

Florida Department of
Environmental Protection

Memorandum

TO: Trina Vielhauer, Chief, Bureau of Air Regulation
THROUGH: Jeff Koerner, New Source Review Section *JK*
FROM: Bruce Mitchell, New Source Review Section
DATE: February 4, 2009
SUBJECT: Project No. 0890004-023-AC
Rayonier Performance Fibers – Fernandina Beach Mill
Revised No. 6 Power Boiler Project
Expiration Date Extension of Air Construction Permit No. 0890004-021-AC

We received a request on January 12, 2009, for the extension of the expiration date of air construction permit, No. 0890004-021-AC. Extending the expiration date will allow sufficient time to install the bleach plant scrubber that was authorized in this permit and allow additional time to complete the testing of the No. 6 Power Boiler while burning wastewater treatment sludge. The permit expires on March 1, 2009. Also, certain projects are being cancelled by the applicant that were identified in specific condition D-3 in permit No. 0890004-021-AC.

Attachments



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

February 5, 2009

Sent by Electronic Mail – Received Receipt Requested

Mr. F. J. Perrett
General Manager
Rayonier Performance Fibers LLC
Fernandina Beach Mill
10 Gum Street
Fernandina Beach, Florida 32035

Re: Extension of the Expiration Date of Air Construction Permit No. 0890004-021-AC
Rayonier Performance Fibers LLC, Fernandina Beach Mill
Project No. 0890004-023-AC
Revision to No. 6 Power Boiler Project

Dear Mr. Perrett:

We received a request on January 12, 2009, for the extension of the expiration date of air construction permit, No. 0890004-021-AC. Extending the expiration date will allow sufficient time to install the bleach plant scrubber that was authorized in this permit and allow additional time to complete the testing of the No. 6 Power Boiler while burning wastewater treatment sludge. The permit expires on March 1, 2009. Due to market conditions, certain projects are being cancelled by the applicant that were identified in specific condition D-3 in permit No. 0890004-021-AC.

The following construction projects have been cancelled:

- install a new HCE blow heat recovery system;
- install a new HCE cell;
- install a new HCE washer;
- install a new post HCE washer;
- install a new Red Stock Washer Press Roll; and
- make improvements to the pulp machine (Pocket Ventilation piping and headbox).

The first trial tests have been completed while burning the wastewater treatment sludge in the No. 6 Power Boiler. Additional time is needed to complete the trial test burns, which are scheduled for March/April 2009. Also, additional time is needed for the installation of the bleach plant scrubber and/or other equipment needed to comply with the provisions on 40 CFR 63.445, complete shakedown of installed equipment, perform the required tests and submit a timely Title V operation permit revision application.

Based on the circumstances and information provided, the Department of Environmental Protection (Department) approves the request to extend the expiration date.

Determination: The expiration date of air construction permit No. 0890004-021-AC is hereby extended from **March 1, 2009** to **September 1, 2010**, to provide the necessary time to: (1) install the bleach plant scrubber and/or other equipment needed to comply with the provisions on 40 CFR 63.445, complete shakedown of installed equipment, perform the required tests and submit a timely Title V operation permit revision application; and (2) complete the trial tests on the No. 6 Power Boiler while burning wastewater treatment sludge in accordance with the specific conditions in Section G of the permit. Based on the circumstances and information

EXTENSION OF AIR CONSTRUCTION PERMIT EXPIRATION DATE

provided, the Department approves this request. A copy of this letter shall be filed with the referenced permits and shall become part of the permits. This permitting decision is issued pursuant to Chapter 403, Florida Statutes (F.S.).

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, F.S., and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The Permitting Authority responsible for making a permit determination for this project is the Bureau of Air Regulation in the Department's Division of Air Resource Management. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241). Petitions must be filed within 14 days of receipt of these permit extensions. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this written notice. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Effective Date: This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely

EXTENSION OF AIR CONSTRUCTION PERMIT EXPIRATION DATE

filing of a petition or a request for extension of time, this action will not be effective until further order of the Department.

Judicial Review: Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

TLV/jfk/bm

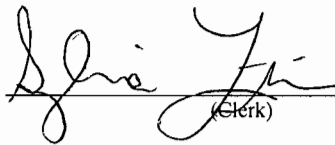
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Extension of Air Construction Permit Expiration Date was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on 2/5/09 to the persons listed below.

- Mr. Fred J. Perrett, General Manager, Rayonier Performance Fibers LLC (jack.perrett@rayonier.com)
- Mr. David Rogers, Rayonier Performance Fibers LLC (david.rogers@rayonier.com)
- Ms. Debra Lane, Rayonier Performance Fibers LLC (debra.lane@rayonier.com)
- Mr. Christopher Kirts, Air Permitting Administrator, Northeast District (Christopher.Kirts@dep.state.fl.us)
- Ms. Vickie Gibson, BAR Reading File (Victoria.Gibson@dep.state.fl.us)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.


