



Application

TITLE V OPERATING PERMIT RENEWAL APPLICATION

Rayonier Performance Fibers LLC

Prepared For: Rayonier Performance Fibers LLC
Foot of Gum Street
Fernandina Beach, FL 32034 USA

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

March 2010

093-87692

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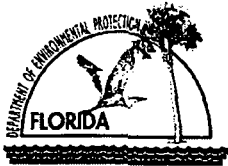


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**BUREAU OF
AIR REGULATION**

APPLICATION FOR AIR PERMIT
LONG FORM



Department of Environmental Protection

MAR 22 AM 11:35

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 renew Title V Operating Permit No. 0890004-020-AV and to incorporate the provisions of Specific Condition F.1. of Air Construction Permit No. 0890004-018-AC. Specific Condition F.1. requires Rayonier to comply with the provisions of 40 CFR 63.445 with regards to the Dissolving-Grade Bleaching System. Additionally, this application is being submitted to request an extension to Air Construction Permit No. 0890004-021-AC. Rayonier is requesting this extension to allow for additional time to determine the need for a permanent SNCR system. Rayonier also intends to complete the improvements to the pulp machine authorized by the permit (drying and head-box).

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		N/A
006	Recovery Boiler		N/A
007	Molten Sulfur Handling Area		N/A
010	Biological Effluent Treatment System		N/A
011	Dissolving-Grade Bleaching System		N/A
021	Evaporator Vents Methanol Condenser		N/A
022	No. 6 Power Boiler		N/A

Application Processing Fee

Check one: Attached - Amount: \$ _____ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

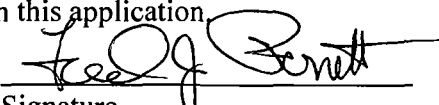

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name:
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: () ext. Fax: ()
4. Owner/Authorized Representative E-mail Address:
5. Owner/Authorized Representative Statement: <i>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.</i> _____ Signature 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: F. J. Perrett, General Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.
3. Application Responsible Official Mailing Address... Organization/Firm: Rayonier Performance Fibers LLC Street Address: P.O. Box 2002 City: Fernandina Beach State: FL Zip Code: 32035
4. Application Responsible Official Telephone Numbers... Telephone: (904) 277-1405 ext. Fax: (904) 277-1411
5. Application Responsible Official E-mail Address: jack.perrett@rayonier.com
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>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> (1) <i>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</i> (2) <i>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.</i> (3) <i>If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/> , 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.</i> (4) <i>If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/> , 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 <input type="checkbox"/> , 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.</i> (5) <i>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 <input checked="" type="checkbox"/> , 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.</i>		
Signature (seal)		Date

* Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670.

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. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> 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

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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-C1</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-C2</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-C3</u> <input type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____
4. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-CV1</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-CV2</u> <input type="checkbox"/> Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan: (Required for all initial/revision/renewal applications) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-CV3</u> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-CV4</u> <input type="checkbox"/> Equipment/Activities Onsite but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-CV5</u> <input type="checkbox"/> Not Applicable
6. Requested Changes to Current Title V Air Operation Permit: <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-CV6</u> <input type="checkbox"/> 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)

3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)):

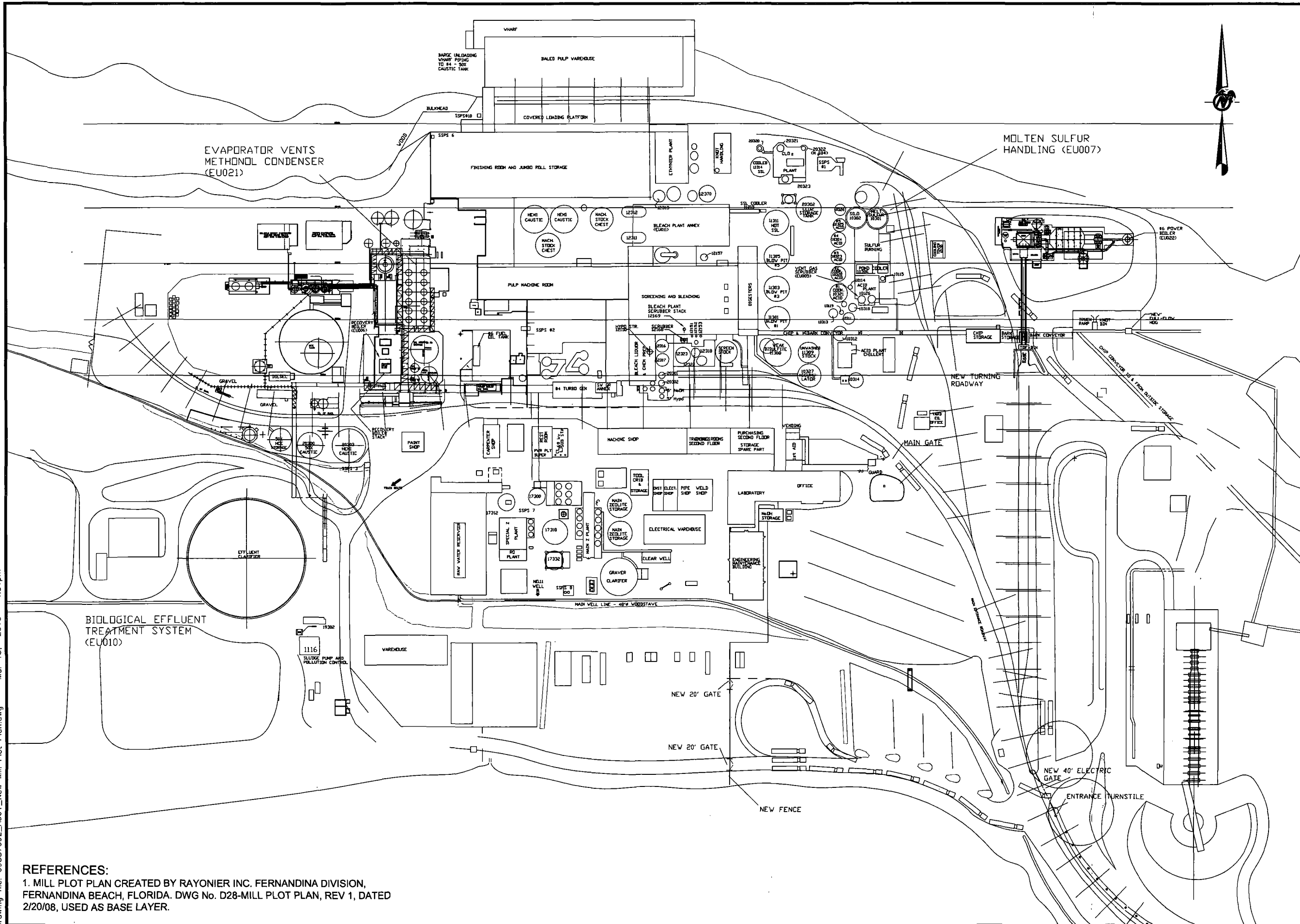
- Attached, Document ID: _____ Previously Submitted, Date: _____
 Not Applicable (not a Hg Budget unit)

Additional Requirements Comment

ATTACHMENT RPF-FI-C1

FACILITY PLOT PLAN

Drawing file: 09387692_A001_New Mill Plot Plan.dwg Mar 18, 2010 - 4:31pm



RAYONIER INC.,
 FERNANDINA DIVISION,
 FERNANDINA BEACH, FLORIDA

PROJECT

**FACILITY
 PLOT PLAN**

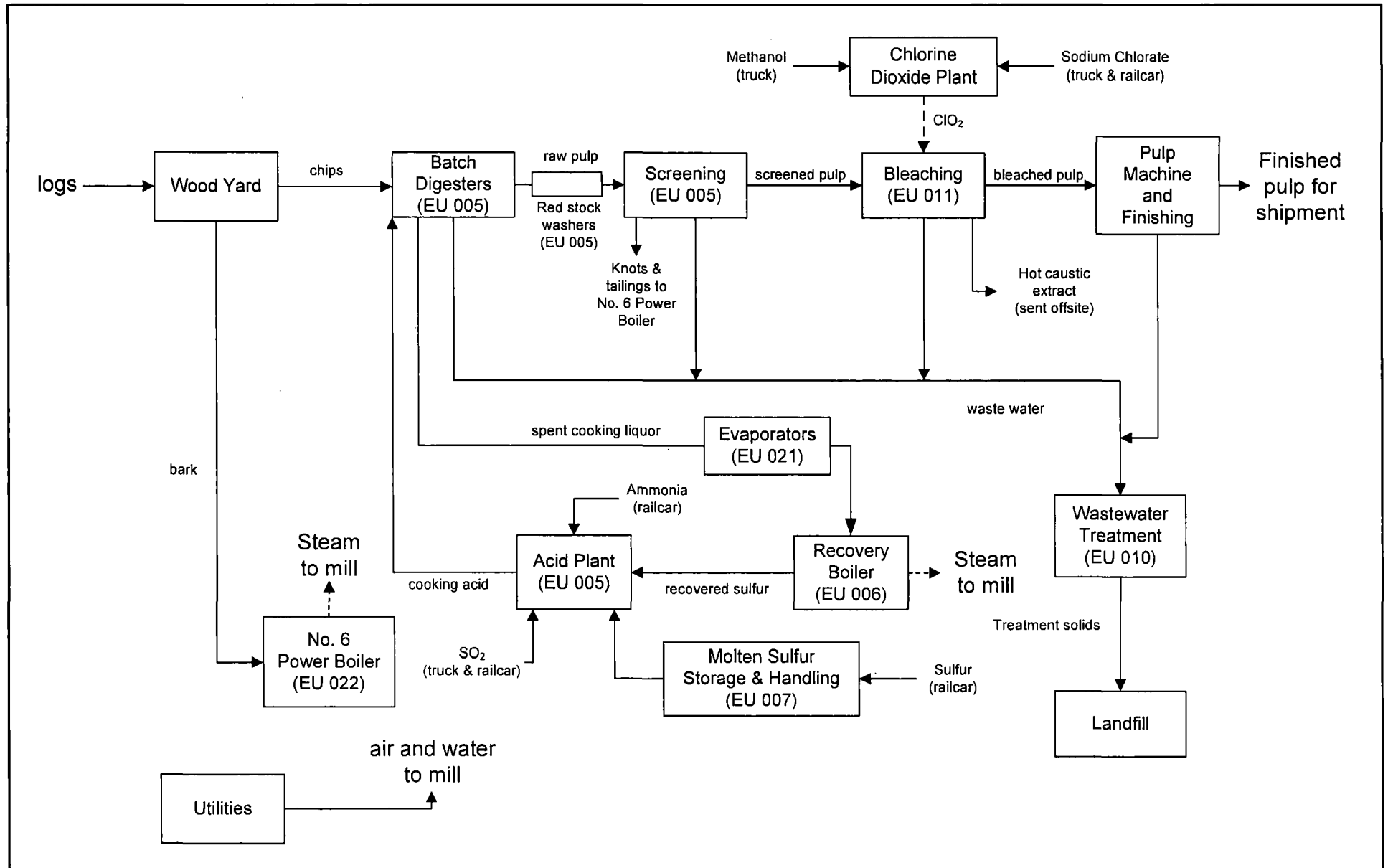
TITLE

PROJECT No.	093-87692
FILE No.	09387692A001
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

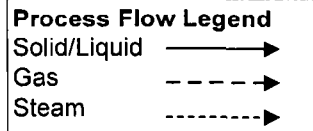
REFERENCES:
 1. MILL PLOT PLAN CREATED BY RAYONIER INC. FERNANDINA DIVISION,
 FERNANDINA BEACH, FLORIDA. DWG No. D28-MILL PLOT PLAN, REV 1, DATED
 2/20/08, USED AS BASE LAYER.

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



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 handling 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.

ATTACHMENT RPF-FI-CV1
LIST OF INSIGNIFICANT ACTIVITIES

ATTACHMENT RPF-FI-CV1

LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

E.U. Code	Vent Number	Brief Description of Emissions Units and/or Activity	Justification
BL	BPA013	Detergent storage tank	Tergetal – Low Vapor Pressure per MSDS
BL	BPA001C	6F washer seal tank vent	HAP < 1,000 lbs per year threshold
BL	BPA002A	3F washer hood exhaust fan	VOC measures nondetect
BL	BPA007	Hemi, weak caustic storage tank vent	
BL	BPR021	Cl ₂ tower stock line vacuum breaker	VOC, chloroform & flow measured at nondetect
BL	BPR020	Cl ₂ tower stock line vacuum breaker – East	VOC, chloroform & flow measured at nondetect
BL	BPR019	Mild E tower vent	VOC measured below 5.0 TPY threshold
BL	BPA007A	#1 hemi caustic tank	
BL	BPA011	6F tray caustic tank vent	Methanol measured below 1,000 lbs per year threshold
BL	BP014	Caustic tank drain	VOC measured below 5.0 TPY threshold
CD	BP005	ClO ₂ plant H ₂ SO ₄ tank vent	Assume no organic contaminants, H ₂ SO ₄ not regulated
EN	ENV014	Discharge gate sump	Surface area <1% of ASB surface area, late in treatment system, VOC emission < 5.0 TPY
MF	MF011	Stuff box vent south	Similar vents measure less than threshold
MF	MF010	Stuff box vent north	Similar vents measure less than threshold
MF	MF008	Machine dry end #2	VOC measured less than 5.0 TPY threshold
MF	MF009	Machine dry end #3	VOC measured less than 5.0 TPY threshold
MF	MF007	Machine dry end #1	VOC measured less than 5.0 TPY threshold
MF	MF001A	Finishing room wall vent #1	VOC measured less than 5.0 TPY threshold
MF	MF013	Machine wet end #2	VOC measured less than threshold at similar mill
MF	MF001E	Finishing room roof vent #2	VOC measured less than threshold
MF	MF012	Machine wet end #1	VOC measured less than threshold at similar mill
MF	MF005	Machine wet end #5	VOC measured less than threshold
MF	MF004	Machine wet end #4	VOC measured less than threshold
MF	MF003	Machine wet end #3	VOC measured less than threshold
MF	MF001F	Finishing room roof vent #3	VOC measured less than threshold
MF	MF001B	Finishing room wall vent #2	VOC measured less than threshold
MF	MF001C	Finishing room wall vent #3	VOC measured less than threshold
MF	MF001D	Finishing room roof vent #1	VOC measured less than threshold
MF	MF006	Sewer vent at NE corner Fordrinier	VOC monitoring above similar waste water measures less than threshold

E.U. Code	Vent Number	Brief Description of Emissions Units and/or Activity	Justification
PG	DIG011	Digester press relief line #5	Normally closed safety valve
PG	DIG001	Dig bldg roof exh fan- west wall	Operating area ventilation, SO ₂ level estimate below threshold
PG	AP002	Sulfur burner room roof vent	Operating area ventilation, SO ₂ level estimate below threshold
PG	DIG002	Roof exh fan ceiling #1 – north	Operating area ventilation, SO ₂ level estimate below threshold
PG	AP006	Sewer vacuum breaker blowgas	HAP mostly nondetect, normally negative flow
PG	AP007	HP accumulator pressure relief	Safety device
PG	DIG003	Roof exh fan ceiling #2	Operating area ventilation, SO ₂ level estimate below threshold
PG	AP009	Acid plant cooling tower exhaust	Fresh water cooling device, no contaminated inputs
PG	DIG010	Digester press relief line #4	Normally closed safety valve
PG	DIG004	Roof exh fan ceiling #3	Operating area ventilation, SO ₂ level estimate below threshold
PG	DIG005	Roof exh fan ceiling #4	Operating area ventilation, SO ₂ level estimate below threshold
PG	DIG006	Roof exh fan ceiling #5	Operating area ventilation, SO level estimate below threshold
PG	DIG007	Digester press relief line #1	Normally closed safety valve
PG	DIG008	Digester press relief line #2	Normally closed safety valve
PG	DIG009	Digester press relief line #3	Normally closed safety valve
SC	BP010	Unbleached stock tank vent	VOC measure below 5.0 TPY threshold
SC	BPR006	Tile tank vent box	VOC measure below 5.0 TPY threshold
SC	BPR0005	Roof exh fan over Jonsson knotters	VOC measure below 5.0 TPY threshold
SC	BPA012	Screenroom defoamer tank	Neg. vapor pressure per MSDS
UT	RB002	Heavy SSL tank vent (south)	VOC & HAPs measured less than threshold
UT	RB011	Caustic mix tank for shutdowns vent	VOC measured less than threshold
UT	RB003	Heavy SSL tank (north)	VOC & HAPs measure less than threshold
UT	RB037	Thick HCE storage tank vent	VOC measured below threshold
UT	WP004	Demineralizer H ₂ SO ₄ tank vent	Assume no organic contaminants, H ₂ SO ₄ not regulated
UT	RB020	Recovery scrubber direct contact	VOC measures less than threshold
UT	PH001A	B scrubber holdup tank – open	Measured HAPs below threshold
UT	RB010	Vacuum evap condensate hotwell	VOC & HAPs measured less than threshold
UT		Miscellaneous Chemical Storage	Contains no volatile HAPs
UT	RB008	B-line main evap condensate tank vent	VOC & HAPs measured less than threshold
UT	RB007	A-line main evap condensate tank vent	VOC & HAPs measured less than threshold
UT	PH001B	B scrubber holdup tank – oper	Measured HAPs below threshold
UT	WP005	Demineralizer caustic tank vent	Assume no organic contaminants, NaOH not regulated
UT	RB026	Betz 40K cooling tower chemical tank	Low vapor pressure per MSDS
WY	WY005	Conveyors	Mechanical conveying of wet material with few drop points
		Temporary Fossil Fueled Boiler	Rule 62-210.300, F.A.C.

ATTACHMENT RPF-FI-CV2

IDENTIFICATION OF APPLICABLE REQUIREMENTS

ATTACHMENT RPF-FI-CV2
IDENTIFICATION OF APPLICABLE REQUIREMENTS
TITLE V CORE LIST

Effective: 03/01/02
(Updated based on current version of FDEP Air Rules)

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: *(description)*

40 CFR 61, Subpart M: NESHAP for Asbestos
40 CFR 82: Protection of Stratospheric Ozone
40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC)
40 CFR 82, Subpart F: Recycling and Emissions Reduction
40 CFR 98 Subpart A: Mandatory Reporting of Greenhouse Gases
40 CFR 98 Subpart AA: Pulp and Paper Manufacturing
40 CFR 98 Subpart C: General Stationary Combustion Sources

State: *(description)*

CHAPTER 62-4, F.A.C.: PERMITS, effective 03-16-08

62-4.030, F.A.C.: General Prohibition
62-4.040, F.A.C.: Exemptions
62-4.050, F.A.C.: Procedure to Obtain Permits; Application
62-4.060, F.A.C.: Consultation
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial
62-4.080, F.A.C.: Modification of Permit Conditions
62-4.090, F.A.C.: Renewals
62-4.100, F.A.C.: Suspension and Revocation
62-4.110, F.A.C.: Financial Responsibility
62-4.120, F.A.C.: Transfer of Permits
62-4.130, F.A.C.: Transferability of Definitions
62-4.150, F.A.C.: Review
62-4.160, F.A.C.: Permit Conditions
62-4.210, F.A.C.: Construction Permits
62-4.220, F.A.C.: Operation Permit for New Sources

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-29-09

62-210.300, F.A.C.: Permits Required
62-210.300(1), F.A.C.: Air Construction Permits
62-210.300(2), F.A.C.: Air Operation Permits
62-210.300(3), F.A.C.: Exemptions
62-210.300(5), F.A.C.: Notification of Startup
62-210.300(6), F.A.C.: Emissions Unit Reclassification
62-210.300(7), F.A.C.: Transfer of Air Permits
62-210.350, F.A.C.: Public Notice and Comment
62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action

62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review

62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources

62-210.360, F.A.C.: Administrative Permit Corrections

62-210.370, F.A.C.: Emissions Computation and Reporting

62-210.400, F.A.C.: Emission Estimates

62-210.650, F.A.C.: Circumvention

62-210.700, F.A.C.: Excess Emissions

62-210.900, F.A.C.: Forms and Instructions

62-210.900(1), F.A.C.: Application for Air Permit – Title V Source, Form and Instructions

62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions

62-210.900(7), F.A.C.: Application for Transfer of Air Permit – Title V and Non-Title V Source

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 06-29-09

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 10-12-08

62-213.205, F.A.C.: Annual Emissions Fee

62-213.400, F.A.C.: Permits and Permit Revisions Required

62-213.410, F.A.C.: Changes Without Permit Revision

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process

62-213.415, F.A.C.: Trading of Emissions Within a Source

62-213.420, F.A.C.: Permit Applications

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision

62-213.440, F.A.C.: Permit Content

62-213.450, F.A.C.: Permit Review by EPA and Affected States

62-213.460, F.A.C.: Permit Shield

62-213.900, F.A.C.: Forms and Instructions

62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form

62-213.900(7), F.A.C.: Statement of Compliance Form

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 10-06-08

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

62-296.320(2), F.A.C.: Objectionable Odor Prohibited

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 2-12-04

62-297.310, F.A.C.: General Test Requirements

62-297.310(4), F.A.C.: Applicable Test Procedures

62-297.310(7), F.A.C.: Frequency of Compliance Tests

62-297.310(6), F.A.C.: Repaired Stack Sampling Facilities

62-297.310(5), F.A.C.: Determination of Process Variables

62-297.510(8), F.A.C.: Test Report

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests

CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98

CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 10-06-08

CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 10-12-08

CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling,
effective 09-10-96

ATTACHMENT RPF-FI-CV3
COMPLIANCE REPORT AND PLAN

**ATTACHMENT RPF-FI-CV3a
COMPLIANCE REPORT**

Rayonier Performance Fibers LLC certifies that the Dissolving Sulfite Pulp Mill located in Fernandina Beach, Florida, as of the date of this Title V renewal application, is in compliance with each applicable requirement addressed in this Title V air permit renewal application, except those items identified in the attached compliance plan.

I, the undersigned, am responsible official as defined in Chapter 62-213, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.

Compliance statements for this facility will be submitted on an annual basis to FDEP, before March 1 of each year.



Signature, Responsible Official

22 MARCH

Date

**ATTACHMENT RPF-FI-CV3b
COMPLIANCE PLAN**

A. Applicable Requirements

Specific Condition F.1. of Air Construction Permit No. 0890004-021-AC requires Rayonier to comply with the provisions of 40 CFR 63.445 as expeditiously as practicable, but in no event later than 4 years from the issuance of the permit. 40 CFR 63.445 provides standards for bleaching systems that bleach pulp from sulfite bleaching processes that use chlorinated compounds. Additionally, 40 CFR 63.457 requires an initial performance test for all emission sources subject to the limitations of 40 CFR 63.445.

B. Deviations from Applicable Requirements

Rayonier has completed the construction on the bleach plant scrubber authorized by Specific Condition F.1. However, the performance testing required by 40 CFR 63.457 has not been completed.

C. Compliance Plan

Startup of the bleach plant scrubber was on by February 18, 2010. Rayonier will conduct the required performance testing using EPA Method 26A by August 17, 2010, which is within 180 days of startup. A final Startup, Shutdown, Malfunction Plan will be developed after the required initial performance test has been completed.

ATTACHMENT RPF-FI-CV4

LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI

ATTACHMENT RPF-FI-CV4
LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI

There is only one unit affected by EPA chlorofluorocarbon rules:

1. Annex Chiller – York Screw Chiller, Model YSFCFAS5-CVAS
Refrigerant R-22, capacity 1,900 lb
Cooling capacity: 600 tons

ATTACHMENT RPF-FI-CV5

VERIFICATION OF RISK MANAGEMENT PLAN SUBMISSION TO EPA

Facility Name: Rayonier Performance Fibers LLC, Fernandina Mill
EPA ID: 1000 0005 0972

RECEIVED

JUN 29 2009



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

F. Jack Perrett
Rayonier Performance Fibers LLC
P.O. Box 2002
Fernandina Beach, FL 32034-2002

June 22, 2009

EPA Facility ID#: 1000 0005 0972
Postmark Date: 06/18/2009
Anniversary Date: 06/18/2014

NOTIFICATION LETTER: COMPLETE RMP

The U.S. Environmental Protection Agency (EPA) received your Risk Management Plan (RMP) dated with the above postmark date. **This letter notifies you that your RMP is "complete" according to EPA's completion check.** The completion check is a program implemented by EPA to determine whether a submitted RMP includes the minimum amount of information every RMP must provide. The completion check does not assess whether a submitted RMP should have provided additional information or whether the information it provides is accurate or appropriate. In other words, it does not indicate that the RMP meets the requirements of 40 CFR Part 68.

We are encouraging facilities to make all future RMP submissions through RMP*eSubmit. EPA launched RMP*eSubmit, a new method for preparing and submitting your RMP on March 13, 2009. The RMP data requirements have not changed, only the method for preparation and submission of the RMP. RMP*eSubmit is a secure web-based system which is easy to use, will improve data quality, and will allow you to access your RMP on-line. Furthermore, RMP*eSubmit imports the data from your facility's latest RMP to make re-submission easier. Special features in the system ensure that the RMP is completed properly in order to submit. The RMP*Submit system, which requires the mailing of diskettes, will be phased out in 2009.

You can find RMP*eSubmit and information about how to set up an RMP*eSubmit account at www.epa.gov/emergencies/content/rmp/rmp_esubmit.htm

ATTACHMENT RPF-FI-CV6

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

ATTACHMENT RPF-FI-CV6

REQUESTED CHANGES TO CURRENT TITLE V OPERATION PERMIT

Rayonier Performance Fibers, LLC (Rayonier) request changes and clarifications to the specific conditions contained in Title V Permit No. 0890004-020-AV. These are described below. It is also requested that these changes be incorporated into draft Title V Permit No. 0890004-028-AV.

Facility Wide

Allowable Emissions

For each emissions unit, Rayonier requests that the averaging times for allowable emissions be clearly indicated by permit condition. The current Title V permit includes the following permitting note in each emissions unit subsection:

Unless otherwise specified, the averaging times for these conditions are based on the specified averaging time of the applicable test method.

For compliance purposes, Rayonier requests that the actual averaging time (i.e. 3 hours, 24 hours, etc.) of the applicable test method or requirement be specified by permit condition. Attachment RPF-FI-CV6, Table 1 shows the emissions-limited pollutants for each emissions unit. Rayonier requests that for emissions limits with averaging times based on an applicable test method, the specific condition include language "Based on the average of three runs..." The following emissions units have emissions-limited pollutants without specified averaging times indicated by permit condition:

- No. 6 Power Boiler (EU 022)
 - PM – 0.07 lb/MMBtu as determined by EPA Method 5 (Average of 3, 60 min runs)
 - Requested language: *"PM is limited to 0.07 lb/MMBtu as determined by the average of three runs (minimum of 60 min each) using EPA Method 5"*
 - PM – 0.10 lb/MMBtu as determined by EPA Method 5b (Average of 3, 60 min runs)
 - Requested language: *"PM is limited to 0.10 lb/MMBtu as determined by the average of three runs (minimum of 60 min each) using EPA method 5b."*
 - PM – 0.20 lb/MMBtu as determined by EPA Method 5 (Average of 3, 60 min runs)
 - Requested language: *"PM is limited to 0.20 lb/MMBtu as determined by the average of three runs (minimum of 60 min each) using EPA Method 5."*
 - VOC – 0.002 lb/MMBtu as determined by EPA Method 25A (Average of 3, 60 min runs)
 - Requested language: *"VOC is limited to 0.002 lb/MMBtu as determined by the average of three runs (minimum of 60 min each) using EPA Method 25 A."*

Temporary Package Boiler

During periods when the No. 6 Power Boiler or the Recovery Boiler are shutdown or operating at reduced loads, Rayonier may be required to bring onsite a temporary package boiler. Rayonier will operate the package boiler under the exemption criteria contained in Rule 62-210.300(3)(a), F.A.C. This rule provides categorical and conditional air construction permit exemption criteria.

Rule 62-210.300(3)(a)34, F.A.C., provides conditional air construction permit exemption criteria for fossil fuel steam generators with a heat input capacity of less than 100 MMBtu/hr, based on certain conditions. The annual amount of fuel burned in the steam generator claiming this exemption must not exceed one million gallons of fuel oil with a sulfur content not exceeding 0.05 percent, by weight, 290,000 gallons of fuel oil with a sulfur content not exceed 0.5 percent, by weight, or 145,000 gallons of fuel oil with a sulfur content not exceeding 1.0 percent, by weight.

Rayonier requests that a temporary boiler meeting the conditions of Rule 62-210.300(3)(a), F.A.C. be incorporated in the list of insignificant emissions unit or activities included in the Title V permit.

No. 6 Power Boiler

Excess Emissions Reporting

Rayonier requests clarification to Specific Condition G.33.b. of Draft Title V Permit No. 0890004-028-AV (Specific Condition A.39.b of Air Construction Permit No. 0890004-021-AC). Specific Condition G.33b states the following:

If CEMS or COMS data indicates non-compliance, the permittee shall notify the Department's NED office within one working day of such determination.

Rayonier requests that the condition be clarified to be consistent with Specific Condition G.13. and the provisions of 62-210.700(1), F.A.C. Periods of excess emissions due to startup and shutdown of the No. 6 Power Boiler are authorized by condition G13. and therefore do not constitute non-compliance. This clarification will reduce the burden that would otherwise be imposed on the mill if required to report allowable excess emissions due to startup and shutdown within one working day.

Excess emissions due to startup and shutdown are reported in the semi-annual Excess Emissions and Monitoring System Performance Reports addressed in Specific Condition G.37. Rayonier will comply with the requirement to report all excess emissions that exceed the allowable duration during startup or shutdown within one working day. Suggested revised wording for Condition G.33 is as follows:

If CEMS or COMS data indicates non-compliance, the permittee shall notify the Department's NED office within one working day of such determination. In the event of excess emissions due

to startup and shutdown that do not exceed the duration allowed by Specific Condition G.13 and Rule 62-210.700(1), F.A.C., no notification is required.

Startup

Procedures for startup and shutdown of the No. 6 Power Boiler are included in the application package as Attachment RPF-EU7-14. The startup shutdown procedures have been revised to account for actual operation. The boiler startup procedure requires that the ESP be energized and that the recommended inlet and outlet operating temperature be achieved before being brought on line. Based on operational experience, the startup process may take up to 3 hours.

Rayonier requests authorization from the Department to allow excess emissions for up to 3 hours after cold startup pursuant to Rule 62-210.700(1), F.A.C. The ESP will be placed on line at the earliest possible time during the startup period, consistent with manufacturer's recommendations, operating experience, and safety practices.

SNCR

The No. 6 Power Boiler uses a staged combustion and flue gas recirculation for the control of emissions of Nitrogen Oxides (NO_x). Air Construction Permit No. 0890004-021-AC authorizes Rayonier to install a selective non-catalytic reduction system (SNCR) to provide additional control NO_x emissions from the boiler. Rayonier has installed and is operating a temporary SNCR system on a trial basis. The system consists of an ammonia tank, pumps, piping compressed air delivery, injectors, and a control system. Rayonier is operating the temporary SNCR to determine if installing a permanent system to further control annual NO_x emissions would be feasible and beneficial.

Through submission of this permit application, Rayonier is requesting a one year extension to Air Construction Permit No. 0890004-021-AC to allow completion of certain authorized projects including the installation of a permanent SNCR system. Rayonier requests that a provision be added to the Title V permit allowing installation of a permanent SNCR system should Rayonier conclude that it is appropriate. Operating the SNCR under certain conditions, such as low load, may have detrimental effects on downstream equipment. Therefore, the permanent SNCR would only be operated as necessary to assure compliance with the NO_x emission limit. Suggested permit wording is as follows:

A selective non-catalytic reduction (SNCR) system may be installed to control NO_x emissions. If installed, the SNCR will only be operated as necessary to meet the NO_x emission limit.

Pulp Machine

As discussed above, Rayonier is requesting a one year extension to Air Construction Permit No. 0890004-021-AC. Rayonier is proposing to complete pulp machine upgrades authorized by the permit (head box, drying, and pocket ventilation piping).

**ATTACHMENT RPF-FI-CV6 - TABLE 1
SUMMARY OF EMISSIONS LIMITS AND ALLOWABLE AVERAGING TIMES
RAYONIER - FERNANDINA**

Unit	Pollutant	Limit	Averaging Time Indicated In		Basis	020-AV	021-AC	028-AV (draft)	020-AV Permit	028-AV Permit
			Permit Condition	Averaging Time					Note ^a	Note ^a
EU 005 - Vent Gas Scrubber	SO2	250 ppm (28,350 ACFM, 130 °F)	3-hour	3-hour	0890004-010-AC	D.2.	--	D.2.	Yes	Yes
	Opacity	20 percent	No	6-min	62-296.320(4)(b)1., F.A.C	D.3.	--	D.3.	Yes	Yes
	Total HAPs (as MeOH)	2.2 lb/ton ODP (includs EUs 005, 010, and 021)	Daily	Daily	40 CFR 63.441	G.3.	--	H.3	Yes	Yes
EU 006 - Recovery Boiler	PM	0.040 gr/dscf (8%O2)	3-hour average	3-hour average	40 CFR 63.862(a)(2)	E.4. and E.13.	--	E.4. and E.13.	Yes	Yes
		300 ppm, dry	3-hour average	3-hour average	0890004-017-AC	E.5.	--	E.5.	yes	yes
	SO2	321.9 lb/hr	Hourly	Hourly	0890004-017-AC	E.5.	--	E.5.	yes	yes
		1409.92 TPY	Annual	Annual	0890004-017-AC	E.5.	--	E.5.	yes	yes
	Opacity	20 percent	--	6 min	0890004-017-AC	E.6.	--	E.6.	yes	yes
EU 007 - Molten Sulfur	Opacity	20 percent	6 min	6 min	62-296.411(1)(g)	F.7.	--	F.7.	no	no
EU 010 Bio Effluent Test	Total HAPs (as MeOH)	2.2 lb/ton ODP (includs EUs 005, 010, and 021)	Daily	Daily	40 CFR 63.441	G.3.	--	H.3	Yes	Yes
EU 021 Condenser System	Total HAPs (as MeOH)	2.2 lb/ton ODP (includs EUs 005, 010, and 021)	Daily	Daily	40 CFR 63.441	G.3.	--	H.3	Yes	Yes
EU 022 - No. 6 Power Boiler	PM	0.07 lb/MMBtu	Test Method	3-hour	0890004-021-AC	--	A.4.a.	G.4.a.	--	Yes
		0.1 lb/MMBtu	Test Method	3-hour	40 CFR 60.42(a)(1)	--	A.4.b.	G.4.b.	--	Yes
		0.2 lb/MMBtu	Test Method	3-hour	62-296.410(2)(b)2, F.A.C.	--	A.4.c.	G.4.c.	--	Yes
	SO2	0.8 lb/MMBtu	3-hour	3-hour	40 CFR 60.43(a)(1)	--	A.5.a	G.5.a	--	Yes
		210 TPY	12-month	12-month	ESC PSD	--	A.5.b	G.5.b	--	Yes
	NOx	0.30 lb/MMBtu and 101.2 lb/hr	3-hour	3-hour	40 CFR 60.44(a)(2)	--	A.6.a	G.6.a	--	Yes
		380 TPY	12-month	12-month	ESC PSD	--	A.6.b	G.6.b	--	Yes
	CO	0.3 lb/MMBtu	30-day	30-day	0890004-021-AC	--	A.7.	G.7.	--	Yes
	VOC	0.002 lb/MMBtu	Test Method	3-hour	0890004-021-AC	--	A.8.	G.8.	--	Yes
	Opacity	20 percent	6 min	6 min	40 CFR 60.42(a)(2)	--	A.9.	G.9.	--	Yes

^a Permit note: Unless otherwise specified, the averaging times for these conditions are based on the specified averaging time of the applicable test method.

EMISSIONS UNIT INFORMATION

Section [1] Vent Gas Scrubber

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

8. Federal Program Applicability: (Check all that apply)
- Acid Rain Unit
- CAIR Unit
- Hg Budget 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 2

- | |
|--|
| 1. Control Equipment/Method Description:
Packed bed scrubber containing 10 ft of packing consisting of two packed sections. The lower section is designed for SO₂ 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: |

EMISSIONS UNIT INFORMATION

**Section [1]
Vent Gas Scrubber**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 162,000 air-dried metric tons (ADMT) of pulp per year
2. Maximum Production Rate:
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 permitted pulp production rate per consecutive 12-month rolling total (Permit No. 0890004-021-AC).

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: %	
11. Maximum Dry Standard Flow Rate: 25,400 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:			

EMISSIONS UNIT INFORMATION

Section [1]
Vent Gas Scrubber

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: 248,020	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 permitted facility-wide maximum 12-month rolling total pulp production. 162,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =248,020 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: 248,020	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 permitted facility-wide maximum 12-month rolling total pulp production. 162,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =248,020 tons per year air-dried unbleached pulp		

EMISSIONS UNIT INFORMATION

**Section [1]
Vent Gas Scrubber**

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: 248,020	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 permitted facility-wide maximum 12-month rolling total pulp production. 162,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =248,020 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:		

EMISSIONS UNIT INFORMATION

**Section [1]
Vent Gas Scrubber**

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

EMISSIONS UNIT INFORMATION

Section [1]
Vent Gas Scrubber

POLLUTANT DETAIL INFORMATION

Page [1] of [2]
Sulfur Dioxide - SO2

**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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 250 parts per million (ppm) Reference: Permit No. 0890004-020-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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: (250 ppm/10⁶) x 2,116.8 lb_f/ft² 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: SO₂ limited to 250 ppm (28,350 ACFM, 130°F) as a 3-hour average.			

EMISSIONS UNIT INFORMATION

Section [1]
Vent Gas Scrubber

POLLUTANT DETAIL INFORMATION

Page [1] of [2]
Sulfur Dioxide - SO2

**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. 0890004-020-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):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Vent Gas Scrubber

Page [2] of [2]
Methanol - H115

**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 245.5 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 2.2 lb/ton ODUP Reference: 40 CFR 63.444(c)(2)(i)		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: 41.6 TPH ADUP x 0.9 tons ODUP/ton ADUP = 37.44 TPH ODUP 37.44 TPH ODUP x 2.2 lb Methanol/ton ODUP = 82.37 lb/hr Annual: 248,020 tons ADUP/yr x 0.9 tons ODUP/ton ADUP = 223,218 tons ODUP/yr 223,218 tons ODUP/yr x 2.2 lb Methanol/ton ODUP x 1 ton/2,000 lbs = 245.5 TPY ODUP = oven-dried unbleached pulp ADUP = air-dried 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 the 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).			

EMISSIONS UNIT INFORMATION

Section [1]
Vent Gas Scrubber

POLLUTANT DETAIL INFORMATION

Page [2] of [2]
Methanol - H115

**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/ton ODUP	4. Equivalent Allowable Emissions: 82.37 lb/hour 245.5 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):	

EMISSIONS UNIT INFORMATION

Section [1]
Vent Gas Scrubber

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: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATIONSection [1]
Vent Gas Scrubber**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:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> 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:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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 condensor. Monitor satisfies the requirements of 40 CFR 63.453(m).	

