference: **40 CFR 63.445(c)(3)**	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years

10. Calculation of Emissions:

Hourly: 10 ppm/10^6 x 2,116.8 lb_f/ft^2 x 60 min/hr x 9,725 acfm x 70.91/1,545.6 (lb_m-°R/ft-lb_f) x 1/[(118.5+460) °R] =
0.98 lb/hr

Annual: 0.98 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 4.29 TPY

11. Potential, Fugitive, and Actual Emissions Comment:
Includes all chlorinated HAPS except chloroform.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10 ppm**	4. Equivalent Allowable Emissions: **0.98** lb/hour **4.29** tons/year
5. Method of Compliance: **EPA Method 26A and Continuous Monitoring System**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on 40 CFR 63.445(c)(3). As an alternative, RPF could choose to meet a limit of 99-percent reduction or 0.002 lb/ODTUBP.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **H043 - Chloroform**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment: **Work practice standard [63.445(d)] – comply with applicable effluent standards in 40 CFR 430, or use no hypochlorite or chlorine for bleaching. No available emissions data. Best Available Technology (BAT) for dissolving grade pulp mills has not yet been established.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **See comment**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: **See comment**	
6. Allowable Emissions Comment (Description of Operating Method): **Work practice standard [63.445(d)] – comply with applicable effluent standards in 40 CFR 430, or use no hypochlorite or chlorine for bleaching. BAT for dissolving grade pulp mills has not yet been established.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **45.35** lb/hour **197.05** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **See comment** Reference: **Attachment A**	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): **178.01** tons/year	8.b. Baseline 24-month Period: From: **Jan 2003** To: **Dec 2004**
9.a. Projected Actual Emissions (if required): **197.05** tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☒ 10 years
10. Calculation of Emissions: **See Attachment A, Table 1**	
11. Potential, Fugitive, and Actual Emissions Comment: **Potential emissions are assumed to be equal to projected emissions. The reduction in VOC emissions from the recently installed scrubber was not accounted for.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **54.54** lb/hour **166.6** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **1.606 lb/ODMTUP** Reference: **NCASI TB 760**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): **150.5** tons/year	8.b. Baseline 24-month Period: From: **Jan 2003** To: **Dec 2004**
9.a. Projected Actual Emissions (if required): **166.6** tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

Hourly: 41.6 ADTUBP/hr x 0.9 ODTUBP/ADTUBP x 1 metric ton/1.1023 short tons x 1.606 lb/ton ODMTUP = 54.54 lb/hr

Annual: 166,000 ADMTBP/yr x 1.3889 UBP/BP x 0.9 ODTUBP/ADTUBP x 1.606 lb/ton ODMTUP x 1 ton/2,000 lb = 166.6 TPY

11. Potential, Fugitive, and Actual Emissions Comment:

Potential emissions are assumed to be equal to projected emissions.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>Allowable Emissions</u> Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

<u>Allowable Emissions</u> Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

<u>Allowable Emissions</u> Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor **1** of **3**

1. Parameter Code: **ORP**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **ORP monitoring of the gas scrubber effluent as required by MACT Rule 40 CFR 63.453(c)(1). Alternatively, RPF may choose to monitor appropriate alternative operating parameters under the provisions of 40 CFR 63.453(m).**	

Continuous Monitoring System: Continuous Monitor **2** of **3**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Gas scrubber vent gas inlet flow rate as required by MACT Rule 40 CFR 63.453(c)(2). Alternatively, RPF plans to monitor fan amps as an appropriate alternative operating parameter under the provisions of 40 CFR 63.453(m).**	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor **3** of **3**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: **Monitoring of a gas scrubber liquid influent (recirculation) flow as required by MACT Rule 40 CFR 453(c)(3). Alternatively, RPF may choose to monitor appropriate alternative operating parameters under the provisions of 40 CFR 63.453(m).**	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **RPF-EU3-I1** ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **RPF-EU3-I3** ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   _____
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   ☐ Attached, Document ID: _____ ☒ Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