(Clerk)

2/5/09
(Date)

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

Applicant

Rayonier Performance Fibers LLC
Fernandina Beach Dissolving Sulfite Pulp Mill
Facility ID No. 0890004

County

Nassau County, Florida

Project

Project No. 0890004-023-AC
Expiration Date Extension of Project No. 0890004-021-AC

Permitting Authority

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation – New Source Review Section
2600 Blair Stone Road, Mail Station #5505
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/921-9533

1. APPLICATION INFORMATION

Facility Location

Rayonier Performance Fibers LLC operates an existing dissolving sulfite pulp mill located at 10 Gum Street in Fernandina Beach, Nassau County, Florida 32035. The UTM coordinates are Zone 17, 454.7 km East, and 3392.2 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

Facility Classification

The facility belongs to Major Group No. 26 (Paper and Allied Products), Group No. 261 (Pulp Mills), and Industry No. 2611 (Pulp Mills). The North American Industry Classification System (NAICS) Code is No. 322110 (Pulp Mills). The facility is regulated according to the following categories.

Title III: The plant is a major source of hazardous air pollutants (HAP).

Title IV: The plant has no units subject to the acid rain provisions of the Clean Air Act.

Title V: The plant is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).

PSD: The plant is a major facility in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

NSPS: The plant operates units are subject to the New Source Performance Standards (NSPS) in Title 40 of the Code of Federal Regulations, Part 60 (40 CFR 60).

NESHAP: The plant operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63.

Project Description

We received a request on January 12, 2009, for the extension of the expiration date of air construction permit, No. 0890004-021-AC. Extending the expiration date will allow sufficient time to install the bleach plant scrubber that was authorized in this permit and allow additional time to complete the testing of the No. 6 Power Boiler while burning wastewater treatment sludge. The permit expires on March 1, 2009. Also, certain projects are being cancelled by the applicant that were identified in specific condition D-3 in permit No. 0890004-021-AC as follows:

- Add red stock washer press roll;
- Begin second improvements to the pulp machine (pocket ventilation piping and headbox);
- Add a new HCE cell;
- Install a new HCE washer;
- Install a new post HCE washer; and
- Install a new HCE blow heat recovery system to control all HCE cells.

The following tentative schedule is proposed to install the bleach plant scrubber:

<i>Project</i>	<i>Date</i>
Washer hood installation/modification and equipment tie-ins	February 2009
Install collecting ductwork, scrubber tower and associated equipment	3 rd Quarter 2009
Scrubber startup	4 th Quarter 2009
Compliance testing	January 2010

In addition, the permittee is withdrawing the request to increase the red liquor firing rate in the recovery boiler. The applicant stated that the additional trial tests on the No. 6 Power Boiler while burning wastewater treatment sludge are tentatively scheduled for March/April 2009.

Therefore, in order to provide sufficient time for installation and testing of the bleach plant scrubber and completion of the trial tests while burning wastewater treatment sludge in the No. 6 Power Boiler, the applicant requested an expiration date of September 1, 2010.

2. REVIEW OF THE PREVIOUS AC PERMITS FOR PROGRESS OF AUTHORIZED WORK

As required in specific conditions D.3. through D.6. of AC permit No. 0890004-021-AC, the permittee is required to report to the Department the progress of the authorized work, which has been done and is current. Also and as authorized in AC permit No. 0890004-021-AC, the permittee has completed the first round of trial tests on the No. 6 Power Boiler while burning wastewater treatment sludge and the test results were submitted to the Department on November 25, 2008. Therefore, the expiration date will be revised from March 1, 2009 to September 1, 2010.

3. CONCLUSION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the permit. Bruce Mitchell is the project engineer responsible for reviewing the application and drafting the permit changes. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Thursday, February 05, 2009 1:18 PM
To: 'jack.perrett@rayonier.com'
Cc: 'david.rogers@rayonier.com'; 'debra.lane@rayonier.com'; Kirts, Christopher; Gibson, Victoria; Mitchell, Bruce; Walker, Elizabeth (AIR)
Subject: RAYONIER FERNANDINA SULFITE MILL; 0890004-023-AC - Extension
Attachments: 0890004-023-AC.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send". **We must receive verification that you are able to access the documents.** Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0890004.023.AC.F_pdf.zip

Owner/Company Name: RAYONIER PERFORMANCE FIBERS LLC

Facility Name: RAYONIER FERNANDINA SULFITE MILL

Project Number: 0890004-023-AC

Permit Status: FINAL

Permit Activity: CONSTRUCTION/ NO. 6 BOILER REVISION EXT.

Facility County: NASSAU

Processor: Bruce Mitchell

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at <http://www.dep.state.fl.us/air/eproducts/apds/default.asp> .

Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-9506
sylvia.livingston@dep.state.fl.us

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Livingston, Sylvia

From: David.Rogers@rayonier.com
Sent: Thursday, February 05, 2009 1:39 PM
To: Livingston, Sylvia
Subject: Re: RAYONIER FERNANDINA SULFITE MILL; 0890004-023-AC - Extension

Documents have been received, thank you.

David Rogers

Livingston, Sylvia

From: Jack.Perrett@rayonier.com
Sent: Thursday, February 12, 2009 8:00 AM
To: Livingston, Sylvia
Subject: Re: FW: RAYONIER FERNANDINA SULFITE MILL; 0890004-023-AC - Extension
Attachments: 0890004-023-AC.pdf

Ms. Livingston,

Yes, we were able to access the documents. Sorry for not replying. I assumed my Environmental Manager had replied.