EMISSIONS UNIT INFORMATIONSection [1]
Vent Gas Scrubber**H. CONTINUOUS MONITOR INFORMATION (CONTINUED)****Continuous Monitoring System:** Continuous Monitor 3 of 3

1. Parameter Code: TEMP	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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:	<input type="checkbox"/> Rule <input type="checkbox"/> 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 [1]
Vent Gas Scrubber**

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU1-I1</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU1-I3</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU1-I4</u> <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input type="checkbox"/> Not Applicable (construction application)</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>6. Compliance Demonstration Reports/Records:</p> <p><input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 1, 2009</u> Test Date(s)/Pollutant(s) Tested: <u>SO₂ and Methanol</u></p> <p><input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p>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.</p>
<p>7. Other Information Required by Rule or Statute:</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

**Section [1]
Vent Gas Scrubber**

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)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

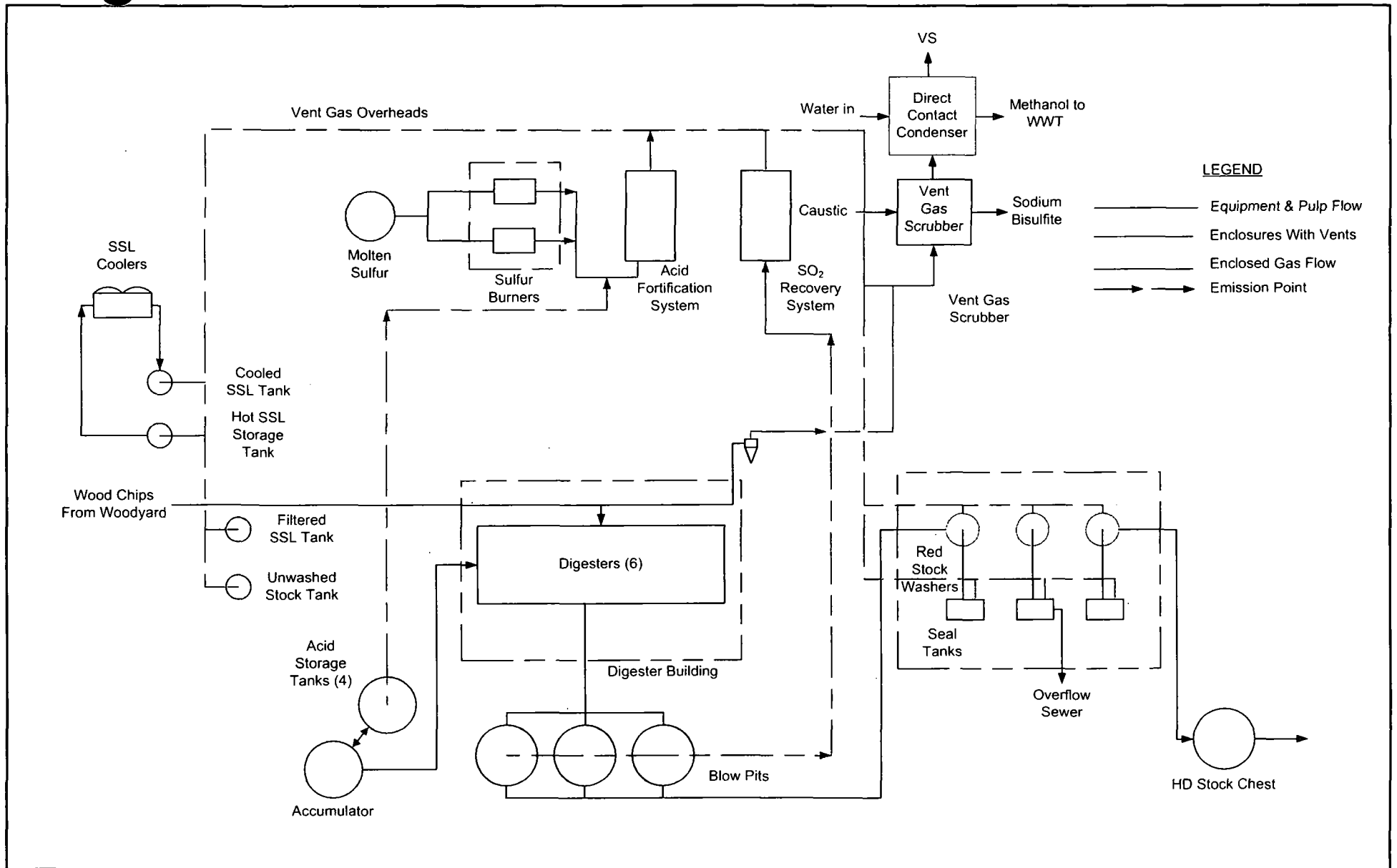
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU1-IV1</u>
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

<p>See 40 CFR 63, Subpart S, Permit No. 0890004-010-AC and Attachment RPF-EU1-IV1.</p>
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ATTACHMENT RPF-EU1-11
PROCESS FLOW DIAGRAM



Attachment RPF-EU1-11
 Vent Gas Scrubber and Direct Contact Condenser
 Process Flow Diagram
 Rayonier Performance Fibers LLC
 Fernandina Beach Mill



ATTACHMENT RPF-EU1-13

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 (SO₂) concentration in the stack is measured with a continuous emission monitor. The DCS calculates 1-hour and 24-hour running averages of the SO₂ 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).

ATTACHMENT RPF-EU1-I4
STARTUP, SHUTDOWN, MALFUNCTION PLAN

Rayonier Fernandina Mill	Section 1 - Introduction	Page 1 of 2
Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
Methanol Control	Revision Date	January 20, 2010
Pulping, Evaporators, Biological Treatment System	Revision Number	6.01

1. Introduction

Title 40 Code of Federal Regulations, Part 63 contains mandated emissions standards for listed hazardous air pollutants applicable at various types of sources. Subpart S applies to chemical, mechanical and recycle pulp mills. Section 63.444 of Subpart S applies to Rayonier's – Fernandina Beach Dissolving Sulfite Pulp Mill. In summary, this rule requires Rayonier-Fernandina Mill (FM) to control the emissions of volatile organic HAPs from the Digester Systems and Washers Systems, the Evaporator Systems, and Biological Treatment Systems such that the total emissions from these listed sources does not exceed 2.20 pounds per oven dried ton of unbleached pulp. The majority of the volatile organic HAPs is emitted as methanol. Methanol has been chosen as a surrogate for other possible HAPs and compliance is based on monitoring and controlling emissions of methanol.

Emissions from these listed sources must be collected at all times and the emission limitation met at all times. However, the rule anticipates that during periods of startup and shutdown a source may fail to achieve the rule because emissions exceed that reasonably anticipated by the control equipment. Also some part of the system may suffer an electrical or mechanical malfunction. Such periods are entirely beyond the control of the owner or operator and the rule recognizes that a penalty may not be appropriate.

The Title 40, Part 63 rule conditionally restricts this dispensation to periods of Startup, Shutdown and Malfunction. Individual sources are required to describe these three conditions and the steps it will take to minimize excess emission when these conditions occur in a document called the Startup, Shutdown and Malfunction (SSM) Plan.

For periods of Startup and Shutdown specific operating procedures must be specified that minimize excess emissions. Documentation that operators followed these procedures must be maintained on file for five years.

Rayonier Fernandina Mill	Section 1 - Introduction	Page 2 of 2
Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
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Malfunctions must be specifically described, especially as to excess emissions that occur. Procedures must be specified that minimize excess emissions during SSM periods and documentation that these procedures were followed must be maintained on file for five years. Furthermore, a semiannual report of malfunctions encountered must be submitted.

The procedures for Startups and Shutdowns and for performing maintenance repairs on equipment malfunctions is specified elsewhere in various Standard Operating Procedures. To avoid reproducing those procedures in the SSM Plan they are simply referenced.

Section 40-63.453 specifies certain Continuous Monitoring Systems (CMS) that must be installed and operated when a standard applies. Specifically, this rule requires certain parameters be monitored on any scrubbing system used at a sulfite pulp mill to meet the standards in Section 63.444. Because Rayonier's Fernandina Mill is not using scrubbers but direct contact condensers to condense methanol and other HAPs and capture them in water, EPA has ruled that these applications are not scrubbers, and therefore not subject to use the Continuous Monitoring parameters specified in 40CFR63.453 for sulfite pulp mills. Rayonier has received approval to monitor the exit gas temperature and inlet liquid flow rate as the two parameters required to be monitored by the Continuous Monitoring Systems. Continuous monitoring systems are required for each methanol condenser required by the mill. The position of the bypass valve at the methanol condenser in the Evaporator Area is also continuously monitored. This SSM Plan contains routine and predictable malfunctions of the required CMS equipment.

The mill is required to report semiannually on its record of compliance. Start-ups, Shutdowns and Malfunctions that result in an exceedance of the emission limitations must be reported. SSM events that do not result in an exceedance of an emission limitation do not require reporting, except those malfunctions that could have exceeded limitations. If the SSM Plan is not followed and results in an exceedance of an emission limitation, then this is reported.

Rayonier Fernandina Mill	Section 2 – System Description and Diagrams	Page 1 of 5
Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
Methanol Control	Revision Date	March 17, 2008
Pulping, Evaporators, Biological Treatment System	Revision Number	6.01

2.0 System Descriptions

2.1 Pulping System Description

The digester systems and washing systems comprise the pulping system at the Fernandina mill. The gases from the various vents are ducted to the Vent Gas Scrubber, a system to control sulfur dioxide emissions. This scrubber is a packed bed scrubber containing 10 feet of packing using an alkaline scrubbing media. This media is too hot and saturated to capture additional methanol. A direct condenser using relatively cooler raw water is installed to collect remaining methanol. Final gas flow is exhausted to the atmosphere (figure 1: emission point 1). Both the Vent Gas Scrubber and the methanol condenser effluent are sent to the biological treatment system via number 1 Pump Station.

Figure 1 below is a diagram of the digester and washing systems. This diagram specifically delineates the Closed Vent System used to capture Digester and Washer System Emissions and to convey them to control equipment. The proper functioning of this Closed Vent System and the subsequent Vent Gas Scrubber and Pulping Methanol Condenser are critical to compliance.

Rayonier Fernandina Mill	Section 2 – System Description and Diagrams	Page 2 of 5
Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
Methanol Control	Revision Date	March 17, 2008
Pulping, Evaporators, Biological Treatment System	Revision Number	6.01

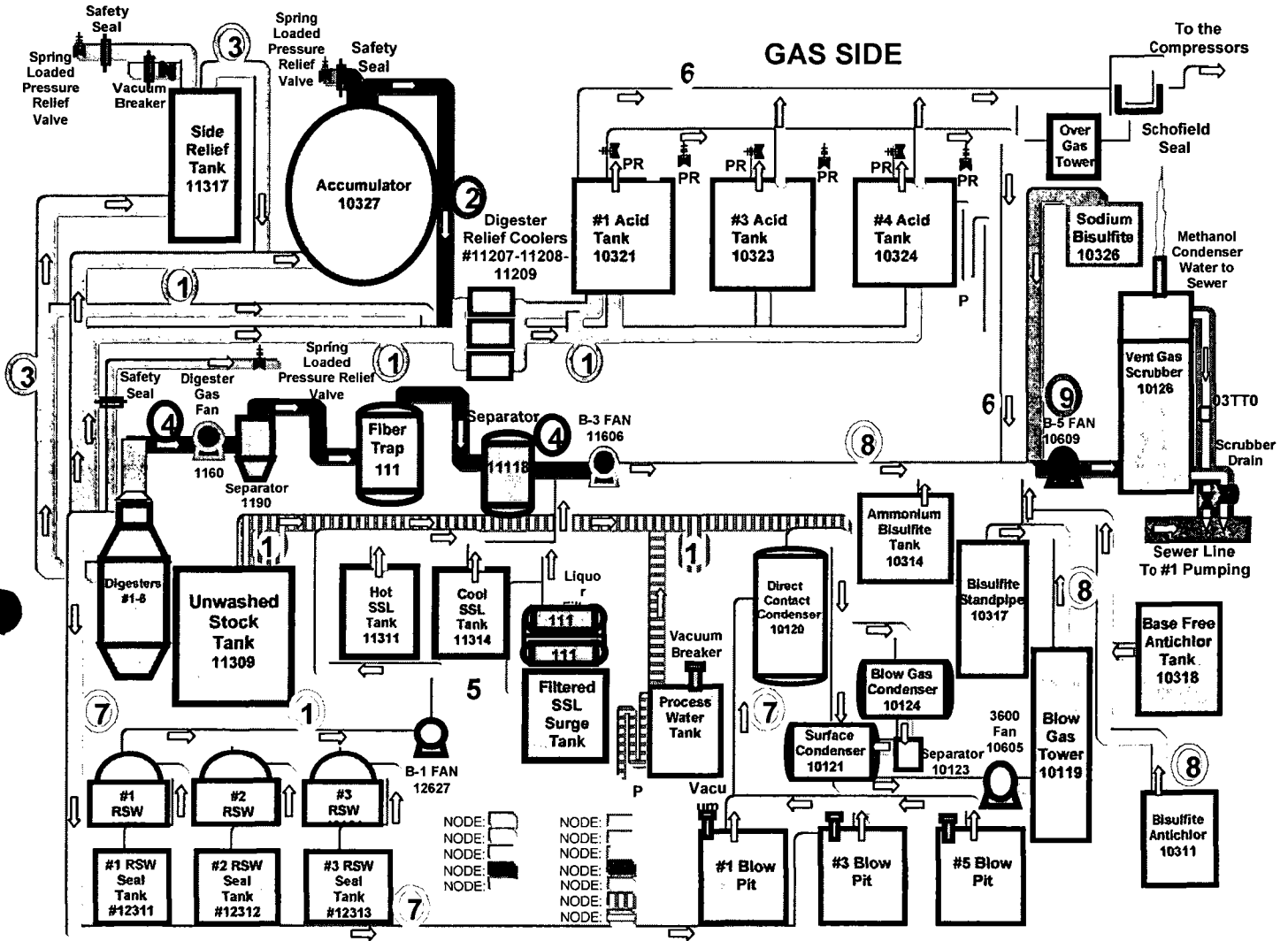


Figure 1. Flow Diagram of Pulping and Washing System Emissions

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Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
Methanol Control	Revision Date	March 17, 2008
Pulping, Evaporators, Biological Treatment System	Revision Number	6.01

2.2 Evaporators / Non-Condensable Gases Collection System Description

The Methanol Reduction System for the Evaporator Systems collects the #2A, #2B, #3A, & #3B Evaporator vents, the After Condenser Ejector vent and the "A" Line and "B" Line Hogging Jet vents into a 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. Then it passes through a baffle column-type methanol condenser where the majority of the methanol and water vapor is condensed out and sewered. The evaporator vent system is under pressure and forces the residual gas stream into the recovery boiler scrubber. The residual gases include primarily trace amounts of methanol, water vapor, sulfur dioxide (SO₂), and noncondensable gases (NCGs). Cooling water for the pre-condenser and the main methanol condenser are pumped from the Aeration/ Settling Basin (ASB) to the process. Figure 2 is a diagram of this system.

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Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
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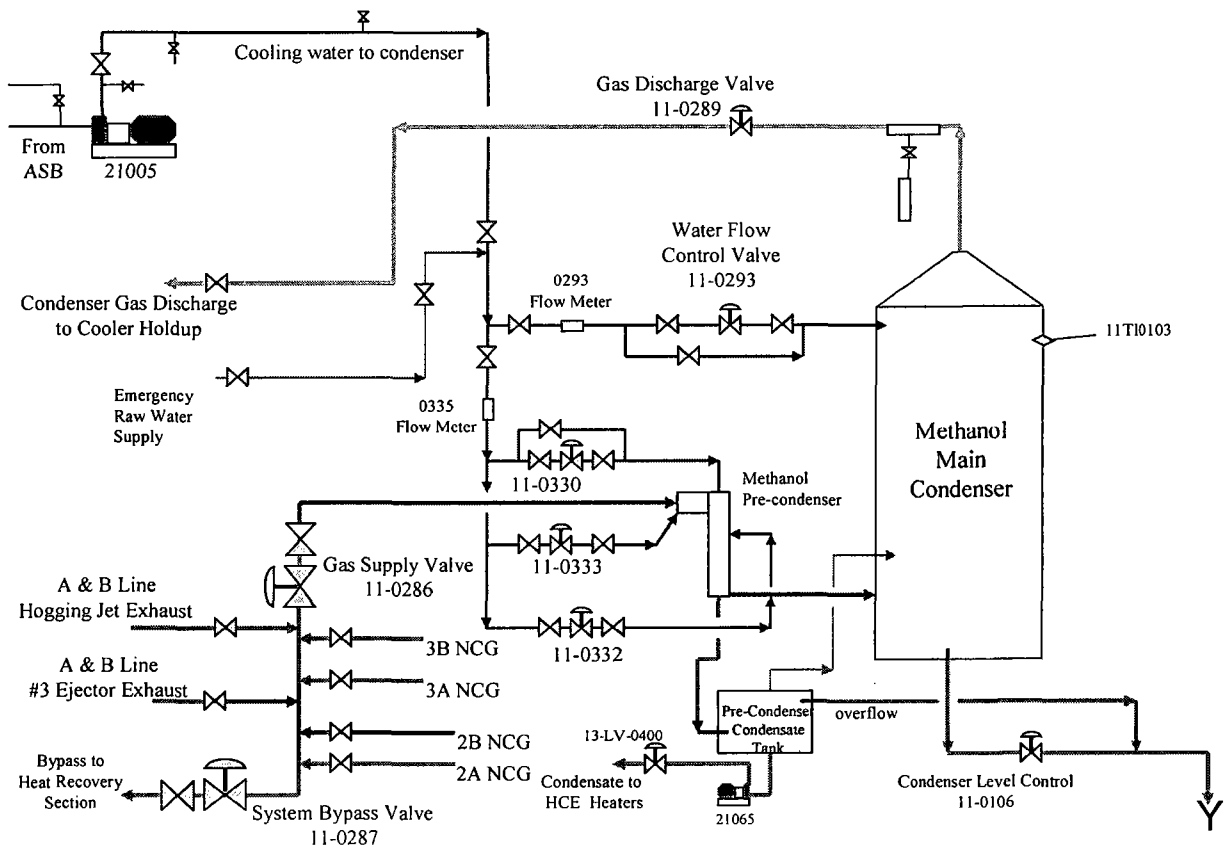


Figure 2 Flow Diagram of Evaporators / Non-Condensable Gases Collection System

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Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
Methanol Control	Revision Date	March 17, 2008
Pulping, Evaporators, Biological Treatment System	Revision Number	6.01

2.3 Biological Treatment System Description

Rayonier's Fernandina Mill is able to achieve compliance with 40 CFR 63.444 by the installation of two direct contact condensers: one that condenses remaining methanol and volatile HAPs for the Digester and Washer Systems, and one for the Evaporator Systems. These Systems are described above. The control strategy is to cool the methanol and other HAPs to condensation and capture them in water. The water from the direct contact condenser containing the collected methanol from the pulping sector, is then sent to number 1 pump station. Water with the collected methanol from the Evaporator Systems' direct contact condenser is sent to Number 3 Pump Station. From the pump stations the collected methanol is pumped, with other wastewater to the clarifier, and thence via a flume to a biological Wastewater Treatment System.

This system is approximately 30 acres in size, comprising approximately 140 million gallons. The treatment methodology used is aerated stabilization. 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 3700 horsepower. There are 3 aerated zones and a final settling or quiescence zone to settle remaining suspended solids before discharge to the Amelia River.

Rayonier Fernandina Mill	Section 3 – SSM Plans	Page 1 of 25
Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
Methanol Control	Revision Date	June 5, 2009
Pulping, Evaporators, Biological Treatment System	Revision Number	6.05

3 Start-up, Shutdown, Malfunction Plans

3.1 *Pulping Systems: Washers and Digesters*

The Pulping Department maintains Standard Operating Procedures (SOPs) that prescribe how equipment and systems in this area are operated. These SOPs include procedures for starting up and shutting down the Digester and Washer Systems and the system that collects gases from regulated vents. Startup and Shutdown Checklists are utilized by the operators to document each event, their duration, and that emission minimization steps were followed.

Malfunctions are described in the following table, along with actions to be taken to ensure HAP emissions are minimized. An Emission Event Checklist is completed by the operator to document that procedures were followed and the time and duration of the event.

Checklists are located in the Appendix of this Plan.

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3.1.1 Malfunction Events

PULPING MALFUNCTION EVENTS

Event	Malfunction	Operational Effect
A. Loss of gas flow through the MeOH condenser or gas flow out of normal operating range.	A. B-5 fan failed Eq #10609.	S
	B. Plugged tower internals such as packing, mist eliminator(s), collection tray.	S
	C. Rupture in 36" FRP duct from B-5 fan	S
	D. Expansion joint failure on B-5 fan Discharge.	S
	E. Power failure, B-5 fan Down.	S
	F. VGS tower gasket leaks.	O, S
	G. Gas to the Scrubber flow meter failure 03-FT-0468.	O
EMISSION MINIMIZATION STEPS		
	A. Start shutting the Acid Plant down. <ul style="list-style-type: none"> • Shut the Digesters in. • Have Red Stock Washers shutdown. • Call Shift Supervisor. • Start filling out the Shutdown Checklist. • When starting up use the Startup Checklist. B. Same as A. C. Same as A. D. Same as A. E. Same as A. F. Call Shift Supervisor and have maintenance check to see if the leak can be fixed on the run. G. Call Instrumentation personnel to check the Gas Flow meter. <ul style="list-style-type: none"> • Call Shift Supervisor. 	
MALFUNCTION		
B. High Temperature MeOH condenser exit gas temperature outside of normal operating range, greater than 106°F	A. Loss of water flow.	O, S
	B. High temperature water flow to MeOH packed tower section.	O, S
	C. Temperature transmitter failure 03-TT-0466. Loss of instrument air.	O, S
	D. Prior condensing equipment failure (i.e. direct contact condenser, indirect condensers, blow gas tower.)	O, S
	E. Excess heat from Accumulator relief.	O, S

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EMISSION MINIMIZATION STEPS		
	<p>A. Record the time on the Emission Event Checklist.</p> <ul style="list-style-type: none"> • Check the condenser water pumps. • Make sure flow valve 03FIC0460 is open. • Check the strainer and swap if necessary. • Call Shift Supervisor. <p>B. Cut back on condenser water flow from refrigerators</p> <p>C. Call Instrumentation personnel to check the Temperature Transmitter.</p> <ul style="list-style-type: none"> • Call Shift Supervisor. • Be sure to log on the Daily Report sheet if outside operating range. <p>D. Call Shift Supervisor.</p> <p>E. Stop steaming and stop dragging digesters.</p> <ul style="list-style-type: none"> • Investigate Contact Condenser, Indirect Condenser and or Blow Gas Tower. • Call Shift Supervisor and be sure to log on the daily report sheet if the parameter is outside of operating range. 	
MALFUNCTION		
C. Loss of MeOH Shower Flow; or Water flow on 0460 less than 75 gpm for greater than 10 minutes	<p>A. Automatic flow valve 03FIC0460 Failed.</p> <p>B. Flow meter 03FT0460 failed.</p> <p>C. Pumps 10053 or 10054 lost prime or failed.</p> <p>D. Loss of well water flow.</p> <p>E. Plugged duplex strainer baskets.</p> <p>F. Loss of instrument air to operate control valve.</p> <p>G. Normally open manual valve was Closed (suction or discharge valves).</p> <p>H. Blown water line.</p> <p>I. Electrical power loss, raw water pumps #10053 and #10054 down.</p> <p>J. Plugged Spray nozzles.</p>	<p>O, S</p> <p>O, S</p> <p>O, S</p> <p>O, S</p> <p>O, S</p> <p>O, S</p> <p>O</p> <p>S</p> <p>S</p> <p>S</p> <p>S</p>
EMISSION MINIMIZATION STEPS		
	<p>A. If failed closed, record the time on the Emission Event checklist.</p> <ul style="list-style-type: none"> • Call Instrumentation personnel to check the valve. • Call Shift Supervisor. 	

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	<p>B. Call Instrumentation personnel to check the Flow meter.</p> <ul style="list-style-type: none"> • Call Shift Supervisor. <p>C. If both pumps fail, record the time on the Emission Event checklist.</p> <ul style="list-style-type: none"> • Call maintenance personnel. • Call Shift Supervisor. <p>D. If well water loss record the time on the Emission Event checklist.</p> <ul style="list-style-type: none"> • Call maintenance personnel. • Call Shift Supervisor. <p>E. Swap strainer basket and replace with clean one.</p> <ul style="list-style-type: none"> • Call Shift Supervisor. <p>F. If valve failed closed record the time on the Emission Event checklist.</p> <ul style="list-style-type: none"> • Call Instrumentation personnel to check the air. • Call Shift Supervisor. <p>G. If during startup make a note on the startup checklist under comments on what happened.</p> <p>H. Record time on Emission Event checklist.</p> <ul style="list-style-type: none"> • Call Shift Supervisor. <p>I. Record time on Emission Event checklist.</p> <ul style="list-style-type: none"> • Call an electrician. • Call Shift Supervisor. <p>J. Start shutting the Acid Plant down.</p> <ul style="list-style-type: none"> • Shut the digesters in. • Have Red Stock Washers shutdown. • Call Shift Supervisor. • Start filling out the Shutdown Checklist. • When starting up use Startup Checklist. 	
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"O" indicates that the malfunction or device can be verified and corrected while the source is operational.

"B" indicates the malfunction or device can be verified and corrected while the source is operational, but the malfunctioning device must be bypassed and/or isolated.

"S" indicates that the malfunction cannot be verified or corrected while the system is operational. Such a malfunction will require a temporary shutdown to correct the malfunction.

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3.2 SSM Procedures for the Evaporators / Vapor Supply System

3.2.1 Malfunction Events - Evaporators System

EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Condenser
Loss of Cooling Water Flow To the Condenser	A. 21005 motor failure B. 21005 pump failure C. cooling water piping failure D. Power failure	S S	S S
	EMISSION MINIMIZATION STEPS		
	Methanol Condenser will BYPASS to prevent over-pressurization of the Condenser. <ul style="list-style-type: none"> In the event of motor, pump or piping failure that causes loss of cooling water flow to the condenser notify Supervision and have maintenance begin repairs. As soon as the repairs are made return the condenser to service. In the event of power failure that causes loss of cooling water flow to the condenser, re-establish cooling water flow as soon as power is restored. If Evaporators also lost power then re-establish cooling water flow prior to Evaporator startup as per SOP. 		
	If repairs cannot be made within 4 hours, then return the condenser to service using the Emergency Raw Water supply. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP.		
Low Cooling Water Flow to the Condenser; or	MALFUNCTION		
combined total flow on 0293 plus 0335 is less than 750 gpm for more than 10 minutes	A. cooling water piping failure B. cooling water control valve 11-0330 failure C. cooling water flow transmitter 11-0330 failure D. cooling water control valve 11-0293 failure E. cooling water flow transmitter 11-0293 failure F. cooling water control valve 11-0332 failure G. cooling water flow transmitter 11-0332 failure H. cooling water control valve 11-0333 failure J. cooling water flow transmitter 11-0333 failure K. cooling water flow transmitter 11-0335 failure L. cooling water flow meter 11-0335 failure		
	EMISSION MINIMIZATION STEPS		
	If the combined total flow on 0293 plus 0335 is less than 100 gpm, then the Methanol Condenser will BYPASS to prevent		

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	<p>over-pressurization of the Condenser. Notify Supervision and have maintenance begin repairs to piping, valve or transmitter. As soon as repairs are made return the condenser to service.</p> <ul style="list-style-type: none"> • In the event of piping failure that causes low flow (less than 100 gpm) to the condenser, the condenser will bypass. • In the event of either 0293 or 0330 valve failure (valve closes), open the control valve bypass ASAP. Try to use the control valve bypass to adjust water flow and control the exit gas temperature. In the event of either 0332 or 0333 valve failure (valve closes), adjust the other nozzle control valves as needed to control the exit gas temperature. Notify Supervision and have maintenance troubleshoot and repair valve. <p>In the event of either 0293, 0335, 0330, 0332 or 0333 transmitter failure go to manual control on the loop. Adjust control valve as needed to control exit gas temperature.</p>	

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EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
High or Low Methanol Condenser Level	A. 11-0106 level control valve failure (actual high or low level) B. 11-0106 level transmitter failure	S S	S S
EMISSION MINIMIZATION STEPS			
	<p>If the Condenser water level readout reaches the maximum high level, the Methanol Condenser will BYPASS to prevent over-pressurization of the Evaporators. The cooling water supply pump will also shutdown to prevent further flooding of the condenser.</p> <p>If the Condenser water level readout reaches the minimum low level, the Methanol Condenser will BYPASS to prevent a gas release.</p> <ul style="list-style-type: none"> In the event of 11-0106 valve or transmitter malfunction notify the Shift Supervisor and have maintenance troubleshoot to determine the cause of failure. As soon as the repairs are made return the condenser to service. 		
	The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP.		

EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
DCS Signal that 3A Evaporator Relief Valve is open	A. Failure of 11-0112 temperature transmitter or probe (verify that 3A relief valve is not open and relieving to atmosphere) B. 3A relief valve venting NCGs	O O	O O
EMISSION MINIMIZATION STEPS			

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	<ul style="list-style-type: none"> • In the event of 11-0112 transmitter or probe malfunction notify Supervision and have maintenance troubleshoot to determine the cause of failure. <i>Verify that 3A relief valve is not open and venting to atmosphere.</i> • In the event of 3A relief valve actually opening: • Remove the liquor from 3A and place 3A on wash. • Notify Supervision and troubleshoot to determine the cause of high pressure on 3A. • Check A Line liquor levels and vacuum system. Make sure levels are at target and vacuum is normal. • Check the Methanol Condenser level and pressures to make sure they are within parameters and gasses are flowing thru the condenser properly. If the condenser level or pressure is above the high limit it could cause the Evaporator NCGs to back up. • If the relief valve vented due to NCGs backing up, then leave 3A on wash until the malfunction is corrected; then return to normal operations. • If A Line pressures are within normal operating ranges, there could be a mechanical malfunction of the relief valve. Leave 3A on wash until the next A Line outage - the relief valve should be repaired at this time. Notify supervisor. 	
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EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
DCS Signal that 3B Evaporator Relief Valve is open	A. Failure of 11-0298 temperature transmitter or probe (verify that 3B relief valve is not open and relieving to atmosphere) B. 3B relief valve venting NCGs	○	○
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> • In the event of 11-0298 transmitter or probe malfunction notify Supervision and have maintenance troubleshoot to determine the cause of failure. <i>Verify that 3B relief valve is not open and relieving to atmosphere.</i> • In the event of 3B relief valve actually opening: • Remove the liquor from 3B and place 3B on wash. • Notify Supervision and troubleshoot to determine the cause of high pressure on 3B. • Check B Line liquor levels and vacuum system. Make sure levels are at target and vacuum is normal. • Check the Methanol Condenser level and pressures to make sure they are within parameters and gasses are flowing thru the condenser properly. If the condenser level or pressure is above the high limit it could cause the Evaporator NCGs to back up. • If the relief valve vented due to NCGs backing up, then leave 3B on wash until the malfunction is corrected; then return to normal operations. • If B Line pressures are within normal operating ranges there could be a mechanical malfunction of the relief valve. Leave 3B on wash until the next B Line outage - the relief valve should be repaired at this time. Notify Supervisor. 		

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EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
High Pressure on Condenser Exit Gas 11-0110	A. 11-0110 pressure transmitter failure B. 11-0289 methanol condenser discharge valve failure	S B S	S O S
	EMISSION MINIMIZATION STEPS		
	<p>If the Condenser exit gas pressure readout reaches the maximum high pressure, the Methanol Condenser will BYPASS to prevent over-pressurization of the Condenser and Evaporators.</p> <ul style="list-style-type: none"> • Check the exit gas temperature - if pressure increase is real then the temperature should also be increasing. Condenser gas supply pressure should also be increasing. • Verify that cooling water flows are normal - increase water flow to pre-condenser then main condenser - does pressure/temp decrease? If yes, adjust water flows as needed to bring pressure/temp to target. If no, is gas flow normal? Check methanol condenser discharge valve (should be open). • In the event of methanol condenser discharge valve malfunction or 11-0110 transmitter malfunction notify Supervision and have maintenance troubleshoot to determine the cause of failure. As soon as the repairs are made return the condenser to service. 		
	The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP.		
EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
Low Pressure on Condenser Exit Gas 11-0110	A. Gas Supply Valve failure B. High Condenser level (gas inlet sealed off) C. Low gas flow from Evaporators		
	EMISSION MINIMIZATION STEPS		
	<p>If the Condenser exit gas pressure readout reaches the minimum low pressure, the Methanol Condenser will BYPASS to prevent piping/vessel failure.</p> <ul style="list-style-type: none"> • Check the exit gas temperature - if pressure decrease is real then the temperature should also be decreasing. • Verify that gas supply valve 0286 is open and gas flow to the condenser is normal. • Check condenser level. High condenser level could stop the flow of gas coming into the condenser. If level is high, reduce water flow, check level valve, etc. to get level down. • If Evaporators are slowed down you could be getting less gas flow to the condenser. Reduce water flows as needed to bring 		

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	<p>pressure back to target.</p> <p>In the event of 11-0110 transmitter malfunction, notify Supervision and have maintenance troubleshoot to determine the cause of failure. As soon as the repairs are made return the condenser to service.</p> <p>The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP.</p>		
EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
High Temperature on Condenser Exit Gas 11-0111	<p>A. Low cooling water flow to condenser</p> <p>B. High gas flow to the condenser</p> <p>C. Mechanical failure inside condenser (broken baffle, etc.)</p> <p>D. Ambient temperature influences probe reading</p>		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> In the event of low cooling water flow, increase water flow as needed to bring temperature back to target. In the event of high gas flow, increase water flow as needed to bring temperature back to target. If water flow is at max flow then reduce gas flow to condenser enough to bring temperature back below alarm point. If false temperature reading is suspected, check temperature on instrument 11-0103. If the above steps don't bring the temperature back to target or below alarm point then there may be a failure inside the condenser. Notify Supervision so the situation can be assessed and further troubleshooting can done. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		
EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
High Temperature on Main Condenser Top Probe 11-0103	<p>A. Low cooling water flow to condenser</p> <p>B. High gas flow to the condenser</p> <p>C. Mechanical failure inside condenser (broken baffle, etc.)</p> <p>D. Temperature Probe failure</p>		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> In the event of low cooling water flow, increase water flow as needed to bring temperature back to target. In the event of high gas flow, increase water flow as needed to bring temperature back to target. If water flow is at max flow then reduce gas flow to condenser enough to bring 		

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	<p>temperature back below alarm point.</p> <ul style="list-style-type: none"> If the above steps don't bring the temperature back to target or below alarm point then there may be a failure inside the condenser. Notify Supervision so the situation can be assessed and further troubleshooting can be done. In the event of 11-0103 transmitter malfunction, <i>immediately</i> notify Supervision and have maintenance troubleshoot to determine the cause of failure. As soon as the repairs are made return the condenser to service. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 	
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EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
High Methanol Condenser Discharge Pressure 11-0113	A. 11- 0113 pressure transmitter failure B. Methanol Condenser discharge valve (11-0289) closed C. High pressure on Recovery Scrubber Tower		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> In the event of 11-0113 transmitter malfunction, monitor the other system pressures and temperatures. Notify the Shift Supervisor and have maintenance troubleshoot to determine the cause of failure. In the event of 11-0289 valve malfunction or high scrubber pressure the pressure will back up into the condenser and eventually the condenser will bypass on high condenser pressure. Notify the Shift Supervisor <i>immediately</i> and have maintenance troubleshoot to determine the cause of failure. As soon as the repairs are made return the condenser to service. <p>The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP.</p>		
EVENT	MALFUNCTION	Operational Effect	
		Malfx Equip	Meth Cndser
Condenser Gas Supply Low Flow 11-0285	A. 11-0286 gas supply valve goes closed (actual low flow) B. High condenser water level C. 11-0285 flow transmitter failure		
	EMISSION MINIMIZATION STEPS		

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	<ul style="list-style-type: none"> • In the event of 11-0286 going closed, the Methanol Condenser will BYPASS to prevent over-pressurization of the Evaporators. Notify the Shift Supervisor and have maintenance troubleshoot to determine the cause of failure. As soon as the repairs are made return the condenser to service. • If the Condenser water level readout reaches the maximum high level, the Methanol Condenser will BYPASS to prevent over-pressurization of the Evaporators. The cooling water supply pump will also shutdown to prevent further flooding of the condenser. Take steps to get the condenser level down to target. Check 0106 level control valve to make sure it's open, reduce water flows, etc. • In the event of 0285 transmitter failure, continue to operate the system. Notify the Shift Supervisor and have maintenance make repairs. • The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 	
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		Malf x Equip	Meth Cnds er
Condenser Gas Supply High Flow 11-0285	A. A and/or B Line Evaporators over-pressurize B. 11-0285 flow transmitter failure		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> If the high gas flow is causing temperature increase on the condenser and is due to high pressure on the Evaps, troubleshoot the system to find out why the pressures are high. Until the malfunction can be corrected reduce the steam feed to the Evaporators enough to hold condenser exit gas temperature below alarm. In the event of 0285 transmitter failure, continue to operate the system. Notify the Shift Supervisor and have maintenance make repairs. 		
	The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP.		
EVENT	MALFUNCTION		
Gas Supply Valve Failure - valve closes	A. Air or electrical supply to valve interrupted B. Loss of signal to valve C. Mechanical failure of valve		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> In the event of 11-0286 going closed or showing closed, the Methanol Condenser will BYPASS to prevent over-pressurization of the Evaporators. Notify the Shift Supervisor and have maintenance troubleshoot to determine the cause of failure. As soon as the repairs are made return the condenser to service. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		

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EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Condenser Bypass Valve Failure, 11-0287 - valve opens	A. Air or electrical supply to valve interrupted B. Loss of signal to valve C. Mechanical failure of valve		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> • If the bypass valve is actually open but the condenser system remains in service then close the manual bypass valve. This will force the gas stream to the condenser until valve is repaired. Notify the Shift Supervisor and have maintenance troubleshoot to determine the cause of 0287 failure. As soon as repairs are made, open the manual bypass valve. • If the bypass valve opens or shows open and the condenser system goes down, have someone verify what position the bypass valve is actually in. If the bypass is closed and the condenser supply valve is open then try to open the bypass. If the bypass won't open and the condenser supply valve remains closed then begin quickly reducing steam to A and B Line and ejectors to prevent over-pressurization of the Evaps. • Notify the Shift Supervisor <i>immediately</i> and have maintenance troubleshoot to determine the cause of 0287 failure. As soon as repairs are made, return the condenser system to service. • The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		

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		Malf x Equip	Meth Cnds er
Pressure Relief Valve on Condenser Opens	A. Low water flow to condensers B. Methanol Condenser discharge valve closed C. Mechanical malfunction of the relief valve		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> In the event of low water flow, increase the water flow to the condensers enough to get the pressure down and back at target. In the event of discharge valve malfunction the condenser should bypass on high pressure. If not, go to bypass to prevent over-pressurization of the Evaps and condenser. Notify Supervision and have maintenance correct the malfunction. As soon as repairs are made, return the condenser system to service. In the event of a relief valve mechanical malfunction there should be no immediate emissions due to the system being under a negative pressure. Notify Supervision so preparations can be made for the system to be taken down for repairs. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		

EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vacuum Breaker on Condenser Opens	A. Excessively low pressure on the system (loss of gas flow, Evap trip, high condenser water level, etc.) B. Mechanical failure of the vacuum breaker		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> In the event of actual low pressure troubleshoot to find out why the pressure is low. (Are Evaps running, is level high, is gas supply valve open, etc). In the event of a vacuum breaker mechanical failure there should be no immediate emissions due to the system being under a negative pressure. Notify Supervision so preparations can be made for the system to be taken down for repairs. 		

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EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
High Level in Pre-Condenser Condensate Tank	A. 21065 motor failure B. 21065 pump failure C. Level Control Valve failure (13LV400) D. Level Transmitter failure (13LT400) E. High flow to pre-condenser F. Power failure		
	EMISSION MINIMIZATION STEPS		
	Tank will overflow to closed sewer. Notify Supervision and have maintenance begin repairs to motor, pump or piping.		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Low Level in Pre-Condenser Condensate Tank	A. Level Control Valve failure (13LV400) B. Level Transmitter failure (13LT400) C. Low flow to pre-condenser D. Power failure		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> If level reaches a trip point on condensate tank, pump will shut down. Tank will overflow to closed sewer. 		

EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er

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Leak on Main Condenser Water Outlet to Sewer	A. Blown gasket B. Rupture in piping		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> Notify Supervision so the leak can be assessed. If the leak can be safely sealed, continue normal operations until the system can be taken down for repairs. If the leak can't be sealed, preparations can be made for the condenser system to be bypassed for repairs. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Lost Seal on Overgas Piping Drain pot	A. High pressure on condenser system or fan B. Leak in seal pot that causes loss of seal level		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> Close the fan and piping drains until the seal level can be restored. When the seal level is restored, open the drains to the seal pot. 		