ATTACHMENT RPF-EU3-A11

EMISSIONS UNIT COMMENT

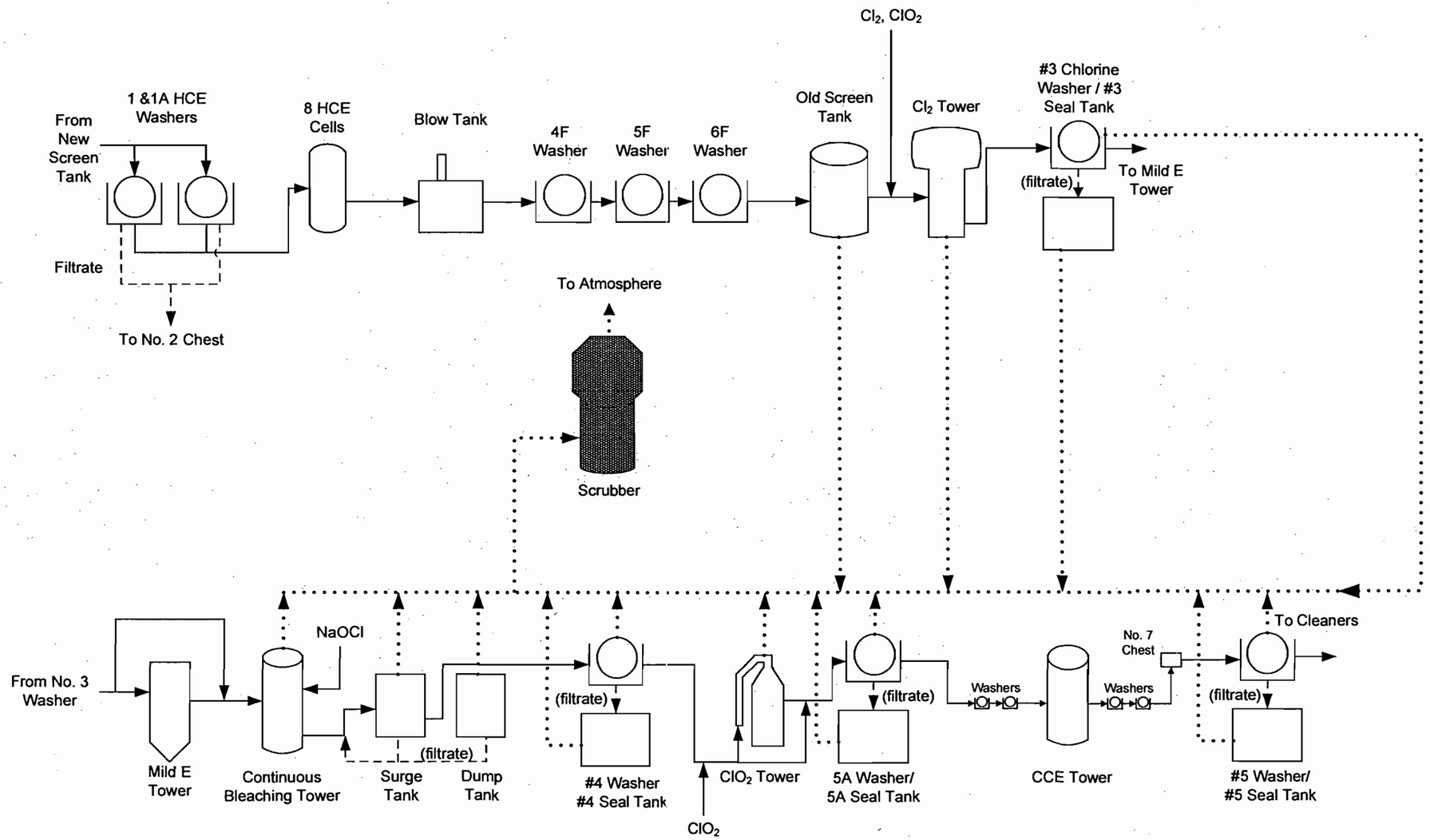
ATTACHMENT RPF-EU3-A11
EMISSIONS UNIT COMMENT

The following equipment will be vented to the Bleach Plant Scrubber:

- Chlorination tower
- Old screen tank
- Continuous bleaching tower
- ClO_2 retention tower
- No. 3 washer and seal tank
- No. 4 washer and seal tank
- No. 5A washer and seal tank
- Last stage dump tank
- No. 5 washer and seal tank
- Stock surge tank (to No. 4 washer)

ATTACHMENT RPF-EU3-I1

PROCESS FLOW DIAGRAM



Attachment RPF-EU3-I1
Process Flow Diagram
Bleach Plant Scrubber PFD
Rayonier Performance Fibers

Source: Rayonier, Golder; 2010.

Process Flow Legend
Pulp
Filtrate
Gas

Golder Associates

Y:\Projects\2009\093-87759 Rayonier\Applications\Pulp Increase\Final\Attachments\EU3\RPF-EU3-I1.vsd

ATTACHMENT RPF-EU3-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU3-I3

CONTROL EQUIPMENT PARAMETERS

BLEACH PLANT SCRUBBER

Manufacturer	RotaBed	
Model No.	42/60	
Date of Installation	2010	
Inlet Gas Flow Rate	10,000	ACFM
Inlet Gas Temperature	160	°F
Outlet Gas Flow Rate	9,725	ACFM
Pressure Drop Across Venturi	9.5	Inches of H_2O
Scrubber Media	Bisulfite	
Scrubber Liquor Flow Rate Nozzles	200	gpm

Note: Scrubber parameters based on equipment design conditions. Control equipment parameters may vary based on operating conditions.

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION
Section [4]
Evaporator Vents Methanol Condenser System

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Evaporator Vents Methanol Condenser

3. Emissions Unit Identification Number: **021**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:
A			**26**

8. Federal Program Applicability: (Check all that apply)

☐ Acid Rain Unit

☐ CAIR Unit

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
Vent gases from the SSL and HCE evaporator trains are vented to a pre-condenser followed by the main condenser. Non-condensable gases from the main condenser are vented to the multi-stage wet scrubber/Brinks Demister at the Recovery Boiler (EU 006).

EMISSIONS UNIT INFORMATION
Section [4]
Evaporator Vents Methanol Condenser System

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: **Vapors from the evaporators are sent to a two stage direct contact condenser. The condenser cools the evaporator emissions to remove methanol. The liquid from the condenser is sent to the biological effluent treatment system.**
2. Control Device or Method Code: **047**

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: **Process Enclosed – "Closed Vent" Enclosure System**
2. Control Device or Method Code: **054**

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:
2. Control Device or Method Code:

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	
2. Maximum Production Rate: **166,000 air-dried metric tons (ADMT) per year**	
3. Maximum Heat Input Rate: million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,760** hours/year
6. Operating Capacity/Schedule Comment: **Maximum process rate based on facility-wide requested pulp production rate per consecutive 12-month rolling total. Applies to interim period prior to installation of blow heat recovery system on EU005.**	

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU 021**	2. Emission Point Type Code: **2**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **Recovery Boiler (EU 006)**		
5. Discharge Type Code: **V**	6. Stack Height: **264** feet	7. Exit Diameter: **7.33** feet
8. Exit Temperature: **126**°F	9. Actual Volumetric Flow Rate: **160,096** acfm	10. Water Vapor: **13.55** %
11. Maximum Dry Standard Flow Rate: **125,280*** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: ***Maximum dry standard flow rate is at 8-percent O_2. These stack parameters represent the Recovery Boiler stack gases, which include the Evaporator Vents gases.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): **Industrial Processes; Pulp and Wood Products; Sulfite Pulping; Multiple Effect Evaporator: General**		
2. Source Classification Code (SCC): **3-07-003-02**	3. SCC Units: **Tons Air Dried Unbleached Pulp Produced**	
4. Maximum Hourly Rate: **41.6**	5. Maximum Annual Rate: **254,143**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Maximum annual throughput based on requested facility wide maximum 12-month rolling total pulp production. 166,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 Unbleached ton/bleached ton =254,143 tons/yr air-dried unbleached pulp**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H115 - Methanol	047	054	EL
HAPs	047	054	NS
VOC	047	054	NS