Thank you,

Jack Perrett
General Manager
Fernandina Mill

```
"Livingston,
Sylvia"
<Sylvia.Livingston@dep.state.fl.us
>
02/11/2009 05:36
PM
"jack.perrett@rayonier.com"
<'jack.perrett@rayonier.com'>
To
cc
Subject
FW: RAYONIER FERNANDINA SULFITE
MILL; 0890004-023-AC - Extension
```

Mr. Perrett,

We have not received confirmation that you were able to access the documents attached to this February 5th e-mail, as well as the documents provided in the link (http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0890004.023.AC.F_pdf.zip) referenced in the email. Please confirm receipt by opening the attachment and clicking on the link to the permit documents, and sending a reply to me.

The Division of Air Resource Management is sending electronic versions of these documents rather than sending them Return Receipt Requested via the US Postal service. Your "receipt confirmation" reply serves the same purpose as tracking the receipt of the signed "Return Receipt" card from the US Postal Service. Please let me know if you have any questions. Thanks,

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)

850/921-9506

sylvia.livingston@dep.state.fl.us

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you.

Please take a few minutes to comment on the quality of service you received. Simply click on this link to the DEP Customer Survey. Thank you in advance for completing the survey.

From: Livingston, Sylvia

Sent: Thursday, February 05, 2009 1:18 PM

To: 'jack.perrett@rayonier.com'

Cc: 'david.rogers@rayonier.com'; 'debra.lane@rayonier.com'; Kirts, Christopher; Gibson, Victoria; Mitchell, Bruce; Walker, Elizabeth (AIR)

Subject: RAYONIER FERNANDINA SULFITE MILL; 0890004-023-AC - Extension

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http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0890004.023.AC.F_pdf.zip

Owner/Company Name: RAYONIER PERFORMANCE FIBERS LLC Facility Name: RAYONIER FERNANDINA SULFITE MILL Project Number: 0890004-023-AC Permit Status: FINAL Permit Activity: CONSTRUCTION/ NO. 6 BOILER REVISION EXT.

Facility County: NASSAU

Processor: Bruce Mitchell

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Permit project documents are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible.

Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation at (850)488-0114.

Sylvia Livingston

Bureau of Air Regulation

Division of Air Resource Management (DARM)

850/921-9506

sylvia.livingston@dep.state.fl.us

Rayonier

Performance Fibers

Fernandina Mill

September 19, 2008

RECEIVED

SEP 22 2008

BUREAU OF AIR REGULATION

Certified Mail, Return Receipt Requested

Mr. Jeffery F. Koerner, P. E.
Bureau of Air Regulation
Division of Air Resources Management
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

RE: Request to Modify Air Construction Permit 0890004-018-AC and
Air Construction Permit 0890004-022-AV

Dear Mr. Koerner:

Project No. : 0890004-023-AC

Air Construction Permit 0890004-018AC

Rayonier Performance Fiber LLC ("Rayonier") is requesting that Air Construction Permit 0890004-018 be renewed as described below. The permit was issued on February 20, 2006 to Rayonier for the purpose of approving the construction of No. 6 boiler and a two phase production increase at its Fernandina Beach dissolving sulfite pulp mill. The permit includes an expiration date of March 1, 2009. Rayonier is requesting that this deadline be extended to allow for the completion of construction.

The construction authorized by the permit is more than half completed. The No. 6 boiler is operational, the new evaporators are installed and operational and the revised digester operating rate instituted, but due to other operational problems the phase 1 annual production has not yet been achieved.

There are two remaining projects authorized by this Air Construction Permit. The phase two production increase to 175,000 ADMT/day is approved at Condition D.1.b: "Upon successful installation and submittal of the engineering report of the HCE blow heat recovery system to control VOC emissions from all the HCE cells, the facility's production shall not exceed 175,000 ADMT per consecutive 12-months, rolling total." Construction of the HCE blow heat recovery system has been delayed by market conditions and is now on the budget for 2013. This system is comparable to an LVHC system on a Kraft mill and may take as long as a year to complete. Rayonier is asking for an expiration date 10 years from the date of issuance, or until 2016. The actual annual production rate has not been increased above the previously permitted rate of 162,000 ADMT/day.

Registered to ISO 9001:2000



Certificate No. A2072

10 Gum Street • P.O. Box 2002 • Fernandina Beach, FL 32035-2002
Telephone (904) 261-3611 • Fax (904) 277-1411

Mr. Jeffery F. Koerner, P. E.
Air Construction Permit Modification
September 8, 2008
Page 2 of 2

The second remaining project is the bleach plant scrubber and/or other equipment installation needed to comply with 40 CFR 63.445. This project is being engineered now and will be completed by the deadline of March 2010 required by Condition F1 of the permit. This deadline is after the permit expiration.

It is clear from the Part 403.087 FS there is no limit on the term of an air construction permit, though there is for a water permit (10 years). From Department rules 62-210.300 Air Construction Permit shall be issued for a period of time sufficient to allow the construction and operation while the owner/operator is conducting testing or otherwise demonstrating initial compliance. Rayonier is hereby advising that additional time is necessary to allow for completion of construction and subsequent compliance demonstrations.

Rayonier requests the expiration date for this permit be extended to February 2016 or 10 years from the date of issuance.

Air Construction Permit 0890004-001-AC

This application also requests Air Construction Permit 0890004-001-AC be modified to increase the limit on red liquor solids firing rate for 70,000 to 73,000 pounds per hour. Attached is a stack test conducted May 14, 2008 by STACS demonstrating that the boiler is now capable of firing red liquor solids at a rate of 73,000 pounds per hour while still complying with its existing permit limits. No change to the emission limit is requested. Actual emission increases will not exceed the PSD Significance Levels in part because the annual rate will not increase above that permitted from the production increase. This appears to be a minor modification.