EVENT	MALFUNCTION	Operational Effect
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EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on 2A Evaporator	A. Blown gasket B. Blown sight glass C. Rupture in vessel or vapor duct		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Remove the liquor from 2A and place 2A on wash. Notify Supervision so preparations can be made for the system to be taken down for repairs. Leave 2A on wash until the system is taken down and the malfunction is corrected then return to normal operations. 		
Vapor Leak on 2A NCG piping from valve at 2A up to NCG valve at Manifold	A. Blown gasket B. Rupture in piping		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Divert the NCGs to the ejector system and isolate the piping going to the manifold. When repairs are made return to normal operations. 		

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EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on 3A Evaporator	A. Blown gasket B. Blown sight glass C. Rupture in vessel or vapor duct		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Remove the liquor from 3A and place 3A on wash. Notify Supervision so preparations can be made for the system to be taken down for repairs. Leave 3A on wash until the system is taken down and the malfunction is corrected; then return to normal operations. 		

Vapor Leak on 3A NCG piping from valve at 3A up to NCG Manifold	A. Blown gasket B. Rupture in piping
	EMISSION MINIMIZATION STEPS
	<ul style="list-style-type: none"> Divert the NCGs to the ejector system and isolate the piping going to the manifold. When repairs are made return to normal operations.

EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on 2B Evaporator	A. Blown gasket B. Blown sight glass C. Rupture in vessel or vapor duct		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Remove the liquor from 2B and place 2B on wash. Notify Supervision so preparations can be made for the system to be taken down for repairs. Leave 2B on wash until the system is taken down and the malfunction is corrected then return to normal operations. 		

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EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on 2B NCG piping from valve at 2B up to NCG Manifold	A. Blown gasket B. Rupture in piping		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Divert the NCGs to the ejector system and isolate the piping going to the manifold. When repairs are made, return to normal operations. 		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on 2B NCG piping from valve at 2B up to NCG Manifold	A. Blown gasket B. Rupture in piping		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Divert the NCGs to the ejector system and isolate the piping going to the manifold. When repairs are made, return to normal operations. 		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on 3B Evaporator	A. Blown gasket B. Blown sight glass C. Rupture in vessel or vapor duct		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Remove the liquor from 3B and place 3B on wash. Notify Supervision so preparations can be made for the system to be taken down for repairs. Leave 3B on wash until the system is taken down and the malfunction is corrected then return to normal operations. 		

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EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on 3B NCG piping from valve at 3B up to NCG Manifold	A. Blown gasket B. Rupture in piping		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> Divert the NCGs to the ejector system and isolate the piping going to the manifold. When repairs are made return to normal operations. 		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on E-3A and E-3B ejectors exhaust up to NCG Manifold	A. Blown gasket B. Rupture in piping		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> Notify Supervision so the leak can be assessed. If the leak can be safely sealed, continue normal operations until the Evaps can be taken down for repairs. If the leak can't be sealed, preparations can be made for the system to be taken down for repairs. 		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on A and B Hogging ejectors exhaust up to NCG Manifold	A. Blown gasket B. Rupture in piping		
EMISSION MINIMIZATION STEPS			

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	<ul style="list-style-type: none"> Notify Supervision so the leak can be assessed. If the leak can be safely sealed, continue normal operations until the Evaps can be taken down for repairs. If the leak can't be sealed, preparations can be made for the system to be taken down for repairs. 	
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EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak from Condenser Gas Supply manual valve up to the Main Condenser	A. Blown gasket B. Rupture in piping		
EMISSION MINIMIZATION STEPS			
	<ul style="list-style-type: none"> Notify Supervision so the leak can be assessed. If the leak can be safely sealed, continue normal operations until the Evaps can be taken down for repairs. If the leak can't be sealed, preparations can be made for the condenser system to be bypassed for repairs. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on Main Condenser up to Vent Gas Fan Inlet	A. Blown gasket B. Rupture in piping C. Rupture in vessel		
EMISSION MINIMIZATION STEPS			

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	<ul style="list-style-type: none"> Notify Supervision so the leak can be assessed. If the leak can be safely sealed (it should be under negative pressure), continue normal operations until the system can be taken down for repairs. If the leak can't be sealed, preparations can be made for the condenser system to be bypassed for repairs. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		
EVENT	MALFUNCTION	Operational Effect	
		Malf x Equip	Meth Cnds er
Vapor Leak on Vent Gas Fan Discharge up to manual valve at Recovery Scrubber	A. Blown gasket B. Rupture in piping		
	EMISSION MINIMIZATION STEPS		
	<ul style="list-style-type: none"> Notify Supervision so the leak can be assessed. If the leak can be safely sealed, continue normal operations until the system can be taken down for repairs. If the leak can't be sealed, preparations can be made for the condenser system to be bypassed for repairs. The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. If repairs cannot be made and the condenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. 		

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3.3 SSM Procedures for the Biological Treatment System

3.3.1 Start-up and Shutdown Checklist

The biological treatment system utilized for the reduction of methanol in the effluent consists of a 37-acre aeration basin with 40 aerators. The biological action of the system is only affected by the BOD of the influent and the amount of aeration provided. The Biological Treatment System is continually operational and is not intentionally started or stopped. Therefore, Start-up and Shutdown Checklists were not developed for this system. The Utility Area Manager is responsible for responding to Biological Treatment System malfunctions.

3.3.2 Malfunction Events

EVENT	MALFUNCTION
Loss of aeration in the biological treatment system	Mechanical or electrical failure or other loss of over 2650 aerator horsepower for more than 24 hours while either source is operational (VGS, Evaporators).
	EMISSION MINIMIZATION STEPS
	1. Adjust remaining aerators on line to utilize those closest to the ASB inlet.
	2. Monitor biota rating and reduce BOD loading to maintain the biota rating above 3 at the mid lagoon.
	3. Collect a liquid sample for methanol analysis from the mid lagoon and ASB outfall.

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4.0 Continuous Monitoring System

The start-up and shutdown procedures for the CMS are contained within the SOPs for the control systems discussed previously; therefore, there are no specific checklists for these items. The malfunctions for the CMS are included in the specific system for which it applies.

4.1 Continuous Monitoring Instrumentation (Loops)

The following table is a list of the instrumentation included in the Continuous Monitoring System. These are the required parameter indicators for the pollution control devices (Vent Gas Scrubber and Evaporators Area Methanol Condenser).

Loop #	Area	Description	Inspection Frequency
03FT0460	Pulping	VGS Water Flow - In	Manufacturer's Recommendation or at least every 15 months
03TT0466	Pulping	VGS Exit gas temperature	Manufacturer's Recommendation or at least every 15 months
11TI103	Utilities	Exit gas temperature, Methanol Condenser	Manufacturer's Recommendation or at least every 15 months
11FI0293	Utilities	Cooling water flow to Methanol Condenser	Manufacturer's Recommendation or at least every 15 months
11FI0335	Utilities	Cooling water flow to pre-condenser	Manufacturer's Recommendation or at least every 15 months
11ZSC0287	Utilities	Bypass Valve, Methanol Condenser	Manufacturer's Recommendation or at least every 15 months

4.2 Instrumentation Specifications

The specifications of instruments identified under the SSM Plan are located in the Maintenance Department Computerized Maintenance Management System (CMMS). These instruments are identified by a unique "loop" or "entity" number.

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4.3 Reference Manuals

The controlled reference manuals for identified instrumentation under the SSM Plan will be located either as a hard copy in the Central Maintenance Instrument Shop or as link on the Fernandina Mill intranet web page.

4.4 Spare Parts

Spares for this equipment shall be identified through the CMMS for each instrument. Location of spare parts shall be through a unique stores identification number. Spare parts shall be kept on site and made readily available.

4.4 Trending and Historical Archiving

Historical archiving of process data shall be through the IP21 or equivalent system. All SSM Plan CMS instruments shall be displayed in the appropriate DCS (Distributive Control System) for short term trending, and historically archived for at least 5 years.

4.5 Quality Assurance

The instruments of the Continuous Monitoring System will be inspected and/or calibrated at a frequency identified in the table in Section 4.1. Inspection or calibration will be performed in accordance with manufacturing recommendations or accepted engineering practices. Records of Quality Assurance will be maintained through the Computerized Maintenance Management System and will be retained for at least 5 years.

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5. Maintenance

5.1 *Monthly Leak Inspections and Annual Leak Detection Program*

Diagrams of the Digester / Washer Closed Vent System and the Evaporators Closed Vent System are located in the Systems Description section of this document. Detailed diagrams which identify the equipment included in the Leak Inspection and Detection Program are maintained by the Pulping and Utilities Departments. Inspections for visible defects will be performed at least every 30 days. The inspection will include ductwork, piping, enclosures, and connections to covers, and closure mechanism at bypass lines. Records of these inspections will be maintained in the Pulping and Utilities Departments and / or the Computer Database System (Lotus Notes) or equivalent system.

5.2 *Annual Leak Detection Surveys*

Initially (within 180 days of implementation) and annually thereafter, a leak detection survey utilizing instrumentation will be conducted of the Closed Vent Systems. Inspections will include positive pressure closed-vent systems to ensure no detectable leaks and negative pressure at each enclosure or hood opening. Records are maintained by the Environmental Department for 5 years.

5.3 *Corrective Action*

If a leak inspection identifies visible defects in ductwork, piping, enclosures or connections to covers, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then corrective actions shall be taken as soon as practicable. A first effort to repair or correct the closed-vent system shall be made no later than 5 calendar days after the problem is identified and completed no later than 15 calendar days after the problem is identified. If the repair is not feasible without a process shutdown, or the emissions resulting from the immediate repair would be greater than the emissions likely to result from the delay of repair, the repair will be completed by the end of the next process shutdown. The repair actions, date, and person making the repair will be documented and maintained through the work order system in Computer Maintenance System (Shaware) or equivalent. Records will be maintained for 5 years.

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6.0 RECORDKEEPING

6.1 Daily Records

Operators will complete Daily Report Forms to record if there was an SSM event during their shift. Area Operating Summary Reports are printed and attached. Start-up and Shutdown Checklists and Emission Event Checklists are completed as indicated. Forms are reviewed by the Area Manager and routed to the Environmental Manager.

6.2 Continuous Monitoring System Operations

Instruments listed in the following table indicate presence of flow through bypass systems. Operators will respond to presence of flow (emission events) from alarms. Operators will determine if the emission event is due to a system start-up, shutdown, or malfunction. If the event is not due to a system start-up, shutdown, or malfunction, it will be reported as an excess emission and count toward the total allowable emissions. If the emission is due to a malfunction, the operator will determine if the malfunction is identified in the SSM Plan. If so, the operator must verify that the Plan was followed. If not, the operator must describe and document the malfunction and steps taken to minimize emissions. The SSM Plan may require revision.

Loop #	Component #	Area	Description
11-0287	11ZSC0287	Utilities	Bypass valve closed limit switch: position of bypass valve; flow of NCGs through Methanol Condenser bypass line
11-0112	11TI0112	Utilities	Temperature probe on Relief valve 3A Evaporator (presence of flow by temperature)
11-0298	11TI0298	Utilities	Temperature probe on Relief valve 3B Evaporator (presence of flow by temperature)

Continuous Monitoring Instruments for compliance with MACT I will alarm when established operating parameters are out of range and for CMS malfunctions. Operators will respond and document emission events and actions taken as described above.

Loop #	Component #	Area	Description
03-0460	03FT0460	Pulping	VGS Water Flow - In (Raw water flow vent gas scrubber)
03-0466	03TT0466	Pulping	VGS Gas Exit Gas Temperature (Top vent gas scrubber temp.)
11-0103	11TI0103	Utilities	Exit gas temperature, Methanol Condenser

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11-0293	11FI0293	Utilities	Cooling water flow to Methanol Condenser
11-0335	11FI0335	Utilities	Cooling water flow to pre-condenser

Aerator operation reports are maintained through instrumentation, with reports generated and archived in the Mill Computer system.

6.3 Start-up, Shutdown, and Malfunction Event Records

Records of Start-up, Shutdown, and Malfunction events shall be maintained. Those events resulting in Excess Emissions shall be recorded and reported according to procedures described in Section 7, Reporting.

Start-up and Shutdown Checklists have been developed for the Pulping and Utilities Systems. Operators will complete these Checklists for each Start-up and Shutdown event and record whether SSM Plan procedures and emission minimization steps were followed. Actions taken not contained within the SSM Plan will be described. Area managers will review all completed Checklists for accuracy of reporting, identify excess emission events, and ensure repairs are completed. Start-up and Shutdown Checklists are located in the Appendix.

An Emission Event Checklist has been developed for the Digester / Washers and Evaporators Systems (Appendix). Operators will complete this Checklist for each emission event and record the start and end time, location, and nature of the emission event. Operators will determine if the emission event is the result of a malfunction, and whether or not the malfunction event is included in the SSM Plan. The operator then determines if procedures and emission minimization steps were followed. Malfunctions not listed in the SSM Plan and actions taken not contained within the Plan will be described. The Emission Event Checklist is located in the Appendix.

Area managers will review all completed Checklists for accuracy of reporting, identify excess emission events, and ensure repairs are completed. A copy of the completed Checklists will be sent to the Environmental Manager, and will be maintained for 5 years.

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6.3 Monthly Leak Inspections Records

Monthly visual leak inspections are conducted at least every 30 days by a contractor, or Operations or Maintenance personnel in the Pulping and Utilities Departments, and results documented on Checklists. These Checklists are reviewed by the Area Manager or Maintenance Planner, and results entered into the Lotus Notes database. Work Orders are issued for repairs through the CMMS Work Order system. Repairs are made as described in Section 5, Maintenance.

6.4 Annual Leak Detection Testing

The closed vent systems are tested annually by a contractor according to the Rule and are described in Section 5, Maintenance. **A maintenance employee will accompany the contractor, respond to any leaks identified, and communicate findings with their supervisor on the same working day.** Leak survey documentation will be entered into the Lotus Notes database and CMMS Work Order system. Repairs are made as described in Section 5, Maintenance. A report is generated by the contractor and maintained by the Environmental Department.

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7 Compliance and Reporting

7.1 Compliance

If a Startup, Shutdown, or Malfunction event results in an excess emission of methanol greater than 2.20 pounds per oven dried ton of unbleached pulp per day, this is an exceedance of the Title 5 Permit. The determination of methanol emissions is calculated per emission event, which is based on the results of annual testing. The total emissions are a summation of the Evaporators (SSL), Digesters / Washer System, and aeration basin operations.

Actions taken during a Startup, Shutdown, or Malfunction are recorded on Checklists described earlier. It may be necessary to take emission minimization actions that are not described in the SSM Plan or on the Checklist, and these actions must be recorded by the Operators or Area Manager.

Operators or Area Managers must monitor their source and pollution control device operations, and execute prompt corrective action to ensure malfunctions are identified and responded to immediately, and ensure emissions to do not exceed permit limits.

Operators, Area Managers, and Instrument Mechanics must not take compliance instruments out of service for routine maintenance during times of startup, shutdown, malfunction, or bypass events. Routine maintenance must be performed during normal operations only. However, malfunctioning compliance instruments require immediate repair.

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Evaporators Area:

Compliance Limits are listed in the following table:

Evaporators Area - SSM MACT I		The 24-hour day measurement begins with the start time of the emission event.		
Compliance Instruments	Instrument Description	Expected Operating Value	Out of Range Value = Malfunction	Units
FB.REC.6EV_11ZSC0287/Plot	Methanol Bypass Valve Closed	1	0	Open / Closed
FB.REC.EV_11TI0103/Plot	Methanol Condenser Top Temperature	75 - 120	> 120	DegF
FB.REC.EV_11FI0293/Plot	Flow, Methanol Cooling Water	300 - 400	Total flow of 0293 plus 0335 must be >730*	GPM
FB.REC.6EV_11FI0335/Plot	Flow, Cooling Water to Pre-Condenser	350 - 500		GPM
FB.REC.EV_11TI0112/Plot	3A Relief Valve Temperature	50 - 140	> 185	DegF
FB.REC.EV_11TI0298/Plot	3B Relief Valve Temperature	50 - 140	> 185	DegF
			*24 Hr. Avg. during Operations	
601_HP_TOT	ASB Total Horsepower	2500 - 3900	< 1000	Horsepower

The condenser and precondenser have a time-limit restriction for bypass or downtime while SSL is on-line to the Evaporators. Allowable bypass time is determined by applying annual methanol emission results determined during stack testing. Generally, if repairs cannot be made and the condenser or precondenser returned to service within 5 hours on most grades, 3 hours on Cellunier, then begin Evaporator Emergency Shutdown SOP. Additionally, the condenser and precondenser are the equivalent of bypassed if the exit gas temperature parameter is exceeded, or the minimum water flow is reached while the source (SSL to the Evaporators) is operational. Report the "bypass" times to the Environmental Manager so that methanol emission calculations can be determined.

The Area Manager will notify the Environmental Manager or designee the same working day. For planned or emergency bypass, contact the Environmental Manager to determine the bypass time limit in advance of the work. When the bypass valve is open (bypassed), the VGS is interlocked for maximum water flow (0460) to reduce methanol emissions at the VGS and lower total methanol emissions.

If the relief valve temperature (0112, 0298) reaches >185 Degrees F, there is a malfunction and immediate repair is required. Notify the Environmental Manager or designee with the event times.

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Digester / Washer System:

Compliance limits are listed in the following table:

Vent Gas Scrubber - SSM MACT I	The 24-hour day measurement begins with the start time of the emission event.			
Compliance Instruments	Instrument Description	Expected Operating Value	Out of Range Value = Malfunction	Units
FB.DIG.6AP_03FT0460/Plot	Raw Water to VGS	80 - 300	< 75*	GPM
FB.DIG.6AP_03TT0466/Plot	VGS Discharge Temperature	80 - 112	> 108*	Deg. F.
*24 Hr. Avg. during Operations				

If the VGS exit gas temperature (0466) is 106 degrees F or higher for more than 6 hours in a 24-hour period, or the water flow (0460) to the VGS is less than 75 gpm in a 6 hour period, immediate action is required to minimize emissions and resolve/repair the malfunction. *For every degree F over 108, the emission limit time is greatly reduced, so care must be taken to lower the exit gas temperature below 106 degrees F as soon as possible.* The determination of methanol emissions is calculated per emission event, which is based on the results of annual testing. **The Area Manager will notify the Environmental Manager or designee the same working day.**

The Environmental Manager or designee will review the applicable information and calculate the amount of methanol released to determine if the excess emission constitutes an exceedance of the Title 5 Permit. **If the applicable emission limitation is exceeded, this must be reported by fax to the Florida DEP within 2 working days, followed by a letter within 7 working days of the end of the event.** If the emission minimization steps described in the SSM Plan were not followed, the notification must also describe actions taken to minimize the excess emissions.

7.2 Semi-Annual Reports

Semi-annual excess emission and continuous monitoring system reports are submitted to the Florida DEP, Air Compliance Enforcement, Northeast District. Detailed reports for start-ups and shutdowns are not reported when the applicable standards are not exceeded. Malfunction events must be reported. If the applicable emission standard is not exceeded, then reports are due semiannually. Reports must be submitted to the agency by the 30th of the month following the reporting period.

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Emission Event Checklist

SECTION 1

Date of Event: _____
 Report Filed By: _____

_____ Pulping
 _____ Utilities

Check all that apply:

Equipment failure: _____ Utilities failure (water, electrical, air): _____
 Instrument failure: _____ Computer failure: _____ Condenser: _____
 Operator Error: _____ Control parameter exceeded: _____ Loop # _____
 Pre-Condenser BYPASS: _____ Condenser BYPASS: _____

Emission Location: _____

Describe the conditions leading to the Emission Event and details of items checked above: _____

Start of Emission Event	End of Emission Event	Total Time of Event
AM / PM	AM / PM	
AM / PM	AM / PM	
AM / PM	AM / PM	
AM / PM	AM / PM	
AM / PM	AM / PM	

Is the Emission Event the result of a Malfunction? _____ Yes _____ No
 If YES, complete Section 2.

SECTION 2

Is the Malfunction described in the SSM Plan? _____ Yes _____ No
 If NO, describe: _____

If Yes, where is the malfunction located in the SSM Plan? (event, page) _____

If Yes, were Emission Minimization Steps (described in the Plan) followed? _____ Yes _____ No
 If NO, describe: _____

Were the Standard Operating Procedures followed? _____ Yes _____ No
 If NO, explain: _____

If NO to any of SECTION 2, notify the Environmental Manager or designee within 24 hours. If emission is due to operator error, notify the Environmental Manager or designee within 24 hours.
 Person Notified: _____ Date/Time: _____

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SECTION 3 To be completed by the Area Manager

If the Malfunction is not in the Plan, have modifications to the Plan been initiated?
 Yes No

Is the emission event classified as: a malfunction; or an excess emission (bypass)

Were instrumentation or computer repairs initiated immediately? Yes No

Were equipment repairs initiated within 5 calendar days? Yes No

Will equipment repairs be completed within 15 calendar days? Yes No

Are repairs complete? Yes No

If **NO** to any of above, explain or attach report: _____

Verified By: _____ Date: _____

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Rayonier Fernandina Mill Startup, Shutdown, Malfunction Plan MACT I	Digester & Washer System Vent Gas Methanol Condenser Daily Report	Revised: 11/18/05 Revision Number: 6.01
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Date covered by this report: _____

	Day Shift	Evening Shift	Night Shift
Operator's Signature/Initials			
(1) Was there a Start-up of the Digester & Washer Vent Gas Methanol Collection System? (ie. B5 Fan) (Yes/No) Complete Checklist			
(2) Was there a Shutdown of the Digester & Washer Vent Gas Methanol Collection System? (ie. B5 Fan) (Yes/No) Complete Checklist			
(3) Did the exit gas temperature (03TT0466) on the VGS exceed 106°F for more than 10 minutes ? (Yes/No) This is a MALFUNCTION			
Complete Emission Event Checklist	Start and End Times: Include AM or PM		
(4) Was there a Malfunction of the Digester & Washer Vent Gas Methanol Collection System? (Yes/No) Complete Emission Event Checklist			
(5) Was a monitoring instrument off-line or out of service? (Yes/No) Requires Immediate repair! Complete Emission Event Checklist			
03TT0466 exit gas temp	Start and End Times: Include AM or PM		
03FIC0460 water flow in	Start and End Times: Include AM or PM		

REASON for Malfunction or Shutdown: _____

1. If YES to any of the above, complete the appropriate Checklist.
2. Attach checklists and daily trends to this form.
3. Supervisor reviews forms and initiates repairs or notifications.
4. Send completed forms and trends to the Environmental Manager each morning.

Area Manager Review: _____ Date: _____

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Start-up, Shutdown Malfunction Plan – MACT I	Origination Date	April 15, 2002
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Name: _____ Date: _____
Checklist Procedure for Minimization of Emissions during Startup of the Digester and Washer Vent Gas Collection System

Startup procedures began at: _____ AM / PM. Date: _____
The following conditions must be verified. The Proper Sequence for Startup is as follows:

Verification of startup conditions

The following conditions must be verified prior to filling a digester or washing pulp.
The Proper Sequence for startup is as follows:

- 1. Followed the Proper Startup Procedure for the Vent Gas Scrubber located in the Unbleached Standard Operating Procedures Manual Chapter 3, Section 3.1 Vent Gas Scrubber Startup.
- 2. **Note: The following procedures are as needed.** Followed the Proper Startup Procedure for the Blow Gas System located in the Unbleached Standard Operating Procedures Manual Chapter 10, Section 10.1 Blow Gas System Startup.
- 3. Notified the Red Stock Washers/ Blow Pit Operator that B-5 Fan and the Scrubber are running. Red Stock Washer/ Blow Pit Operator Confirmed B-3 Fan has been started up using the startup procedures located in the Red Stock Washer/Blow Pit Manual Chapter 4, Section 4.1.
- 4. Followed the Proper Startup Procedure for the Digester Gas Fan #11605 located in the Unbleached Standard Operating Procedures Manual Chapter 16, Section 16.2.
- 5. Red Stock Washer/ Blow Pit Operator Confirmed B-1 Fan has been started up using the startup procedures located in the Red Stock Washer/Blow Pit Manual Chapter 4, Section 4.1.

Startup procedures ended at : _____ AM / PM Date: _____

Total time of Startup Event: _____ Minutes

The Start-up Procedures were followed according to the SSM Plan: Yes _____. No _____.

If NO, describe actions taken: _____

If NO, contact Area Manager. Date: _____ Time: _____ Initials: _____

Report to be reviewed by the Area Manager.

Area Manager: _____ Date: _____

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Name: _____ Date: _____

Checklist Procedure for Minimization of Emissions during Shutdown of the Digester and Washer Vent Gas Collection System

Shutdown procedures began at: _____ AM / PM. Date: _____

The following conditions must be verified. The Proper Sequence for Shutdown is as follows:

- 1. Red Stock Washer/ Blow Pit Operator Confirmed B-1 Fan has been shutdown using the shutdown procedures located in the Red Stock Washer/Blow Pit Manual Chapter 4, Section 4.4.
- 2. Followed the Proper Shutdown Procedure for Digester Gas Fan #11605 locate in the Unbleached Standard Operating Procedures Manual Chapter 16, Section 16.2a.
- 3. Red Stock Washer/ Blow Pit Operator Confirmed B-3 Fan has been shutdown using the shutdown procedures located in the Red Stock Washer/Blow Pit Manual Chapter 4, Section 4.4.
- 4. Followed the Proper Shutdown Procedure for the Blow Gas System located in the Unbleached Standard Operating Procedures Manual Chapter 10, Section 10.7 Blow Gas System Shutdown.

Note: The following procedure will take place last.

- 5. Followed the Proper Shutdown Procedure for the Vent Gas Scrubber located in the Unbleached Standard Operating Procedures Manual Chapter 3, Section 3.3 Vent Gas Scrubber Shutdown.

Shutdown procedures ended at : _____ AM / PM Date: _____

Total time of Shutdown Event: _____ Minutes

The Shutdown Procedures were followed according to the SSM Plan: Yes _____. No _____

If NO, describe actions taken: _____

If NO, contact Area Manager. Date: _____ Time: _____ Initials: _____

Report to be reviewed by the Area Manager.

Area Manager: _____ Date: _____

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Methanol Control	Revision Date	January 16, 2006
Pulping, Evaporators, Biological Treatment System	Revision Number	6.01

Rayonier Fernandina Mill Startup, Shutdown, Malfunction Plan MACT I	Evaporator System and Methanol Condenser Daily Report	Origination Date: 4/15/02 Revised: 11/18/05 Revision Number: 6.01
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Date covered by this report: _____

	Day Shift	Evening Shift	Night Shift
Operator's Signature/Initials			
(1) Was there a Start-up of the Evaporator System? (SSL to A and B Lines) (Yes/No) Complete Checklist			
(2) Was there a Shutdown of the Evaporator System? (SSL to A and B Lines) (Yes/No) Complete Checklist			
(4) Was there a Malfunction of the Evaporator System or Methanol Condenser? (Yes/No) Complete Emission Event Checklist			
(5) Did the exit gas temperature (11TT0103) on the Methanol Condenser exceed 140°F ? (Yes/No)			
Complete Emission Event Checklist Start and End Times: Include AM or PM			
(6) Did the sum of the water flow from 0293, 300, 302, 303 drop below 750 gpm?			
Complete Emission Event Checklist Start and End Times: Include AM or PM			
(7) Was there a BYPASS of the Methanol Condenser System? (11ZSC0287) (Yes/No)			
Complete Emission Event Checklist Start and End Times: Include AM or PM			
(8) Was a monitoring instrument off-line or out of service? (Yes/No) Requires Immediate repair! Complete Emission Event Checklist			
11TT0103 exit gas temp Start and End Times: Include AM or PM			
11FI0330, 0332, 0333, 11FT0293 water flow in Start and End Times: Include AM or PM			

REASON for Malfunction, bypass, or Shutdown: _____

(8) Did the temperature reach or exceed 185°F on Relief Valve 11TT0112 or 11TT0298? (Yes/No)			
Start and End Times: Include AM or PM			

5. If **YES** to any of the above, **complete the appropriate Checklist.**
6. Attach checklists and daily trends to this form.
7. Supervisor reviews forms and initiates repairs or notifications.
8. Send completed forms and trends to the Environmental Manager each morning.

Area Manager Review: _____ Date: _____

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STARTUP CHECKLIST - EVAPORATOR VENT COLLECTION SYSTEM

Date:	Initials:
System Startup begins when cooling water flow is established to the Methanol Condensers. System Startup Beginning Time _____	
Have the electrician meg the Cooling Water Supply Pump - 21005 per SOP.	
Check the stroke on the cooling water flow control valve - 0293, 0330, 0332 and 0333	
Check the stroke on the condenser level control valve - 0106	
Check 21005 to make sure that it is primed. Refer to Startup SOP.	
Verify that all of the manual valves are lined up to pump cooling water from the ASB to the condenser and out to the sewer. Refer to the Startup SOP.	
Verify that the emergency raw water supply valve is closed.	
Verify that all piping vents and drains are closed. Refer to the Startup SOP.	
Verify that all of the manual valves are lined up to send the evaporator NCG's to the methanol condenser. Refer to the Startup SOP.	
Verify that system seals are in place: 2A NCG at scrubber seal # _____ 2B NCG at scrubber seal # _____ E-3A/E-3B exhaust seal # _____ Hogging jet exhaust seal # _____ Service Valve drain seal # _____ Bypass Valve drain seal # _____	2A NCG vent at 2A seal # _____ 2B NCG vent at 2B seal # _____ Pre-condenser vent seal # _____ Old fan drain 1/2" seal # _____ Old fan drain 1 1/2" seal # _____
Verify that all of the manual valves are lined up to send the discharge gases from the condenser through the vent gas fan and into the scrubber. <i>There is a manual valve on this line just before entry into the scrubber.</i> Refer to the Startup SOP.	
When Methanol System is in-service, <u>verify</u> that the Gas Supply Valve is OPEN and the Bypass Valve (11ZSC0287) is CLOSED.	
System Startup Ends and "Normal Operations" begin when A and B Line Evaps are up to target steam pressures and 11-0103 condenser gas temperature stabilizes.	
Startup Ending Time _____ Total Startup Time _____	
Were the Start-up Procedures followed according to the SSM Plan? If NO, describe actions taken. Notify Area Manager.	Yes or No
Did the Start-up result in excess emissions beyond those described in the SSM Plan? If YES, describe the events and how emissions were minimized:	Yes or No
Report to be reviewed by Area Manager. Area Manager: _____ Date: _____	

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SHUTDOWN CHECKLIST - EVAPORATOR VENT COLLECTION SYSTEM

Date: _____	initials
System Shutdown Begins when A and B Line Shutdown Procedures are started. Shutdown Beginning Time _____	
A Line and B Line Evaporators have been shut down according to procedure.	
SSL Feed valves closed to the Evaporators	
A and B Line steam stops closed.	
Steam supply valves closed to A and B Line ejectors.	
After the items above have been verified proceed with Methanol Condenser Shutdown according to procedures found in Evaporators Standard Operating Procedures Manual.	
System Shutdown Ends when the Condenser Bypass valve is open and the Condenser Gas Supply valve is closed. Shutdown Ending Time _____ Total Time of Shutdown _____	
Were the Shutdown Procedures followed according to the SSM Plan? If NO, describe actions taken. Notify Area Manager.	Yes or No
Did the Shutdown result in excess emissions beyond those described in the SSM Plan? If YES, describe the events and how emissions were minimized:	Yes or No
Report to be reviewed by Area Manager. Area Manager: _____ Date: _____	

ATTACHMENT RPF-EU1-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS

**ATTACHMENT RPF-EU1-IV1
IDENTIFICATION OF APPLICABLE REQUIREMENTS
PULPING SYSTEM**

RULE NUMBER	RULE TITLE/SUMMARY
40 CFR 63, Subpart A	NESHAPs General Provisions
40 CFR 63, Subpart S	NESHAP Pulp and Paper Industry
63.444(a)1	MACT Standards – Sulfite Process
63.444(b)	MACT Standards – Closed Vent Systems
63.444(c)(2)	MACT Standards – Standards for Ammonia-Based Pulping Systems
63.450	MACT Standards – Closed Vent Systems
63.453(a)	MACT Standards – Monitoring Requirements
63.453(c)	MACT Standards – Monitoring Requirements
63.453(d)	MACT Standards – Monitoring Requirements
63.453(f)	MACT Standards – Monitoring Requirements
63.453(k)	MACT Standards – Monitoring - Closed Vent Systems
63.453(m)	MACT Standards – Monitoring Requirements
63.453(n)	MACT Standards – Monitoring - Parameter Monitoring
63.453(o)	MACT Standards – Monitoring Requirements
63.454	MACT Standards – Recordkeeping
63.455	MACT Standards – Reporting
63.457	MACT Standards – Test Methods and Procedures



Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003
County: Nassau
Latitude/Longitude: 30°39' 44"N; 81°29'03"W
UTM: E-(17)454.7; N-3392.2
Project: SO₂ Vent System

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-204, 62-210, 62-212, 62-296, 62-297 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

Project #010 is for the construction and installation of a digester. The project also includes MACT conditions. The facility has requested a production cap of 153,205 Air Dried Metric Tons (ADMT) per year to limit the emissions increase below the PSD review.

EU- 005: This Emission Unit identifies the tray type gas adsorption column (wet scrubber) that controls emissions from numerous vents from the cooking acid plant, the red stock washers, the unwashed stock tank, the spent sulfite liquor tanks, six digesters, and the blow pits. The sulfur dioxide concentration in the stack is continuously measured with a CMS.

Located at the foot Gum Street, Fernandina Beach, Nassau County, Florida.

In accordance with:

Construction permit application received July 26, 2001
Additional Information received September 28, 2001
Additional Information received November 30, 2001

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys not title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy any record that must be kept under the conditions of the permit;

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
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Expiration Date: February 5, 2003

GENERAL CONDITIONS:

- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurement;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

SPECIFIC CONDITIONS:

1. The I.D. No. and Project name for this source shall be used on all correspondence.
2. The hours of operation for this Emission Unit is not limited; i.e., 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]
3. The permitted maximum facility-wide pulp production rate shall not exceed 153,205 ADMT/year. The facility shall maintain and submit records of annual facility-wide production rate.
[Rule 62-212.400(2)(g), F.A.C.]
4. If there is any increase in annual pulp production (153,205 ADMT/year) by the batch digesters, Nos. 1 thru 6, then PSD New Source Review pursuant to Rule 62-212.400(5), F.A.C., shall apply to all major SO₂ emissions units at the facility.
[Rule 62-212.400(2)(g), F.A.C.]
5. Sulfur Dioxide emissions shall not exceed 250 ppm.(28350 ACFM, 130oF) Equivalent emissions are 63.2 pounds per hour and 276.82 tons per year.
[Operation permit 0890004-004-AO]
6. Visible emissions shall not exceed 20 percent opacity (six minute average).
[Rule 62-296.411(1)(g)]
7. Sulfur Dioxide. Compliance shall be determined with an instack continuous monitor system. In addition, compliance shall be determined with EPA Method 8 stack test upon department request.
[OGC Case No. 90-1028, Consent Order dated 09-20-90, Operation permit 0890004-004-AO]
8. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
[Rule 62-296.411(1)(j)1.]
9. A SO₂ continuous monitoring system (CMS) report shall be submitted for each calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:
 - (a) The magnitude of excess emissions, and the date and time of commencement and completion of each time period of excess emissions.
 - (b) Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility. The nature and cause of any malfunctions (if known), the corrective action taken or preventative measures adopted.
 - (c) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - (d) When no excess emissions have occurred or the CMS has not been inoperative, repaired or adjusted, such information shall be stated in the report.
[OGC Case No. 90-1028, Consent Order dated 09-20-90, Operation permit 0890004-004-AO]

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

SPECIFIC CONDITIONS:

10. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

MACT CONDITIONS

11. The total HAP emissions from each digester vent and those from the other equipment systems named in 40 CFR 63.444(a)(1), shall be controlled as specified in Specific Condition No. 12.
[40 CFR 63.444(a)]

12. Each equipment system listed in Specific Condition No. 11 shall be enclosed and vented into a closed-vent system and routed to the (2) direct contact condensers and the SO2 Vent for control of the Total HAP emissions. The enclosures and closed-vent system shall meet the requirements specified in Specific Condition No. 14. Emissions from equipment listed in Specific Condition No. 11 that is not necessary to be reduced to meet the requirements of Specific Condition No. 13 is not required to be routed to the control device.
[40 CFR 63.444(b)]

13. The total HAP emissions from both the equipment systems listed in Specific Condition No. 11 and the vents, wastewater, and condensate streams from the (2) direct contact condensers and the SO2 Vent, shall be controlled so that no more than 1.1 kilograms of total HAP or methanol per megagram (2.2 pounds per ton) of ODP is emitted.
[40 CFR 63.444(c)]

MACT Standards for enclosures and closed-vent systems:

14. The enclosure and closed-vent system specified in Specific Condition No. 12 for capturing and transporting vent streams that contain HAP shall meet the following requirements.

(a) The enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in Specific condition No. 26. Each enclosure or hood opening closed during the initial performance test specified in § 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs.

(b) Each component of the closed-vent system used to comply with Specific Condition No. 2 that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in §63.457(d).

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

SPECIFIC CONDITIONS:

(c) Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in §§63.444 shall comply with either of the following requirements: On each bypass line, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line; or

For bypass line valves that are not computer controlled, the permittee shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.

[40 CFR 63.450 (a), (b), (c), and (d)]

15. The permittee shall install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in 40 CFR 63.453(a). The CMS shall include a continuous recorder.

[40 CFR 63.453(a)]

16. A CMS shall be operated to measure the following parameters¹ for each gas scrubber used to comply requirements in Specific Condition No. 13.

- See Attached* →
- (1) The pH or the oxidation/reduction potential of the gas scrubber effluent;
 - (2) The gas scrubber vent gas inlet flow rate; and
- The gas scrubber liquid influent flow rate.

1 Or an Alternative Parameters as determined in 40 CFR 63.453(n)

[40 CFR 63.453(c)]

17. A CMS shall be operated to measure the gas scrubber parameters specified in Specific Condition No. 16(1) through (3) or those site specific parameters determined according to the procedures specified in Specific Condition No. 20 to comply with the sulfite pulping system requirements specified in Specific Condition No. 13.

[40 CFR 63.453(f)]

18. The enclosure and closed-vent system used to comply with Specific Condition No.14 shall comply with the following requirements:

(1) For each enclosure opening, a visual inspection of the closure mechanism specified in Specific Condition No. 14 (a) shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed.

(2) Each closed-vent system shall be visually inspected at least once every 30 days and at other times as requested by the Administrator. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.

(3) For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in Specific Condition No.14.(b) measured initially and annually by the procedures in §63.457(d).

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

SPECIFIC CONDITIONS:

(4) Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in Specific Condition No. 26.

(5) The valve or closure mechanism specified in Specific Condition No. 14.(c)(2) shall be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.

(6) If an inspection required by Specific Conditions Nos. 18.(1) through 18.(5) identifies visible defects in ductwork, piping, enclosures or connections to covers required in Specific Condition No. 14, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable.

(i) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.

(ii) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the owner or operator determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

[40 CFR 63.453(k)]

19. Each owner or operator using a control device, technique or an alternative parameter other than those specified in Specific Condition No. 16 through 18 shall install a CMS and establish appropriate operating parameters to be monitored that demonstrate, to the Administrator's (U.S. EPA) satisfaction, continuous compliance with the applicable control requirements.

[40 CFR 63.453(m)]

20. To establish or reestablish, the value for each operating parameter required to be monitored under Specific Condition Nos. 16 and 17, and 19 or to establish appropriate parameters for Specific Condition Nos. 17 and 19, each owner or operator shall use the following procedures:

(1) During the initial performance test required in §63.457(a) or any subsequent performance test, continuously record the operating parameter;

(2) Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations;

(3) The owner or operator shall provide for the Administrator's approval the rationale for selecting the monitoring parameters necessary to comply with Specific Condition Nos. 17 and 19; and

(4) Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time. Include all data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the applicable emission standard.