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **H115 - Methanol**	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code: **0**
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment: **Potential emissions of methanol for Evaporator Vents Methanol Condenser System included in Vent Gas Scrubber System (EU 005) calculations.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2.2 lb/ODTUBP**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance: **CMS, NCASI Test Method DI/MEOH-94.03, and Mathematical Model Water9.**	
6. Allowable Emissions Comment (Description of Operating Method): **Based on 40 CFR 63.444(c)(2)(i). Allowable emissions included in Vent Gas Scrubber System (EU 005) calculations.**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **21.22** lb/hour **64.81** tons/year	4. Synthetically Limited? ☐ Yes ☒ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.51 lb/ADTUBP** Reference: **See comment**	7. Emissions Method Code: **5**
8.a. Baseline Actual Emissions (if required): **53.72** tons/year	8.b. Baseline 24-month Period: From: **Jan 2003** To: **Dec 2004**
9.a. Projected Actual Emissions (if required): **59.47** tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☒ 10 years

10. Calculation of Emissions:

Hourly: 41.6 ADTUBP/hr x 0.51 lb/ADTUBP = 21.22 lb/hr

Annual: 254,143 ADTUBP/yr x 0.51 lb/ADTUBP x 1 ton/2,000 lb = 64.81 TPY

11. Potential, Fugitive, and Actual Emissions Comment:
Emission factor based on emissions from highest baseline year in 2005 application.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: **TEMP**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Rosemount** Model Number: **3144D1NAB4**	Serial Number: **1439219**
5. Installation Date:	6. Performance Specification Test Date: **June 17, 2002**
7. Continuous Monitor Comment: **Continuous monitoring of gas temperature leaving the Main Condenser. Monitor satisfies the requirements of 40 CFR 63.453(m).**	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Rosemount** Model Number: **8712C812M4B6N0**	Serial Number: **860129718**
5. Installation Date:	6. Performance Specification Test Date: **June 17, 2002**
7. Continuous Monitor Comment: **Continuous monitoring of water flow entering the Main Condenser. Monitor satisfies the requirements of 40 CFR 63.453(m).**	

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor **3** of **3**

1. Parameter Code: **FLOW**	2. Pollutant(s):
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information... Manufacturer: **Rosemount** Model Number: **8712U**	Serial Number: **0860103500**
5. Installation Date:	6. Performance Specification Test Date: **June 17, 2002**
7. Continuous Monitor Comment: **Continuous monitoring of water flow entering the Pre-Condenser. Monitor satisfies the requirements of 40 CFR 63.453(m).**	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION /

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **RPF-EU4-I1** ☐ Previously Submitted, Date _____

2. Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____

3. Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **RPF-EU4-I3** ☐ Previously Submitted, Date _____

4. Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: _____ ☐ Previously Submitted, Date _____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records:
   ☐ Attached, Document ID: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ Previously Submitted, Date: _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☐ To be Submitted, Date (if known): _____
   Test Date(s)/Pollutant(s) Tested: _____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute:
   ☐ Attached, Document ID: _____ ☒ Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: _____ ☒ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: _____ ☒ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: _____ ☒ Not Applicable

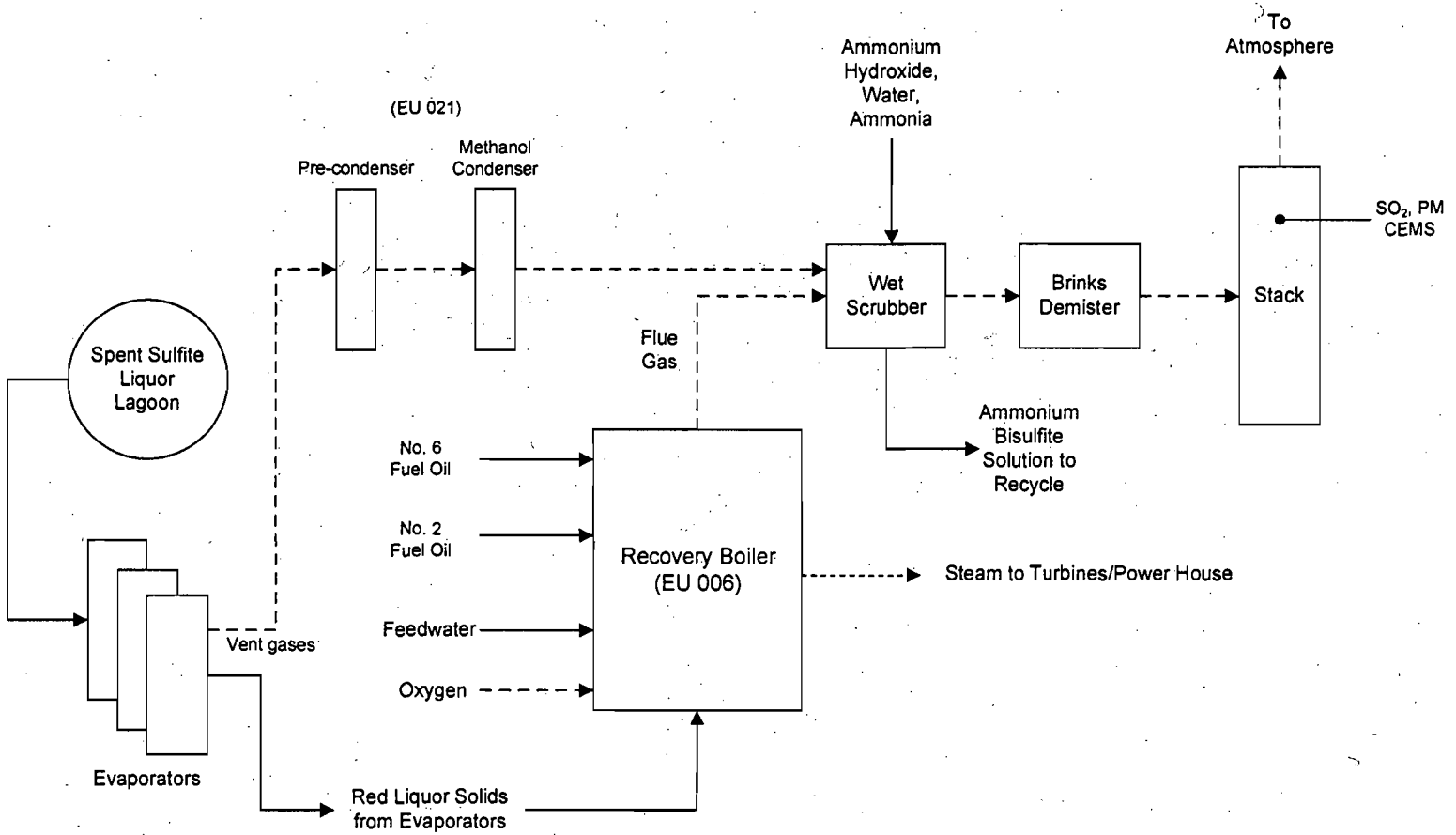
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☐ Attached, Document ID: _____
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation: ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: _____ ☐ Not Applicable