If you have questions regarding this application please contact David Rogers at (904)277-1346, email: david.rogers@rayonier.com or David Tudor at (904)557-8332, email: david.tudor@rayonier.com.

Sincerely,



F. J. Perrett
General Manager

cc: Bruce Mitchell
Corrine Brown
Christopher Kirts
Terry Cole, FPPA-EA
Rita Felton-Smith

SOURCE TESTING AND CONSULTING SERVICES, INC.

1100 Purple Glory Drive

Apex, NC 27502

PH: (919) 367-2200/FAX: (919) 367-2222

www.stacsinc.com

September 8, 2008

David Rogers
Rayonier Environmental
Rayonier Performance Fibers, LLC.
Foot of Gum Street
Fernandina Beach, Florida 32034

RE: Sulfite Recovery Boiler Engineering Tests

Dear Mr. Rogers:

Source Testing And Consulting Services, Inc. (STACS) conducted a series of elevated load engineering tests at the Rayonier Performance Fibers, LLC facility in Fernandina Beach, Florida. Testing was conducted at the Sulfite Recovery Boiler using EPA Methods 1-4 for volumetric flow-rate determination and EPA Method 5 for particulate matter. Three one-hour test runs were conducted.

The results of these tests are summarized in the attached Table 1. We have also provided the analytical data and the field data sheets used in sampling, as well as the pre-test and post-test dry gas meter calibration data and facility process data.

If you have any questions concerning this information or if I may be of service in any other way, please do not hesitate to contact me at (919) 367-2200 or by e-mail at billmayhew@stacsinc.com. Thank you and best regards.

Sincerely,

SOURCE TESTING AND CONSULTING SERVICES, INC.

Bill Mayhew

Bill Mayhew
Principal Engineer

**Table 1. Summary of Emissions Testing Data - Total Solid Particulate Matter
Rayonier
SRB Stack**

Parameter	Units	Run #	1	2	3	AVERAGE
		Date:	14-May-08	16-May-08	16-May-08	
		Start Time:	16:10	8:20	12:40	
		Stop Time:	17:12	9:21	13:42	
Sampling Train & Analytical Parameters:						
Total Solid Particulate Matter:	g		0.0410	0.0482	0.0500	0.0464
Metered Volume:	dscf		34.837	35.371	37.961	36.056
Gas Stream Volumetric Flowrate:	dscfm		130,858	134,438	141,930	135,742
Oxygen:	%V, dry		7.2	6.0	8.0	7.1
Carbon Dioxide:	%V, dry		12.0	13.0	12.0	12.3
Total Solid Particulate (TSP) Matter Emissions:						
TSP Concentration:	gr/dscf		0.01816	0.02103	0.02033	0.01984
TSP Mass Emission Rate:	lb/hr		20.372	24.233	24.728	23.111
TSP Mass Emission Rate:	grams/dscm		0.0416	0.0481	0.0465	0.0454
TSP Mass Emission Rate @ 8% O2:	grams/dscm		0.0391	0.0417	0.0465	0.0424