[40 CFR 63.453(n)]

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

SPECIFIC CONDITIONS:

21. Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored under Specific Conditions 15 through 20 and established under 40 CFR 63 Subpart S. Operation of the control device below minimum operating parameter values or above maximum operating parameter values established under this subpart or failure to perform procedures required by 40 CFR 63 Subpart S shall constitute a violation of the applicable emission standard of 40 CFR 63 Subpart S and be reported as a period of excess emissions.

[40 CFR 63.453(o)]

April 15
105
183
285
2002

MACT Recordkeeping Requirements

22. For each applicable enclosure opening, closed-vent system, and closed collection system, the permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection:

- (1) Date of inspection;
- (2) The equipment type and identification;
- (3) Results of negative pressure tests for enclosures;
- (4) Results of leak detection tests;
- (5) The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);
- (6) The date the defect or leak was detected and the date of each attempt to repair the defect or leak;
- (7) Repair methods applied in each attempt to repair the defect or leak;
- (8) The reason for the delay if the defect or leak is not repaired within 15 days after discovery;
- (9) The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
- (10) The date of successful repair of the defect or leak;
- (11) The position and duration of opening of bypass line valves and the condition of any valve seals; and The duration of the use of bypass valves on computer controlled valves.

[40 CFR 63.454(b)]

MACT Test methods and procedures

23. Initial performance test. An initial performance test is required for all emission sources subject to the limitations in 40 CFR 63.444.

[40 CFR 63.457(a)]

24. Vent sampling port locations and gas stream properties. For purposes of selecting vent sampling port locations and determining vent gas stream properties, required in 40 CFR 63.444, the permittee shall comply with the applicable procedures specified in §63.457(b). [40 CFR 63.457(b)]

25. Liquid sampling locations and properties. For purposes of selecting liquid sampling locations and for determining properties of liquid streams such as wastewaters, process waters, and condensates required in 40 CFR 63.444, the permittee shall comply with the applicable procedures specified in §63.457(c).

[40 CFR 63.457(c)]

PERMITTEE:

Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035

I.D. Number: 0890004
Permit/Cert Number: 0890004-010-AC
Date of Issue: February 5, 2002
Expiration Date: February 5, 2003

SPECIFIC CONDITIONS:

26. Negative pressure procedures. To demonstrate negative pressure as required in Specific Condition No. 14(a) at process equipment enclosure openings, the permittee shall comply with the requirements of §63.457(e).
[40 CFR 63.457(e)]

27. HAP concentration measurements. For purposes of complying with the requirements in §63.444, the permittee shall measure the total HAP concentration as one of the following:

(1) As the sum of all individual HAPs; or

As methanol.

[40 CFR 63.457(f)]

28. Vent gas stream calculations. To demonstrate compliance with the mass emission rate, mass emission rate per megagram of ODP, and percent reduction requirements for vent gas streams specified in §63.444, the permittee shall comply with the requirements of §63.457(i).
[40 CFR 63.457(i)]

29. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart S no later than April 15, 2002 as extended pursuant to 40 CFR Part 63, Subpart A 1.

[40 CFR 63.440(d)].

1 Letter from Christopher Kirts, FDEP to Michael Burch, Rayonier dated April 5, 2000.

30. The permittee shall comply with the requirements of 40 CFR Part 63, Subpart A- General Provisions as indicated in Table 1 of Subpart S.

[40 CFR 63.440(g)].

31. The permittee shall submit an application for a Title V permit revision, or Title V permit renewal, as applicable no later than 180 days after April 15, 2002, the MACT I compliance deadline.

1 Note: If 40 CFR Part 63 is modified to allow for applicable time extension requests, the applicant may apply for an extension to the respective deadlines.

32. Any revision(s) to a permit (and application) must be submitted to the Department, in writing, and approved by the Department prior to implementation.

33. Submit an Annual Operation Report for this source on the form required pursuant to Rule 62-210.900(5), F.A.C., Forms and instructions - Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions (effective 11-23-94) for each calendar year.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



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

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52 Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.
Smith Clerk 2/6/02 Date

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

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]
Recovery Boiler

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:

Recovery Boiler

3. Emissions Unit Identification Number: **006**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 26
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:

Sulfite recovery boiler controlled by a wet scrubber and demister.

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description: Mist Eliminator – High Velocity (V > 250 ft/min): Brinks type mist eliminator for particulates
2. Control Device or Method Code: 014

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description: Tray-Type Gas Adsorption Column: Liquid scrubber which controls combustion gases from the boiler and noncondensable gases from the evaporators
2. Control Device or Method Code: 051

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 INFORMATIONSection [2]
Recovery Boiler**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: EU006		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: EU 021 - Evaporator Vents Methanol Condenser System			
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: 17 East (km): 454.7 North (km): 3392.2		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 O₂.			

EMISSIONS UNIT INFORMATIONSection [2]
Recovery Boiler**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate: Segment 1 of 3**

1. Segment Description (Process/Fuel Type): Industrial Processes; Sulfitte Pulping; Recovery System: NH3; Red Liquor Solids		
2. Source Classification Code (SCC): 3-07-002-22		3. SCC Units: Tons Air-Dried Unbleached Pulp (ADUP)
4. Maximum Hourly Rate: 35.51	5. Maximum Annual Rate: 311,068	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Hourly: 70,000 lb SSLS/hr x 34.7 tons ADUP/cook x 1 cook/68,400 lb SSLS = 35.51 tons ADUP/hr Annual: 35.51 tons/hr ADUP x 8,760 hr/yr = 311,068 tons ADUP/yr		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Industrial; Residual Oil; Grade 6 Oil		
2. Source Classification Code (SCC): 1-02-004-01		3. SCC Units: Thousand Gallons Burned
4. Maximum Hourly Rate: 1.789	5. Maximum Annual Rate: 15,671.6	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 2.5	8. Maximum % Ash:	9. Million Btu per SCC Unit: 150
10. Segment Comment: This segment includes 150 bbl/yr of facility generated on spec used oil distributed among the No. 6 Power Boiler and the Recovery Boiler.		

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

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

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Industrial; Distillate Oil; Grades 1 and 2 Oil		
2. Source Classification Code (SCC): 1-02-005-01		3. SCC Units: Thousand Gallons Burned
4. Maximum Hourly Rate: 0.030	5. Maximum Annual Rate: 262.8	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0015	8. Maximum % Ash:	9. Million Btu per SCC Unit: 136
10. Segment Comment: Permitted ultra low sulfur diesel fuel usage from permit No. 0890004-024-AC Annual usage based on 8,760 hr/yr at 30 gal/hr		

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:		

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

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
PM	051	014	EL
PM10	051	014	NS
PM2.5	051	014	NS
SO2	051	014	EL
NOx			NS
CO			NS
VOC			NS
SAM	051	014	NS
HAPs (Total)			NS
Methanol - H115			NS

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

POLLUTANT DETAIL INFORMATION

Page [1] of [2]
Particulate Matter Total - PM

**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: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 42.95 lb/hour 188.13 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.040 gr/dscf @ 8 percent O₂ Reference: Permit No. 0890004-017-AC		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: $125,280 \text{ dscf/min} \times 0.040 \text{ gr/dscf} \times 60 \text{ min/hr} \times 1 \text{ lb/7,000 gr} = 42.95 \text{ lb/hr}$ Annual: $42.95 \text{ lb/hr} \times 8,760 \text{ hr/yr} \times 1 \text{ ton/2,000 lb} = 188.13 \text{ TPY}$			
11. Potential, Fugitive, and Actual Emissions Comment:			

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

POLLUTANT DETAIL INFORMATION

Page [1] of [2]
Particulate Matter Total - PM

**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: 0.040 gr/dscf @ 8% O₂	4. Equivalent Allowable Emissions: 42.95 lb/hour 188.13 tons/year
5. Method of Compliance: Annual stack test using EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): 40 CFR 63.862(a)(2) and Permit No. 0890004-017-AC	

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):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [2]
Recovery Boiler

Page [2] of [2]
Sulfur Dioxide – SO₂

**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: 321.9 lb/hour 1,409.9 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 321.9 lb/hr Reference: Permit No. 0890004-017-AC		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: 300 ppmvd Hourly: $(300 \text{ ppmvd}/10^6) \times 2,116.8 \text{ lb}_f/\text{ft}^2 \times 60 \text{ min/hr} \times 138,402 \text{ dscfm} \times 64 \text{ lb/lb-mol} \times 1/1,545.6 \text{ ft-lb}_f/\text{lb}_m \text{ - } ^\circ\text{R} \times 1/586 \text{ } ^\circ\text{R} = 372.63 \text{ lb/hr}$ Annual: $372.63 \text{ lb/hr} \times 8,760 \text{ hr/yr} \times 1 \text{ ton}/2,000 \text{ lbs} = 1,632.1 \text{ TPY}$ Note: Permitted limit of 321.9 lb/hr and 1,409.9 TPY is more stringent.			
11. Potential, Fugitive, and Actual Emissions Comment: SO₂ limited to 300 ppmvd (3-hour average), 321.9 lb/hr, and 1,409.92 TPY by permit No. 0890004-017-AC.			

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

POLLUTANT DETAIL INFORMATION

Page [2] of [2]
Sulfur Dioxide – SO₂

**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 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 300 ppmvd (3-hr average)	4. Equivalent Allowable Emissions: 372.63 lb/hour 1,632.1 tons/year
5. Method of Compliance: Continuous Emissions Monitoring System (CEMS)	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0890004-017-AC	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 321.9 lb/hr	4. Equivalent Allowable Emissions: 321.9 lb/hour 1,409.92 tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0890004-017-AC	

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):	

EMISSIONS UNIT INFORMATION

Section [2]
Recovery Boiler

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: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: Operation of the Brinks demister system constitutes compliance	
5. Visible Emissions Comment: Rule 62-296.320(4)(b), F.A.C. and Permit No. 0890004-017-AC	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATIONSection [2]
Recovery Boiler**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 2

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Siemens Model Number: Ultramat SE 7MB1120-1MH20-OBB Serial Number: F6-185	
5. Installation Date: July 20, 1994	6. Performance Specification Test Date: February 24, 2000
7. Continuous Monitor Comment: Required per Permit No. 0890004-017-AC	

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: EM	2. Pollutant(s): PM
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Mechanical Systems Incorporated (MSI) Model Number: Beta Guard PM Serial Number:	
5. Installation Date: April 8, 2003	6. Performance Specification Test Date:
7. Continuous Monitor Comment: 40 CFR 63.864(e)(14) Continuous Source Particulate Monitor approved as alternative monitoring procedure	

EMISSIONS UNIT INFORMATION

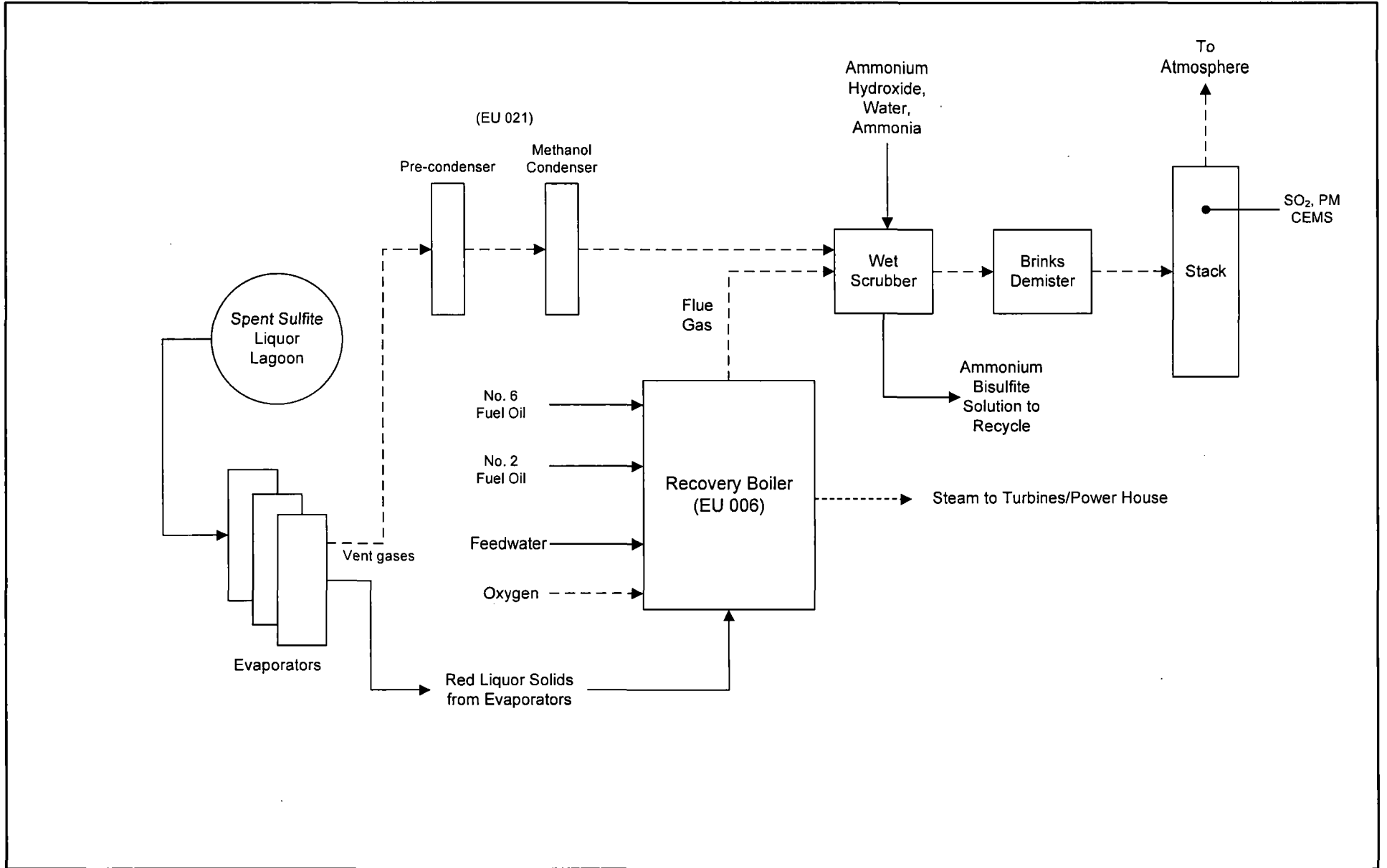
**Section [2]
Recovery Boiler**

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU2-I1</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU2-I2</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU2-I3</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU2-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)</p>
<p>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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 1, 2009</u> Test Date(s)/Pollutant(s) Tested: <u>PM (EPA Method 5)</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> 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.</p>
<p>7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

ATTACHMENT RPF-EU2-11
PROCESS FLOW DIAGRAM



Attachment RPF-EU2-11
 Recovery Boiler Process Flow Diagram
 Rayonier Performance Fibers LLC
 Fernandina Beach Mill

Process Flow Legend	
Solid/Liquid	—————▶
Gas	- - - - -▶
Steam	- · - · -▶



ATTACHMENT RPF-EU2-12
FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT RPF-EU2-I2
FUEL ANALYSIS
RECOVERY BOILER

Fuel	Density (lb/gal)	Weight Percent (%)			Heat Capacity
		Sulfur	Nitrogen	Ash	
Red Liquor Solids ^a	—	8.40	3.34	1.56	Avg. 9,330 Btu/lb
No. 2 Fuel Oil ^b	7.13	0.0015	0.006	<0.01	136,000 Btu/gal
No. 6 Fuel Oil	8.21	2.5	—	0.1	145,000–158,000 Btu/gal
No. 6 Fuel Oil/ On-spec used oil	8.21	2.5	—	0.1	145,000–158,000 Btu/gal

^a Values provided are on a dry basis.

^b Source = Perry's Chemical Engineer's Handbook, 7th Edition.

ATTACHMENT RPF-EU2-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU2-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT RECOVERY BOILER

WET SCRUBBER

Emissions from the recovery boiler are controlled through a multi-stage wet scrubber and a four compartment Brinks demister filter unit.

The first stage of scrubbing is through a small quench tower where the flue gas temperature is reduced from about 450 to 160 degrees Fahrenheit (°F) utilizing 80°F water. The water from the quench stage is discharged at the bottom of the 24-foot (ft)-diameter scrubber. The first stage in the scrubber is the heat recovery section, where more heat is removed from the flue gas and used to evaporate mill liquor. This section circulates about 6,000 gallons per minute (gpm) of water, which increases in temperature from 115 to 155°F. The gas temperature drops to about 135°F leaving this section.

The cooling section follows. This stage uses about 3,500 gpm of circulation water, which is indirectly cooled through a heat exchanger that receives its cooling water from a cooling tower. The gas leaving this section is about 110°F.

The final stage of scrubbing is a two-section absorber utilizing ammonium hydroxide as the scrubbing medium. The four trays in each section have valve caps for controlled flue gas passage through the absorption liquid. Both absorption sections have heat exchangers for cooling their circulation flows of about 1,000 gpm. Normally about 175 gpm of softened water is added to the upper absorption section, and 18 percent aqueous ammonia is added to the upper circulation stream for pH control. A constant ammonia flow of approximately 25 gpm is added to the lower section. The upper absorber normally operates at 5.8 pH and the lower absorber at 5.2 pH. The upper absorber pH target and the lower absorber ammonia addition can be adjusted to ensure that the sulfur dioxide (SO₂) emissions meet the permit standards. The SO₂ concentration in the stack is measured continuously with a continuous emissions monitoring system (CEMS).

BRINKS DEMISTER

Particulate matter (PM) in flue gas is removed in the quench tower and the scrubber heat removal sections. However, the ammonium bisulfite absorption produces a very fine particulate, which is removed using mist filters (Brinks candles). The filter is composed of four compartments containing 52 candles each. Each candle is a 24-inch-diameter, 12-ft-high cylinder with gas entering from the bottom inside of the cylinder. The gas then passes through 2 inches of wound glass fiber, which filters the particulate. The top of the cylinder is sealed. Each compartment is rinsed for about 2 hours with water and evaporator condensate on an every 8-hour schedule. The pressure drop across the mist filter system normally ranges from 5 to 15 inches of water.

The recovery boiler routinely meets the permitted particulate and SO₂ emissions standards utilizing these scrubbing and filtering systems.

ATTACHMENT RPF-EU2-I4

STARTUP, SHUTDOWN & MALFUNCTION PROCEDURES

RAYONIER FERNANDINA MILL STARTUP, SHUTDOWN, MALFUNCTION PLAN	REF.	SSM-MACT-II
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	REV.	0.01
	REV. DATE	10/20/08
MACT-II		
RECOVERY / BRINKS SECTION	SECTION	1.0
INTRODUCTION	PAGE	1 OF 2

Introduction

The Code of Federal Regulations, Part 63 contains mandated emission standards for listed hazardous air pollutants (HAPs) applicable to various types of sources. Subpart MM applies to combustion related sources at chemical pulp mills, and at the Fernandina pulp mill it is applicable to the recovery boiler.

Subpart MM is directed to controlling the metal Hazardous Air Pollutants listed in the federal Clean Air Act by limiting particulate emissions, which generally contain the metal emissions. As a surrogate, particulate emissions have been limited to very low emission rates. Only new recovery boilers have been limited for VOC - HAPs emissions.

As does each new MACT standard, Subpart MM contains required monitoring for each affected source. The standard anticipates that a recovery boiler may use wet scrubbers for particulate control. For these scrubbers operations, liquid media flow and gas pressure drop are required monitoring parameters. Though Fernandina has a scrubber after the recovery boiler, that scrubber is not designed to remove particulates. It is designed to recover sulfur dioxide from the gas stream in a process that produces small amounts of aerosol type particulates which is subsequently controlled by a Brinks demister.

For recovery boilers, Subpart MM, (40 CFR 63.864(c)) requires opacity monitoring, or monitoring a parameter to be established if the sulfite recovery boiler is equipped with scrubbers or other equipment. This boiler is equipped with a scrubber, making the use of opacity monitors impossible, as they do not function in the presence of water vapor. Monitoring scrubber parameters is of no value in assuring compliance with particulate emission limits because particulates are formed after this scrubber. Thus, a beta monitor has been installed that correlates well with particulate emissions. An Alternate Monitoring Method has been applied for and approved.

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The General Provisions of Part 63, found at Subpart A, requires all sources subject to a Part 63 standard to develop a Startup, Shutdown and Malfunction Plan. Similar plans have been developed for other applicable Subparts such as Subpart S and Subpart DDDDD. These Plans are to reference the procedures for routine starting up and shutting down and handling malfunctioning equipment and monitors subject to the rule in such a way as to minimize emissions and monitor downtime. Should the emission be out of compliance during a startup, shutdown or malfunction period, without a SSM Plan the failure to meet the emission standard or to monitor, it would be considered a period of noncompliance.

This Plan begins with a description of the operating or monitoring equipment, with a summary and reference to the startup, shutdown and malfunction procedures in a form developed by the pulp and paper industry and used in other Plans. These forms also describe the emission minimizing actions that take place during any startup, shutdown and during specific periods of malfunction.

Many of the procedures for minimizing emissions during startups and shutdowns and for avoiding malfunctions and minimizing excess emissions during their repair are contained in other existing procedures and training materials. Therefore, to the maximum extent possible this SSM Plan references other existing Rayonier Fernandina Mill procedures and training material rather than reproducing their contents here. The continued implementation and maintenance of these other related procedures and training materials is expected and is crucial to the completeness of this SSM Plan.

The Plan also describes the recordkeeping effort. Periods of startup, shutdown and malfunction that result in excess emissions must be documented and reported in the semiannual report. Fernandina has a system for tracking each equipment and monitor during startup, shutdown and malfunction. Startup and shutdowns that do not follow the procedures referenced in this SSM Plan and result in excess emissions must be reported within 2 days of such action and within 7 days by letter. Malfunctions must be repaired as soon as possible.

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Description

Process Description: Source of Particulate in the Recovery Boiler Flue Gas

Spent Sulfite Liquor (SSL) is burned in the recovery boiler to produce steam and recycle sulfur. SSL is the product of the sulfonation of the lignin in the wood chips during the digestion process, which liberates cellulose pulp from the wood. The chemical composition of the SSL is predominately ammonium lignosulfonate with some wood sugars. The SSL is separated from the cellulose pulp on counter-current vacuum cylinder washers and supplied to the mill's evaporators.

At the evaporators, the SSL is concentrated from around 12 % solids to 55% solids for burning. Since ammonia is not an alkali metal like sodium or magnesium used in other processes, there is almost no slag formed in the burning process. The main products of combustion are carbon dioxide, sulfur dioxide, nitrogen oxides, and water. The combustion is thorough and since there are no process-added metals to carry through the boiler, there is very little particulate leaving the boiler.

The hot flue gas passes from the boiler to the scrubber [absorber/cooler]. It first encounters the heat recovery section, which provides part of the heat required to evaporate hot caustic extract [a byproduct from the bleaching process]. Next, it passes through the cooler section where it is cooled and excess moisture drops out. Finally, it passes into the absorber. The absorber contains two sections, each with absorption trays and circulation loops. Ammonia and water are fed to the absorber. Ammonia addition is controlled at or about a 4.0 pH to produce a square acid, an equal molar solution of ammonium sulfite ions and bisulfite ions. Water is proportioned to the ammonia to produce the specified solution strength. The product of the absorber, ammonium bisulfite solution, is drawn off, filtered through sand filters, and pumped to the acid plant to be recycled as the base for making cooking acid.

Since ammonia has a relatively high vapor pressure, a small amount leaves the scrubber in gaseous form and is immediately reacted with the small excess of sulfur dioxide and excess

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oxygen from the boiler. This makes an ammonium sulfate particulate in the moist vapor leaving the scrubber.

Particulate Control System

Particulate is the surrogate for any metals covered under the MACT-II regulations. These metals may be indigenous in the pine tree, which is the source of the spent sulfite liquor lignin. The system used to remove the ammonium sulfate particulate described above is called Brinks mist filters. The filters are enclosed in four rubber-lined metal compartments holding 52 filter "candles". The candles are 12 foot long; 2-foot diameter cylinders open in the center with 6 inches of tightly wound polyester fiber filter held within a concentric wire cage. The flue gas flows into the bottom of the compartment where there is a metal plate about two feet from the bottom. The candles are bolted over the 52, 2-foot diameter holes in the plate. Gas flows up through the center of each candle, passes through the six inches of filter medium, out an opening near the top of the cabinet and on to the stack. As the gas passes through the filter medium, the 95%+ efficient filter removes nearly all of the particulate. The flue gas is normally passed through 3 of the 4 filter cabinets, while the fourth cabinet is on wash. Much of the particulate flows with the moisture down the inside of the candle and out to the effluent treatment system while the filters are in operation. However, some particulate is caught within the filter medium and must be periodically washed from the filters. One filter cabinet is washed per shift, so each cabinet is washed every 1.33 days. The washing is accomplished by sealing the gas inlet with water in the bottom of the cabinet and adding acidic evaporator condensate to dissolve any ammonium sulfate built up within the filters.

The recovery boiler is started by burning oil to heat the boiler and prepare the SSL for burning. The heat input from this oil firing is considerably less than from full SSL firing. During the burning of oil, the flue gas is completely scrubbed in the absorber/cooler and sulfur dioxide is removed with ammonia solution. This process utilizes ammonia, but there is so much less sulfur dioxide that very little particulate is formed. The vapor pressure of sodium is extremely low, so there is no sodium carryover in the gas stream. The Brinks mist filters are bypassed using a large

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butterfly valve in the bypass ductwork during the start up period when oil is burned. During this period, the filters are not needed and are not used since any fine oil-derived particulate, which gets through the scrubber has the potential of plugging the filter medium. When the first spent sulfite liquor gun is introduced to the boiler, ammonia water is used for scrubbing, the bypass valve is closed and all flue gas passes through the mist filters.

Particulate Monitoring System

When burning SSL, as long as all the gas passes through the mist filters, the particulate emissions are well below the regulatory limit. Gas can pass through or around the filters in two ways:

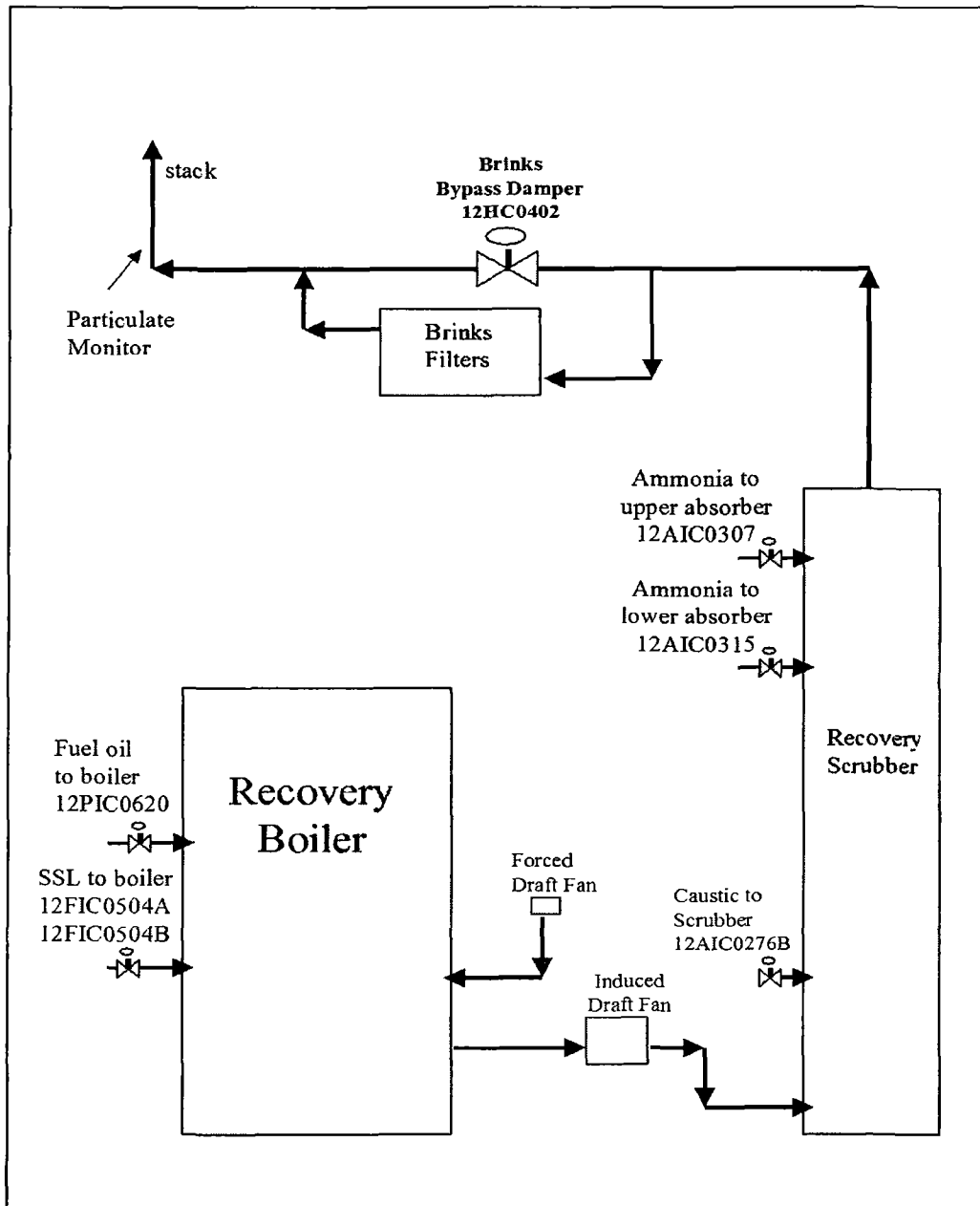
1. A failure of the bypass valve system. If the valve does not seat properly gas can flow through the valve opening. To assure this does not happen, there is a positioner on the valve that verifies that the valve is completely closed. The position of the valve is continuously monitored and recorded.
2. One or more of the filter candles may deteriorate so that gas passes through the filter medium. When the filter material was glass fiber there was a continuous concern about the reaction of the alkali [ammonia or sodium] with the glass. Now that the filter medium is polyester fiber this concern has been greatly relieved. To assure that there is no deterioration of the filter medium [or a bypass valve malfunction], a Particulate Monitor has been installed.

The Particulate Monitor isokinetically samples the stack gas and passes it through a fiberglass filter tape. The particulate captured is then measured with a beta attenuation gauge providing readings at least every 15 minutes. The particulate concentration [mg/scm] provided by the instrument has been checked against EPA method five testing of PM in gm/dscm and lb/hr. The correlation coefficient for eleven tests was excellent at 0.98. The meter is automatically undergoes a drift check on a daily basis. Its results are continuously monitored and recorded.

This system assures continuous compliance and provides an effective way to predict any needed maintenance on the control equipment.

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Flow Diagram



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Start-up, Shutdown, Malfunction Plan

EVENT	MALFUNCTION
Loss of SSL Flow to Recovery Boiler	1. Motor failure – 21001 or 21002 2. Pump failure– 21001 or 21002 3. Instrument failure on liquor supply system 4. Piping failure on liquor supply system 5. Low SSL Product inventory 6. Loss of electricity 7. Loss of instrument air 8. High SO2 reading on Recovery Boiler Stack
	EMISSION MINIMIZATION STEPS
	<ul style="list-style-type: none"> ◆ In the event of motor, pump, instrument or piping failure, switch to the standby pump or header as needed. Brinks should remain in service. ◆ In the event of piping failure that prevents liquor being re-fired, and a transition must be made to full oil firing, then the Brinks must be bypassed. ◆ In the event of low SSL Product inventory, the liquor will be removed from the boiler. At this point the Brinks will be bypassed and oil fired as needed. ◆ In the event of a Loss of electrical power, the SSL and Fuel Oil systems will trip and no fuel will be fired in the boiler. The Brinks Bypass will be opened at this time in preparation for Recovery Boiler startup. ◆ In the event of high SO2 readings in the Recovery Boiler Stack, the SSL and Fuel Oil systems will trip and no fuel will be fired in the boiler. The Brinks Bypass will be opened at this time in preparation for Recovery Boiler startup. ◆ Notify Supervision and have maintenance begin repairs as soon as possible. When the repairs are made, return the Brinks to service and liquor can be fired. ◆ Refer to the Operating Standards Manual (OSM) for the proper control strategy.
EVENT	MALFUNCTION
Particulate Monitor displays upward trend Or PM Reading \geq 40 mg/scm	1. Improper combustion in the Recovery boiler 2. Excessive ammonia flow to absorber sections 3. Brinks candle blowing through 4. Bypass damper leaking by
	EMISSION MINIMIZATION STEPS
	<ul style="list-style-type: none"> ◆ In the event of high particulate readings, refer to the Operating Standards Manual (OSM) for the proper control strategy.

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EVENT	MALFUNCTION
1. Particulate Monitor Failure 2. Unusually Low or High PM Reading, 3. PM Reading Unchanged or ≤ 1.0 mg/scm for 20 minutes or more	1. Loss of sample gas flow to the monitor 2. Loss of signal 3. Loss of instrument air 4. Loss of electricity 5. Loss of air conditioning to instrument shelter 6. Insufficient filter tape, filter tape sticking, or filter tape tear 7. Instrument hardware failure 8. DCS failure
EMISSION MINIMIZATION STEPS	
	<ul style="list-style-type: none"> ◆ Notify Supervision and have the instrument tech or maintenance begin repairs to Particulate Monitor immediately. ◆ Refer to the Operating Standards Manual (OSM) for the proper control strategy.
EVENT	MALFUNCTION
Bypass Valve 12HC0402 Failure (Valve Opens)	1. Instrument failure 2. Loss of instrument air 3. Loss of electricity 4. DCS malfunction 5. Valve failure 6. Loss of signal
EMISSION MINIMIZATION STEPS	
	<ul style="list-style-type: none"> ◆ Notify Supervision and have maintenance begin repairs immediately. ◆ Refer to the Operating Standards Manual (OSM) for the proper control strategy.
EVENT	MALFUNCTION
Recovery Boiler Trip	1. Instrument failure 2. Loss of instrument air 3. Loss of electricity 4. DCS malfunction 5. High SO2 reading on Recovery Boiler Stack 6. Recovery Boiler equipment failure 7. Master fuel trip (loss of fuel)
EMISSION MINIMIZATION STEPS	

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	<ul style="list-style-type: none"> ◆ In the event of a loss of electrical power, the SSL and Fuel Oil systems will trip and no fuel will be fired in the boiler. The Brinks Bypass will be opened at this time in preparation for Recovery Boiler startup. ◆ In the event of high SO2 readings in the Recovery Boiler Stack, the SSL and Fuel Oil systems will trip and no fuel will be fired in the boiler. The Brinks Bypass will be opened at this time in preparation for Recovery Boiler startup. ◆ Notify Supervision and have maintenance begin repairs as soon as possible. When the repairs are made, return the Brinks to service and fuel can be fired. ◆ Refer to the Operating Standards Manual (OSM) for the proper control strategy.
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Instrumentation and Maintenance

Monitoring of Operations

A continuous monitor time record of the Brinks Demister's operational status, programmed to record any bypass of that system, is maintained and archived in the historical archive computer system. Maintenance schedules are developed for each control technique consistent with, but not limited to, the manufacturer's instructions and recommendations for routine and long-term maintenance.

Maintenance Schedule for Brinks Bypass Damper and Brinks Demister Unit

Equipment	PM Description	PM Name	Performed By	Frequency
Brinks Bypass Damper	Visual Inspection of Damper Stroke during RB Pre-Fire Checklist to verify actuator is moving correctly.	RB Pre-Fire Checklist	Operations	During RB Startups
Brinks Bypass Damper	Visual inspection of damper condition and its operation. Calibrate Damper Drive.	P00934	Instrument Mechanics	Annually
Brinks Demister Unit	Gas Sampling of Each Brinks Chamber	N/A	Monsanto	Biannually
Brinks Demister Unit	Visual Inspection of Brinks Candles	P01138	Operations Personnel/Monsanto	Annually
Brinks Demister Unit	Rubber Lining Inspection/Spark Test	Recurring SD WO	Sunbelt Coatings, Inc.	Annually

Continuous Parameter Monitoring System

The BetaGuard Particulate Monitor is the Continuous Parameter Monitoring System instrument (CPMS) utilized to demonstrate particulate emission compliance. The start-up, shutdown and malfunction procedures for the CPMS are contained within the Operating Procedures for the control system. Corrective actions to be taken in the event of an operating parameter exceedance are described in the SSM Plan and / or standard operating procedures and recorded on worksheets.

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Monitoring Approach

	Indicator No. 1
Indicator	Particulate concentration via an extractive beta gauge particulate monitor.
Measurement Approach	The monitoring system isokinetically collects a sample of particulate on to a filter tape and compares the amount of radiation absorbed with the sample and without the sample on the tape. The instrument readout can be converted to particulate concentration. The concentration can then be calibrated to EPA Method 5 particulate tests.
Indicator Range	The indicator range is based on EPA Method 5 testing. The BetaGuard is calibrated such that whenever the reading is less than 45 mg/scm, emissions are within permit limits.

Quality Assurance

	Indicator No. 1
Data Representativeness	The system is designed to collect a representative sample, which is repeatable as compared to Method 5. This has been verified and the sampling system will not be altered. The sample size on the tape can be controlled by the pressure drop across the tape or by timer.
Verification of operational Status	Each sample step provides a physical zero. The beta absorption using the C-14 source is virtually independent of the chemical composition, size or color of the collected particulate and shows no interference from water droplets or fogging in the stack. As a result there is no need for site-specific reference calibration.
QA/QC Practices and Criteria	As noted above there is a zero for each sample taken. In addition there is a daily automatic beta calibration. This checks the repeatability of the Beta gauge measurement component of the instrument system by performing a zero check, a span check and a filter tape positioning check. At the same time there is an automatic flow calibration. This checks repeatability of the flow meter components of the instrument system by routing the same flow through all of the flow meters at two separate flow set points to perform a low span and a high span check.
Monitoring Frequency	There will be a particulate value provided at least every 15 minutes except for during the daily two 30-minute repeatability / drift checks.
Data Collection Procedures	The monitor is queried once each minute and the latest value is stored on a server with other process data. About once each month this data will be downloaded, consolidated into 15-minute averages, and stored in an Environmental Data Management Database.
Averaging Period	15-minute averages will be used to compute one-hour averages, which are stored for 5 years.

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Preventative Maintenance

The BetaGuard Particulate Monitor will be inspected and/or calibrated and undergo routine preventative maintenance checks at a frequency identified in the manufacturer's procedure manual. Inspection or calibration of the BetaGuard and process control instruments is performed in accordance with the manufacturer's recommendations, accepted engineering practices, and with compliance with Subpart MM. Repeatability checks for instrument drift and operation are performed each day automatically by the instrument. Calibration and inspection procedures and preventative maintenance checks are maintained through the Computerized Maintenance Management System (Shaware), or equivalent system. Quality Assurance records are maintained in the Instrument Department and / or Shaware.

BetaGuard PM Routine Preventive Maintenance Activities

Daily Checks

- Review daily drift check results
- Review alarms – respond to active alarms

Weekly Checks

- Inspect BetaGuard PM instrument in shelter
- Fill out Weekly Check Sheet and fax to MSI
- Inspect and clean filter holder seats (tape path in beta sensor head) as necessary
- Inspect and clean Sampling Valve Assembly. See Operation and Maintenance Manual

Monthly Checks

- Replace filter tape (this activity may vary from 24-31 days) – Place expired roll in new roll's bag – Label start date and end date on bag - Save expired roll as directed (see Operation and Maintenance Manual)
- Check in-line filter; replace if necessary (see Operation and Maintenance Manual)
- Check air clean-up filters and clean / drain as necessary

Quarterly Checks

- Absolute Correlation Audit – use 3 Mylar filters – follow directions in Operation and Maintenance Manual and on display
- Sample Volume Audit – use dry gas meter provided in shelter – follow directions in Operation and Maintenance Manual

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Semi-annual Checks

- Replace peristaltic pump tube (supplied by MSI). See Operation and Maintenance Manual

Annual Checks

- Remove probe and inspect (with MSI Representative)
- Replace the Y-7 solenoid

Corrective Actions

Procedures for corrective actions are described in the Startup, Shutdown, Malfunction Plan, Operating Procedures, and the BetaGuard Procedure Manual. Immediate action is taken to repair any non-functioning CPMS equipment. Corrective actions are documented on the Checklists and / or in the Computerized Maintenance Management System (Shaware), or equivalent system.