Additional Requirements Comment

ATTACHMENT RPF-EU4-I1

PROCESS FLOW DIAGRAM



Attachment RPF-EU4-I1
Evaporator Vents Process Flow Diagram
Rayonier Performance Fibers LLC
Fernandina Beach Mill

Process Flow Legend
Solid/Liquid
Gas
Steam

Golder Associates

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ATTACHMENT RPF-EU4-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU4-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT EVAPORATOR VENTS METHANOL CONDENSER

Steam is used to eject vent gases from the evaporators in order for the optimum operating pressure to be maintained in each module. This steam, with the evaporator vent gases containing methanol, is piped to the closed system combined vent header. The combined vent header is routed first to a pre-direct contact condenser, which removes steam from the steam ejectors used to evacuate the evaporator bodies. The gases then pass through a baffle column-type methanol condenser, where the majority of the methanol and water vapor is condensed out and sent to the Biological Treatment System (EU 010).

A continuous monitoring system is operated to measure the following parameters at the Evaporator Vents Methanol Condenser System:

- Gas temperature leaving the Main Condenser
- Water flow entering the Main Condenser
- Water flow entering the Pre-condenser

The Evaporator Vents Methanol Condenser System is operated in a manner consistent with a minimum total water flow rate of 730 gallons per minute and a maximum gas discharge temperature of 140 degrees Fahrenheit.

ATTACHMENT A

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List of Tables

1.0 INTRODUCTION

Rayonier Performance Fibers, LLC (Rayonier) currently operates the Fernandina Beach Mill, located in Fernandina Beach, Nassau County. The Rayonier Fernandina Beach Mill is an acid sulfite-based pulp mill using ammonia as a base chemical for the manufacture of dissolving pulps. The Mill is currently operating under Title V operating permit No. 0890004-028-AV, issued June 7, 2010.

This Mill produces approximately 10 different grades of pulp. The pulp produced at this Mill is used in products such as plastics, photographic film, LCD screens, paints, cigarette filters, pharmaceuticals, food productions, cosmetics, and textiles. The Mill produces approximately 150,000 to 160,000 air-dried metric tons (ADMT) of performance fibers annually.

Rayonier is currently limited to an annual finished pulp production rate of 162,000 ADMT per consecutive 12 months, based on permit No. 0890004-018-AC, issued February 20, 2006. However, this permit also allows the maximum annual production rate to increase to 175,000 ADMT/yr per consecutive 12-month period, after a blow heat recovery system is installed on the hot caustic extract (HCE) cells in the Bleach Plant to control volatile organic compound (VOC) emissions. Rayonier is planning on installing the VOC controls on the HCE cells in 2011.

The installation of the VOC controls on the HCE cells is scheduled to begin in January 2011, when construction will commence. Completion of the construction and startup are tentatively scheduled for August 2011. Rayonier is required to conduct a performance test, consisting of an engineering study to determine the effectiveness of the system in capturing and reducing VOC emissions to achieve designed efficiency. The performance testing will be performed within 180 days of startup. Within 60 days of completing the engineering study, Rayonier must submit a report summarizing the results of the engineering study. Upon submittal of the engineering report, the facility may increase its production to 175,000 ADMT per 12 consecutive months. Based on this tentative schedule, Rayonier is requesting a 6-month extension to permit No. 0890004-030-AC, i.e., until March 1, 2012.

In this application, Rayonier is requesting the ability to increase the facility's permitted interim pulp production limit from 162,000 to 166,000 ADMT per consecutive 12 months. This limit would be effective in the interim period prior to installation of the VOC controls on the HCE cells, and during startup, testing, and through approval of the 175,000 ADMT/yr pulp production limit (specific conditions D.1.b and D.6 of permit No. 0890004-021-AC). This will be a relaxation of the interim pulp production limit set under permit No. 0890004-018-AC. Successful execution of the VOC controls on the HCE cells project will ultimately result in a 15-ton per year (TPY) net decrease of VOC emissions.

Rayonier has performed a comparison of past actual (baseline actual) annual emissions to projected actual annual emissions for the interim pulp production increase project. Baseline emissions were based on the application for pulp production increase dated August 30, 2005. Based on this comparison,

emission increases due to the project are predicted for some pollutants; however, these increases are less than the prevention of significant deterioration (PSD) significant emission rates. Therefore, the project will not trigger PSD new source review (NSR) under the Federal and State PSD regulations.

A more detailed project description is provided in Section 2.0 of this attachment. PSD review requirements are discussed in Section 3.0, and air emissions estimates and the PSD applicability of the project are presented in Section 4.0.