SUMMARY OF EMISSIONS SAMPLING DATA

Plant:	Rayonier	Location:	SRB Stack	Run #	1	2	3	AVERAGE
Condition:	Normal	Date:		14-May-08	16-May-08	16-May-08		
Unit:	SRB Stack	Method:	Method 5	Start Time:	18:10	8:20	12:40	
Parameter		Units		Stop Time:	17:12	9:21	13:42	
Sampling Time		min.			60	60	60	60
AMBIENT DATA:								
Ambient Temperature		deg. F		69	70	70		69.67
Location Height above Pbar reading		feet		214	214	214		214
Barometric Pressure		in. Hg		30.06	29.98	29.98		30.01
Corrected Barometric Pressure (to location)		in. Hg		29.85	29.77	29.77		29.79
GAS METER DATA:								
Dry Gas Meter Correction Factor (gamma)		Dimensionless		0.9754	0.9754	0.9754		0.9754
Average Meter Differential Pressure		in. H ₂ O		1.1983	1.2833	2.5583		1.6800
Absolute Meter Pressure		in. Hg		29.93	29.86	29.95		29.92
Average Meter Temperature		degrees F		75.7	76.0	78.9		76.9
Metered Dry Sample Gas Volume		dcf		36.220	38.889	39.678		37.596
Average Sampling Rate		dscfm		0.581	0.590	0.633		0.601
Standard Metered Volume		dscf		34.837	35.371	37.961		36.056
Standard Metered Volume		dscm		0.9866	1.0017	1.0751		1.0211
MOISTURE DATA:								
Moisture Determination Technique:				Gravimetric	Gravimetric	Gravimetric		
Relative Humidity:		%RH		#N/A	#N/A	#N/A		#N/A
Saturated Vapor Pressure of Water:		inches Hg		2.4313	2.6079	2.9178		2.6523
Vapor Phase Moisture Content at Saturation:		% Volume		8.16	8.78	9.82		8.92
Total Condensate Collected		grams H ₂ O		78.1	81.2	99.6		86.30
Standard Volume of Water Vapor		scf		3.682	3.829	4.696		4.069
Measured Moisture Content		mole fraction		0.0956	0.0977	0.1101		0.1011
Measured Moisture Content		% Volume		9.56	9.77	11.01		10.11
Gas Stream Vapor Phase Moisture (Bs):		% Volume		8.16	8.78	9.82		8.92
FIXED GAS DATA:								
Oxygen Concentration, Dry Basis		% Volume		7.2	6.0	8.0		7.1
Carbon Dioxide Concentration, Dry Basis		% Volume		12.0	13.0	12.0		12.3
Carbon Monoxide Concentration, Dry Basis		% Volume		0.0	0.0	0.0		0.0
Other Primary Gas Constituent, Dry Basis		% Volume		#N/A	#N/A	#N/A		#N/A
Nitrogen Concentration, Dry Basis (gas balance)		% Volume		80.8	81.0	80.0		80.6
Gas Molecular Weight, Dry Basis		lb/lb-mole		30.208	30.320	30.240		30.256
Gas Molecular Weight, Wet Basis		lb/lb-mole		29.212	29.239	29.038		29.163
Fo Calculated:		Dimensionless		1.142	1.146	1.075		1.121
Excess Air:		%		50.89	38.96	60.90		50.25
Ultimate CO ₂		%V.d		18.31	18.23	19.44		18.66
DUCT CONFIGURATION:								
Duct Geometry (C = Circular, R = Rectangular)				C	C	C		
Duct Dimensions (Diameter)		inches		88	88	88		88
Effective Duct Diameter (De)		inches		88	88	88		88
Stack Cross-Sectional Area		ft ²		42.24	42.24	42.24		42.24
DUCT GAS CONDITIONS:								
Static Pressure of Gas Stream		in. H ₂ O		-0.510	-0.640	-0.570		-0.573
Absolute Duct Gas Pressure		in. Hg		29.809	29.719	29.724		29.751
Gas Stream Temperature		degrees F		107.75	110.17	114.08		110.67
Gas Stream Wet Bulb Temperature:		degrees F		0	0	0		0
VELOCITY DATA:								
Pitot Tube Coefficient		Dimensionless		0.84	0.84	0.84		0.84
Avg. Square Root of Velocity Head		(in. H ₂ O) ^{0.5}		1.0465	1.0868	1.1605		1.0979
Gas Stream Velocity		ft/sec		60.681	63.221	67.966		63.956
Gas Stream Velocity		ft/min		3640.86	3793.26	4077.98		3837.37
Gas Stream Velocity		meters/min		1109.73	1156.19	1242.97		1169.63
Gas Stream Velocity		mi/hr		41.376	43.108	46.343		43.609
FLOWRATE/ENGLISH UNITS								
Actual Volumetric Flow Rate, Wet Basis		acfm		153778.9	160215.9	172241.7		162078.8
Standard Volumetric Flow Rate, Wet Basis		scfm		142479.4	147370.1	157378.1		149075.9
Standard Volumetric Flow Rate, Dry Basis		dscfm		130858.3	134437.9	141929.6		135741.9
Standard Volumetric Flow Rate, Wet Basis		kscfh		8548.76	8842.21	9442.68		8944.55
Standard Volumetric Flow Rate, Dry Basis		kdcfh		7851.50	8066.27	8515.77		8144.51
Total Mass Flow Rate (wet)		kpph		648.14	671.00	711.88		676.93
FLOWRATE/METRIC UNITS								
Actual Volumetric Flow Rate, Wet Basis		acmm		4355.02	4537.31	4877.89		4590.07
Standard Volumetric Flow Rate, Wet Basis		scmm		4035.02	4173.52	4456.95		4221.83
Standard Volumetric Flow Rate, Dry Basis		dscmm		3705.91	3807.28	4019.44		3844.21
ISOKINETIC SAMPLING DATA:								
Nozzle Diameter:		inches		0.189	0.189	0.189		0.189
Area of Nozzle:		ft ²		1.948E-04	1.948E-04	1.948E-04		1.948E-04
Isokinetic Sampling Rate:		%I		96.2	95.1	96.7		96.0
PARTICULATE MATTER:								
Particulate Matter Collected:		grams		0.0410	0.0482	0.0500		0.0464
Particulate Matter Concentration:		grams/dscm		0.04156	0.04812	0.04651		0.04539
Particulate Matter Mass Emission Rate:		grams/sec		2.567	3.053	3.116		2.912
Particulate Matter Concentration:		lb/dscf		2.59E-06	3.00E-06	2.90E-06		2.83E-06
Particulate Matter Concentration:		grains/dscf		0.01816	0.02103	0.02033		0.01984
Particulate Matter Mass Emission Rate:		lb/hr		20.372	24.233	24.728		23.111