Instrumentation Specifications

The specifications for the BetaGuard Particulate Monitor (entity # 21855) are located in the Engineering Department and in the Computerized Maintenance Management System (CMMS), (Shaware or equivalent).

Reference Manuals

The controlled reference manuals for the BetaGuard Particulate Monitor are located in the Engineering Department and on-line.

Spare Parts

A list of critical spare parts is maintained by the Instrument Shop. Spares for this equipment are identified through the CMMS (Shaware). Location of spare parts is through a unique stores identification number. Spare parts are kept on site and made readily available.

Trending and Historical Archiving

Historical archiving of the compliance parameter monitoring instrument and Brinks bypass valve position is accomplished through ParcView or equivalent system, and is maintained for 5 years.

RAYONIER FERNANDINA MILL STARTUP, SHUTDOWN, MALFUNCTION PLAN	REF.	SSM-MACT-II
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MACT-II	REV.	0.01
	REV. DATE	6/01/09
RECOVERY / BRINKS SECTION	SECTION	4.0
INSTRUMENTATION AND MAINTENANCE	PAGE	5 OF 5

Particulate Monitor parameters and process operation parameters are displayed in the appropriate DCS (Distributive Control System) for short term trending.

RAYONIER FERNANDINA MILL STARTUP, SHUTDOWN, MALFUNCTION PLAN	REF.	SSM-MACT-II
MACT-II	REV.	0.05
RECOVERY / BRINKS SECTION	REV. DATE	6/01/09
RECORD KEEPING	SECTION	5.0
	PAGE	1 OF 4

Record Keeping and Reporting Requirements

Monitoring of Operations

Brinks Demister

A continuous monitor time record of the Brinks Demister System's operational status, programmed to record any bypass of the system, shall be maintained on site for inspection upon request. Trends are recorded in the historical archive computer system and maintained for 5 years.

Continuous Parameter Monitoring System (CPMS)

The BetaGuard Particulate Monitor is the CPMS instrument used to record particulate emissions. A measurement shall be recorded at least once every successive 15-minutes. The maximum / upper level limit is a meter reading of 45 mg/SCM – milligrams per standard cubic meter. Subsequence performance tests may be used to establish expanded or replacement operating ranges for the BetaGuard reading.

Compliance

The concentration of particulate matter in the exhaust gases discharged to the atmosphere is less than or equal to 0.092 g/dscm (0.040 gr/dscf) corrected to 8% oxygen. The Particulate Meter readings provide 15-minute averages, or sample at least once every 15 minutes, except during daily drift checks. A *violation* occurs when six or more 3-hour average parameter values within any 6-month reporting period are outside of the established range of values, with the high limit of 44.0 mg/scm, as determined by performance testing.

PM Emissions – Corrective Action

Corrective action shall be implemented and recorded as specified by this SSM Plan, whenever a monitoring parameter exceedance occurs, where any 3-hour average parameter value is above the upper meter limit or outside the range of values established in the performance test. Records of corrective actions must be maintained for 5 years.

RAYONIER FERNANDINA MILL STARTUP, SHUTDOWN, MALFUNCTION PLAN	REF.	SSM-MACT-II
MACT-II	REV.	0.05
RECOVERY / BRINKS SECTION	REV. DATE	6/01/09
RECORD KEEPING	SECTION	5.0
	PAGE	2 OF 4

Monitoring Records

Compliance Instruments

The Particulate Meter is queried for data every minute, and the data is sent to the server. Two 30-minute repeatability / drift checks are automatically performed daily, separated by at least a 30 minute period of normal operation. The monitor acquires 2 samples every 15-minutes that are used to compute hourly averages. The hourly averages, records or instrument drift checks (repeatability checks), calibrations, maintenance and audit accuracy reports are maintained for 5 years. Maintenance procedures are described in the manufacturer's procedure manual. Routine preventative maintenance work orders are located in the CMMS (Shaware or equivalent system). Quarterly audit reports are stored on the computer system. Historical archive trends are maintained for 5 years.

The Brinks Bypass Valve is calibrated at least every 15 months, managed by an annual Shutdown work order. Results are maintained in the Instrument Shop computer system.

Operators and / or Area Managers must monitor their source and pollution control device operations, and execute prompt corrective action to ensure malfunctions are identified and responded to immediately, and ensure emissions do not exceed permit limits.

Operators, Area Managers, and Instrument Mechanics must not take compliance instruments out of service for *routine* maintenance during times of start-up, shutdown, malfunction, or bypass events. Routine maintenance must be performed during normal operations only. However, *malfunctioning* compliance instruments require immediate repair.

RAYONIER FERNANDINA MILL STARTUP, SHUTDOWN, MALFUNCTION PLAN	REF.	SSM-MACT-II
MACT-II	REV.	0.05
RECOVERY / BRINKS SECTION	REV. DATE	6/01/09
RECORD KEEPING	SECTION	5.0
	PAGE	3 OF 4

Start-up, Shutdown, and Malfunction Records

Daily Report forms are completed by the operators, where start-up, shutdown, monitor downtime, and malfunctions events are recorded. Further information is recorded on specific checklists.

Operators complete checklists for each start-up and shutdown event and record the start and end times, and whether SSM Plan procedures and emission minimization steps were followed.

Actions taken not contained within the SSP Plan will be described. Area Managers review all completed checklists for accuracy of reporting and to identify excess emission events. Start-up and Shutdown Checklists are located in Sections 6 and 7.

An Emission Event Checklist has been developed for the Brinks / Recovery System (Appendix). Operators respond to alarms in the DCS, complete the Checklist for each malfunction event, record the start and end time and nature of the event. The operators follow the emission minimization steps and indicate this on the form. The Operators follow procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended, and corrective actions to be taken. Operators determine if the emission event is the result of a malfunction, and whether or not the malfunction event is included in the SSM Plan. Malfunctions not listed in the SSM Plan and actions taken not contained within the Plan will be described. Area managers review all completed Emission Event Checklists and identify excess emission events. The completed Checklist is routed to the Environmental Manager for review.

Notification

Notification to the FLDEP is required when actions taken during a Start-up, Shutdown, or Malfunction are not consistent with the procedures referenced in the SSM Plan, and results in a monitoring parameter exceedance. The Area Manager will notify the Environmental Manager or designee within 24 hours. The Environmental Manager or designee will notify the FLDEP by telephone call or fax within 2 working days after a parameter exceedance event, followed by a letter within 7 working days of the end of the event. Malfunctions must be repaired as soon as practicable.

RAYONIER FERNANDINA MILL STARTUP, SHUTDOWN, MALFUNCTION PLAN	REF.	SSM-MACT-II
MACT-II	REV.	0.05
RECOVERY / BRINKS SECTION	REV. DATE	6/01/09
RECORD KEEPING	SECTION	5.0
	PAGE	4 OF 4

Reports

Periods of startup, shutdown, or malfunction that result in excess emissions must be documented and recorded. If there are no excess emission events, the report is submitted semiannually. If the emission limit is exceeded, the reporting frequency becomes quarterly. The date, starting and ending times of the event(s), and cause of the operating parameter exceedance are recorded. Corrective action is documented. The report shall state if procedures in the SSM Plan were followed, and if not, steps taken to minimize emissions. The report describes malfunctions in the CPMS, and includes the number, duration, and a brief description for each type of malfunction which occurred during the reporting period that caused or may have caused the emission limit to be exceeded. The report also includes the total operating time of the source, and downtime the CPMS. Copies of reports are maintained for 5 years.

RAYONIER FERNANDINA MILL	REF.	SSM-MACT-II
STARTUP, SHUTDOWN, MALFUNCTION PLAN	ORIG. DATE	3/13/04
MACT-II	REV.	0.02
	REV. DATE	1/8/09
RECOVERY / BRINKS SECTION	SECTION	6.0
STARTUP AND SHUTDOWN CHECKLISTS	PAGE	1 OF 2

STARTUP CHECKLIST – RECOVERY BOILER / BRINKS FILTER VENT SYSTEM

Calendar Date: _____	Initials
System Startup begins when the Recovery Forced Draft Fan is started prior to firing an oil gun. System Startup Beginning Time _____ AM / PM	
Recovery motors megged OK.	
Particulate monitor is placed in-service and verified operations prior to firing an oil gun.	
Brinks Mist Filters are drained prior to being placed in service.	
Brinks Bypass Valve is closed.	
System Startup Ends and "Normal Operations" begin when the Recovery Boiler Steam reaches 375 KPPH or other specified target for stable operations: _____ KPPH Startup Ending Time _____ AM/PM Total Startup Time _____	
Were the Start-up Procedures followed according to the SSM Plan? If NO, describe actions taken. Notify Area Manager.	Yes or No
Did the Start-up result in excess emissions beyond those described in the SSM Plan? If YES, describe the events and how emissions were minimized:	Yes or No
Report to be reviewed by Area Manager. Area Manager: _____ Date: _____	

Particulate Monitor Operations during Start-up Conditions

List all times the particulate monitor was:

- A. out of service, (give reason)
- B. not reading accurately,
- C. had an instantaneous reading over 44 mg/scm or
- D. had a reading of 1.0 mg/scm or less for 20 minutes or longer,
- E. had a 3-hr. average reading over 44 mg/scm (excess emission event)

The particulate monitor must not be taken out of service for routine maintenance during start-up conditions. This may only be done during Normal Operating Conditions unless there is a malfunction of the monitor or paper supply is low and requires replacement.

Start Time	End Time	Reason	Notified

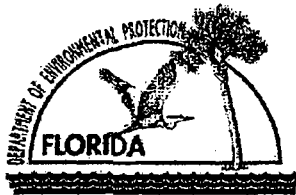
RAYONIER FERNANDINA MILL	REF.	SSM-MACT-II
STARTUP, SHUTDOWN, MALFUNCTION PLAN	ORIG. DATE	3/13/04
MACT-II	REV.	0.02
	REV. DATE	1/8/09
RECOVERY / BRINKS SECTION	SECTION	6.0
STARTUP AND SHUTDOWN CHECKLISTS	PAGE	2 OF 2

SHUTDOWN CHECKLIST - RECOVERY BOILER / BRINKS FILTER VENT SYSTEM

Calendar Date: _____	Initials
System Shutdown Begins when SSL and/or oil fuel supply is reduced during Recovery Shutdown Procedures. Shutdown Beginning Time _____ AM / PM	
All SSL guns are removed from the Recovery Boiler.	
All oil guns are removed from the Recovery Boiler.	
Forced Draft Fan is shutdown.	
Brinks Bypass valve is opened.	
System Shutdown Ends when all fuel is removed from the Recovery Boiler and the Brinks Bypass valve is open. Shutdown Ending Time _____ AM / PM Total Time of Shutdown _____	
Were the Shutdown Procedures followed according to the SSM Plan? If NO, describe actions taken. Notify Area Manager.	Yes or No
Did the Shutdown result in excess emissions beyond those described in the SSM Plan? If YES, describe the events and how emissions were minimized:	Yes or No
Report to be reviewed by Area Manager. Area Manager: _____ Date: _____	

ATTACHMENT RPF-EU2-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS



Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590

Colleen Castille
Secretary

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1309

I.D. Number: 0890004
Permit/Cert Number: 0890004-017-AC
Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau
Latitude/Longitude: 30°39'48" N; 81°28'22" W
UTM: E-(17) 454.7; N-3392.2
Project: Heat Input of Power Boilers:
40 CFR 63 Subpart MM
Requirements:
Facility Generated Used Oil:
No. 1 Power Boiler, EU # 001
No. 2 Power Boiler, EU # 002
No. 3 Power Boiler, EU # 003
Recovery Boiler, EU # 006

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-210, 62-212, 62-296, 62-297 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

PROJECT 015:

To make federally enforceable the increased heat input to the Power Boilers (Emissions Units 001, 002, and 003). Hours of operation are now continuous, i.e. 8,760 hours per year, for each boiler, while the particulate matter and sulfur dioxide emission limits are reduced to maintain the annual emissions limits established by the 1982 Stipulated Order.

PROJECT 017:

To include facility generated used oil as a fuel to each of the Power Boilers (Emissions Units 001, 002, and 003), and the Recovery Boiler (Emissions Unit 006). The facility generated used oil is mixed with No. 6 fuel oil prior to being fired in the boilers.

In addition, this project establishes the standards of 40 CFR 63 Subpart MM, adopted and incorporated by reference in Rule 62-204.800, F.A.C., to the Recovery Boiler. Upon final construction permit issuance, the previous particulate matter emissions limit for the Recovery Boiler shall be superseded by the Subpart MM standards.

OTHER PERMIT MODIFICATIONS:

In addition, the averaging period for the sulfur dioxide emission concentration limit for the Recovery Boiler is being changed from a hourly average to 3 hours to correspond with the specified averaging time of the applicable test method.

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1339

I.D. Number: 0890004
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Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

FACILITY DESCRIPTION

This facility extracts cellulose from fibrous sources using processes similar to the sulfite pulping process.

REGULATORY CLASSIFICATION

The recovery boiler is subject to the requirements of 40 CFR 63 Subpart MM - Chemical Recovery Combustion Sources at Kraft, Soda, Sulfitic, and Stand-Alone Semi chemical Pulp Mills.

OPERATING LOCATION

Located: Foot of Gum Street, Fernandina Beach, Nassau County, Florida.

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department:

Project 015:

Application for Air Permit – Title V Source received June 9, 2003
Additional Information Received October 6, 2003
Additional Information Received February 5, 2004
Additional Information Received June 4, 2004
Additional Information received July 16, 2004

Project 017:

Application for Air Permit – Title V Source received June 4, 2004
Additional Information Received July 16, 2004

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1339

I.D. Number: 0890004
Permit/Cert Number: 0890004-017-AC
Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy any record that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
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I.D. Number: 0890004
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Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

GENERAL CONDITIONS:

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Compliance with New Source Performance Standards (NSPS)
- Compliance with National Emission Standards for Hazardous Air Pollutants/ Maximum Available Control Technology (MACT)

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1339

I.D. Number: 0890004
Permit/Cert Number: 0890004-017-AC
Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurement;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1339

I.D. Number: 0890004
Permit/Cert Number: 0890004-017-AC
Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

Subsection A. This section addresses the following emissions unit.

The following specific conditions apply to the emissions unit(s) listed below:

E.U. ID

<u>No.</u>	<u>Brief Description</u>
001	No. 1 Power Boiler w/Venturi Scrubber for PM emissions control

Emissions Unit 001 identifies the No. 1 Power Boiler (oil fired) with a venturi scrubber (Scrubber A under normal operations) to control particulate matter emissions. It is recognized that Scrubber B will also be used to control particulate matter emissions from this power boiler on an as needed basis.

Operational Parameters

A.1. **Permitted Capacity.** The maximum heat input rate is 185 mmBtu per hour.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

A.2. **Methods of Operation.** This boiler may be fired with:

- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, and
- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, blended with facility-generated on-spec used oil.

[Rule 62-213.410, F.A.C.; Stipulation dated March 10, 1982, Subsequent order dated April 5, 1982; Air operation permit AO45-108507; Air Operation Permit AO45-183504; FINAL Title V Operation Permit No. 0890004-005-AV]

A.3. **Hours of Operation.** The hours of operation are not limited, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

Emission Limits and Standards

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

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1339

I.D. Number: 0890004
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Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

- A.4. Particulate Matter Emissions. Particulate matter emissions shall not exceed 0.086 lb PM/mmBtu heat input, 16.0 pounds per hour and 70 tons per year.

[Air operation permit AO45-33384; Air operation permit AO45-108507; Air operation permit AO45-183504; FINAL Title V Operation Permit No. 0890004-005-AV]

- A.5. Visible Emissions. Visible emissions shall not exceed 30 percent opacity except 40 percent opacity is permissible for no more than (2) two minutes in any one hour.

[Air operation permit AO45-108507; Air operation permit AO45-183504; FINAL Title V Operation Permit No. 0890004-005-AV]

- A.6. Sulfur Dioxide. SO₂ emissions shall not exceed 2.37 lb SO₂/mmBtu heat input, 440 pounds per hour and 1848 tons per year.

[Stipulation dated March 10, 1982, Subsequent order dated April 5, 1982, Air operation permit AO45-33384; Air operation permit AO45-108507; Air operation permit AO45-183504; FINAL Title V Operation Permit No. 0890004-005-AV]

Test Methods and Procedures

- A.7. Particulate Matter Emissions. The test method for particulate matter emissions shall be EPA Method 5. A compliance test shall be conducted once each federal fiscal year per Rule 62-297.310(7)(a)4., F.A.C.

[Air Operation Permit No. AO45-183504; FINAL Title V Operation Permit No. 0890004-005-AV]

- A.8. Visible Emissions. The Visible Emissions test method shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A compliance test shall be performed once each federal fiscal year per Rule 62-297.310(7)(a)4., F.A.C.

[Air operation permit AO45-108508; Air Operation Permit No. AO45-183504; FINAL Title V Operation Permit No. 0890004-005-AV]

- A.9. Sulfur Dioxide Emissions. The as-fired sulfur content of the No. 6 fuel oil shall be determined with a certified ASTM fuel oil analysis in lieu of a stack test. This information shall be reported annually by March 1 for the previous year.. This information shall be reported annually by March 1 for the previous year.

[Rule 62-297.440(1)(b), F.A.C.; Air operation permit AO45-108507; Air Operation Permit No. AO45-183504; FINAL Title V Operation Permit No. 0890004-005-AV]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1339

I.D. Number: 0890004
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Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

- A.10. Excess Emissions due to startup and shutdown shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration.

[Rules 62-210.700(1) & (2), F.A.C.]

- A.11. Excess Emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Used Oil Requirements

- A.12. This emissions unit is also subject to the On-Spec Used Oil requirements specified in Subsection E.

F.A.C. Test Requirements

- A.13. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection F.

Administrative

- A.14. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection G.

PERMITTEE:

Rayonier Performance Fibers, LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1339

I.D. Number: 0890004
Permit/Cert Number: 0890004-017-AC
Date of Issue: June 9, 2005
Expiration Date: June 9, 2006
County: Nassau

Subsection B. This section addresses the following emissions unit.

The following specific conditions apply to the emissions unit(s) listed below:

E.U. ID

<u>No.</u>	<u>Brief Description</u>
002	No. 2 Power Boiler w/multiclone unit followed by a Venturi Scrubber

Emission Unit 002 identifies the No. 2 Power Boiler (a combination oil and wood waste fired boiler rated at 120,000 pounds steam per hour). Particulate emissions are controlled by a multiclone unit (with no reinjection of fly ash) followed by a Venturi scrubber. The boiler is fed to Scrubber A under normal operation or to Scrubber B on an as needed basis.

Operational Parameters

B.1.a. Permitted Capacity – Fuel Oil Only. The maximum heat input rate, when firing fuel oil only, is 184 MMBtu per hour.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

B.1.b. Permitted Capacity – Carbonaceous Only. The maximum heat input rate, when firing carbonaceous fuel only (pine bark and wood refuse), shall not exceed 218MMBtu per hour.

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's permitted capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

B.2. Methods of Operation. This boiler shall be fired with the following fuels:

- Carbonaceous fuel such as pine bark and wood refuse;
- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, and
- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, blended with facility-generated on-spec used oil.

[Rule 62-213.410, F.A.C.; Stipulation dated March 10, 1982, Subsequent order dated April 5, 1982, Air Operation Permit AO45-108508; Air Operation Permit AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

PERMITTEE:

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Fernandina Beach, Florida 32035-1339

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B.3. Hours of Operation. The hours of operation are not limited, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Air Operation permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

Emission Limits and Standards

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

B.4.a. Particulate Matter Emissions- Fuel Oil Only. Particulate Matter Emissions, when firing fuel oil only, shall not exceed 15.2 pounds per hour and 63.9 tons per year

[Rule 62-296.410(1)(b)2., F.A.C. subsumed; Stipulation dated March 10, 1982, Subsequent Order dated April 5, 1982, Air Operation Permit AO45-108508; Air Operation Permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

B.4.b. Particulate Matter Emissions- Carbonaceous Fuel Only. Particulate Matter Emissions, when firing carbonaceous fuel only, shall not exceed 0.23 lb PM/mmBtu heat input of wood waste, 50.6 pounds per hour and 212.5 tons per year.

[Rule 62-296.410(1)(b)2., F.A.C.; Stipulation dated March 10, 1982, Subsequent Order dated April 5, 1982, Air Operation Permit AO45-108508; Air Operation permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

B.5. Visible Emissions. Visible emissions shall not exceed 30% opacity except that 40% opacity is permissible for not more than two minutes in any one-hour.

[Rule 62-296.410(1)(b)1., F.A.C.; Air Operation Permit AO45-108508; Air Operation permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

B.6. Sulfur Dioxide Emissions. Sulfur Dioxide emissions shall not exceed 2.26 lb SO₂/mmBtu heat input, 418 pounds per hour and 1756 tons per year.

[Stipulation dated March 10, 1982, Subsequent order dated April 5, 1982, Air Operation Permit AO45-108508; Air Operation permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

Test Methods and Procedures

B.7. Particulate Matter Emissions. Particulate Matter Emissions. The test method for particulate matter emissions shall be EPA Method 5. A compliance test shall be conducted once each federal fiscal year per Rule 62-297.310(7)(a)4., F.A.C.

[Rule 62-296.410(3)(b), F.A.C.; Air Operation Permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

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- B.8. Visible Emissions. The Visible Emissions test method shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A compliance test shall be performed once each federal fiscal year per Rule 62-297.310(7)(a)4., F.A.C.

[Rule 62-296.410(3)(a), F.A.C.; Air Operation Permit AO45-108508; Air Operation Permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

- B.9. Sulfur Dioxide Emissions. The as-fired sulfur content of the No. 6 fuel oil shall be determined with a certified ASTM fuel oil analysis in lieu of a stack test. This information shall be reported annually by March 1 for the previous year.

[Rule 62-297.440(1)(b), F.A.C.; Air Operation Permit AO45-108508; Air Operation Permit No. AO45-183506; FINAL Title V Operation Permit No. 0890004-005-AV]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

- B.10. Excess Emissions due to startup and shutdown shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration.

[Rules 62-210.700(1) & (2), F.A.C.]

- B.11. Excess Emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Used Oil Requirements

- B.12. This emissions unit is also subject to the On-Spec Used Oil requirements specified in Subsection E.

F.A.C. Test Requirements

- B.13. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection F.

Administrative

- B.14. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection G.

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Subsection C. This section addresses the following emissions units.

The following specific conditions apply to the emissions unit(s) listed below:

E.U. ID

<u>No.</u>	<u>Brief Description</u>
003	No. 3 Power Boiler w/multiclone unit followed by a Venturi Scrubber

Emission Unit 003 identifies the No. 3 Power Boiler (a combination oil and wood waste fired boiler rated at 135,000 pounds steam per hour). Particulate emissions are controlled by a multiclone unit (with no reinjection of fly ash) followed by a Venturi scrubber. The boiler is fed to Scrubber A under normal operation or to Scrubber B on an as needed basis.

Operational Parameters

C.1.a. **Permitted Capacity – Fuel Oil Only.** The maximum heat input rate, when firing fuel oil only, is 207 MMBtu per hour.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

C.1.b. **Permitted Capacity – Carbonaceous Only.** The maximum heat input rate, when firing carbonaceous fuel only shall not exceed 245MMBtu per hour.

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's permitted capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

C.2. **Methods of Operation.** This boiler shall be fired with the following fuels:

- Carbonaceous fuel such as pine bark and wood refuse;
- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, and
- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, blended with facility-generated on-spec used oil.

[Rule 62-213.410, F.A.C.; Air Operation Permit AO45-108509; Air Operation Permit AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

C.3. **Hours of Operation.** The hours of operation are not limited, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Air Operation Permit AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

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Emission Limits and Standards

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

- C.4.a. **Particulate Matter Emissions- Fuel Oil Only.** Particulate Matter Emissions, when firing fuel oil only, shall not exceed 16.7 pounds per hour and 70.1 tons per year.

[Rule 62-296.410(1)(b)2., F.A.C. subsumed; Stipulation dated March 10, 1982, Subsequent Order dated April 5, 1982, Air Operation Permit AO45-108509; Air Operation Permit No. AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

- C.4.b. **Particulate Matter Emissions- Carbonaceous Fuel Only.** Particulate Matter Emissions, when firing carbonaceous fuel only, shall not 0.207 lb PM/mmBtu heat input of wood waste. Equivalent emissions are 50.6 pounds per hour and 212.5 tons per year.

[Rule 62-296.410(1)(b)2., F.A.C.; Stipulation dated March 10, 1982, Subsequent Order dated April 5, 1982, Air Operation Permit AO45-108509; Air Operation permit No. AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

- C.5. **Visible Emissions.** Visible emissions shall not exceed 30% opacity except that 40% opacity is permissible for not more than two minutes in any one-hour.

[Rule 62-296.410(1)(b)1., F.A.C.; Air Operation Permit AO45-108509; Air Operation permit No. AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

- C.6. **Sulfur Dioxide Emissions.** Sulfur Dioxide emissions shall not exceed 2.21 lb SO₂/mmBtu heat input. Equivalent emissions are 459 pounds per hour and 1928 tons per year.

[Stipulation dated March 10, 1982, Subsequent order dated April 5, 1982, Air Operation Permit AO45-108509; Air Operation permit No. AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

Test Methods and Procedures

- C.7. **Particulate Matter Emissions. Particulate Matter Emissions.** The test method for particulate matter emissions shall be EPA Method 5. A compliance test shall be conducted once each federal fiscal year per Rule 62-297.310(7)(a)4., F.A.C.

[Rule 62-296.410(3)(b), F.A.C.; Air Operation Permit No. AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

- C.8. **Visible Emissions.** The Visible Emissions test method shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A compliance test shall be performed once each federal fiscal year per Rule 62-297.310(7)(a)4., F.A.C.

[Rule 62-296.410(3)(a), F.A.C.; Air Operation Permit AO45-108509; Air Operation permit No. AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

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- C.9. Sulfur Dioxide Emissions. The as-fired sulfur content of the No. 6 fuel oil shall be determined with a certified ASTM fuel oil analysis in lieu of a stack test. This information shall be reported annually by March 1 for the previous year.

[Rule 62-297.440(1)(b), F.A.C.; Air Operation Permit AO45-108509; Air Operation permit No. AO45-183507; FINAL Title V Operation Permit No. 0890004-005-AV]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

- C.10. Excess Emissions due to startup and shutdown shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration.

[Rules 62-210.700(1) & (2), F.A.C.]

- C.11. Excess Emissions which are cause entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Used Oil Requirements

- C.12. This emissions unit is also subject to the On-Spec Used Oil requirements specified in Subsection E.

F.A.C. Test Requirements

- C.13. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection F.

Administrative

- C.14. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection G.

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Subsection D. This section addresses the following emissions unit.

The following specific conditions apply to the emissions unit(s) listed below:

E.U. ID

<u>No.</u>	<u>Brief Description</u>
006	Recovery Boiler

Emission Unit 006 identifies the Recovery Boiler (oil and red liquor solids). Combustion gases from the boiler and noncondensable gases from the evaporators are controlled with a multi-stage wet scrubber followed by a four-compartment filter unit (a Brinks high velocity mist eliminator). The sulfur dioxide concentration within the stack is measured continuously using a CMS.

Operational Parameters

D.1. Permitted Capacity. The maximum operation heat input rate is 653.1 mmBtu per hour when firing 70,000 pounds of oven dry red liquor solids.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., Air Operation Permit No. 0890004-001-AC; FINAL Title V Operation Permit No. 0890004-005-AV]

D.2. Methods of Operation. This boiler shall be fired with the following fuels:

- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, and
- No. 6 fuel oil with a sulfur content that shall not exceed 2.5%, by weight, blended with facility-generated on-spec used oil.
- Red Liquor Solids

[Rule 62-213.410, F.A.C.; Air Operation Permit No. 0890004-001-AC; FINAL Title V Operation Permit No. 0890004-005-AV]

D.3. Hours of Operation. The hours of operation are not limited, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Permit No. 0890004-001-AC; FINAL Title V Operation Permit No. 0890004-005-AV]

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Emission Limits and Standards

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

- D.4. **Particulate Matter Emissions.** The owner or operator shall ensure that the concentration of particulate matter in the exhaust gases discharged to the atmosphere is less than or equal to 0.092 g/dscm (0.040 gr/dscf) corrected to 8 percent oxygen.

[40 CFR 63.862(a)(2)]

- D.5. **Visible Emissions.** Visible emissions shall be less than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Final Order dated June 19, 1991, Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

- D.6. **Sulfur Dioxide.** The SO₂ concentration in the stack gas shall not exceed 300 ppm, dry, as 3-hour average. SO₂ emissions shall not also exceed 321.9 pounds per hour and 1409.92 tons per year.

[LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction Permit No. 0890004-001-AC, Air Operation Permit No. 0890004-003-AO, Rule 62-212.400(6), F.A.C.]

Brinks Demister Bypass Operating Conditions

- D.7. **Emergency.** Operation with the Brinks Demister system bypassed due to an emergency shall not exceed two (2) hours, after which, if operations have not been restored, shall require discontinuance of fuel sources other than oil, and prompt notification to the Department, followed by a report to the department of the event and any change in the volume or characteristics of visible emissions experienced during the period of oil-only emergency operation. To the extent feasible, the Department's Northeast District Office shall be notified of reportable bypasses by noontime of the business day following reportable bypass.

[LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Final Order dated June 19, 1991, ASP-91-H-01, Air Construction Permit No. 0890004-001-AC, Air Operation Permit No. 0890004-003-AO, Rule 62-212.400(6), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

- D.8. **Shutdown.** Operation with the Brinks Demister system bypassed due to a shutdown shall not exceed two (2) hours.

[LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Final Order dated June 19, 1991, ASP-91-H-01, Air Construction Permit No. 0890004-001-AC, Air Operation Permit No. 0890004-003-AO, Rule 62-212.400(6), F.A.C.]

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- D.9. Preventative Maintenance. A specific authorization to allow bypassing the Brinks for up to 24 hours, twice per year to allow for required preventative maintenance to the unit providing that the storage lagoons are drawn down and every other effort is made to minimize the duration of the bypass. There shall be no banking of this authorized bypass.

[OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.]

- D.10. Excess Emissions. Excess emissions are permitted for a period not to exceed 4 hours, while the Brinks is bypassed during boiler startup, providing the Department is notified prior to such event, and a written report is submitted delineating the causes and duration. There shall be no banking of this authorized bypass.

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

[Final Order dated June 19, 1991, OGC Case No. 90-0332, DOAH Case 90-2153, Stipulation dated 1/14/80; ASP-91-H-01; Air Construction permit 0890004-001-AC, Air Operation permit 0890004-003-AO, Rule 62-212.400(6), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

Continuous Monitoring Requirements

- D.11. Continuous Parameter Monitoring System (CPMS). The owner or operator shall calibrate, maintain, and operate the MSI Beta Guard Continuous source Particulate Monitor to record the beta particle attenuation across a sample of particulate collected by a glass fiber tape sampler. The following procedures shall be used:

- a. A measurement shall be recorded at least once every successive 15-minute period ;
- b. The maximum/upper level limit shall be a meter reading of 0.045.

[63.864(e)(14), Alternate Monitoring Procedure EPA Region IV Approval dated May 19, 2004]

- D.12. CPMS – Meter Reading Reestablishment. The owner or operator may establish expanded or replacement operating ranges for the MSI Beta Guard meter reading during subsequent performance tests using the test methods stated in Conditions D.15., D.16., D.17., and D.18.

The owner or operator shall continuously monitor each parameter and determine the arithmetic average value of each parameter during each performance test. Multiple performance tests may be conducted to establish a range of parameter values.

[63.864(j)(3) and (4)]

- D.13. PM Emissions – Corrective Action. The owner or operator shall implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared under Condition D.22. if the following monitoring exceedance occurs:

- Any 3-hour average parameter value is above the upper meter reading limit (stated in Condition D.11) or outside the range of values established in Condition D.12.

[63.864(k)(1)(vi)]

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D.14. PM Emissions – Violations. It shall be considered a violation of the standards of Condition D.4. if the following monitoring exceedance occurs:

- when six or more 3-hour average values within any 6-month reporting period are above the upper meter reading limit (stated in Condition D.11) or outside the range of values established in Condition D.12.

For purposes of determining the number of nonopacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period.

[63.864(k)(2)(vii) and (k)(3)]

Test Methods and Procedures

D. 15. Particulate Matter. For the purposes of determining the concentration of PM emitted from this emissions unit, EPA Method 5 or 29 in Appendix A of 40 CFR Part 60 shall be used, except that Method 17 in Appendix A of 40 CFR Part 60 may be used in lieu of Method 5 or Method 29 if a constant value of 0.009 g/dscm (0.004 gr/dscf) is added to the results of Method 17, and the stack temperature is no greater than 205 °C (400 °F). For Methods 5, 29, and 17, the sampling time and sample volume for each run must be at least 60 minutes and 0.90 dscm (31.8 dscf), and water must be used as the cleanup solvent instead of acetone in the sample recovery procedure.

[63.865(b)(1)]

D.16. PM Concentration Correction: The PM concentration shall be corrected to the appropriate oxygen concentration using the following equation:

$$C_{corr} = C_{meas} \times (21 - X) / (21 - Y)$$

Where:

C_{corr} = the measured concentration corrected for oxygen, g/dscm (gr/dscf).

C_{meas} = the measured concentration uncorrected for oxygen, g/dscm (gr/dscf).

X = the corrected volumetric oxygen concentration (8 percent).

Y = the measured average volumetric oxygen concentration.

[63.865(b)(2)]

D.17. Oxygen Concentration. The oxygen concentration shall be determined using EPA Method 3A or 3B in Appendix A of 40 CFR Part 60. The voluntary consensus standard ANSI/ASME PTC 19.10-1981--Part 10 (incorporated by reference--see 40 CFR 63.14) may be used as an alternative to using Method 3B. The gas sample must be taken at the same time and at the same traverse points as the particulate sample.

[63.865(b)(3)]

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D.18. The Permittee shall comply with the following:

- (i) For purposes of selecting sampling port location and number of traverse points, Method 1 or 1A in appendix A of 40 CFR Part 60 shall be used;
- (ii) For purposes of determining stack gas velocity and volumetric flow rate, Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A of 40 CFR Part 60 shall be used;
- (iii) For purposes of conducting gas analysis, Method 3, 3A, or 3B in Appendix A of 40 CFR Part 60 shall be used. The voluntary consensus standard ANSI/ASME PTC 19.10-1981--Part 10 (incorporated by reference--see 40 CFR 63.14) may be used as an alternative to using Method 3B; and
- (iv) For purposes of determining moisture content of stack gas, Method 4 in Appendix A of 40 CFR Part 60 shall be used.

[63.865(b)(5)]

D.19. Sulfur Dioxide. Compliance shall be determined with an instack continuous monitor system. In addition, the permittee shall conduct sulfur dioxide emissions compliance test upon request by the Department in accordance with the requirements of Rule 62-297.310(7)(b), F.A.C. The test Method shall be EPA Method 6 incorporated and adopted by reference in Chapter 62-297, F.A.C.

[LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction Permit No. 0890004-001-AC, Air Operation Permit No. 0890004-003-AO, Rule 62-212.400(6), F.A.C.; FINAL Title V Operation Permit No. 0890004-005-AV]

D.20. Visible Emissions. Compliance with respect to the recovery boiler opacity shall be based on the record of on-line operation of the Brinks Demister System (see Specific Condition D.21.).

[LRACT analysis dated 7/12/76 based on State of Washington Sulfite Pulp Mill Rules, OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction Permit No. 0890004-001-AC, Air Operation Permit No. 0890004-003-AO, Rule 62-212.400(6), F.A.C.; Applicant's letter dated November 24, 1997 letter; FINAL Title V Operation Permit No. 0890004-005-AV]

Recordkeeping and Reporting Requirements

D.21. Brinks Demister. A continuous monitor time record of the Brinks Demister System's operation status, programmed to record any bypass of that system, shall be maintained by the permittee, and retained on site for Department inspection pursuant to Rule 62-4.160(7) (Appendix TV-1, Title V Conditions, Chapter 62-4, F.A.C., Condition No. 12).

[OGC Case No. 90-0332, DOAH Case 90-2153, Air Construction Permit No. 0890004-001-AC, Air Operation Permit No. 0890004-003-AO; FINAL Title V Operation Permit No. 0890004-005-AV]

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D.22. Startup Shutdown Malfunction Plan. The owner or operator must develop and implement a written plan as described in 40 CFR 63.6(e)(3) that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and control systems used to comply with the standards. In addition to the information required in 40 CFR 63.6(e), the plan must include the requirements in paragraphs (1) and (2) of this Condition.

- (1) Procedures for responding to any process parameter level that is inconsistent with the level(s) established under Condition D.11 and D.12 including the procedures in paragraphs (1)(i) and (ii) of this Condition:
 - (i) Procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; and
 - (ii) Corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance.
- (2) The startup, shutdown, and malfunction plan also must include the schedules listed in paragraphs (2)(i) and (ii) of this Condition:
 - (i) A maintenance schedule for each control technique that is consistent with, but not limited to, the manufacturer's instructions and recommendations for routine and long-term maintenance; and
 - (ii) An inspection schedule for the continuous monitoring system required under Condition D.11. to ensure, at least once in each 24-hour period, that the continuous monitoring system is properly functioning.

[40 CFR 63.866(a)]

D.23. Corrective Action Records. The owner or operator of an affected source or process unit must maintain records of any occurrence when corrective action is required under Condition D.13.

[40 CFR 63.866(b)]

D.24. Violation Records. The owner or operator shall maintain records of any occurrence when a violation is noted under Condition D.14.

[40 CFR 63.866(b)]

D.25. Additional Records. In addition to the general records required by 40 CFR 63.10(b)(2), the owner or operator shall maintain records of the following information:

(1)N/A

(2)N/A

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(3) Records of parameter monitoring data required under § 63.864, including any period when the operating parameter levels were inconsistent with the levels established during the initial performance test, with a brief explanation of the cause of the deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken;

(4) Records and documentation of supporting calculations for compliance determinations made under Sec. 63.865(a) through (d);

(5) Records of monitoring parameter ranges established for each affected source or process unit;

(6) N/A

(7) N/A

[40 CFR 63.866(c)]

Test Reports

D.26. Sulfur Dioxide. A SO₂ continuous monitoring system (CMS) report shall be submitted for each calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:

- (a) The magnitude of excess emissions, and the date and time of commencement and completion of each time period of excess emissions.
- (b) Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility. The nature and cause of any malfunctions (if known), the corrective action taken or preventative measures adopted.
- (c) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (d) When no excess emissions have occurred or the CMS has not been inoperative, repaired or adjusted, such information shall be stated in the report.

[Air Construction Permit No. 0890004-001-AC; Air Operation Permit No. 0890004-003-AO; FINAL Title V Operation Permit No. 0890004-005-AV]

D.27. Brinks. The Department is to be notified in advance of the SSL (or Red Liquor) lagoon drawdown, and when the inspection/repairs of the Brinks are to begin. A follow-up report on what was found, what corrections were made and when the next maintenance event is planned, shall be submitted.