2.0 PROJECT DESCRIPTION

2.1 Existing Operations

The sulfite process utilizes a sulfurous acid and ammonium bisulfite cooking solution to chemically separate the lignin from the cellulose. Pine wood chips and cooking solution are cooked in the six (6) batch digesters. The sulfurous acid and ammonium bisulfite cooking solution is prepared in the "acid plant." The unbleached sulfite pulp and spent cooking solution (SSL – spent sulfite liquor) are separated over vacuum washers (red stock washers). The unbleached pulp is then sent into the screening area to remove any knots and tailings (uncooked, woody materials), while the SSL is pumped to the evaporators to concentrate the solids content before being burned in the recovery boiler. The collected knots and tailings are pressed for use as fuel in the No. 6 Power Boiler.

The unbleached pulp exiting the screening operation enters the Bleach Plant. The first stage in the bleaching process is the Hot Caustic Extraction (HCE) stage. Caustic soda is used to remove hemi-cellulose (small chain cellulose molecules) from the pulp in small pressure vessels called HCE cells. The mill currently operates eight (8) such cells. The pulp is washed after this HCE stage. The spent solution, Hot Caustic Extract, is concentrated in a set of evaporators before being sold to Kraft mills for its sodium content and energy value. Pulp leaving the HCE stage is further purified in continuous and batch stages using various chemicals, depending upon the pulp grade specifications.

Following these bleaching stages, the pulp passes through centrifugal dirt cleaners before being sent to the pulp machine. The pulp machine forms the pulp sheet, which contains approximately 7-percent moisture. The pulp sheet is then wound onto a "jumbo" before being transported to the finishing room, where the pulp sheet is cut into smaller rolls or sheets based on customer specifications. No coatings are used on any of the pulp grades produced by the mill.

The digestion, the HCE stage, and the pulp machine are high users of steam for heating. The steam is produced in the power boilers. Steam is also used to produce about 90 percent of the mill's electricity needs.

The recovery boiler provides steam for the evaporators and its emissions are scrubbed for sulfur dioxide (SO_2) recovery using an ammonia solution. The ammonium bisulfite produced in the scrubber is used for cooking acid make-up.

The following regulated emission units at the Mill are potentially affected by the proposed pulp increase project:

- Pulping Process vent gas scrubber [Emission Unit No. (EU) 005]
- Biological effluent treatment system (EU 010)
- Dissolving-grade bleaching system (EU 011)
- Evaporator vents methanol condenser (EU 021)

EU 005 identifies the Vent Gas Scrubber (wet scrubber), which controls emissions from numerous vents from the cooking acid plant, the red stock washers, the unwashed stock tank, the SSL storage tanks, the SSL washer area, the digesters (6), and the blow pits. The scrubber is a packed bed containing 10 feet of packing consisting of two packed sections. The lower section is designed for SO_2 emissions control via gas absorption using alkaline scrubbing media (soda ash, sodium hydroxide, etc.). The SO_2 concentration in the stack is continuously measured. The upper packed section of the vent gas scrubber is designed to condense methanol from the gas stream by direct contact with fresh well water, i.e., the Direct Contact Condenser. The condensed methanol held in the water is sent to the Biological Effluent Treatment System for treatment in order to comply with the requirements of Title 40, Part 63 of the Code of Federal Regulations (40 CFR 63), Subpart S.

EU 010 consists of the Biological Effluent Treatment System. Effluent from the Vent Gas Scrubber and Direct Contact Condenser (EU 005), containing the collected methanol from the pulping operations, and effluent containing methanol from the Evaporator Vents Methanol Condenser (EU 021), is sent to the Biological Effluent Treatment System. The effluent from the systems required to be treated by 40 CFR 63 Subpart S (MACT I), combined with other mill effluent, is treated in a primary, open clarifier and the aerated stabilization basin (biological treatment system). The biological treatment removes the methanol from the effluent via bacterial digestion. This system is approximately 30 acres in size, comprising approximately 140 million gallons. The system transfers oxygen to the wastewater using mechanical aerators. There are 3 aerated zones and a final settling or quiescence zone to settle remaining suspended solids before discharge to the Amelia River.

EU 011 consists of the dissolving-grade bleaching system (Bleach Plant). Unbleached stock enters the Pre-Hot Caustic Extract (Pre-HCE) Washers, where the pulp is washed using a variety of chemicals depending on the grade of cellulose being produced. Unbleached stock is then sent from the Pre-HCE Washers to the HCE cells. The HCE stage is a batch stage utilizing caustic soda to remove small chain cellulose molecules (hemi-cellulose) from the pulp. This process uses eight (8) small pressure vessels called HCE cells. The spent HCE solution washed from the pulp after this stage is sold to Kraft mills for its sodium content and energy value. Pulp is then sent from the HCE cells to the HCE Blow Tank.

Pulp leaving the HCE Blow Tank is further purified in continuous bleaching stages using peroxide, chlorine dioxide (ClO_2), chlorine, sodium hydroxide, and sodium hypochlorite, depending on the pulp grade specifications. A wet scrubber is used to control chlorinated hazardous air pollutant (HAP) emissions from the various bleaching stages. The following equipment is vented to the bleach plant scrubber:

- Chlorination tower
- Old screen tank
- Continuous bleaching tower

- ClO_2 retention tower
- No. 3 washer and seal tank
- No. 4 washer and seal tank
- No. 5A washer and seal tank.
- Last stage dump tank
- No. 5 washer and seal tank
- Stock surge tank (to No. 4 washer)

EU 021 identifies the Evaporator Vents Methanol Condenser System. The steam that is used to eject the vent gases from the two sets of multiple effect evaporators (MEEs) dedicated to increasing the solids concentration of red liquor, along with the evaporator vent gases themselves, are piped to a pre-condenser, which condenses the steam, followed by the main condenser, which condenses the methanol. The gases are then are sent to the multi-stage wet scrubber/Brinks Demister at the Recovery Boiler (EU 006) before being vented to the atmosphere. In addition, a third MEE train consisting of three (3) refurbished existing evaporator bodies, authorized to be installed under Construction Permit No. 0890004-018-AC, is used to increase the solids concentration of weak Hot Caustic Extract (the spent solution from the pulp washed after the Hot Caustic Extraction stage, which is sold to Kraft mills for its sodium content and energy value). This third MEE train is also vented to the pre-condenser, followed by the main condenser and the multistage wet scrubber/Brinks Demister at the Recovery Boiler (EU 006), before being vented to the atmosphere.