STACS ISOKINETIC SAMPLING FIELD DATA SHEET

Facility:	Rayonier SRB		Meter #:	A-4	Baro. Press:	30.06	Page #:				
Unit:			DH@:	1.9	Ambient Temp:	89	Pitot LC:				
Location:			DGM Factor:	0.9754	Nozzle Dia:	0.189					
Test Type:	MS		Pitot #:		Static P:	-0.51					
Run #:	Eng 1		Pitot Coef:	0.84	Stack Dimensions:	88"					
Condition:					Stack Height:						
Operator(s):	KIC		K-Factor:	1.1	Init. Leak Check:	0.002 cfm @ 15" Hg					
Date:	5/14/08		Filter#:	722	Final Leak Check:	0.001 cfm @ 10" Hg					
Traverse Point Number	Time	Gas Meter Reading Vm(ft3)	Velocity Head (H2O)	Orifice Press. (H2O)	Stack Temp (F)	Probe Temp (F)	Filter Temp (F)	Impinger Temp (F)	Dry Gas Meter Temp		Vacuum (Hg)
									Inlet (F)	Outlet (F)	
B-1	1610/0	678.326	1.3	1.4	107	236	252	65	73	73	4
2	5	681.71	1.2	1.3	111	240	254	57	75	72	4
3	10	684.79	1.2	1.3	107	252	258	58	76	72	4
4	15	687.85	1.1	1.2	108	250	250	58	78	73	4
5	20	690.84	0.99	1.1	108	253	261	58	79	73	4
6	25	693.72	1.0	1.1	106	251	246	58	79	73	4
A-1	1642/30	696.589	0.80	0.88	107	243	256	58	79	73	4
2	35	699.2	1.1	1.2	107	251	248	58	79	73	4
3	40	702.35	1.1	1.2	108	248	252	58	80	73	4
4	45	705.40	1.2	1.3	108	243	235	58	80	73	4
5	50	708.52	1.2	1.3	108	230	250	59	81	74	4
6	55	711.67	1.0	1.1	108	232	234	60	81	75	4
	1712/60	714.546									
Avg/Tot											
Impinger	1	2	3	4	5	Total Traverse Point %'s					
Final	165	154	209			6 Point (4.4)(14.6)(29.6)(70.4)(85.4)(95.6)					
Initial	100	100	196.9			12 Point (2.1)(6.7)(11.8)(17.7)(25.0)(35.6)(64.4)(75.0)(82.3)(88.2)(93.3)(97.9)					
Total	65	4	9.1			78.1	Note: Nearest upstream disturbance or exit must be 2 duct diameters away and nearest downstream disturbance must be at least 8 diameter away to use 6 points per traverse.				
ORSAT/CEM	1	2	3	4							
O2	7.2										
CO2	12.0										

19.9 lbs/hr

STACS ISOKINETIC SAMPLING FIELD DATA SHEET

Facility:	Roxonnet		Meter #:	A-4		Baro. Press:	29.98		Page #:			
Unit:	SRB		DH@:	1.9		Ambient Temp:	70		Pitot LC:	✓		
Location:	Fernandina Beach FL		DGM Factor:	0.9754		Nozzle Dia:	0.187					
Test Type:	MS		Pitot #:			Static P:	-0.59					
Run #:	Eng 2		Pitot Coef:	0.84		Stack Dimensions:	88'					
Condition:						Stack Height:						
Operator(s):	KIC		K-Factor:	1.1		Init. Leak Check:	0.004 cfm@ 15		"Hg			
Date:	5/16/08		Filter#:	SRB-1		Final Leak Check:	cfm@		"Hg			
Traverse Point Number	Time	Gas Meter Reading Vm(ft ³)	Velocity Head ("H ₂ O)	Orifice Press. ("H ₂ O)	Stack Temp (F)	Probe Temp (F)	Filter Temp (F)	Impinger Temp (F)	Dry Gas Meter Temp.		Vacuum ("Hg)	
									Inlet (F)	Outlet (F)		
A-1	0820/0	828.69	1.2	1.3	109	260	257	66	74	73	3	
2	5	831.82	1.2	1.3	110	261	262	50	74	70	3	
3	10	834.91	1.3	1.4	110	259	257	53	76	71	3	
4	15	838.11	1.2	1.3	110	260	261	55	79	72	4	
5	20	841.19	1.2	1.3	110	255	250	56	81	71	3	
6	25	844.26	1.0	1.1	110	254	250	57	81	72	3	
B-1	0851/30	847.094	1.2	1.3	111	256	254	61	80	73	3	
2	35	850.30	1.3	1.4	109	256	243	56	83	73	3	
3	40	853.48	1.3	1.4	109	245	243	57	83	73	3	
4	45	856.65	1.2	1.3	109	246	253	58	81	75	3	
5	50	859.72	1.1	1.2	114	247	255	58	81	74	3	
6	55	862.65	1.0	1.1	111	247	257	58	81	74	3	
	0921/60	865.578										
Avg/Tot.												
Impinger	1	2	3	4	5	Total Traverse Point %'s						
Final	162	110		2075		6 Point (4.4) (14.6) (29.6) (70.4) (85.4) (95.6)						
Initial	100	100		1983		12 Point (2.1)(6.7)(11.8)(17.7)(25.0)(35.6)(64.4)(75.0)(82.3)(88.2)(93.3)(97.9)						
Total	62	10				Note: Nearest upstream disturbance or exit must be 2 duct diameters away and nearest downstream disturbance must be at least 8 diameter away to use 6 points per traverse.						
ORSAT/CEM	1	2	3	4								
O2	6.0											
CO2	13.0											