[Air Construction Permit No. 0890004-001-AC; Air Operation Permit No. 0890004-003-AO; FINAL Title V Operation Permit No. 0890004-005-AV]

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D.28. Excess Emissions Report. The owner or operator must report quarterly if measured parameters meet any of the conditions stated in Condition D.13. or D.14. This report must contain the information specified in 40 CFR 63.10(c) as well as the number and duration of occurrences when the source met or exceeded the conditions in Condition D.13. and the number and duration of occurrences when the source met or exceeded the conditions in Condition D.14. Reporting excess emissions below the violation thresholds of Condition D.14. does not constitute a violation of the applicable standard.

- (1) When no exceedances of parameters have occurred, the owner or operator must submit a semiannual report stating that no excess emissions occurred during the reporting period.
- (2) The owner or operator of an affected source or process unit subject to the requirements of this subpart and Subpart S of this part may combine excess emissions and/or summary reports for the mill.

[40 CFR 63.867(c)]

Notifications

D.29. The owner or operator of any affected source or process unit must submit the applicable notifications from subpart A of this part, as specified in Table 1 of this subpart.

[40 CFR 63.867(a)(1)]

Used Oil Requirements

D.30. This emissions unit is also subject to the On-Spec Used Oil requirements specified in Subsection E.

F.A.C. Test Requirements

D.31. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection F.

Administrative

D.32. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection G.

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Subsection E. Common Conditions - On-Spec Used Oil

The following specific conditions apply to the emissions unit(s) listed below:

Sub-section	EU No.	Description
A	001	No. 1 Power Boiler
B	002	No. 2 Power Boiler
C	003	No. 3 Power Boiler
D	006	Recovery Boiler

The following specific conditions apply to the emissions unit(s) listed above:

Operational Parameters

- E.1. The used oil fired in the emissions units listed above shall be facility generated.
[Application received 06-04-04]
- E.2. On request, a certification shall be provided that the used oil (prior to blending with No. 6 fuel oil) complies with the limits listed below, the provisions of 40 CFR 279 & 761, and shall be recorded:

ON-SPEC USED OIL SPECIFICATIONS	
Constituent/Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1,000 ppm maximum
Flash Point	100°F minimum

- E.3. On-specification used oil may be fired as follows:
- At any time provided the maximum concentration of PCBs is less than 2 ppm. The analysis and recordkeeping requirements apply to each amount prior to blending even if to be blended with 90% virgin oil.
 - Only during normal operation temperature and not during startup or shutdown if the maximum concentration of PCBs is ≥ 2 but < 50 ppm.
- E.4. Approved EPA, DEP or ASTM test methods shall be used or a certified on-specification used oil analysis shall be obtained prior to blending and shall be retained for inspection or submitted to the Department on request.

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Subsection F. This section addresses the following emissions units.

Common Conditions: F.A.C. Test Requirements

E.U. ID

<u>No.</u>	<u>Brief Description</u>
001	No. 1 Power Boiler
002	No. 2 Power Boiler
003	No. 3 Power Boiler
006	Recovery Boiler

F.1. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20% below the allowable emission limiting standard.

[Rule 62-297.310(1), F.A.C.]

F.2. Operation During Compliance Test. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit.

[Rule 62-297.310(2) and (2)(b), F.A.C.]

F.3. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

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F.4. Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - a. For batch, cyclical processes, or other operations, which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
 - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a), F.A.C.]

- F.5. Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

[Rule 62-297.310(4)(b), F.A.C.]

- F.6. Required Flow Rate Range.** For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

[Rule 62-297.310(4)(c), F.A.C.]

- F.7. Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

[Rule 62-297.310(4)(d), F.A.C.]

- F.8. Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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[Rule 62-297.310(4)(e), F.A.C.]

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F.9. Calibration Schedule.

TABLE 297.310-1 CALIBRATION SCHEDULE			
<i>ITEM</i>	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded Max. deviation between readings	Micrometer	+/-0.001" men of at least three readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter Comparison check	2% 5%

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F.10. Determination of Process Variables.

- (a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

F.11. Required Stack Sampling Facilities. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

- (a) **Permanent Test Facilities.** The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
- (b) **Temporary Test Facilities.** The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
- (c) **Sampling Ports.**
 - 1. All sampling ports shall have a minimum inside diameter of 3 inches.
 - 2. The ports shall be capable of being sealed when not in use.
 - 3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
 - 4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal

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circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45-degree angle.

5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
- (d). Work Platforms.
1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
 2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
 3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
 4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
- (e). Access to Work Platform.
1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
 2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.
- (f). Electrical Power.
1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
 2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.
- (g). Sampling Equipment Support.
1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
 - a. The bracket shall be a standard 3-inch x 3 inch x one-quarter inch equal-legs bracket, which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

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- b. A three-eighth inch bolt, which protrudes 2 inches from the stack, may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
 - c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.
 3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

F.12. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission-limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission-limiting standard prior to obtaining an operation permit for such emissions unit.
2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission-limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission-limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

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- a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
 - c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to Rule 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to Rule 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to Rule 62-213.300(2)(a)1., F.A.C., or Rule 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in Rule 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

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- (b) **Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) **Waiver of Compliance Test Requirements.** If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.]

F.13. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 - 1. The type, location, and designation of the emissions unit tested.
 - 2. The facility at which the emissions unit is located.
 - 3. The owner or operator of the emissions unit.
 - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 - 8. The date, starting time and duration of each sampling run.
 - 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 - 10. The number of points sampled and configuration and location of the sampling plane.

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11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

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Subsection G. This section addresses the following emissions units.

Common Conditions: Administrative

E.U. ID

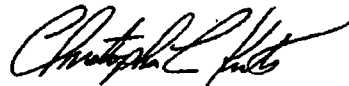
<u>No.</u>	<u>Brief Description</u>
001	No. 1 Power Boiler
002	No. 2 Power Boiler
003	No. 3 Power Boiler
006	Recovery Boiler

- G.1. The ID Number and Project Name for this source shall be used on all correspondences.
- G2. All reports, tests, notifications or other submittals required by this permit shall be submitted to the:

Department of Environmental Protection
Northeast District – Air Program
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256
Telephone: 904/807-3300
Fax: 904/448-4366

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



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



Florida Department of Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590
Phone: 904/807-3300 • Fax: 904/448-4366

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE:

Rayonier Performance Fibers LLC
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Fernandina Beach, Florida 32035-1309

I.D. Number: 0890004
Permit/Cert Number: 0890004-024-AC
Date of Issue: February 26, 2009
Expiration Date: February 26, 2011
County: Nassau
Latitude/Longitude: 30°39' 48" N; 81°28'22"W
UTM: E-(17) 454.7; N-3392.2
Project: ULSD Blend w/RLS @
Recovery Boiler

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-210, 62-212, 62-296, 62-297 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

PROJECT 024:

This project authorizes the continuous addition of virgin, ultra low sulfur diesel fuel (No. 2 fuel oil) into the piping that feeds red liquor into the Recovery Boiler (Emission Unit 006), thus forming a blended fuel of red liquor and virgin, ultra low sulfur diesel to be fired by the boiler. The virgin ultra low sulfur diesel (ULSD) will have a maximum sulfur content of 15 parts per million (0.0015 percent by weight) as defined in 40 CFR 80.150(b), and be injected into the red liquor at a rate no greater than 0.5 gallons per minute (monthly average).

The project requires the addition of pipes and valves so that the virgin ULSD can be injected into the red liquor feed line. The project also requires the installation of a 10,000 gallon storage tank for the ULSD.

The combustion of the ULSD will result in the emissions of carbon monoxide (CO), nitrogen oxides (NO_x), Particulate Matter (PM), Sulfur Dioxide (SO₂), Volatile Organic Compounds (VOC), as well as metals. However, the mill will reduce the maximum red liquor flow rate to the Recovery Boiler by 2.3 gallons for each gallon of ULSD actually fired in the boiler to ensure that this project does not cause an increase in the hourly heat input to the Recovery Boiler above the current, maximum hourly rate.

PERMITTEE:

Rayonier Performance Fibers LLC
Foot of Gum Street
Fernandina Beach, Florida 32035-1309

I.D. Number: 089004
Permit/Cert Number: 0890004-024-AC
Date of Issue: February 26, 2009
Expiration Date: February 26, 2011
County: Nassau

FACILITY DESCRIPTION

Rayonier is an acid sulfite based pulp mill using ammonia as a base chemical for the manufacture of dissolving pulps. This plant produces approximately 10 different grades of pulp. The pulp produced at this plant 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 tons of performance fibers annually.

REGULATED EMISSIONS UNITS AFFECTED BY PROJECT 024:

<u>Emission Unit</u>	<u>Description</u>
006	Recovery Boiler

EMISSIONS UNIT REGULATORY CLASSIFICATION

The Recovery Boiler is regulated under Rule 17-2.03, F.A.C., Latest Reasonable Available Control Technology (LRACT dated 07-12-76), which was based on Washington State Standards for Sulfite Pulp Mills (WAC 18-38-040). This rule became 17-2.630, F.A.C. which became Best Available Control Technology (BACT) now Rule 62-212.400(6), F.A.C. This emissions unit was issued Final Order dated June 19, 1991, which included Alternate Sampling Procedure No. ASP-91-H-01, which approved the continual operation of the Brinks Demister System in lieu of meeting the general visible emissions standard of less than 20% opacity as measured by EPA Method 9. This emissions unit is also regulated under NESHAP - 40 CFR 63, Subpart MM, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- This facility is a major source of air pollutants, other than HAPs.
- This facility has one or more emissions units subject to NSPS (40CFR 60).
- This facility has one or more emissions units subject to NESHAP (40 CFR 61 or Part 63)

OPERATING LOCATION

The facility is located at Foot of Gum Street, Fernandina Beach, Nassau County, Florida

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RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department:

Application for Air Permit - Long Form received December 29, 2008
Additional Information Requests dated January 21 & 22, 2009
Additional Information Response received January 29, 2009
Comments from application via telephone on February 6, 2009

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GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy any record that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

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GENERAL CONDITIONS:

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the

Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)
- () Compliance with National Emission Standards for Hazardous Air Pollutants/ Maximum Available Control Technology (MACT)

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GENERAL CONDITIONS:

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurement;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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The following specific conditions apply to the emissions unit(s) listed below:

<u>E.U. ID No.</u>	<u>Brief Description</u>
006	<p>This unit fires red liquor solids (RLS) as the primary fuel to produce steam and recover sulfur. The red liquor contains sulfur compounds, which are converted to sulfur dioxide during combustion. The sulfur dioxide is recovered from the flue gas in the multi-stage, wet scrubber that utilizes Ammonium hydroxide as the scrubbing media. The sulfur dioxide reacts with the ammonium hydroxide to form ammonium bisulfite. The ammonium bisulfite solution is drawn off, filtered through sand filters, and pumped to the acid plant and recycled as the base for making the cooking acid used in the digesters.</p> <p>Residual fuel oil is fired as a startup, shutdown and supplemental fuel (e.g. maintain the flame stability of the boiler).</p> <p>The total maximum operational rate of this emissions unit is 70,000 lbs of oven dry Red Liquor Solids/hr.</p> <p>The sulfur dioxide in the flue gas also reacts with the ammonium hydroxide (scrubbing media), to form ammonium sulfate, a fine, aerosol-type particulate that is emitted in the moist vapor leaving the scrubber. This ammonium sulfate is the predominate source of particulate emissions from the recovery boiler.</p> <p>The Particulate matter emissions are controlled by controlled by the Brinks Demister (a filter unit). The Brinks Demister consists of four, enclosed rubber-lined metal compartments each containing 52 candles. Each candle is a 24-inch diameter, 12-foot high cylinder with 6 inches of tightly wound polyester fiber filter held within a concentric wire cage. Gases flow up through the center of each candle then pass through the 6 inches of filter medium, out an opening near the top of the compartment and on to the stack.</p> <p>The sulfur dioxide concentration within the stack is measured and recorded continuously using a CMS.</p> <p>At permitted capacity, the exhaust gas flow rate is 125,280 dscfm at 8% oxygen with an exit temperature of 126° F. Exhaust gases exit a stack that is 7.33 feet in diameter and 264 feet tall.</p>

EXISTING APPLICABLE REGULATIONS

1. Existing Permits and Regulations: This permit supplements other previously issued air permits issued for the Recovery Boiler, which include the following applicable State and Federal Regulations:

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- a. The applicable provisions for recovery boilers at Kraft Pulp Mills as specified in the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart MM and the General Provisions in Subpart A of Title 40 of the Code of Federal Regulations (CFR) Part 63.
- b. The Recovery Boiler remains subject to the Final Order dated June 19, 1991 and the Alternate Sampling Procedure ASP-91-H-01.

[40 CFR 63 Subpart A, 40 CFR 63 Subpart MM]

AUTHORIZED CHANGES BY THIS CONSTRUCTION PERMIT

2. Authorized Changes: The permittee is authorized to install additional pipes and valves in order to be able to inject the virgin Ultra Low Sulfur Diesel (ULSD) into the red liquor feed line. This permit does not authorize any physical modification of the Recovery Boiler in order to accommodate the ULSD.

[Rule 62-4.070, F.A.C.; Application No. 0890004-024-AC]

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

3. Authorized Fuels: The Recovery Boiler is authorized to fire the listed fuels as specified below:
 - a. Red Liquor Solids (Red Liquor at approximately 60% RLS content and 10.59 lb/gallon density);
 - b. Virgin, Ultra Low Sulfur Diesel with a maximum sulfur content not to exceed 15 ppm (0.0015 percent by weight) prior to injection into the red liquor feed line, i.e. a USLD/RLS blend;
 - c. No. 6 Fuel Oil with a maximum sulfur content not to exceed 2.5% by weight (with or without any prior blending with facility-generated on-specification used oil). This fuel shall be fired as a startup, shutdown, and supplemental fuel (e.g. maintain the flame stability of the boiler);
 - d. On-specification Used Oil. Subject to the requirements of Subsection L of FINAL Title V Permit No. 0890004-020-AV, limited amounts of facility-generated on-specification used oil may be blended and fired with the No. 6 fuel oil.

[Rules 62-4.070(3), 62-4.160, 62-210.200(Definitions - PTE), FINAL Title V Permit No. 0890004-020-AV, Application No. 0890004-024-AC]

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4. Permitted Capacity & Fuel Restrictions:

- a. Red Liquor Solids: The maximum operating capacity is 70,000 lb/hour of oven dry RLS, which is equivalent to a heat input rate of 653.1 MMBtu per hour based on a fuel heating value of 9,330 Btu/lb of RLS. This is also equivalent to approximately 11,015 gallons per hour of red liquor.¹
- b. Virgin ULSD: The maximum total addition rate of virgin ULSD into the red liquor feed line is 0.5 gallons per minute [based on a monthly average].
- c. ULSD/Red Liquor Solids Blend: The maximum permitted firing rate of the ULSD/Red Liquor Solids Blend shall not exceed 69,779 lbs/hr [69,563 lb RLS/hour + 216 lb ULSD/hour]. This is equivalent to a flow rate of no more than 10,976 gallons per hour of red liquor and USLD blended [10,946 gal RL/hr + 30 gal ULSD/hr]^{2,3}
- d. On-spec Used Oil: The on-specification used oil shall be blended with authorized oil prior to firing in this emissions unit.

¹ Assumes a density of 10.5916 lb/gallon of RLS, 60% solids content. [Red liquor entering the boiler is typically 58-60% solids content, although it can vary outside this range.]

² Assumes a heating value of 136,000 Btu/gallon and a density of 7.2 lb/gallon for ULSD.

³ A reduction of 2 pounds of oven dry red liquor solids for each pound of virgin ULSD actually fired in the boiler (i.e. 2.3 gallons of RLS/gallon of virgin ULSD).

[Rules 62-4.070(3), 62-4.160, 62-210.200(Definitions - PTE); 62-212.400(12)(c), F.A.C., FINAL Title V Permit No. 0890004-020-AV, Application No. 0890004-024-AC]

5. Hours of Operation. The hours of operation for Recovery Boiler are not restricted, i.e. 8760 hours/year.

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

FUEL MONITORING

6. Fuel Monitoring: The permittee shall install, operate, and maintain equipment to continuously monitor and record the flow/firing rate of each authorized fuel stated in Conditions 3 and 4 for the Recovery Boiler including the fuel firing rate restrictions. For virgin, ULSD, the permittee shall install a fuel oil flow meter prior to blending it with the Red Liquor. The total amounts (gallons) of the Red Liquor and virgin, ULSD fired shall be documented on a monthly basis.

The equipment shall be installed and properly functioning prior to the firing of any such fuels. Existing equipment may satisfy this requirement.

[Rules 62-4.070(3) and 62-4.160(15), F.A.C.; Application No. 0890004-024-AC]

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7. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5)(b), F.A.C.]

NOTIFICATIONS, RECORDKEEPING AND REPORTING REQUIREMENTS

8. Virgin ULSD: For each delivery of ULSD, the permittee shall retain at least the following records:
- ULSD vendor certification;
 - The analysis identifying the sulfur content of the oil by percent weight;
 - Statement that the ULSD is virgin fuel;
 - Quantity of oil supplied.

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

9. Maintaining of Records. The permittee shall retain a copy of all records used to compute emissions pursuant Rule 62-210.370, F.A.C., for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(2)(h), F.A.C.]

10. Notification. The facility shall provide a written notification to the Department within 14-days of start-up the operation change, the actual date of the operation change, as authorized by this permit, has been implemented.

[Rule 62-4.070(3), F.A.C.]

11. Semiannual Monitoring Reports. The permittee shall submit a written report to the Northeast District Office (Compliance Authority) summarizing the following for each calendar month:

- Gallons of virgin ULSD fired;
- Gallons of Red Liquor fired (including percent solids, estimated density);
- Total Hours of operation;
- Demonstration that the fuel firing limitations of Specific Condition Nos. 3 and 4 have been met;
- Copies of vendor certification for each ULSD fuel delivery as required in Specific Condition 8.

The reports shall identify any exceedance of an emissions or performance limitation. The reports shall be submitted no later than 30 days following the second and fourth calendar quarters.

[Rule 62-4.070(3), F.A.C.]

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ADMINISTRATIVE

12. The ID Number and Project Name for this source shall be used on all correspondences.
13. All reports, tests, notifications or other submittals required by this permit shall be submitted to the:
- Department of Environmental Protection
Northeast District - Air Program
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256
Telephone: 904/807-3300
Fax: 904/448-4366
14. Applicable Regulations. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Florida Administrative Code Chapters 62-4; 62-204; 62-210; 62-212, 62-213, 62-296, and 62-297. Issuance of a permit does not relieve the owner or operator of an emissions unit from complying with any applicable requirement, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state or local law.
- [Rule 62-210.300, F.A.C.]
15. General Conditions. The owner and operator is subject to and shall operate under the General Permit Conditions 1 through 15 of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes.
- [Rule 62-4.160, F.A.C.]
16. New or Additional Conditions. For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
- [Rule 62-4.080, F.A.C.]
17. Construction Permit Required. Unless exempt from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., an air construction permit shall be obtained by the owner or operator of any proposed new, reconstructed, or modified facility or emissions unit, or any new pollution control equipment prior to the beginning of construction, reconstruction pursuant to CFR 60.15 or 63.2, or modification of the facility or emissions unit or addition of the air pollution control equipment; or to establish a PAL; in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-212, F.A.C., and Chapter 62-4, F.A.C.
- [Rule 62-210.300(1)(a), F.A.C.]

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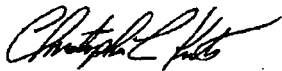
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18. Previously Issued Air Permits. This permit supplements all previous air permits issued for the affected emissions unit. However, if not specifically regulated by this permit, other standards and permit requirements from previous air construction permits remain valid. In addition, the affected emissions unit remains subject to all applicable standards and regulations as regulated by the Title V air operation permit.
19. Title V Operation Permit Revision Application Submittal. This permit authorizes modification of the permitted emissions units and initial operation to determine compliance with the terms of the permit. The permittee shall apply for a Title V Air Operation Permit Revision by submitting a complete Application for Air Permit - Long Form [DEP Form No. 62-210.900(1), F.A.C.], to the department at least ninety (90) days before the expiration of this construction permit, but no later than one-hundred eighty (180) days after commencing operation as modified. To apply for an operation permit, the applicant shall submit the appropriate application form, any required compliance test results, and such additional information as the Permitting Authority may by law require.

[Rules 62-4.030, 62-4.050, 62-4.220, and 62-213.420(1)(a)4., F.A.C.]

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



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

ATTACHMENT RPF-EU2-IV3
ALTERNATIVE METHODS OF OPERATION

ATTACHMENT RPF-EU2-IV3
ALTERNATIVE METHODS OF OPERATION

The Recovery Boiler is permitted to fire red liquor solids (RLS) as the primary fuel; residual fuel oil as an alternate fuel for startup, shutdown, and supplemental use; and ultra low sulfur diesel (ULSD) fuel (No. 2 fuel oil). The boiler has a maximum operational rate of 70,000 pounds of oven dry RLS per hour based on a maximum heat input rate of 653.1 million British thermal units per hour (24-hour average). The maximum total addition rate of ULSD into the red liquor feed line is 0.5 gallon per minute (based on a monthly average). The sulfur content of ULSD is limited to 0.0015 percent (15 parts per million). The operating hours of the boiler are not limited (8,760 hours per year).

EMISSIONS UNIT INFORMATION

Section [3]

Molten Sulfur Handling Area

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]

Molten Sulfur Handling Area

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:
Molten sulfur rail car unloading and associated 55,000-gallon storage tank.

3. Emissions Unit Identification Number: **007**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 26
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:
This emission unit is regulated by work practice standards only.

EMISSIONS UNIT INFORMATION

Section [3]

Molten Sulfur Handling Area

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description: Process enclosed
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:

Emissions Unit Control Equipment/Method: Control ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [3]

Molten Sulfur Handling Area

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 43.5 Tons Per Hour		
2. Maximum Production Rate:		
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: Volume of molten sulfur storage tank is 55,000 gallons Maximum throughput rate based on 2-hour unloading time for 87-ton capacity rail car.		

EMISSIONS UNIT INFORMATION

Section [3]

Molten Sulfur Handling Area

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: MS		2. Emission Point Type Code: 4			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Molten sulfur storage tank vent and rail car loading containment area.					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code: P		6. Stack Height: feet		7. Exit Diameter: feet	
8. Exit Temperature: 77°F		9. Actual Volumetric Flow Rate: acfm		10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm			12. Nonstack Emission Point Height: 0 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:					

EMISSIONS UNIT INFORMATION

Section [3]

Molten Sulfur Handling Area

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **1**

1. Segment Description (Process/Fuel Type): Industrial Processes; Mineral Products; Bulk Materials Unloading Operation; Sulfur		
2. Source Classification Code (SCC): 3-05-104-08		3. SCC Units: Tons Processed
4. Maximum Hourly Rate: 43.5	5. Maximum Annual Rate: 13,780	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Maximum hourly estimate based on 2-hour unloading time for a 87-ton capacity rail car Maximum annual rate based on historic records plus safety factor.		

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:		

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [3]
 Molten Sulfur Handling Area

Page [] of []

**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:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> 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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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):	

EMISSIONS UNIT INFORMATION

Section [3]

Molten Sulfur Handling Area

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: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
5. Visible Emissions Comment: Rule 62-296.411(1)(g), F.A.C.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [3]
Molten Sulfur Handling Area

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer:	Serial Number:
Model Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer:	Serial Number:
Model Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [3]

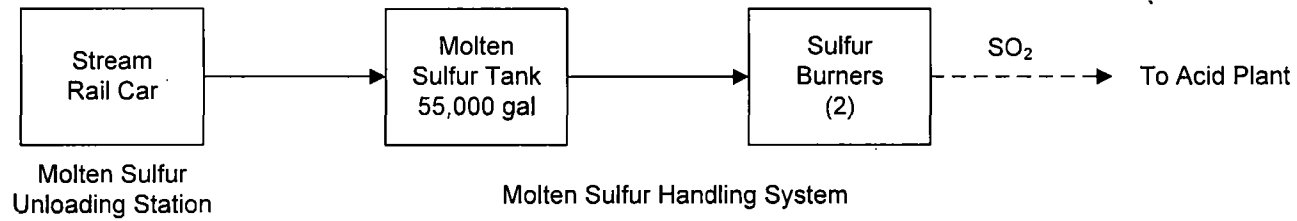
Molten Sulfur Handling Area

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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU3-11</u> <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU3-15</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT RPF-EU3-11
PROCESS FLOW DIAGRAM



Attachment RPF-EU3-11
Process Flow Diagram – Molten Sulfur Handling-EU 007
Rayonier Performance Fibers LLC
Fernandina Beach Mill

Process Flow Legend

- Solid/Liquid 
- Gas 
- Steam 



ATTACHMENT RPF-EU3-15
OPERATION AND MAINTENANCE PLAN

ATTACHMENT RPF-EU3-I5

OPERATION AND MAINTENANCE PLAN MOLTEN SULFUR HANDLING AREA

SYSTEM INFORMATION

Sulfur is delivered in 87-ton rail cars. Normally two cars are spotted at Site 1. The cars must be steamed on-site for 3 to 5 days before unloading. The sulfur is unloaded to a 55,000-gallon storage tank. From the molten sulfur storage tank the sulfur is pumped to the sulfur burners. The minimum tank level is 0 feet (ft). The maximum tank level is 19.0 ft. Each rail car delivers about 4 ft to the storage tank. The tank should be below 10 ft before unloading a rail car.

UNLOADING INSTRUCTIONS

- Prepare rail car for unloading:
 - Check the car label.
 - Set the brakes.
 - Chock the wheels.
 - Set the derailer.
- Car hook-up:
 - Vent the rail car.
 - Connect the steam hose to the car steam inlet and outlet.
 - Steam the car for 3 to 5 days.
 - Insert a rod in the drop pipe to determine if the sulfur is molten. If hard sulfur is found, continue to steam the car.
 - Hook up the unloading hose system and air padding hose.
 - Close car vents and apply padding air and record tank level.
 - Open padding air valves and unloading system valves.
 - Car should unload in approximately 2 to 3 hours. Check the storage tank level regularly.
 - Cut the steam off at the beginning of the rail car unloading and open bleed-off valve just enough to bleed steam from rail car.
 - Record the final tank level when unloading is complete and report to the Technical Team.
- Car disconnect:
 - After unloading, close padding air valves.
 - After pressure drops, disconnect sulfur hoses and pipes from the car.
 - Disconnect the steam hoses.
 - Move all hoses off the track.
 - Secure all valves and connections on the car.
 - Leave the brakes set and the wheels chocked.

Spills

- All areas surrounding points where molten sulfur pipes are routinely disconnected and areas where molten sulfur is transferred to trucks or railcars shall be paved and curbed within 20 ft of the point of disconnection or transfer to contain any spilled molten sulfur, or shall be provided with noncorrosible drip pans or other secondary containment, positioned to collect spills, that are adequate to contain amounts of sulfur that may escape during routine disconnection, reconnection, or operation of the piping system.
- All spilled molten sulfur shall be collected and properly disposed of whenever the containment area is filled to one-half its containment capacity, or monthly, whichever is more frequent.
- If sulfur should be spilled outside the containment area, it should be cleaned up immediately, but not more than 24 hours after the spill occurs. No sulfur may be left in any area outside the containment area.
- *Maintain records of spills outside of containment areas and of collection and disposal of spilled sulfur. Such records shall be retained for a minimum of 2 years and shall be available for inspection by FDEP upon request.*

Maintenance

- Drip pans or other secondary containment shall be cleaned as needed to prevent exceedance of capacity, but at least weekly.
- All vent surfaces shall be cleaned monthly to remove captured particles.

EMISSIONS UNIT INFORMATION

Section [4]

Biological Effluent Treatment System

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]
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: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 26
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget 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 **[4]**

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:

EMISSIONS UNIT INFORMATION

Section [4]

Biological Effluent Treatment System

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:	248,020 TPY ADUP
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:	
	ADUP = air-dried unbleached pulp.

EMISSIONS UNIT INFORMATION

Section [4]

Biological Effluent Treatment System

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).			

EMISSIONS UNIT INFORMATION

Section [4]
 Biological Effluent Treatment System

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: 248,020	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 permitted facility wide maximum 12-month rolling total pulp production. 162,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 Unbleached ton/bleached ton =248,020 TPY ADUP		

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:		

EMISSIONS UNIT INFORMATION

Section [4]

Biological Effluent Treatment System

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			EL
HAPs			EL

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [4]
Biological Effluent Treatment System

Page [1] of [1]
Methanol - H115

**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/ton ODUP	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):	

EMISSIONS UNIT INFORMATION

Section [4]

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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU4-11</u> <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU4-13</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU1-14</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 1, 2009</u> Test Date(s)/Pollutant(s) Tested: <u>Methanol</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

**Section [4]
Biological Effluent Treatment System**

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)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

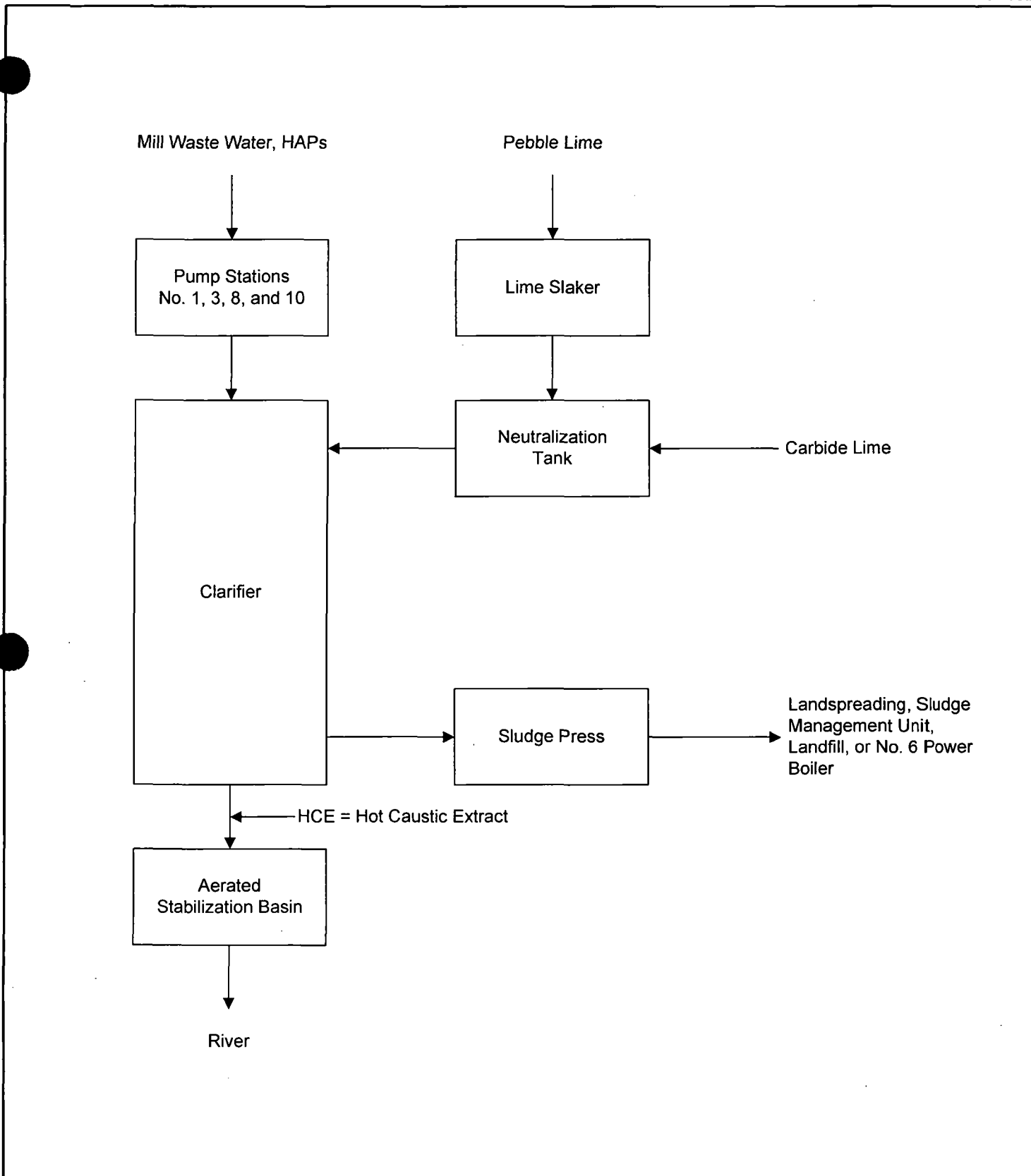
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: See comment
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

See RPF-EU1-IV1; 40 CFR 63, Subpart S; and Title V Permit No. 0890004-020-AV.
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ATTACHMENT RPF-EU4-11
PROCESS FLOW DIAGRAM



Attachment RPF-EU4-I1
Process Flow Diagram
Biological Effluent Treatment System
Rayonier Performance Fibers LLC
Fernandina Beach Mill

Process Flow Legend	
Solid/Liquid	—————▶
Gas	- - - - -▶
Steam	· · · · ·▶



ATTACHMENT RPF-EU4-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU4-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.

EMISSIONS UNIT INFORMATION

Section [5]

Dissolving-Grade Bleaching System

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 [5]

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: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 26
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: _____ MW

11. Emissions Unit Comment:
See Attachment RPF-EU5-A11 for a list of equipment that is vented to the Bleach Plant Scrubber.

EMISSIONS UNIT INFORMATION

Section **[5]**

Dissolving-Grade Bleaching System

Emissions Unit Control Equipment/Method: Control 1 of 3

1. Control Equipment/Method Description: Wet Scrubber
2. Control Device or Method Code: 001

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:

EMISSIONS UNIT INFORMATION

Section [5]
Dissolving-Grade Bleaching System

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 162,000 air-dried metric tons (ADMT) per year
2. Maximum Production Rate:
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 permitted pulp production rate per consecutive 12-month rolling total.

EMISSIONS UNIT INFORMATION

Section [5]

Dissolving-Grade Bleaching System

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: %
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: The stack parameters above for the Bleach Plant scrubber stack are based on design data.			

EMISSIONS UNIT INFORMATION

Section [5]
Dissolving-Grade Bleaching System

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: 248,020	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 permitted facility wide maximum 12-month rolling total pulp production. 162,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 unbleached ton/bleached ton =248,020 TPY 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:		

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [5]
Dissolving-Grade Bleaching System

Page [1] of [2]
H038 – Chlorine

**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: 0.075 lb/hour 0.22 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.002 lb/ton ODUP 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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: 41.6 TPH ADUP x 0.9 tons ODUP/ton ADUP = 37.44 TPH ODUP 37.44 TPH ODUP x 0.002 lb Chlorinated HAPs/ton ODUP = 0.075 lb/hr Annual: 248,020 tons ADUP/yr x 0.9 tons ODUP/ton ADUP = 223,218 tons ODUP/yr 223,218 tons ODUP/yr x 0.002 lb Chlorinated HAPs/ton ODUP x 1 ton/2,000 lbs = 0.22 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Includes all chlorinate HAPS except chloroform.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [5]
Dissolving-Grade Bleaching System

Page [1] of [2]
H038 – Chlorine

**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: 0.002 lb/ton ODUP	4. Equivalent Allowable Emissions: 0.075 lb/hour 0.22 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 10 ppmv.	

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):	

EMISSIONS UNIT INFORMATION

Section [5]
Dissolving-Grade Bleaching System

POLLUTANT DETAIL INFORMATION

Page [2] of [2]
H043 – 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: 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):	

EMISSIONS UNIT INFORMATION

Section [5]

Dissolving-Grade Bleaching System

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: <input type="checkbox"/> Rule <input type="checkbox"/> 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: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [5]

Dissolving-Grade Bleaching System

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:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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).	

EMISSIONS UNIT INFORMATION

Section [5]

Dissolving-Grade Bleaching System

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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:	<input type="checkbox"/> Rule <input type="checkbox"/> 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 [5]

Dissolving-Grade Bleaching System

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU5-11</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU5-13</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Comment</u> <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input type="checkbox"/> Not Applicable (construction application)</p>
<p>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)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>6. Compliance Demonstration Reports/Records:</p> <p><input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: <u>Initial performance test for chlorine concentration (Method 26A) will be conducted within 180 days of startup. The bleach plant scrubber startup occurred on February 18, 2010.</u></p> <p><input type="checkbox"/> Not Applicable</p> <p>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.</p>
<p>7. Other Information Required by Rule or Statute:</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

**Section [5]
Dissolving-Grade Bleaching System**

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)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU5-IV1</u>
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

<p>The Startup, Shutdown, Malfunction Plan is still under development. The plan will be submitted with the initial performance test.</p>

ATTACHMENT RPF-EU5-A11

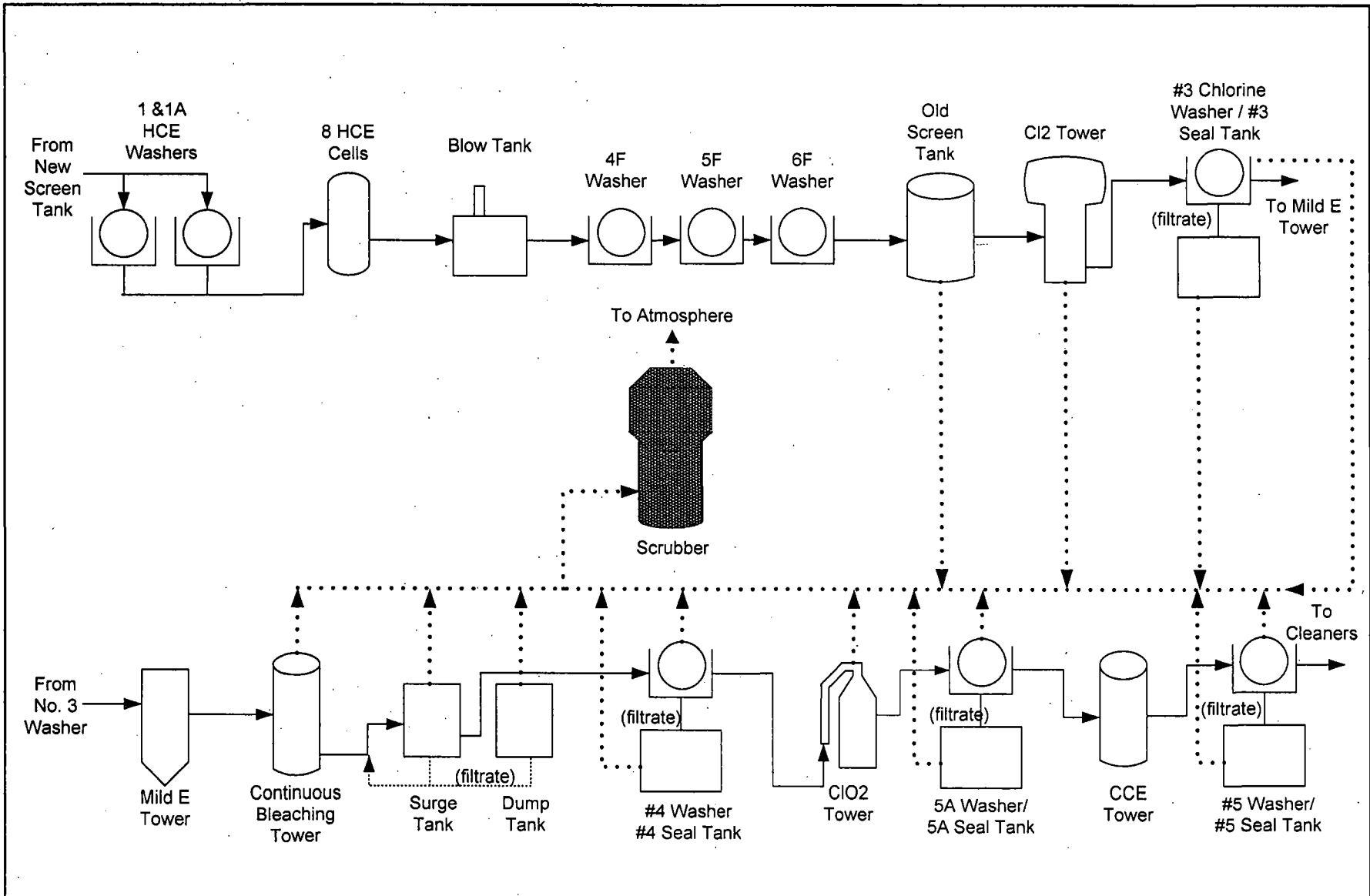
EMISSIONS UNIT COMMENT

**ATTACHMENT RPF-EU5-A11
EMISSIONS UNIT COMMENT**

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

- Chlorination tower
- Old screen tank
- Continuous bleaching tower
- ClO₂ 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-EU5-11
PROCESS FLOW DIAGRAM



Attachment RPF-EU5-I1
 Process Flow Diagram
 Bleach Plant Scrubber PFD
 Rayonier Performance Fibers
 Source: Rayonier, 2010.