The water used to condense the steam and methanol in the two condensers is reclaimed from the Biological Effluent Treatment System after the methanol has been digested. The condensate formed in the pre-condenser and the main condenser is sewered to the Biological Effluent Treatment System for compliance with 40 CFR 63 Subpart S requirements.

Rayonier is currently limited to an annual finished pulp production rate of 162,000 ADMT per consecutive 12 months, based on permit No. 0890004-018-AC, issued February 20, 2006. This permit authorized an initial increase in finished pulp production from 153,205 to 162,000 ADMT per 12 consecutive months. This permit also allows the maximum annual production rate to increase to 175,000 ADMT/yr per consecutive 12-month period, after a blow heat recovery system is installed on the HCE cells in the Bleach Plant to control VOC emissions. Rayonier has not yet installed the VOC controls on the HCE cells, but is committed to doing so in 2011. Construction is scheduled to commence construction on the VOC controls in January 2011, with startup of the system in August 2011. Performance testing would occur after that time.

2.2 Proposed Operations

Rayonier is proposing to increase the facility finished pulp production from 162,000 to 166,000 ADMT per year in the interim period prior to installing the blow heat recovery system on EU 005. This increase in facility production will only affect the emission units previously mentioned, EUs 005, 010, 011, and 021. The proposed production rate is based on a 10.70-percent increase over the baseline pulp production that formed the basis of permit No. 0890004-018-AC. The baseline production rate was the 1996 net production of 149,957 ADMT. This value was used in the original PSD analysis for the No. 6 digester in 1998 and for the 2005 pulp production increase request.

No physical changes to the affected units are required in order to achieve the higher production rate. All equipment is capable of operating and meeting emission limits at the higher production rate.

As documented in the Technical Evaluation and Preliminary Determination for permit No. 0890004-018-AC, the Recovery Boiler is physically capable of accommodating any increase due to demand growth and is not otherwise restricted by permit condition. The Recovery Boiler has operated near its permitted capacity over significant periods of time as far back as 2003. No physical, operational, or permitting changes to the Recovery Boiler are necessary to accommodate any increase in digester production (specifically, up to 175,000 ADMT/yr). Therefore, the Recovery Boiler is not affected by the proposed pulp increase to 166,000 ADMT/yr.

The proposed facility parameters for the affected units are provided below:

- Pulp production rate: 166,000 ADMT/yr
  254,143 tons per year (TPY) air-dried unbleached pulp (ADUP)
- Maximum hourly rate: 41.6 tons ADUP per hour
- Hours of Operation: Continuous operation allowed, i.e., 8,760 hours per year

3.0 PSD REVIEW REQUIREMENTS

PSD review is used to determine whether significant air quality deterioration will result from a major new or modified facility. Federal PSD requirements are contained in Title 40, Section 52.21 of the Code of Federal Regulations (40 CFR 52.21), Prevention of Significant Deterioration of Air Quality. The Florida Department of Environmental Protection (FDEP) has adopted PSD regulations that are equivalent to the federal PSD regulations [Rule 62-212.400, Florida Administrative Code (F.A.C.)]. For an existing major stationary source for which a modification is proposed, the modification is subject to PSD review if the net increase in emissions due to the modification is greater than the PSD significant emission rates (i.e., a "major modification"). The PSD significant emission rates are listed in Table 3-1.

The determination of whether a significant net increase in emissions will occur is based on comparison of "baseline actual emissions" to "projected actual emissions" for all emissions units affected by the proposed project. "Baseline actual emissions" and "projected actual emissions" are defined in Rules 62-210.200(34) and (215), F.A.C. "Baseline actual emissions" for an existing emissions unit other than an electric utility steam generating unit, is the average rate, in TPY, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period, selected by the owner/operator, within the 10-year period immediately preceding the date a complete permit application is received by FDEP. The average rate includes fugitive emissions to the extent quantifiable and emissions associated with startups and shutdowns. The average rate must be adjusted downward to exclude:

- Any non-compliant emissions that occurred while the emissions units were operating above an emissions limitation that was legally enforceable during the consecutive 24-month period
- Any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period

For projects involving multiple emissions units, only one consecutive 24-month period can be used for all the emissions units being changed. However, a different 24-month period can be used for each PSD pollutant.

Rule 62-210.370, F.A.C., requires a specific methodology for computing baseline actual emissions and net emissions increases. In general, this rule sets forth a hierarchy of emission estimating methods, of which the most accurate method is to be used. Continuous emissions monitoring systems (CEMS) are generally recognized as the most accurate method, followed by mass balance calculations, followed by emission factors. If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid tests conducted during at least a 5-year period encompassing the period over which the emissions are computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.

"Projected actual emissions" is the maximum annual rate, in TPY, at which an existing emissions unit is projected to emit a regulated air pollutant in any one of the 5 years following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's potential to emit that regulated air pollutant, and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the facility.

In determining the projected actual emissions, FDEP shall consider all relevant information, including historical operating data, the company's own representations, the company's expected business activity, the company's filings with the state or federal regulatory authorities, and compliance plans or orders. Fugitive emissions, to the extent quantifiable, and emissions associated with startups and shutdowns shall be considered.