STACS ISOKINETIC SAMPLING FIELD DATA SHEET

Facility:	Rogovier			Meter #:	A-4			Baro. Press:		Page #:		
Unit:	SRB			DH@:	1.9			Ambient Temp:	70		Pitot LC:	✓
Location:	Fernandina Beach Fl			DGM Factor:	0.9754			Nozzle Dia:	0.189			
Test Type:	MS			Pitot #:				Static P:	-0.57			
Run #:	Eng 3			Pitot Coef:	0.84			Stack Dimensions:				
Condition:				K-Factor:	1.1			Stack Height:				
Operator(s):	KK			Filter#:	SRB-3			Init Leak Check:	0.002 cfm@ 15 "Hg			
Date:	5/16/08							Final Leak Check:	0.007 cfm@ 7 "Hg			
Traverse Point Number	Time	Gas Meter Reading Vm(ft3)	Velocity Head (H2O)	Orifice Press (H2O)	Stack Temp (F)	Probe Temp (F)	Filter Temp (F)	Impinger Temp (F)	Dry Gas Meter Temp.		Vacuum (Hg)	
									Inlet (F)	Outlet (F)		
A-1	1240/0	878.487	1.4	1.54	112	256	254	55	73	73	4	
2	5	882.15	1.4	1.54	112	255	257	55	74	73	4	
3	10	885.65	1.4	1.54	114	253	253	56	77	73	4	
4	15	889.00	1.4	1.54	115	252	257	56	78	73	4	
5	20	892.37	1.3	1.4	113	255	251	57	79	74	4	
6	25	895.56	1.3	1.4	114	252	255	58	80	74	4	
B-1	1312/30	898.524	1.4	1.54	115	240	257	63	82	75	4	
2	35	901.92	1.5	1.65	115	250	262	57	84	78	4	
3	40	905.44	1.5	1.65	114	255	256	57	85	80	4	
4	45	908.86	1.3	1.4	114	248	257	58	87	81	4	
5	50	912.09	1.3	1.4	116	242	250	59	87	81	4	
6	55	915.29	1.0	1.1	115	240	255	60	88	82	4	
	1342/60	918.165										
Avg/Tot.												
Impinger	1	2	3	4	5	Total Traverse Point %'s						
Final	190	100	0	250.3	6 Point (4.4) (14.6) (29.6) (70.4) (85.4) (95.6)							
Initial	100	100	0	210.7	12 Point (2.1)(6.7)(11.8)(17.7)(25.0)(35.6)(64.4)(75.0)(82.3)(88.2)(93.3)(97.9)							
Total	90	Note: Nearest upstream disturbance or exit must be 2 duct diameters away and nearest downstream disturbance must be at least 8 diameter away to use 6 points per traverse.										
ORSAT/CEM	1	2	3	4								
O2	8.4											
CO2	12.0											

Source Testing And Consulting Services
Meter Box Calibration

Calibration Date: 1-15-08
Meter Box: A-4
Technician: MLH

Orifice ID	Y Calibration	Delta H @ Cal.	Vac
40	pass	pass	pass
48	pass	pass	pass
55	pass	pass	pass
63	pass	pass	pass
73	pass	pass	pass

PART 1: Orifice Calibration											
Calibration Orifice Set: D1						Critical Vacuum: 13.9					
Barometric Pressure (in. Hg): 29.690											
Collected Data											
Orifice ID	Run #	Delta H	Initial Meter Volume (cu ft)	Final Meter Volume (cu ft)	Init Meter Temp (F)	Final Meter Temp (F)	Init Amb Temp (F)	Final Amb Temp (F)	Run Time min sec	K Factor	Vac
40	1	0.30	980.300	986.931	63.00	62.00	60.00	61.00	21 12	0.2361	26
40	2	0.30	986.931	991.937	61.00	62.00	61.00	63.00	16 0	0.2361	26
48	1	0.66	938.492	945.335	60.00	61.00	62.00	61.00	15 0	0.3431	25
48	2	0.66	945.335	950.883	61.00	62.00	61.00	63.00	12 12	0.3431	25
55	1	1.20	967.473	974.207	63.00	64.00	62.00	61.00	11 12	0.453	23
55	2	1.20	974.207	979.914	63.00	64.00	62.00	61.00	9 30	0.453	23
63	1	2.00	953.728	961.728	62.00	63.00	63.00	62.00	10 18	0.5875	22
63	2	2.00	961.728	967.024	63.00	63.00	62.00	62.00	6 48	0.5875	22
73	1	3.70	992.705	999.101	62.00	63.00	63.00	63.00	6 0	0.8106	19
73	2	3.70	999.101	1005.515	63.00	64.00	63.00	63.00	6 0	0.8106	19
Calculated Data											
Orifice ID	Run #	Meter Volume (cu ft)	Meter Volume (std cu ft)	Corrected Meter Volume (std cu ft)	Ave Meter Temp (F)	Ave Amb Temp (F)	Y	Delta H @			
40	1	6.631	6.65157	6.51376	62.5	60.5	0.9793	1.7951			
40	2	5.006	5.03116	4.90898	61.5	62	0.9757	1.8037			
AVE							0.9775	1.7994			
48	1	6.843	6.89674	6.69106	60.5	61.5	0.9702	1.8842			
48	2	5.548	5.58085	5.43946	61.5	62	0.9747	1.8824			
AVE							0.9724	1.8833			
55	1	6.734	6.75700	6.59628	63.5	61.5	0.9762	1.9592			
55	2	5.707	5.72649	5.59506	63.5	61.5	0.9770	1.9592			
AVE							0.9766	1.9592			
63	1	8	8.05858	7.85981	62.5	62.5	0.9753	1.9565			
63	2	5.296	5.32968	5.19149	63	62	0.9741	1.9528			
AVE							0.9747	1.9546			
73	1	6.396	6.46982	6.31418	62.5	63	0.9759	1.9191			
73	2	6.414	6.47564	6.31418	63.5	63	0.9751	1.9155			
AVE							0.9755	1.9173			
Average for All Runs								0.9754	1.9028		