Process Flow Legend	
Pulp	—————>
Gas>



ATTACHMENT RPF-EU5-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU5-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 ₂ O
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.

ATTACHMENT RPF-EU5-14

PROCEDURES FOR STARTUP AND SHUTDOWN

STILL UNDER DEVELOPMENT- PARAMETER TBD BY PERFORMANCE TEST

ATTACHMENT RPF-EU5-IV1

IDENTIFICATION OF APPLICABLE REQUIREMENTS

**ATTACHMENT RPF-EU5-IV1
IDENTIFICATION OF APPLICABLE REQUIREMENTS
BLEACH PLANT**

RULE NUMBER	RULE TITLE/SUMMARY
40 CFR 63, Subpart A	NESHAPs General Provisions
40 CFR 63, Subpart S	NESHAP Pulp and Paper Industry
63.445(a)	MACT Standards – Standards for Bleaching Systems
63.445(b)	MACT Standards – Standards for Bleaching Systems
63.445(c)	MACT Standards – Standards for Bleaching Systems
63.445(d)(1)(iii)	MACT Standards – Standards for Bleaching Systems
63.445(d)(2)	MACT Standards – Standards for Bleaching Systems
63.450	MACT Standards – Closed Vent Systems
63.453(a)	MACT Standards – Monitoring Requirements
63.453(c)	MACT Standards – Monitoring Requirements
63.453(d)	MACT Standards – Monitoring Requirements
63.453(f)	MACT Standards – Monitoring Requirements
63.453(k)	MACT Standards – Monitoring - Closed Vent Systems
63.453(m)	MACT Standards – Monitoring Requirements
63.453(n)	MACT Standards – Monitoring - Parameter Monitoring
63.453(o)	MACT Standards – Monitoring Requirements
63.454	MACT Standards – Recordkeeping
63.455	MACT Standards – Reporting
63.457	MACT Standards – Test Methods and Procedures

EMISSIONS UNIT INFORMATION

Section [6]

Evaporator Vents Methanol Condenser System

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 [6]

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: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 26
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget Unit

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:
Vent gasses 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 [6]

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:

EMISSIONS UNIT INFORMATION

Section [6]

Evaporator Vents Methanol Condenser System

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:	162,000 air-dried metric tons (ADMT) per year	
2. Maximum Production Rate:		
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 permitted pulp production rate per consecutive 12-month rolling total.	

EMISSIONS UNIT INFORMATION

Section [6]

Evaporator Vents Methanol Condenser System

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 O₂. These stack parameters represent the Recovery Boiler stack gases, which include the Evaporator vents gases.			

EMISSIONS UNIT INFORMATION

Section [6]

Evaporator Vents Methanol Condenser System

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: 248,020	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 permitted facility wide maximum 12-month rolling total pulp production. 162,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 Unbleached ton/bleached ton =248,020 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:		

EMISSIONS UNIT INFORMATION
Section [6]
Evaporator Vents Methanol Condenser System

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

**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/ton ODUP	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):	

EMISSIONS UNIT INFORMATION

Section [6]

Evaporator Vents Methanol Condenser System

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:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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).	

EMISSIONS UNIT INFORMATION

Section [6]

Evaporator Vents Methanol Condenser 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU2-11</u> <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU6-13</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU1-14</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 1, 2009</u> Test Date(s)/Pollutant(s) Tested: <u>Methanol</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [6]

Evaporator Vents Methanol Condenser System

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)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>See Comment</u>
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

See RPF-EU1-IV1; 40 CFR 63, Subpart S; and Title V Permit No. 0890004-020-AV.
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ATTACHMENT RFP-EU6-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU6-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 on 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 gasses 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.

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

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 [7]
No. 6 Power Boiler**

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:
No. 6 Power Boiler

3. Emissions Unit Identification Number: **022**

4. Emissions Unit Status Code: A	5. Commence Construction Date: 1983	6. Initial Startup Date: 12/2006	7. Emissions Unit Major Group SIC Code: 2611
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8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
- CAIR Unit
- Hg Budget Unit

9. Package Unit:

Manufacturer: **NA**

Model Number:

10. Generator Nameplate Rating: **NA MW**

11. Emissions Unit Comment:

Fluidized bed boiler burning a variety of fuels but mostly wood and bark. Control equipment consists of an electrostatic precipitator and a wet scrubber. A selective non-catalytic reduction system allowed by Permit No. 0890004-021-AC has been installed in a trial basis. The SNCR system will only be operated as needed to assure compliance with NOx emissions limit.

EMISSIONS UNIT INFORMATION

**Section [7]
No. 6 Power Boiler**

Emissions Unit Control Equipment/Method: Control 1 of 7

1. Control Equipment/Method Description:
Gravity Collector – Medium Efficiency

2. Control Device or Method Code: **005**

Emissions Unit Control Equipment/Method: Control 2 of 7

1. Control Equipment/Method Description:
Electrostatic Precipitator – High Efficiency

2. Control Device or Method Code: **010**

Emissions Unit Control Equipment/Method: Control 3 of 7

1. Control Equipment/Method Description:
Gas Scrubber

2. Control Device or Method Code: **013**

Emissions Unit Control Equipment/Method: Control 4 of 7

1. Control Equipment/Method Description:
Overfire Air

2. Control Device or Method Code: **204**

EMISSIONS UNIT INFORMATION

**Section [7]
No. 6 Power Boiler**

Emissions Unit Control Equipment/Method: Control 5 of 7

- | |
|--|
| 1. Control Equipment/Method Description:
Staged Combustion |
| 2. Control Device or Method Code: 025 |

Emissions Unit Control Equipment/Method: Control 6 of 7

- | |
|---|
| 1. Control Equipment/Method Description:
Flue Gas Recirculation |
| 2. Control Device or Method Code: 026 |

Emissions Unit Control Equipment/Method: Control 7 of 7

- | |
|--|
| 1. Control Equipment/Method Description:
The SNCR system will be operated as necessary to lower NOx emissions to achieve the annual NOx limit. |
| 2. Control Device or Method Code: 107 |

Emissions Unit Control Equipment/Method: Control ____ of ____

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

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: NA
2. Maximum Production Rate: NA
3. Maximum Heat Input Rate: 525 million Btu/hr
4. Maximum Incineration Rate: NA 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 heat input rate comment: The maximum heat input rate is 525 MMBtu/hr based on a 24-hour average. The corresponding maximum steam rate is 330,000 lb/hr. The annual average operating rate is 450 MMBtu/hr, which is approximately 286,000 lb/hr of steam production.

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

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: PB06		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: 190 above ground feet	7. Exit Diameter: 10 feet	
8. Exit Temperature: 368.1°F	9. Actual Volumetric Flow Rate: 233,262 acfm	10. Water Vapor: 24 %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: NA 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: Stack parameters based on April 2009 stack testing. Actual volumetric flow rate with scrubber operating based on average flow rate for test runs.			

EMISSIONS UNIT INFORMATION

**Section [7]
No. 6 Power Boiler**

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boiler; Fluidized Bed Combustion Boilers; Green bark at about 50% moisture.		
2. Source Classification Code (SCC): 1-01-009-12		3. SCC Units: Tons burned
4. Maximum Hourly Rate: 58.33	5. Maximum Annual Rate: 438,000	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 0.03	8. Maximum % Ash: 2.27	9. Million Btu per SCC Unit: 9
10. Segment Comment: Approximately 60% is self produced as a byproduct. Max hourly based on 525 MMBtu/hr (24-hr avg). Max annual based on 450 MMBtu/hr. Represents bark at 4,500 Btu/lb.		

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boiler; Fluidized Bed Combustion Boilers; Knots and sidehill fines recovered as process byproduct at about 50% - 60% moisture.		
2. Source Classification Code (SCC): 1-01-009-12		3. SCC Units: Tons burned
4. Maximum Hourly Rate: 5.3	5. Maximum Annual Rate: 46,269	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 0.40	8. Maximum % Ash: 0.41	9. Million Btu per SCC Unit: 9
10. Segment Comment: 100% of this fuel is produced as a pulping byproduct. Heating value = 4,500 Btu/lb.		

EMISSIONS UNIT INFORMATION

**Section [7]
No. 6 Power Boiler**

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

Segment Description and Rate: Segment 3 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boilers; Coke; Tire Derived Fuel.		
2. Source Classification Code (SCC): 1-01-008-01		3. SCC Units: Tons burned
4. Maximum Hourly Rate: 3.0	5. Maximum Annual Rate: 26,159	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 1.85	8. Maximum % Ash: 4.78	9. Million Btu per SCC Unit: 31
10. Segment Comment:		

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type): External Combustion Boiler; Residual Oil; No. 6 fuel oil.		
2. Source Classification Code (SCC): 1-01-004-01		3. SCC Units: Thousand gallons burned
4. Maximum Hourly Rate: 1.4	5. Maximum Annual Rate: 11,927	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 2.5	8. Maximum % Ash: 0.12	9. Million Btu per SCC Unit: 150
10. Segment Comment: This segment includes small amounts of self-generated on-spec used oil.		

EMISSIONS UNIT INFORMATION

Section [7]
 No. 6 Power Boiler

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

Segment Description and Rate: Segment 5 of 5

1. Segment Description (Process/Fuel Type): This segment is for spent sulfite liquor concentrated to approximately 60% solids. This material is not listed in the SCC database. An SCC requiring description in the comment was chosen.		
2. Source Classification Code (SCC): 1-02-013-01		3. SCC Units: Tons burned
4. Maximum Hourly Rate: 6.3	5. Maximum Annual Rate: 55,188	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 5.5	8. Maximum % Ash: 0.93	9. Million Btu per SCC Unit: 11.2
10. Segment Comment: This is the spent sulfite liquor concentrated to 40% moisture. Heating value = 4,743 Btu/lb (9,330, BTU/lb, dry).		

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:		

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

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
PM	005	010	EL
PM10	010		NS
SO2	013		EL
NOx	025	026	EL
CO	204	026	EL
Pb	010		NS
HCl			NS
Hg			NS
VOC			EL
HAPS			NS

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

POLLUTANT DETAIL INFORMATION

Page [1] of [9]
Particulate Matter – PM

**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: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 36.75 lb/hour 138.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.07 lb/MMBtu Reference: Permit No. 0890004-021-AC		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: 525 MMBtu/hr x 0.07 lb/MMBtu = 36.75 lbs/hr Annual: 450 MMBtu/hr x 0.07 lb/MMBtu x 1/2000 tons/lbs x 8760 hr/year = 138.0 TPY			
11. Potential, Fugitive, and Actual Emissions Comment:			

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

POLLUTANT DETAIL INFORMATION

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Particulate Matter – PM

**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 **3**

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.2 lb/MMBtu	4. Equivalent Allowable Emissions: 105 lb/hour 394.2 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Based on 62-296.410(2)(b)(2). In normal operating mode this boiler will burn mostly bark and knots. 0.2 lb/MMBtu x 450 MMBtu/hr x 8760/2000 = 394.2 TPY 0.2 lb/MMBtu x 525 MMBtu/hr = 105.0 lb/hr	

Allowable Emissions Allowable Emissions **2** of **3**

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.1 lb/MMBtu	4. Equivalent Allowable Emissions: 52.5 lb/hour 197.1 tons/year
5. Method of Compliance: EPA Method 5	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60.42 0.1 lb/MMBtu x 450 MMBtu/hr x 8760/2000 = 197.1 TPY 0.1 lb/MMBtu x 525 MMBtu/hr = 52.5 lb/hr	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.07 lb/MMBtu	4. Equivalent Allowable Emissions: 36.75 lb/hour 138.0 tons/year
5. Method of Compliance: EPA Method 5 or 17	
6. Allowable Emissions Comment (Description of Operating Method): Permit No. 0890004-021-AC 0.07 lb/MMBtu x 450 MMBtu/hr x 8760/2000 = 138.0 TPY 0.07 lb/MMBtu x 525 MMBtu/hr = 36.75 lb/hr	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [7]
No. 6 Power Boiler

Page [3] of [9]
Sulfur Dioxide – SO₂

**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: 420 lb/hour 210 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.80 lb/MMBtu Reference: 40 CFR 60.43(a)(1)		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: 525 MMBtu/hr x 0.8 lb/MMBtu = 420.0 lbs/hr Annual: 450 MMBtu/hr x 0.1065 lb/MMBtu x 1/2000 tons/lbs x 8760 hr/year = 210.0 TPY			
11. Potential, Fugitive, and Actual Emissions Comment: Limits based on Permit No. 0890004-021-AC.			

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

POLLUTANT DETAIL INFORMATION

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Sulfur Dioxide – SO2

**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 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.80 lb/MMBtu	4. Equivalent Allowable Emissions: 420 lb/hour 1,576.8 tons/year
5. Method of Compliance: SO2 CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60.43 0.8 lb/MMBtu x 450 MMBtu/hr x 8760/2000 = 1,576.8 TPY 0.8 lb/MMBtu x 525 MMBtu/hr = 420 lb/hr	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: ESCPD	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 210 tons/yr	4. Equivalent Allowable Emissions: 47.95 lb/hour 210.0 tons/year
5. Method of Compliance: CEMS for SO2	
6. Allowable Emissions Comment (Description of Operating Method): 0.1065 lb/MMBtu x 450 MMBtu/hr x 8760/2000 = 210.0 TPY 0.1065 lb/MMBtu x 525 MMBtu/hr = 47.95 lb/hr Equivalent hourly and annual emissions are based on an annual averaging time	

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):	

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

POLLUTANT DETAIL INFORMATION

Page [4] of [9]
Nitrogen Oxides – NOx

**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: NOx		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 157.5 lb/hour 380.0 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.30 lb/MMBtu Reference: Hourly 40 CFR 60.44(a)(2)		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: 525 MMBtu/hr x 0.30 lb/MMBtu = 157.5 lbs/hr Annual: 450 MMBtu/hr x 0.1928 lb/MMBtu x 8760/2000 = 380.0 TPY			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.3 lb/MMBtu	4. Equivalent Allowable Emissions: 157.5 lb/hour 591.3 tons/year
5. Method of Compliance: NOx CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Based on 40 CFR 60.44(a)(2) 0.3 lb/MMBtu x 450 MMBtu/hr x 8760/2000 = 591.3 TPY 0.3 lb/MMBtu x 525 MMBtu/hr = 157.5 lb/hr	

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: ESCPD	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 380.0 TPY	4. Equivalent Allowable Emissions: 101.2 lb/hour 380.0 tons/year
5. Method of Compliance: CEMS for NOx.	
6. Allowable Emissions Comment (Description of Operating Method): 0.1928 lb/MMBtu x 450 MMBtu/hr x 8760/2000 = 380.0 TPY 0.1928 lb/MMBtu x 525 MMBtu/hr = 101.2 lb/hr Equivalent hourly and annual emissions are based on an annual averaging time.	

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):	

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

POLLUTANT DETAIL INFORMATION

Page [5] of [9]
Carbon Monoxide - CO

**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: 157.5 lb/hour 591.3 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.3 lb/MMBtu, 30-day rolling average Reference: Permit No. 0890004-021-AC		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: 525 MMBtu/hr x 0.3 lb/MMBtu = 157.5 lbs/hr Annual: 450 MMBtu/hr x 0.3 lb/MMBtu x 8760/2000 = 591.3 TPY			
11. Potential, Fugitive, and Actual Emissions Comment:			

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

POLLUTANT DETAIL INFORMATION

Page [5] of [9]
Carbon Monoxide - CO

**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: 0.3 lb/MMBtu, 30 day rolling average	4. Equivalent Allowable Emissions: 157.5 lb/hour 591.3 tons/year
5. Method of Compliance: CO CEMS	
6. Allowable Emissions Comment (Description of Operating Method): Based on permit No. 0890004-021-AC Hourly: 525 MMBtu/hr x 0.3 lb/MMBtu = 157.5 lbs/hr (as a 30-day rolling avg.) Annual: 450 MMBtu/hr x 0.3 lb/MMBtu x 8760/2000 = 591.3 TPY	

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):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [7]
No. 6 Power Boiler

Page [9] of [9]
VOC

**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: 1.05 lb/hour 3.94 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.002 lb/MMBtu Reference: Permit No. 0890004-021-AC		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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Hourly: 525 MMBtu/hr x 0.002 lb/MMBtu = 1.05 lbs/hr Annual: 450 MMBtu/hr x 0.002 lb/MMBtu x 8760/2000 = 3.94 TPY			
11. Potential, Fugitive, and Actual Emissions Comment:			

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

POLLUTANT DETAIL INFORMATION

Page [9] of [9]
VOC

**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: 0.002 lb/MMBtu	4. Equivalent Allowable Emissions: 1.05 lb/hour 3.94 tons/year
5. Method of Compliance: EPA Method 25A	
6. Allowable Emissions Comment (Description of Operating Method): Based on Permit No. 0890004-021-AC Hourly: 525 MMBtu/hr x 0.002 lb/MMBtu = 1.05 lbs/hr Annual: 450 MMBtu/hr x 0.002 lb/MMBtu x 8760/2000 = 3.94 TPY	

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):	

EMISSIONS UNIT INFORMATION

Section [7]
No. 6 Power Boiler

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 2

1. Visible Emissions Subtype: VE30	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 30 % Exceptional Conditions: 40 % Maximum Period of Excess Opacity Allowed: 2 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Rule 62-296.410(2)(b)(1)	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: 40 CFR 60.42(a)(2)	

EMISSIONS UNIT INFORMATIONSection [7]
No. 6 Power Boiler**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 4

1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Teledyne Instruments Model Number: 100E Serial Number: 1204	
5. Installation Date: 12/31/2006	6. Performance Specification Test Date: August 4, 2009
7. Continuous Monitor Comment: There is a rule requirement for a SO₂ CEMS [40 CFR 60.45(a)]. Also, a SO₂ cap is imposed by permit for this boiler to avoid PSD review.	

Continuous Monitoring System: Continuous Monitor 2 of 4

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Teledyne Instruments Model Number: 200E Serial Number: 1285	
5. Installation Date: 12/31/2006	6. Performance Specification Test Date: August 4, 2009
7. Continuous Monitor Comment: There is a rule requirement for a NO_x CEMS [40 CFR 60.45a]. A NO_x cap is imposed by permit for this boiler to avoid PSD review. This monitor is also used to document compliance with the emissions cap.	

EMISSIONS UNIT INFORMATIONSection [7]
No. 6 Power Boiler**H. CONTINUOUS MONITOR INFORMATION (CONTINUED)****Continuous Monitoring System:** Continuous Monitor 3 of 4

1. Parameter Code: FLOW	2. Pollutant(s): Volumetric Flow Rate
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: SICK MAIHAK Model Number: OMD41 Serial Number: 6148023	
5. Installation Date: 12/31/2006	6. Performance Specification Test Date: August 4, 2009
7. Continuous Monitor Comment: There is no rule requirement for a flow monitor. However, annual caps for NO_x and SO₂ are imposed for this boiler to avoid PSD review. This monitor is used to document compliance with the emissions cap.	

Continuous Monitoring System: Continuous Monitor 4 of 4

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement:	<input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
4. Monitor Information... Manufacturer: Teledyne Instruments Model Number: 300E Serial Number: 1140	
5. Installation Date: 12/31/2006	6. Performance Specification Test Date: August 4, 2009
7. Continuous Monitor Comment: CO monitor required to determine compliance with emission limits.	

EMISSIONS UNIT INFORMATION

**Section [7]
No. 6 Power Boiler**

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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU7-11</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU7-12</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU7-13</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU7-14</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU7-15</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>August 4, 2009</u> Test Date(s)/Pollutant(s) Tested: <u>PM, VE, and RATA</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

**Section [1]
No. 6 Power Boiler**

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)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

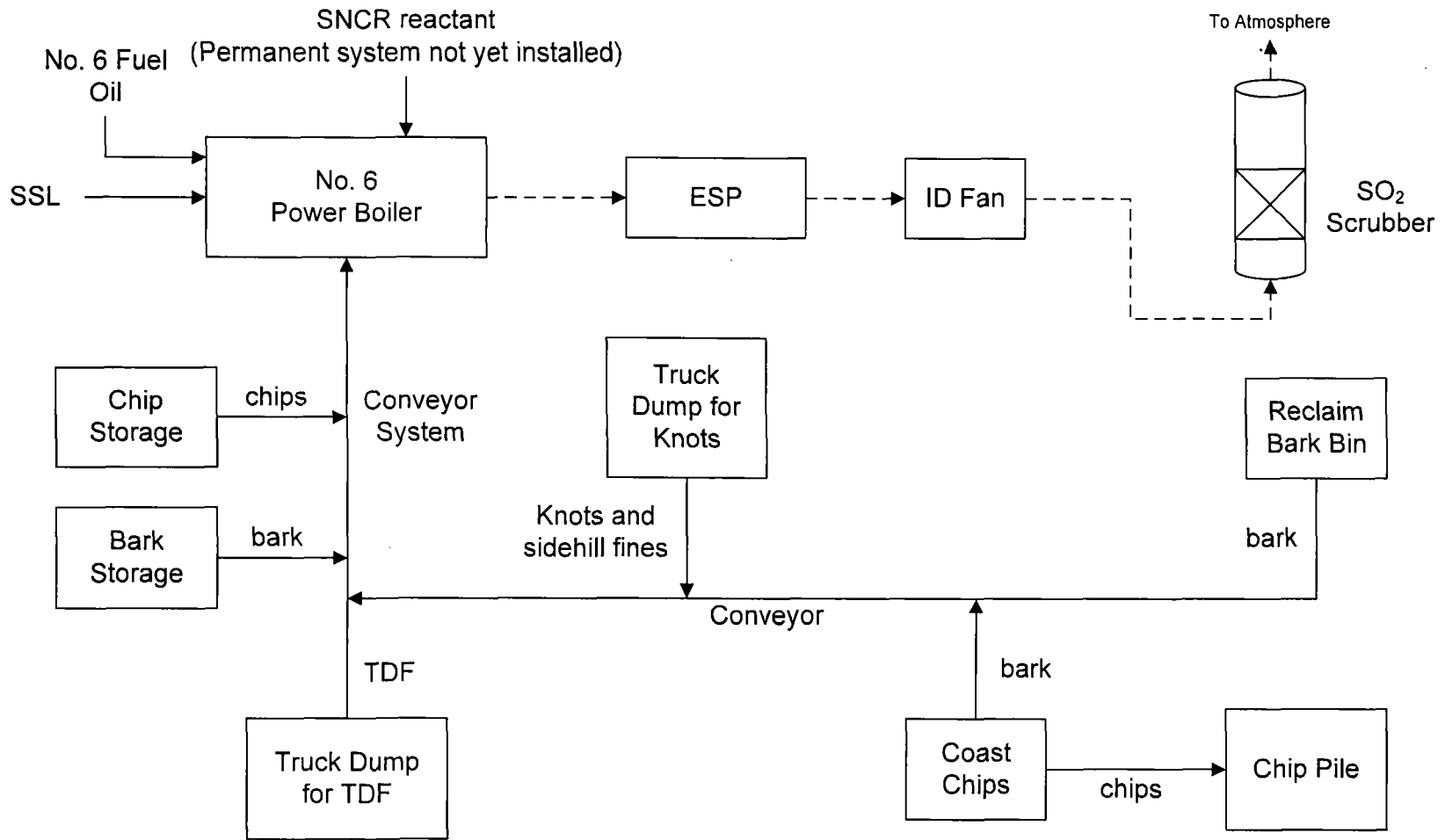
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU7-IV1</u>
2. Compliance Assurance Monitoring: <input checked="" type="checkbox"/> Attached, Document ID: <u>See Comment</u> <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-EU7-IV3</u> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment

<p>A compliance assurance monitoring plan was submitted in 2008 with the Title V Revision application for the No. 6 Power Boiler.</p>
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ATTACHMENT RPF-EU7-11
PROCESS FLOW DIAGRAM



Note: SSL = Spent Sulfite Liquor
 TDF = Tire Derived Fuel

Attachment RPF-EU7-11
 Process Flow Diagram for No. 6 Power Boiler
 Rayonier Performance Fibers LLC
 Fernandina Beach Mill

Process Flow Legend
 Solid/Liquid →
 Gas - - - - -
 Steam ······

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ATTACHMENT RPF-EU7-12
FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT RPF-EU7-I2

FUEL ANALYSIS
NO.6 POWER BOILER

Available proximate and ultimate fuel analyses for fuels burned in No. 6 Power Boiler are presented below.

Fuel	Bark	Knots	Tire-derived fuel	No. 6 Fuel Oil	Spent Sulfite Liquor
Proximate Analysis					
Fixed Carbon (%)	9.95	4.94	27.5		19.33
Volatiles (%)	40.19	27.71	65.5		39.37
Sulfur (%)	0.03	0.40	1.85		5.01
Ash (%)	2.27	0.41	4.78		0.93
Moisture (%)	47.59	66.94	0.37		40.37
Ultimate Analysis					
Carbon (%)	28.07	19.49	83.00	85.70	28.89
Hydrogen (%)	3.00	2.10	7.50	10.50	3.20
Oxygen (%)	18.82	10.49	0.50	0.92	19.61
Nitrogen (%)	0.22	0.17	0.37	0.92	1.99
Chlorine (%)	0.01	0.01			0.02
Sulfur (%)	0.03	0.4	1.85	2.50	5.01
Ash (%)	2.27	0.41	4.78	0.08	0.93
Moisture (%)	47.59	66.94	2.00		40.37
HHV (Btu/lb)	4,500	4,500	15,500	18,300	9,330, dry

HHV = High heating value

All values are as received, wet basis.

ATTACHMENT RPF-EU7-13

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT RPF-EU7-I3
DETAILED DESCRIPTION OF CONTROL EQUIPMENT
NO. 6 POWER BOILER

The No. 6 Power Boiler includes a staged combustion and flue gas recirculation (FGR) to reduce nitrogen oxide (NO_x) emissions. Particulate matter (PM) emissions are controlled with a large settling chamber followed by a four-field electrostatic precipitator (ESP) with collector plates and rigid electrodes. Each field has a dedicated transformer/rectifier (T/R) set and an ash hopper. The ESP has an approximate efficiency of 99 percent. Large ash particles settle out in the chamber and are removed from the bottom hopper by a screw conveyor system.

Acid gases are controlled by a wet alkaline scrubber located after the ESP and induced draft fan. The wet scrubber can also reduce PM emissions. The wet scrubber sprays sufficient quantities of re-circulated alkaline scrubber water over a series of chevrons and louver-type packings to reduce acid gas emissions. The design pressure drop across the system is approximately 2 inches of water column. The wet scrubber may be operated as necessary to meet emission limits.

A selective non-catalytic reduction (SCNR) has been installed on a trial basis. The permanent system has not yet been installed. If Rayonier determines that a permanent SNCR system is necessary, it will only be operated as needed to meet emission limits.

ATTACHMENT RPF-EU7-I4

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT RPF-EU7-I4 PROCEDURES FOR STARTUP AND SHUTDOWN NO. 6 POWER BOILER

There exists the potential for excess emissions to occur from the No. 6 Power Boiler during startup and shutdown. Rayonier has implemented startup and shutdown procedures to minimize the duration and magnitude of such emissions. Procedures which minimize excess emissions include, but are not limited to, the following:

Startup Procedures

- Perform pre-fire checklist if starting up after an outage greater than 12 hours
- Establish drum level at -1 inch
- Energize electrostatic precipitator (ESP) screw conveyors, purge blowers, vibrators, and rappers
- Startup all ash screws and conveyors
- Startup one ESP field
- Startup induced draft fan, fluidizing fan, and then secondary air fan
- Startup caustic scrubber
- Purge the boiler
- Ignite fuel oil startup burners at 3 gallons per minute.
- Minimize excess oxygen (below 11 percent, if possible)
- Adjust fuel oil flow, as necessary to follow the four hour boiler warm up curve
- When the boiler comes on-line, reduce excess oxygen to below 11-percent
- If necessary, ignite load burner to reduce excess oxygen to below 11-percent
- Startup remaining ESP fields
- Begin establishing a bark fire
- Shut off the load burner after the bark fire has decreased the excess oxygen and the bark fire is stable
- Turn off the startup burners when no longer needed to heat up the sand bed

Note: A cold startup will require up to 3 hours to allow the ESP to reach the manufacturer's recommended operating temperature.

Shutdown

- Ignite the fuel oil load burner and startup burners
- Remove the bark feed to the boiler as load burner steam production rises
- Maintain oxygen levels in the boiler between 3 and 8 percent minimizing oxygen introduced to the ESP
- The boiler will continue to run on fuel oil for approximately four hours without a bark fire to remove bark ash from the ESP
- After four hours, shutdown oil burners
- Shutdown ESP

ATTACHMENT RPF-EU7-15
OPERATION AND MAINTENANCE PLAN

ATTACHMENT RPF-EU7-I5 OPERATION AND MAINTENANCE PLAN NO. 6 POWER BOILER

BRIEF DESCRIPTION OF THE BOILER

No. 6 Power Boiler is a reconstruction of the Smurfit Jacksonville Mill No. 10 Combustion Engineering [CE VU-40] power boiler originally built in 1982, modified to burn high moisture fuels. No. 6 Power Boiler has a nominal steam production capacity of 265,000 lb/hr at 900 psig and 875°F. Routinely the boiler burns bark and wood waste. It is capable of supplementing with No. 6 fuel oil to a maximum capability of 310,000 lb/hr steam production when the recovery boiler is out of service. The combustion is accomplished in a Bubbling Fluidized Bed [BFB]. It has the capability of burning bark, wood waste, reject knots, tire derived fuel [TDF] and the mill's on-specification used oil.

In addition to the very efficient BFB combustion, No. 6 Power Boiler is equipped with an electrostatic precipitator, and a wet scrubber. An selective non-catalytic reduction (SNCR) has been installed on a temporary basis. Based on the trial, a permanent SNCR system may be installed. The SNCR system will be operated as necessary to meet the nitrogen oxide emissions limit. A continuous emissions monitoring system [CEMS] is installed to measure opacity, carbon monoxide, sulfur dioxide, nitrogen dioxides and oxygen.

MAINTENANCE AND INSPECTION

All systems and equipment are set up for routine preventative maintenance inspections and or calibrations.

Operators inspect all critical equipment for any type of defect on a daily basis. Deficiencies that cannot be corrected by the operator are to be appropriately recorded and reported so that necessary repairs may be made in a timely manner. A complete inspection of all aspects of the boiler will be made during each maintenance repair shutdown.

The results of the inspections will:

- Identify and analyze potentially unsafe conditions during simulated inspections
- Recommend corrective action
- Detect hidden hazardous conditions during inspections
- Communicate findings effectively, both verbally and in writing

The inspections involve ensuring the safe operation of the boiler by performing periodic inspections and by close monitoring of all repair work. The boiler to be installed will be built to a standardized nationwide construction code, the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. The inspections will be performed by an inspector commissioned by the National Board of Boiler and Pressure Vessel Inspectors

MONITORING OF OPERATIONS AND RECORDS

Records of the duration and occurrence of startups, shutdowns, and malfunctions of the boiler and associated air emission control systems and any period during which the continuous monitoring system is inoperative shall be recorded and the record maintained for a period of five years. A record of boiler downtime due to any maintenance activity shall be maintained.

The continuous emissions monitoring system shall be continuously monitored. When an excursion of a parameter is indicated, corrective action will be immediately initiated.

The daily feed rate of bark & wood waste, No. 6 fuel oil, knots and any other fuel shall be measured and recorded.

ATTACHMENT RPF-EU7-IV1
IDENTIFICATION OF APPLICABLE REQUIREMENTS

FINAL DETERMINATION

PERMITTEE

Rayonier Performance Fibers LLC
Post Office Box 2002
Fernandina Beach, FL 32035

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation, New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Project No. 0890004-021-AC
Fernandina Beach Dissolving Sulfite Pulp Mill

Rayonier Performance Fibers operates an existing dissolving sulfite pulp mill (SIC No. 2611) located in Nassau County at the Foot of Gum Street in Fernandina Beach, Florida. The permit is to revise original air construction permit No. 0890004-018-AC for the No. 6 Power Boiler to: increase the steam production limit; authorize the firing of spent sulfur liquor; remove the Boiler MACT provisions of Subpart DDDDD in 40 Code of Federal Regulations Part 63; and authorize a temporary trial burn of effluent treatment system solids.

NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Permit package on March 20, 2008. The applicant published the Public Notice of Intent to Issue in the News-Leader on April 2, 2008. The Department received the proof of publication on April 10, 2008.

COMMENTS

No comments on the Draft Permit were received from the public, the Department's Northeast District Office, the EPA Region 4 Office, the National Park Service, or the applicant.

CONCLUSION

The final action of the Department is to issue the permit.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit and Final Determination) was sent by electronic mail with received receipt requested before the close of business on 4/18/08 to the persons listed below.

- Mr. F.J. Perrett, Rayonier Performance Fibers, LLC (jack.perrett@rayonier.com)
- Mr. Dave Rogers, Rayonier Performance Fibers, LLC (david.rogers@rayonier.com)
- Mr. Dave Tudor, Rayonier Performance Fibers, LLC (david.tudor@rayonier.com)
- Mr. David Buff, Golder Associates, Inc. (dbuff@golder.com)
- Ms. Kathleen Fomey, EPA Region 4 (Fomey.Kathleen@epa.gov)
- Mr. Chris Kirts, NED Office (Christopher.Kirts@dep.state.fl.us)

Clerk Stamp

FILED AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Mary L. [Signature]
(Clerk)

4/18/08
(Date)



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

FINAL PERMIT REVISION

PERMITTEE

Rayonier Performance Fibers, LLC
The Foot of Gum Street
Fernandina Beach, Florida 32035-1309

Authorized Representative:
Mr. F.J. Perrett, General Manager

Air Permit No. 0890004-021-AC
Expires: March 1, 2009
Fernandina Beach Mill
No. 6 Power Boiler
Miscellaneous Revisions

FACILITY AND PROJECT

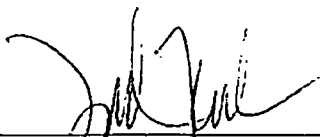
Rayonier Performance Fibers, LLC operates the Fernandina Beach Mill, which is an existing dissolving sulfite pulp mill (SIC No. 2611) located in Nassau County, at The Foot of Gum Street in Fernandina Beach, Florida. The UTM map coordinates are: Zone 17; 454.7 km East; and, 3392.2 km North.

Original air construction Permit No. 0890004-018-AC was issued to authorize: an increase in the permitted throughput capacity for the facility operations; installation of the new No. 6 Power Boiler to replace existing Nos. 1-3 Power Boilers; installation of three evaporator bodies to evaporate moisture from hot caustic extract; and to recognize the production of the No. 6 Batch Digester. This project is a revision of the original air construction permit to: increase the recognized maximum steam production rates; authorize spent sulfite liquor as an approved fuel; remove the industrial boiler MACT provisions (Subpart DDDDD, 40 Code of Federal Regulations (CFR) Part 63); and authorize a trial burn of effluent treatment system solids in the No. 6 Power Boiler. For more information on these projects refer to the project description found on the next page.

This air construction permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

ATTACHMENTS

Appendix SS-1, Stack Sampling Facilities
Table 297.310-1, Calibration Schedule



Joseph Kahn, Director
Division of Air Resource Management

4/18/08
Effective Date

JK/tlv/cb

PROJECT DESCRIPTIONS

Permit No. 0890004-018-AC, Original Air Construction Permit

Original air construction Permit No. 0890004-018-AC authorized: an increase in the permitted throughput capacity for the facility operations; installation of the new No. 6 Power Boiler to replace existing Nos. 1-3 Power Boilers; installation of three evaporator bodies to evaporate moisture from hot caustic extract (HCE); and specification of the production of the No. 6 Batch Digester. The increase in production will occur in two stages and depends on the installation of some additional equipment including: addition of a new HCE washer press roll; first improvements to pulp machine (drying and head-box); addition of a new HCE evaporator train; installation of a new HCE blow heat recovery system to control all HCE cells; addition of a new HCE cell; installation of a new HCE washer; second improvements to pulp machine (drying and speed increase); and installation of a new post-HCE washer. The No. 6 Power Boiler is a refurbished coal-fired boiler that contains the following controls: settling chamber (ash hopper), 4-field electrostatic precipitator, alkaline wet scrubber, staged combustion, flue gas recirculation, and the capability to add a selective non-catalytic reduction system.

Air Permit No. 0890004-021-AC, Revised Air Construction Permit

This project revises the original air construction permit for the No. 6 Power Boiler to: authorize increases the steam production limits without changes to the maximum heat input rates to reflect the actual thermal efficiency of the boiler; authorize the firing of spent sulfite liquor to be an authorized fuel; remove the industrial boiler MACT provisions (Subpart DDDDD, 40 CFR Part 63) that have been vacated by the EPA; and authorize a trial burn of effluent treatment system solids.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy any record that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. a description of and cause of non-compliance; and
 - b. the period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and

403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- (X) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurement;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

A. No. 6 Power Boiler.

<u>E.U. ID No.</u>	<u>Brief Description</u>
022	Bubbling Fluidized Bed No. 6 Power Boiler with a Settling Chamber followed by an ESP for PM emissions control and a Wet Alkali Scrubber for SO ₂ emissions control

Emissions Unit 022 identifies the No. 6 Power Boiler, which is a converted existing power boiler. It will be firing mostly biomass (green bark, chips, knots, fines and landscape waste), tires, No. 2 fuel oil for startup, No. 6 fuel oil (max. sulfur content of 2.5%, by weight), spent sulfite liquor and small amounts of facility-generated on-spec used oil (to be blended with the No. 6 fuel oil). The boiler was originally constructed in 1983 as a traveling grate coal-fired boiler.

The converted boiler will include staged combustion and flue gas recirculation (FGR) to reduce NO_x emissions. Due to the planned conversion, there is some uncertainty associated with the emissions characteristics. A selective non-catalytic reduction (SNCR) system may be installed to control NO_x emissions. This would generally consist of an ammonia tank, pumps, piping, compressed air delivery, injectors, and a control system.

Particulate matter emissions will be controlled with a large settling chamber followed by an electrostatic precipitator (ESP). Large ash particles settle out in the chamber and are removed from the bottom hopper by a screw conveyor system. The design includes a four-field ESP with collector plates and rigid electrodes. Each field will have a dedicated transformer/rectifier (T/R) set and ash hopper. Ash will be removed by a screw conveyor system.

Acid gases will be controlled by a wet alkaline scrubber located after the ESP and induced draft fan. The wet scrubber will spray approximately 4000 gpm of re-circulated alkaline scrubber water over a series of chevrons and louver-type packings to reduce acid gas emissions. The design pressure drop across the system will be approximately 2 inches of water column. Emissions exhaust at a volumetric flow rate of 183,421 acfm and a temperature of 150° F through the single wet scrubber stack that will be approximately 10 feet in diameter and 190 feet above ground level.

{Permitting note(s): This emissions unit is regulated under: 40 CFR 60, Subpart D; adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

The following specific conditions apply to the emissions unit listed above:

General

A.0. General.

a. Power Boilers Nos. 1, 2 and 3 shall be permanently shutdown once Power Boiler No. 6 becomes commercially operational and has been compliance tested.

[Rules 62-4.070(3) and 62-212.400(5), F.A.C.]

b. References/Acronyms.