The projected actual emissions shall exclude that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions, and that are also unrelated to the particular project, including any increased utilization due to demand growth (this is referred to as the "demand growth exclusion"). The U.S. Environmental Protection Agency's (EPA's) final PSD rule revisions, promulgated on December 31, 2002, state:

> *That is, under today's new provisions for non-routine physical or operational changes to existing emissions units, rather than basing a unit's post-change emissions on its PTE, you may project an annual rate, in TPY, that reflects the maximum annual emissions rate that will occur during any one of the 5 years immediately after the physical or operational change. ...This projection of the unit's annual emissions rate following the change is defined as the "projected actual emissions", and will be based on your maximum annual rate in tons per year at which you are projected to emit a regulated NSR pollutant, less any amount of emissions that could have been accommodated during the selected 24-month baseline period and is not related to the change. Accordingly, you will calculate the unit's projected actual emissions as the product of: (1) The hourly emissions rate, which is based on the operational capabilities following the change(s), taking into account legally enforceable restrictions that could affect the hourly emissions rate following the change(s); and (2) the projected level of utilization, which is based on both the emissions unit's historical annual utilization rate and available information regarding the emissions units' likely post-change capacity utilization. ...From the initial calculation, you may then make the appropriate adjustment to subtract out any portion of the emissions increase that could have been accommodated during the unit's 24-month baseline period and is unrelated to the change. [Federal Register, Vol. 67, pg. 80196]*
>
> *Consequently, under today's new rules, when a projected increase in equipment utilization is in response to a factor such as the growth in market demand, you may subtract the emission increases from the unit's projected actual emissions if: (1) The unit could have achieved the necessary level of utilization during the consecutive 24-month period you selected to establish the baseline actual emission; and (2) the increase is not related to the physical or operational change(s) made to the unit. [Federal Register, Vol. 67, pg. 80203]*

Further explanation was provided in the preamble to EPA's proposed PSD rule revisions on September 14, 2006:

> *That is, the source can emit up to its current maximum capacity without triggering major NSR under the actual-to-projected-actual test, as long as the increase is unrelated to the change. [Federal Register, Vol. 71, pg. 54237]*
>
> *Post-change emissions are generally projected using the emissions unit's maximum annual rate, in tons per year, at which it is expected to emit a regulated NSR pollutant within 5 years following a change, less any amount of emissions that the unit could have accommodated during the selected 24-month baseline period and that are unrelated to the change. This final "projected actual" value, in tons per year, is the value you compare to the "baseline actual emissions" in order to determine...whether the proposed project will result in a "significant" emissions increase, as defined in the first step of the calculation. [Federal Register, Vol. 71, pg. 54238]*

If the proposed modification results in a significant emissions increase for any PSD pollutant, then all contemporaneous increases or decreases in emissions of that pollutant, which have occurred at the facility in the last 5 years, must also be considered.

Special provisions apply to modifications which involve the relaxation of a federally enforceable limit which was taken to avoid PSD review. In such cases, Rule 62-212.400(12) provides that:

> *12) 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.*

The Rayonier facility is an existing major stationary facility because potential emissions of at least one PSD-regulated pollutant exceed 100 TPY (for example, potential SO_2 emissions currently exceed 100 TPY). Therefore, PSD review is required for any pollutant for which the net increase in emissions due to a modification is greater than the PSD significant emission rates (see Table 3-1). If a modification meets these criteria, it is deemed a "major modification."

A PSD applicability analysis was conducted to demonstrate that the proposed project would not trigger PSD review. The analysis is presented in Section 4.0.

4.0 AIR EMISSIONS

Rayonier is requesting that a previously established facility-wide limit on finished pulp production be relaxed. The previous limitation of 162,000 ADMT/yr finished pulp, established in permit No. 0890004-018-AC, was taken to avoid PSD review. As described in Section 3.0, special provisions apply to modifications that involve the relaxation of a federally enforceable limit that was taken to avoid PSD review. In such cases, Rule 62-212.400(12), F.A.C., provides that the requested relaxation be treated for PSD purposes "as though construction had not yet commenced on the source or modification." In effect, this requires that the original PSD baseline emissions be used in assessing PSD applicability for this project, and the entire increase in emissions due to the increase from the original baseline pulp production rate (1996 pulp production rate of 149,957 ADMT/yr) to the requested rate (166,000 ADMT/yr) be used in assessing PSD applicability.

The sections below present the baseline emissions and projected actual emissions utilized in the PSD netting analysis for the current request to increase pulp production to 166,000 ADMT/yr.

4.1 Baseline Actual Emissions

In 1998, Rayonier was allowed by FDEP to install the No. 6 Digester as a safety/maintenance project. In 2002, the Department required Rayonier to obtain an after-the-fact air construction permit (permit No. 0890004-010-AC) with a pulp production limit of 153,205 ADMT/yr to ensure the installation of the 6th digester did not allow a PSD-significant emissions increase for SO_2 without a PSD applicability review. Rayonier subsequently requested in 2005 to relax that pulp production limit and increase the limit to 162,000 ADMT/yr. Therefore, the PSD review for this project must be determined as if construction of the original project in 1998 had never commenced (i.e., permit No. 0890004-018-AC). Consequently, the baseline emissions used as basis for permit No. 0890004-018-AC were used for this application.

The past actual (baseline actual) annual average SO_2, carbon monoxide (CO), and VOC emissions from EUs 005, 010, 011, and 021 are presented in Table 4-1. Other PSD pollutants will not be affected by the pulp production increase project. The 2-year baseline averages used in the 2005 application for each of the affected pollutants are as follows:

Pollutant	2-Year Average Baseline
Sulfur Dioxide – SO_2	2000 to 2001
Carbon Monoxide – CO	2003 to 2004
Volatile Organic Compounds – VOCs	2003 to 2004

Also shown in Table 4-1 are the baseline emissions for the power boiler replacement project, issued under the same permit No. 0890004-018-AC. The boiler replacement project was determined by the Department to be contemporaneous with the digester replacement project, and thus the net emission changes are included in the PSD applicability analysis.