1. SIP: Florida's State Implementation Plan.
2. NSPS: New Source Performance Standards.
3. NESHAP: National Emission Standards for Hazardous Air Pollutants.
4. AC: Air Construction Permit.
5. PSD NSR: Prevention of Significant Deterioration New Source Review.
6. CEMS: continuous emissions monitoring system.
7. COMS: continuous opacity monitoring system.

c. Unless otherwise stated, the "Administrator" is the Department's "Secretary" or its designee.

d. Control Equipment.

1. To control particulate matter, the permittee shall install a settling chamber (or equivalent) followed by a 4-field electrostatic precipitator designed to achieve at least the emissions standards specified in this permit.
2. To control acid gases, the permittee shall install a wet alkaline scrubber designed to achieve at least the emissions standards specified in this permit.
3. To control nitrogen oxides, the converted boiler shall be designed with staged combustion and include flue gas recirculation (FGR). In addition, the permittee is authorized to install (as necessary) a selective non-catalytic reduction system (SNCR) with ammonia injection to achieve at least the emissions standards specified in this permit.

[Rule 62-4.070(3), F.A.C.]

Operational Parameters

A.1. Permitted Capacity. The maximum heat input rates are:

- a. The maximum heat input rate is 525 MMBtu/hour based in a 24-hour average, which is approximately 330,000 lb/hour of steam production. Initial and annual compliance testing shall be conducted within 90% of this permitted steam rate. If the initial compliance tests cannot be performed at this level, the AC will be modified to reflect the actual installed capacity; and,
- b. The maximum annual heat input rate is 450 MMBtu/hour which is approximately 286,000 lb/hr of steam production. This will require recordkeeping on a 12-month rolling average basis.

[Rules 62-4.070(3), 62-204.800 and 62-212.200 (PTE), F.A.C.; and, application received September 12, 2005]

A.2. Methods of Operation. This boiler may be fired with:

- a. Biomass, consisting of green bark, knots, chips, fines and landscape waste.
- b. Tire derived fuel (TDF).
- c. No. 6 fuel oil with a maximum sulfur content of 2.5%, by weight, during startup, shutdown, or as a temporary alternate fuel during solid fuel feed upsets.
- d. Facility-generated on-specification used oil with a maximum sulfur content of 2.5%, by weight, and shall be blended with the No. 6 fuel oil or spent sulfite liquor prior to firing.
- e. No. 2 fuel oil for startup.
- f. Spent sulfite liquor with a maximum sulfur content of 5.5%, by weight, for startup, shutdown, or as a temporary alternate fuel during solid fuel feed upsets. The maximum firing rate is 1200 gph of this fuel.

[Application Nos. 0890004-018-AC and 0890004-021-AC; Rule 62-710.210, F.A.C.; and, 40 CFR Part 279]

A.3. Hours of Operation. The hours of operation are not limited, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, application received September 12, 2005]

Emission Limits and Standards

{Permitting Note: Unless otherwise specified, the averaging times for these specific conditions A.4. and thru A.11. are based on the specified averaging time of the applicable test method. The standards apply to all authorized fuels.}

A.4. Particulate Matter (PM).

- a. As determined by an EPA Method 5 or 17 compliance test, PM emissions shall not exceed 0.07 lb/MMBtu heat input; nor 36.75 lbs/hr and 138.0 TPY.

[Application Nos. 0890004-018-AC and 0890004-021-AC; and Rule 62-4.070(3), F.A.C.]

- b. As determined by an EPA Method 5 or 5B compliance test, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which:

- (1) Contain particulate matter in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel or fossil fuel and wood residue; nor 52.5 lbs/hr.

[NSPS; and, 40 CFR 60.42(a)(1)]

c. As determined by an EPA Method 5 compliance test, PM emissions shall not exceed 0.2 lb/MMBtu heat input of carbonaceous fuel plus 0.1 lb/MMBtu heat input of fossil fuel; nor 105 lbs/hr.

[SIP; and, Rule 62-296.410(2)(b)(2) and Chapter 62-297, F.A.C.]

A.5. Sulfur Dioxide (SO₂).

a. As determined by CEMS data, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of:

- (1) 340 nanograms per joule heat input (0.80 lb per million Btu and 420 lbs/hr) derived from liquid fossil fuel or liquid fossil fuel and wood residue, and measured as any three-hour period (arithmetic average of three contiguous one-hour periods).

[NSPS; 40 CFR 60.43(a)(1); 40 CFR 60.45(g)(2); Application Nos. 0890004-018-AC and 0890004-021-AC; and, Rule 62-212.400(2)(g), F.A.C.]

b. In order to escape PSD NSR requirements and as determined by CEMS data, SO₂ emissions shall not exceed 210.0 tons per consecutive 12-month rolling total. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit.

[Rules 62-4.160(2), 62-210.200(PTE), and 62-212.400(2)(g), F.A.C.; Application Nos. 0890004-018-AC and 0890004-021-AC; and, supplemental information received November 7, 2005]

A.6. Nitrogen Oxides (NO_x).

a. As determined by CEMS data, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO₂, in excess of:

- (1) 129 nanograms per joule heat input (0.30 lb per million Btu and 101.20 lbs/hr), and measured as any three-hour period (arithmetic average of three contiguous one-hour periods).

[NSPS; 40 CFR 60.44(a)(2); 40 CFR 60.45(g)(3); Application Nos. 0890004-018-AC and 0890004-021-AC; and, Rule 62-212.400(2)(g), F.A.C.]

b. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NO_x} = \frac{w(260)+x(86)+y(130)+z(300)}{w+x+y+z}$$

where:

PS_{NO_x} = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;

w = is the percentage of total heat input derived from lignite;

x = is the percentage of total heat input derived from gaseous fossil fuel;

y = is the percentage of total heat input derived from liquid fossil fuel; and,

z = is the percentage of total heat input derived from solid fossil fuel (except lignite).

[NSPS; and, 40 CFR 60.44(b)]

c. In order to escape PSD NSR requirements and as determined by CEMS data, NO_x emissions shall not exceed 380.0 tons per consecutive 12-month rolling total. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit.

[NSPS; Application Nos. 0890004-018-AC and 0890004-021-AC; 40 CFR 60.45(g); and, Rule 62-212.400(2)(g), F.A.C.]

A.7. Carbon Monoxide (CO). As determined by CEMS data, CO emissions shall not exceed 157.5 lbs/hr, 30-day rolling average; nor, 591.3 tons per consecutive 12-month rolling total. These limits are based on 0.3 lb/MMBtu heat input. All valid CEMS data (including startups, shutdowns and malfunctions) shall be used to determine compliance with this limit.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, Application Nos. 0890004-018-AC and 0890004-021-AC]

A.8. Volatile Organic Compounds (VOC). As determined by an EPA Method 25A compliance test, VOC emissions shall not exceed 0.002 lb/MMBtu heat input; nor 1.05 lbs/hr and 3.94 TPY.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Application Nos. 0890004-018-AC and 0890004-021-AC]

A.9. Visible Emissions.

a. As determined by COMS data, no owner or operator shall cause to be discharged into the atmosphere from any affected facility any gases which:

- (1) Exhibit greater than 20 percent opacity (6-minute average) except for one six-minute period per hour of not more than 27 percent opacity.

[NSPS; 40 CFR 60.42(a)(2); and, 40 CFR 60.45(g)(1) Application Nos. 0890004-018-AC and 0890004-021-AC]

b. As determined by a DEP Method 9 compliance test, visible emissions shall not exceed 30 percent opacity except that a density of 40 percent opacity is permissible for not more than two minutes in any one hour.

[SIP; and, Rule 62-296.410(2)(b)1. and Chapter 62-297, F.A.C.]

A.10. Fuel Oil Sulfur Content. As determined by a lab analysis, the sulfur content of the as-fired No. 6 fuel oil shall not exceed 2.5 percent, by weight and spent sulfite liquor shall not exceed 5.5 percent, by weight.

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Application Nos. 0890004-018-AC and 0890004-021-AC]

A.11. "On-Specification" Used Oil. The burning of "on-specification" used oil is allowed at this facility in accordance with all other conditions of this permit and the following additional conditions:

a. Only "on-specification" used oil generated by the facility shall be fired in this emissions unit. The "on-specification" used oil shall be blended with the No. 6 fuel oil prior to firing. "On-specification" used oil is defined as that which meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired. See Specific Conditions A.47. and A.48.

<u>CONSTITUENT / PROPERTY *</u>	<u>ALLOWABLE LEVEL</u>
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	100 °F minimum
PCBs	less than 50 ppm

* As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

[40 CFR 279.11]

b. Upon request, a certification shall be provided that the used oil (prior to blending with the No. 6 fuel oil) complies with the limits listed above, the provisions of 40 CFR 279 and 761, and shall be recorded and retained on file.

c. "On-specification" used oil may be fired as follows:

1. Any time provided the maximum concentration of PCBs is less than 2 ppm. The analysis and recordkeeping apply to each amount prior to blending even if to be blended with 90% virgin oil.
2. Only during normal operating temperature and not during startup and shutdown if the maximum concentration of $2 \leq \text{PCB} \leq 50$ ppm.

[40 CFR 279 and 761; and, Rule 62-4.070(3), F.A.C.]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS provision.}

A.12. SIP Excess Emissions – Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

A.13. SIP Excess Emissions – Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

A.14. NSPS Excess Emissions. Excess emission and monitoring system performance reports shall be submitted to the Administrator for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in Sec. 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

(1) **Opacity.** Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.

(2) **Sulfur dioxide.** Excess emissions for affected facilities are defined as:

(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under 40 CFR 60.43.

(3) **Nitrogen oxides.** Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44.

[40 CFR 60.45(g)]

Monitoring of Operations

A.15. Determination of Process Variables.

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

A.16. Steam Monitoring. The permittee shall continuously monitor the steam production rate to demonstrate compliance with the requirements of this permit.

[Rule 62-4.070(3), F.A.C.]

Continuous Monitoring Requirements

A.17. Each owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, carbon monoxide emissions and oxygen, in accordance with 40 CFR 60.13, 40 CFR 60.45, and 40 CFR 60, Appendices B and F.

[40 CFR 60.13; 40 CFR 60.45(a); 40 CFR 60, Appendices B and F; Rule 62-4.070(3), F.A.C.; and, application project No. 0890004-018-AC]

A.18. The owner or operator shall install, calibrate, maintain, and operate a continuous flow monitoring system in accordance with 40 CFR 60, Performance Specification 6 of Appendix B and Procedure I of Appendix F.

[Application project No. 0890004-018-AC; and, 40 CFR 60, Appendices B and F]

A.19. For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used:

- (1) Methods 6, 7, and 3B, as applicable, shall be used for the performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B are given in 40 CFR 60.46(d).
- (2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60.
- (3) For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent and for a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as follows:

[In parts per million]

Fossil fuel	Span value for sulfur dioxide	Span value for nitrogen oxides
Gas.....	{1}	500
Liquid.....	1,000	500
Solid.....	1,500	1000
Combinations.....	$1,000y + 1,500z$	$500(x+y) + 1,000z$

{1} Not applicable.

where:

- x = the fraction of total heat input derived from gaseous fossil fuel, and
- y = the fraction of total heat input derived from liquid fossil fuel, and
- z = the fraction of total heat input derived from solid fossil fuel.

(4) All span values computed under 40 CFR 60.45(c)(3) for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm.

(5) For a fossil fuel-fired steam generator that simultaneously burns fossil fuel and non-fossil fuel, the span value of all continuous monitoring systems shall be subject to the Administrator's approval.

[40 CFR 60.45(c)]

A.20. For any continuous monitoring system installed under 40 CFR 60.45(a), the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/million Btu):

(1) When a continuous monitoring system for measuring oxygen is selected, the measurement of the pollutant concentration and oxygen concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E = CF[20.9/(20.9 - \text{percent } O_2)]$$

where:

E, C, F, and % O₂ are determined under 40 CFR 60.45(f).

[40 CFR 60.45(e)]

A.21. The values used in the equation under 40 CFR 60.45(e)(1) is derived as follows:

(1) E = pollutant emissions, ng/J (lb/million Btu).

(2) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15×10^{-4} M ng/dscm per ppm (2.59×10^{-9} M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for sulfur dioxide and 46.01 for nitrogen oxides.

(3) % O₂, %CO₂ = oxygen or carbon dioxide volume (expressed as percent), determined with equipment specified under 40 CFR 60.45(a).

(4) F, F_C = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of carbon dioxide generated to the calorific value of the fuel combusted (F_C), respectively. Values of F and F_C are given as follows:

(iii) For liquid fossil fuels including crude, residual, and distillate oils, $F = 2.476 \times 10^{-7}$ dscm/J (9,220 dscf/million Btu) and $F_C = 0.384 \times 10^{-7}$ scm CO₂/J (1,430 scf CO₂/million Btu).

(v) For bark $F = 2.589 \times 10^{-7}$ dscm/J (9,640 dscf/million Btu) and $F_C = 0.500 \times 10^{-7}$ scm CO₂/J (1,840 scf CO₂/million Btu). For wood residue other than bark $F = 2.492 \times 10^{-7}$ dscm/J (9,280 dscf/million Btu) and $F_C = 0.494 \times 10^{-7}$ scm CO₂/J (1,860 scf CO₂/million Btu).

(5) The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/million Btu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or F_C factor (scm CO₂/J, or scf CO₂/million Btu) on either basis in lieu of the F or F_C factors specified in 40 CFR 60.45(f)(4):

$$F = 10^6 \frac{[227.2 (\text{pct. H}) + 95.5 (\text{pct. C}) + 35.6 (\text{pct. S}) + (\text{pct. N}) - 28.7 (\text{pct. O})]}{\text{GCV}}$$

$$F_C = \frac{2.0 \times 10^{-5} (\text{pct. C})}{\text{GCV (SI units)}}$$

$$F = 10^6 \frac{3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)}{\text{GCV (English units)}}$$

$$F_C = \frac{20.0(\%C)}{\text{GCV (SI units)}}$$

$$F_C = \frac{321 \times 10^3(\%C)}{\text{GCV (English units)}}$$

(i) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM method D3178-73 (Reapproved 1979), 89, or D3176-74 or 89 (solid fuels) or computed from results using ASTM method D1137-53 or 75, D1945-64, 76, 91, or 96 or D1946-77 or 90 (Reapproved 1994) (gaseous fuels) as applicable. (These five methods are incorporated by reference-see 40 CFR 60.17.)

(ii) GCV is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015-77 (Reapproved 1978), 96, or D5865-98 for solid fuels and D1826-77 or 94 for gaseous fuels as applicable. (These two methods are incorporated by reference-see 40 CFR 60.17.)

(iii) For affected facilities which fire both fossil fuels and non-fossil fuels, the F or F_C value shall be subject to the Administrator's approval.

(6) For affected facilities firing combinations of fossil fuels or fossil fuels and wood residue, the F or F_C factors determined by paragraphs 40 CFR 60.45(f)(4) or (f)(5) shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^n X_i F_i \quad \text{or} \quad F_C = \sum_{i=1}^n X_i (F_C)_i$$

where:

X_i = the fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.)

F_i or (F_C)_i = the applicable F or F_C factor for each fuel type determined in accordance with paragraphs (f)(4) and (f)(5) of this section.

n = the number of fuels being burned in combination.

[40 CFR 60.45(f)]

Test Methods and Procedures

A.22. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in 40 CFR 60.46, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in 40 CFR 60.46(d).

[40 CFR 60.46(a)]

A.23. Boiler Thermal Efficiency. In conjunction with the initial performance tests, the permittee shall determine the installed boiler's thermal efficiency while combusting 100% wood and also 100% fuel oil.

[Rule 62-4.070(3), F.A.C.]

A.24. The owner or operator shall determine compliance with the particulate matter, SO₂, and NO_x standards in 40 CFR 60.42, 60.43, and 60.44 as follows:

(1) The emission rate (E) of particulate matter, SO₂, or NO_x shall be computed for each run using the following equation:

$$E = C F_d (20.9)/(20.9 - \% O_2)$$

where:

E = emission rate of pollutant, ng/J (1b/million Btu).

C = concentration of pollutant, ng/dscm (1b/dscf).

% O₂ = oxygen concentration, percent dry basis.

F_d = factor as determined from Method 19.

[40 CFR 60.46(b)(1)]

A.25. PM Emissions.

a. For the NSPS limit, EPA Method 5 shall be used to determine the particulate matter concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems and EPA Method 5B shall be used to determine the particulate matter concentration (C) after FGD systems. See Specific Condition A.4.a.

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train shall be set to provide an average gas temperature of 160 ± 14 °C (320 ± 25 °F).

(ii) The emission rate correction factor, integrated or grab sampling and analysis procedure of EPA Method 3B shall be used to determine the O₂ concentration (%O₂). The O₂ sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O₂ concentration for the run shall be the arithmetic mean of the sample O₂ sample concentrations at all traverse points.

(iii) If the particulate run has more than 12 traverse points, the O₂ traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O₂ traverse points.

[40 CFR 60.46(b)(2)]

b. For the SIP limit, the test method for PM shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. See Specific Condition A.4.b.

c. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rules 62-296.410(3)(b) & (c), F.A.C.]

d. A compliance test shall be conducted initially and once each federal fiscal year.

e. Within 90 days of first firing spent sulfite liquor, the permittee shall conduct an initial compliance test while firing spent sulfite liquor at permitted capacity. Thereafter, a compliance test while firing spent sulfite liquor shall be conducted if spent sulfite liquor is fired for 400 hours or more during the federal fiscal year.

[Rule 62-297.310(7)(a)4., F.A.C.]

A.26. Sulfur Dioxide Emissions.

a. EPA Method 6 shall be used to determine the SO₂ concentration.

(i) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft). The sampling time and sample volume for each sample run shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval.

(ii) The emission rate correction factor, integrated sampling and analysis procedure of EPA Method 3B shall be used to determine the O₂ concentration (%O₂). The O₂ sample shall be taken simultaneously with, and at the same point as, the SO₂ sample. The SO₂ emission rate shall be computed for each pair of SO₂ and O₂ samples. The SO₂ emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.

[40 CFR 60.46(b)(4)]

b. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by the required emissions monitoring system.

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.]

A.27. Nitrogen Oxides Emissions.

a. EPA Method 7 shall be used to determine the NO_x concentration.

(i) The sampling site and location shall be the same as for the SO₂ sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.

- (ii) For each NO_x sample, the emission rate correction factor, grab sampling and analysis procedure of EPA Method 3B shall be used to determine the O₂ concentration (%O₂). The sample shall be taken simultaneously with, and at the same point as, the NO_x sample.
- (iii) The NO_x emission rate shall be computed for each pair of NO_x and O₂ samples. The NO_x emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.

[40 CFR 60.46(b)(5)]

b. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by the required emissions monitoring system.

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.]

A.28. CO Emissions. The test method for carbon monoxide emissions shall be EPA Method 10, incorporated in Chapter 62-297, F.A.C. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by the required emissions monitoring system.

[40 CFR 60.8; and, Rules 62-297.401 and 62-297.310(7)(a)4., F.A.C.]

A.29. VOC Emissions.

a. The test method for VOC emissions shall be EPA Method 25A, incorporated in Chapter 62-297, F.A.C. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8.; and, once every five years for renewal.

b. Within 90 days of first firing spent sulfite liquor, the permittee shall conduct an initial compliance while firing spent sulfite liquor at permitted capacity. Thereafter, a compliance test while firing spent sulfite liquor shall be conducted prior to renewing the Title V air operation permit.

[40 CFR 60.8; and, Rules 62-297.401 and 62-297.310(7)(a)4., F.A.C.]

A.30. Visible Emissions.

a. For the NSPS limit, EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity. Compliance shall be demonstrated by COMS. See Specific Condition A.11.a.

[40 CFR 60.11; and, 40 CFR 60.46(b)(3)]

b. For the SIP limit, the test method for visible emissions shall be DEP Method, incorporated in Chapter 62-297, F.A.C. See Specific Conditions A.11.b. and A.36.

c. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rules 62-296.410(3)(a) & (c), F.A.C.]

d. A compliance test shall be conducted initially and in accordance with 40 CFR 60.8. Continuous compliance shall be demonstrated by COMS.

[40 CFR 60.8; and, Rule 62-297.310(7)(a)4., F.A.C.]

A.31. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be

the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

- a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
- b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.

[Rule 62-297.401, F.A.C.]

A.32. Fuel Analyses. For Power Boiler No. 6, the following fuel sampling and analysis protocol shall be used:

- a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, by analyzing a representative sample of the blended fuel oil following each fuel delivery.
- b. Record hourly fuel totalizer readings with calculated hourly feed rates for each fuel fired, the ratio of fuels fired, the density of each fuel, and the percent sulfur content, by weight, of each fuel.
- c. The analyses of the No. 6 fuel oil, as received from the supplier in a bill of lading, shall include the following:
 1. Density (ASTM D 1298-80 or the latest edition).
 2. Calorific heat value in Btu per pound (ASTM D 240-76 or the latest edition).
 3. Sulfur content, by weight (ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition).
- d. On a quarterly basis, an analyses of the wood fuel and spent sulfite liquor shall include the following:
 1. Calorific heat value in Btu per pound (ASTM D2015-77, or the latest edition).
 2. Moisture content (ASTM D2016-74, 83, or the latest edition).
 3. Sulfur content, by weight (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods: EPA Publication SW-846 Third Edition (November 1986), or the latest edition).

[40 CFR 60, Subpart A]

A.33. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

A.34. Operating Rate During Testing.

- a. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions

unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

b. If the new emissions unit is unable to achieve the designed permitted capacity (at least 90%) for the initial tests, then this permit will be revised to reflect the true installed capacity.

[Rule 62-4.070(3), F.A.C.]

A.35. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

A.36. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

A.37. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

A.38. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not

be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each ~~NESHAP~~ pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant

emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

Recordkeeping and Reporting Requirements

A.39. Notification.

a. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's NED office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's NED.

[Rule 62-210.700(6), F.A.C.]

b. If CEMS or COMS data indicates non-compliance, the permittee shall notify the Department's NED office within one working day of such determination.

[Rule 62-4.070(3), F.A.C.]

A.40. Plant Operation - Problems. If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Department as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations.

[Rule 62-4.130, F.A.C.]

A.41. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's NED on the results of each such test.
- (b) The required test report shall be filed with the Department's NED as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's NED to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

A.42. Monthly records shall be kept of the quantity of "on-specification" used oil fired in these emissions units. The above records shall be maintained in a form suitable for inspection, retained for a minimum of five years, and be made available upon request. See Specific Conditions **A.13.** and **A.48.**

[Rule 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 279.61 and 761.20(e)]

A.43. The permittee shall include in the "Annual Operating Report for Air Pollutant Emitting Facility" a summary of the "on-specification" used oil fired in the No. 6 Power Boiler during the calendar year. See Specific Conditions **A.13.** and **A.47.**

[Rule 62-213.440(1)(b)2.b., F.A.C.]

A.44. NSPS Excess Emission and Monitoring System Performance Reports. Excess emission and monitoring system performance reports shall be submitted to the Administrator for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in Sec. 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

(1) **Opacity.** Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.

(2) **Sulfur dioxide.** Excess emissions for affected facilities are defined as:

(i) Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard established under 40 CFR 60.43. See Specific Condition **A.5.a.(1).**

(3) **Nitrogen oxides.** Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44. See Specific Condition **A.6.a.(2).**

[40 CFR 60.45(g)(1), (2) & (3)]

A.45. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

[40 CFR 60.8(a)]

A.46. Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator:

(1) Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;

(2) Approves the use of an equivalent method;

(3) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;

(4) Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard; or

(5) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

[40 CFR 60.8(b)(1), (2), (3), (4) & (5)]

A.47. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations

during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

A.48. The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

[40 CFR 60.8(d)]

A.49. The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (1) Sampling ports adequate for test methods applicable to such facility. This includes
 - (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and
 - (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
- (2) Safe sampling platform(s).
- (3) Safe access to sampling platform(s).
- (4) Utilities for sampling and testing equipment.

[40 CFR 60.8(e)(1), (2), (3) & (4)]

A.50. Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[40 CFR 60.8(f)]

B. No. 6 Batch Digester.

B.1. The new No. 6 batch digester is in operation and included in with the "batch digesters" under Emissions Unit 005, Vent Gas Scrubber and Direct Contact Condenser", and is subject to the terms and conditions established for this emissions unit in Title V permit, No. 0890004-011-AV, specifically in Subsection G., which is incorporated by reference.

{Emission Unit 005 includes 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 spent sulfite liquor storage tanks, the spent sulfite liquor washer area, the digesters, 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 sulfur dioxide emissions control via gas absorption using alkaline scrubbing media (soda ash, sodium hydroxide, etc.). The spent scrubber media is bled first to other closed sources to make maximum use of the alkali to remove sulfur dioxide, and then to sewer via closed piping to number 1 Pump Station. The sulfur dioxide concentration in the stack is continuously measured with a CMS.

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. This is a once through process. 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 40 CFR 63, Subpart S.)

C. Multiple Effect Evaporators (3 Bodies).

C.1. The permittee is authorized to install three (3) new Multiple Effect Evaporators (MEEs) bodies, which are refurbished existing units. They will form a new train to be used to increase the solids concentration of weak HCE, a byproduct stream from the manufacturing process that can be used at Kraft mills as a sodium source. All of the MEEs will vent through a common condenser used to collect methanol and then vented to the atmosphere via the sulfur dioxide recovery scrubber for the recovery boiler. The new bodies will be lumped in with the two sets of MEEs and will now be described as "three" sets of MEEs under Emissions Unit 021, and subject to the terms and conditions established for this emissions unit in Title V permit, No. 0890004-011-AV, specifically in Subsection G., which is incorporated by reference.

{Emissions Unit 021 includes the Evaporator Vents Methanol Condenser System. The steam that is used to eject the vent gases from the two sets of multiple effect evaporators 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 water used to condense the steam and methanol is reclaimed from the biological effluent treatment system after the methanol has been digested.

The condensate from the pre-condenser and the main condenser are sewered to the biological effluent treatment system via the Number 3 Pump Station for compliance with the 40 CFR 63, Subpart S requirements.

The non-condensable gases from the main condenser are sent to the multi-stage wet scrubber/Brinks Demister at the Recovery boiler (Emissions Unit No. 006.)

D. Facility.

D.1. Capacity.

- a. Except as provided below, the facility's production shall not exceed 162,000 air dried metric tons (ADMT) per consecutive 12-months, rolling total.
- b. Upon successful installation and submittal of the engineering report of the HCE blow heat recovery system to control VOC emissions from all of the HCE cells, the facility's production shall not exceed 175,000 ADMT per consecutive 12-months, rolling total.

[Rules 62-4.070(3), 210.200(PTE) and 62-212.400(5), F.A.C.]

D.2. The application indicates the following preliminary schedule for commencing construction:

Date	Activity
February 2006	Add a new HCE washer press roll
February 2007	Begin first improvements to pulp machine (drying and head-box)
	Add a new HCE evaporator train
February 2008	Install a new HCE blow heat recovery system to control all HCE cells
	Add a new HCE cell
	Install a new HCE washer
	Begin second improvements to pulp machine (drying and speed increase)
	Install a new post-HCE washer

* It is noted that some of the later changes are contingent on the success of the earlier stages.

D.3. The permittee is authorized to perform the following construction and work:

- a. add a new HCE washer press roll;
- b. begin first improvements to pulp machine (drying and head-box);
- c. add a new HCE evaporator train; install a new HCE blow heat recovery system to control all HCE cells;
- d. add a new HCE cell;
- e. install a new HCE washer; begin second improvements to pulp machine (drying and speed increase); and,
- f. install a new post-HCE washer.

The permittee shall obtain prior written approval for any substantial changes to the work described above and in the application for this project.

D.4. Within fourteen (14) days of completing each of the above stages of work, the permittee shall provide a written notice of the following:

- a. type of work;
- b. date completed;
- c. deviations from original proposal; and,
- d. a discussion of any emissions impacts.

D.5. Attached to each required Annual Operating Report, the permittee shall provide a summary of the following to the compliance authority:

- a. a summary of work performed to date;
- b. a summary of work remaining;
- c. a preliminary schedule for completing any remaining work; and,
- d. the current production capacity of the mill (ADMT per year).

D.6. Performance tests.

a. Prior to increasing plant production beyond 162,000 ADMT per year, the permittee shall install a new HCE blow heat recovery system designed to reduce VOC emissions by 60% from all HCE cells. Upon successful completion of this system, the permittee shall conduct an engineering study to determine the effectiveness of this system in capturing and reducing VOC emissions to achieve designed efficiency. A test protocol shall be submitted to the Department for review and approval prior to commencing the engineering study. Within 60 days of completing the engineering study, the permittee shall submit a report summarizing: the final installed design, material flow rates, emissions, emissions capture, emissions control, and any necessary adjustments.

[Rule 62-4.070(3), F.A.C.]

E. Miscellaneous.

E.1. Report of Actual Emissions. The permittee shall maintain and submit actual annual emissions for a period of 5 years following completion of each project phase. Emissions related to demand growth that could have been accommodated prior to the project must be shown and discussed. This requirement shall be fulfilled by submittal of a report in conjunction with the required Annual Operating Report.

[Rule 62-4.070(3) and 62-212.400(5), F.A.C.]

E.2. Testing While Burning TDF. A one-time test shall be conducted while burning the maximum percentage of TDF expected using EPA Method 29 pursuant to 40 CFR 60, Appendix A, and Chapter 62-297, F.A.C.

[Rule 62-4.070(3) and Chapter 62-297, F.A.C.; and, 40 CFR 60, Appendix A]

F. Bleach Plant.

F.1. The dissolving-grade bleaching system shall achieve compliance with the bleach plant provisions of 40 CFR 63.445 *as expeditiously as practicable*, but in no event later than 4 years from the issuance of this air construction permit.

[40 CFR 63.440(d)(2) and 63.445]

G. Temporary Trial Burn of Effluent Treatment System Solids for No. 6 Power Boiler

This section authorizes a temporary trial burn of effluent treatment system solids in the No. 6 Power Boiler to gather emissions and operational data. The results may later be used in an application for a permanent request to allow the firing of effluent treatment system solids.

G.1. Authorization: The permittee is authorized to conduct a temporary trial burn of effluent treatment system solids in the No. 6 Power Boiler (EU-022). Primary and secondary sludges are the only authorized solids that may be burned during the trial. Both sludges must be pressed to approximately 70% solids by weight or less. Up to 500 oven-dried tons of effluent treatment system solids may be fired during the trial burn. [Application No. 0890004-021-AC]

G.2. Notification: At least 15 days prior to conducting the tests, the permittee shall provide a schedule of the testing program to the Compliance Authority. The Compliance Authority may waive the 15-day advance notice requirement. The schedule shall be updated as necessary. [Application No. 0890004-021-AC]

G.3. Emissions Tests: Based on existing continuous emissions monitoring system (CEMS) data, the permittee shall monitor SO₂, NO_x, opacity, CO, and oxygen. During the trial burn, the permittee shall conduct three stack test runs to monitor PM, VOC, dioxins, hydrogen chloride, HAP metals, mercury and boiler ash. Tests shall be conducted under the maximum expected firing rates. The maximum firing rates during the tests will be used to determine the maximum allowable firing rates for any future permanent authorization. [Application No. 0890004-021-AC]

G.4. Test Schedule: The testing program shall commence upon first fire of effluent treatment system solids. All tests shall be completed within 30 days of first fire. If the permit has not expired, the permittee may request additional time from the Bureau of Air Regulation to complete the testing program. [Application No. 0890004-021-AC]

G.5. Report: Within 60 days of completing the testing program, the permittee shall submit a report summarizing the following: test program and procedures, data collection methods, tested configurations, analytical results, and a conclusion. A copy of the report shall be submitted to the Compliance Authority. [Application No. 0890004-021-AC]

APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)

Stack Sampling Facilities Provided by the Owner of an Emissions Unit. This section describes the minimum requirements for stack sampling facilities that are necessary to sample point emissions units. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. Emissions units must provide these facilities at their expense. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.

2. The ports shall be capable of being sealed when not in use.

3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
(continued)

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

(g) Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket shall be a standard 3 inch x 3 inch x one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

TABLE 297.310-1 CALIBRATION SCHEDULE
(version dated 10/07/96)

[Note: This table is referenced in Rule 62-297.310, F.A.C.]

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter	2%
		Comparison check	5%

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ATTACHMENT RPF-EU7-IV3
ALTERNATIVE METHODS OF OPERATION

**ATTACHMENT RPF-EU7-IV3
ALTERNATIVE METHODS OF OPERATION**

Rayonier Performance Fibers LLC No. 6 Power Boiler is permitted to fire the following fuels:

- Biomass, consisting of green bark, knots, chips, fines and landscape waste
- Tire derived fuel (TDF)
- No.6 fuel oil with a maximum sulfur content of 2.5% by weight, during startup, shutdown, or as a temporary alternate fuel during solid fuel feed upsets
- Facility-generated on-specification used oil with a maximum sulfur content of 2.5%, by weight, and shall be blended with the No. 6 fuel oil or spent sulfite liquor prior to firing
- No. 2 fuel oil for startup
- Spent sulfite liquor with a maximum sulfur content of 5.5% by weight, for startup, shutdown, or as a temporary alternate fuel during solid fuel feed upsets. The maximum firing rate is 1,200 gallons per hour of this fuel

The operating hours of the boiler are not limited (8,760 hours per year).

EMISSIONS UNIT INFORMATION

Section [8]

Facility-Wide Unregulated Emissions

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 [8]

Facility-Wide Unregulated Emissions

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.)
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
<input checked="" type="checkbox"/> 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)			
<input type="checkbox"/> 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).			
<input type="checkbox"/> 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.			
<input checked="" type="checkbox"/> 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: Facility-Wide Miscellaneous Unregulated Sources			
3. Emissions Unit Identification Number:			
4. Emissions Unit Status Code: a	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 26
8. Federal Program Applicability: (Check all that apply)			
<input type="checkbox"/> Acid Rain Unit			
<input type="checkbox"/> CAIR Unit			
<input type="checkbox"/> Hg Budget Unit			
9. Package Unit: Manufacturer:		Model Number:	
10. Generator Nameplate Rating:		MW	
11. Emissions Unit Comment: See Attachment RPF-EU8-A11.			

EMISSIONS UNIT INFORMATION

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Facility-Wide Unregulated Emissions

Emissions Unit Control Equipment/Method: Control 1 of 2

1. Control Equipment/Method Description:
ClO₂ Scrubber

2. Control Device or Method Code: **013**

Emissions Unit Control Equipment/Method: Control 2 of 2

1. Control Equipment/Method Description:
Lime Silo Baghouse

2. Control Device or Method Code: **127**

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 INFORMATION

Section [8]

Facility-Wide Unregulated Emissions

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:		2. Emission Point Type Code:	
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:	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:			

EMISSIONS UNIT INFORMATION

Section [8]

Facility-Wide Unregulated Emissions

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; Miscellaneous Sources		
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: 248,020	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 permitted facility wide maximum 12-month rolling total pulp production. 162,000 ADMT/yr x 1.1023 short ton/metric ton x 1.3889 Unbleached ton/bleached ton =248,020 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:		

EMISSIONS UNIT INFORMATION

Section [8]

Facility-Wide Unregulated Emissions

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
PM			NS
VOC			NS
SO2			NS
H2S			NS
H001 - Acetaldehyde			NS
H038 - Chlorine			NS
H043 - Chloroform			NS
H115 - Methanol			NS
H128 - Methylene chloride			NS
HAPs			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:		2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> 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: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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):	

EMISSIONS UNIT INFORMATION

Section [8]

Facility-Wide Unregulated Emissions

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: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA 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: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [8]

Facility-Wide Unregulated Emissions

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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 [8]

Facility-Wide Unregulated Emissions

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) <input checked="" type="checkbox"/> Attached, Document ID: <u>RPF-FI-C2</u> <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT RPF-EU8-A11
EMISSIONS UNIT COMMENT

ATTACHMENT RPF-EU8-A11

LIST OF UNREGULATED EMISSIONS UNITS AND/OR ACTIVITIES

The below listed emissions units and/or activities emit no "emissions-limited pollutant" and are subject to no unit-specific work practice standard, though may be subject to regulations applied on a facility-wide basis or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

E.U. Code	Brief Description of Emissions Units and/or Activity
BL ¹	6F washer hood exhaust fan
BL ¹	#5 HCE stock tank vent (new)
BL ¹	1F washer hood exhaust fan
BL ¹	roof exh fan over #4 post hypo
BL ¹	exh fan-S side 2R floor -East
BL ¹	2F washer hood exhaust fan
BL ¹	roof exh fan on penthse-middle
BL ¹	HCE blowtank vent
BL ¹	5F washer hood exhaust fan
BL ¹	4F washer hood exhaust fan
BL ¹	roof exh fan on penthse-North (HCE/hypo)
BL ¹	roof exh fan on penthse-South
BL ¹	roof exh fan over #4 post hypo
BL ¹	1F washer seal tank vent
BL ¹	2F washer seal tank vent
BL ¹	roof exh fan - North wall 1/1A penthouse
BL ¹	3F washer seal tank vent
BL ¹	roof exh fan - South wall penthouse
BL ¹	roof exh fan - South wall penthouse Mid
BL ¹	HCE cell evacuation vacuum exhaust
BL ¹	roof exh fan - South wall penthouse Mid
BL ¹	roof exh fan - South wall penthouse East
BL ¹	post HCE stock tank vent
BL ¹	#4F-1 HCE seal tank
BL ¹	5F washer seal tank vent
BL ¹	1F, 2F vacuum pump exhaust
BL ¹	sewerbox CCE washer sealtank
BL ¹	combined HCE seal tank vent
BL ¹	exh fan-S side 2R floor-West
BL	No. 1 hemi caustic tank
BL	Hemi, weak caustic storage tank
ClO ₂ Plant	ClO ₂ plant chlorate tank vent
ClO ₂ Plant	ClO ₂ plant methanol tank vent
ClO ₂ Plant	ClO ₂ plant scrubber exhaust
ClO ₂ Plant	ClO ₂ plant chlorate solution tank vent
EN	recovery sewer manhole
EN	sewer vent SW of hot SSL tank
EN	#8 pump station containment pond
EN	#10 SSPS open top
EN	flume
EN	sludge press

E.U. Code	Brief Description of Emissions Units and/or Activity
EN	milk of lime tank vent
EN	#1 pump station bar screen
EN	sewer vent by HD stock tank
EN	cinder system underflow pond
EN	#8 pump station manhole
EN	#3 pump station overflow pond
EN	cinder screening system
EN	aeration stabilization basin
EN	primary clarifier
EN	#3 ps manhole
EN	drain vent by soda ash tank
LF	offsite landfill -Yulee
MF	Trim bailer
MF	beater
MF	Re-winder cyclone
MF	Bale cutter cyclone
PG	ammonium bisulfate standpipe
PG	unwashed stock tank
PG	chip fill cyclone relief
PG	#2 RSW seal tank overflow
SC	outside knot drainer
SC	roof exh fan over sidehills
SC	roof exh fan over Cowan screens
SC	roof exh fan over knot press & Cowans
SC	roof exh fan over knotters
SC	roof exh fan over Bauer cleaners (west)
SC	roof exh fan over Bauer cleaners (east)
SC	knot pile
SC	Graver clarifier
SC	open top unbleach unscrn storage tank
UT	HCE filter vent
UT	recovery scrubber holdup tank vent
UT	Brinks filter water drain vent 8"
UT	Brinks filter water drain vent 6"
UT	HCE holding pond
UT	SSL holding pond
UT	recovery boiler fuel oil day tank vent
UT	hypo tank cooling tower treatment tank
UT	Large No. 6 fuel oil storage tank
UT	Large No. 2 fuel oil storage tank
UT	Sure defoamer tank vent
UT	HCE cooling tower exhaust
UT	SSL cooling tower exhaust
LB	Laboratory bench hood where methylene chloride is used in testing (maximum us of 1500 pounds per year)
	Lime Silo with Baghouse
	200 hp diesel fire pump engine and 250 gallon diesel fuel tank
	Portable Air Compressors

ⁱ Does not include sources that are required to be vented to the Bleach Plant Scrubber under Subpart S.