4.2 Projected Actual Emissions

The same methodology used to determine projected actual emissions for the 2005 application was used for this project. This methodology uses the baseline emissions and assumes an increase in emissions based on the ratio of the requested pulp increase (166,000 ADMT/yr) and the 1996 pulp production rate (149,957 ADMT/yr). A pulp production increase to 166,000 ADMT/yr represents a 10.70-percent increase over the 1996 net production value (see Table 4-1). Therefore, the baseline emissions were increased by 10.70 percent in order to determine the projected actual emissions. It is noted that this methodology does not account for any VOC reduction that might result from the recent installation of the Bleach Plant scrubber, which could lower methanol emissions from the Bleach Plant (and therefore lower VOC emissions).

4.3 Effects on Other Emissions Units

No other emissions units at the Rayonier facility will be affected by this project.

4.4 PSD Review

The Rayonier facility is considered to be an existing major stationary facility because potential emissions of at least one PSD-regulated pollutant exceed 100 TPY (for example, potential NO_x emissions currently exceed 100 TPY). Therefore, PSD review is required for any pollutant for which the net increase in emissions due to the modification is greater than the PSD significant emission rates.

The net increase in emissions during the interim period due to the proposed project is summarized in Table 4-1. For the affected units, the baseline actual emissions and projected actual emissions are based on information from the 2005 permit application. The comparison of projected actual emissions to baseline actual emissions represents the net increase in emissions due to the project. These emissions increases are shown at the bottom of Table 4-1. Also shown in Table 4-1 are the net emission changes from the boiler replacement project, which FDEP determined to be contemporaneous with the digester replacement project.

As shown in Table 4-1, the net increase in emissions does not exceed the PSD significant emission rate for any PSD pollutant. Therefore, PSD review does not apply to the proposed project.

It is noted that, upon successful execution of the VOC controls on the HCE cells, the pulp production increase project will ultimately result in a 15-TPY net decrease of VOC emissions versus baseline emissions.

TABLES

TABLE 3-1
PSD SIGNIFICANT EMISSION RATES AND *DE MINIMIS* MONITORING CONCENTRATIONS

Pollutant	Regulated Under	Significant Emission Rate (TPY)	De Minimis Monitoring Concentration ($\mu g/m^3$) [a]
Sulfur Dioxide	NAAQS, NSPS	40	13, 24-hour
Particulate Matter [PM(TSP)]	NSPS	25	NA
Particulate Matter (PM_{10})	NAAQS	15	10, 24-hour
Particulate Matter ($PM_{2.5}$) [c]	NAAQS	10, or	NA
	NAAQS	40 of SO_2, or	NA
	NAAQS	40 of NO_x	NA
Nitrogen Dioxide	NAAQS, NSPS	40	14, annual
Carbon Monoxide	NAAQS, NSPS	100	575, 8-hour
Volatile Organic Compounds (Ozone)	NAAQS, NSPS	40	100 TPY[b]
Lead	NAAQS	0.6	0.1, 3-month
Sulfuric Acid Mist	NSPS	7	NM
Total Fluorides	NSPS	3	0.25, 24-hour
Total Reduced Sulfur	NSPS	10	10, 1-hour
Reduced Sulfur Compounds	NSPS	10	10, 1-hour
Hydrogen Sulfide	NSPS	10	0.2, 1-hour
Mercury	NESHAP	0.1	0.25, 24-hour
MWC Organics (dioxin/furans)	NSPS	3.5×10^{-6}	NM
MWC Metals (as PM)	NSPS	15	NM
MWC Acid Gases (SO_2 + HCl)	NSPS	40	NM
MSW Landfill Gases (as NMOC)	NSPS	50	NM

Note: Ambient monitoring requirements for any pollutants may be exempted if the impact of the increase is less than *de minimis* monitoring concentrations.

NA = not applicable
NM = no ambient measurement method established; therefore, no *de minimis* concentration has been estabilised
$\mu g/m^3$ = micrograms per cubic meter
MWC = municipal waste combustor
MSW = municipal solid waste
NMOC = non-methane organic compounds

[a] Short-term concentrations are not to be exceeded

[b] No *de minimis* concentration; an increase in VOC emissions of 100 TPY or more will require a monitoring analysis for ozone

[c] Any emission rate of these pollutants.

Source: 40 CFR 52.21
Rule 62-212.400, F.A.C.

TABLE 4-1
PSD APPLICABILITY ANALYSIS, INTERIM PULP INCREASE
RAYONIER PERFORMANCE FIBERS, FERNANDINA BEACH

Source Description	EU ID	Pollutant Emission Rate (TPY) SO_2	CO	VOC
NO. 6 DIGESTER PROJECT (REVISED)				
Baseline Actual Emissions [a]				
--Pulping Systems (VGS)	005	65.42	--	36.62
--Wastewater Treatment System	010	--	--	66.27
--Bleaching Systems	011	--	150.5	178.01
--Evaporators	021	--	--	53.72
Total – Baseline Actual		**65.4**	**150.5**	**334.6**
Projected Actual Emissions [b]				
--Pulping Systems (VGS)	005	72.42	--	40.54
--Wastewater Treatment System	010	--	--	73.35
--Bleaching Systems	011	--	166.62	197.05
--Evaporators	021	--	--	59.47
Total – Projected Actual		**72.4**	**166.6**	**370.4**
BOILER REPLACEMENT PROJECT **Total Net Change**		**28.0**	**-100.0**	**3.9**
Increase Due to Project[c]		**35.0**	**-83.9**	**39.7**
PSD SIGNIFICANT EMISSION RATE		40	100	40
PSD REVIEW TRIGGERED?		**No**	**No**	**No**

[a] Based on baseline emissions from 2005 application for Permit No. 0890004-018-AC.

[b] Based on increase over baseline pulp production (149,957 ADMT/yr) of 10.70%
Projected pulp production = 166,000 ADMT/yr

[c] Based on No. 6 Digester Project (projected actual emissions minus baseline actual emissions) plus Boiler Replacement Project total net change emissions.

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