Source Testing And Consulting Services
Meter Box Calibration

Calibration Date: 1-15-08
Meter Box: A-4
Technician: MLH

PART 2: Thermocouple Calibration
T/C Calibrator Make: Tegam T/C Calibrator Model: 840A

Calibrator Output (F)	Meter Reading (F)	Error (F)	Allowable Error (F)	Result
25.0	24	-1	9.24	pass
68.0	66	-2	9.88	pass
222.0	222	0	10.64	pass
406.0	405	-1	11.24	pass
799.0	800	1	13.24	pass
1194.0	1205	11	19.24	pass
1585.0	1592	7	33.24	pass
1981.0	1960	-21	49.24	pass

POST TEST METER CALIBRATION DATA - EMC APPROVED ALTERNATIVE METHOD (ALT - 009)

Plant:	Rayonier	Location:	SRB Stack	Run #	1	2	3	AVERAGE
Condition:	Normal	Meter #:	A-4	Date:	5/14/08	5/14/08	5/14/08	
Unit:	SRB Stack	Method:	Method 5	Start Time:	9:30	11:45	13:15	
Parameter				Stop Time:	10:32	12:48	14:17	
Sampling Time			Units		60.00	60.00	60.00	60.0
GAS METER DATA:								
Average Meter Differential Pressure			in. H2O		1.26	1.40	1.22	1.29
Absolute Meter Pressure			in. Hg		29.95	29.96	29.95	29.95
Average Meter Temperature			degrees F		76.75	76.75	79.83	77.78
Metered Dry Sample Gas Volume			dcf		36.236	35.24	35.951	35.81
Gas Molecular Weight, Dry Basis			lb/lb-mole		30.41	30.36	30.20	30.32
Pre Test Calibration Factors								
DeltaH@			in. H2O		1.9	1.9	1.9	1.900
Dry Gas Meter Correction Factor (gamma)			Dimensionless		0.9754	0.9754	0.9754	0.9754
Post Test Data								
Calculated Meter Correction Factor (Yqa)			Dimensionless		0.9941	1.0798	0.9938	1.0226
Difference (Post Test and Pretest Y - Maximum Average Allowed 5%)			%		1.91%	10.70%	1.89%	4.83%

Recovery Boiler Compliance Test

Date: 14-May-08

From SRB gas sampling worksheets

Run: # Eng 1

	Start of Test		End of Test		Difference	%of hour
	hour	min	hour	min		
Time	16	07	17	11	64	0.9375
"B" Liquor Flow, gallons	106684.4		119132.1		12447.7	11669.72 gph
Liquor Flow, gpm meter	195		198		196.5	11790 gph
Liquor Temperature, deg F	197		197		197	
Liquor Hydrometer Reading	1.25		1.25		1.25	
Liquor solids, % OD	59.8		59.3		59.55	
No. of Liquor guns	10		10		10	
No. of oil guns	0		0		0	
No. of oil guns @ pressure	0		0		0	
Steam load, lbs/hr chart x 1000	395		394		394.5	
Steam Flow Integrator x 1000, lb	3643.5		4065.1		421600	395250 lb/hr
Steam Temperature, deg F	869		868		868.5	
Steam Pressure, psi	1006		999		1002.5	
SO2, ppm	242		258		250.3715	
Brinks By-pass Position	Closed		Closed			
Methanol System	In Operation		In Operation			

Liquor Flow Calculation	(gph)(8.345)(sp.gr.)(%OD)	73237.23 lb/hr	
TSP Mass Emission Rate results:	19.9	lb/hr	20.37
Average PM readout on the Recovery CAM Particulate Monitor†:	17.4	mg/m3	41.6
* BETA GUARD PARTICULATE MONITOR. MANUFATURER F., MECHANICAL SYSTEMS INC.			STAC:
(End of test value - Start of test value)(60 min./hr / Test time, min.) = Units/hr			TEST
			DATA

Recovery Boiler Compliance Test

Date: 16-May-08

From SRB gas sampling worksheets

Run: # Eng 2

	Start of Test		End of Test		Difference	%of hour
	hour	min	hour	min		
Time	8	19	9	21	62	0.967742
"B" Liquor Flow, gallons	20205.9		32434.2		12228.3	11833.84 gph
Liquor Flow, gpm meter	198		202		200	12000 gph
Liquor Temperature, deg F	196		196		196	
Liquor Hydrometer Reading	1.25		1.25		1.25	
Liquor solids, % OD	58.6		58.6		58.6	
No. of Liquor guns	10		10		10	
No. of oil guns	0		0		0	
No. of oil guns @ pressure	0		0		0	
Steam load, lbs/hr chart x 1000	383		402		392.5	
Steam Flow Integrator x 1000, lb	657.9		1061.5		403600	390580.6 lb/hr
Steam Temperature, deg F	862		866		864	
Steam Pressure, psi	995		1001		998	
SO2, ppm	315		249		282	
Brinks By-pass Position	Closed		Closed			
Methanol System	In Operation		In Operation			

Liquor Flow Calculation	(gph)(8.345)(sp.gr.)(%OD)	73352.55 lb/hr	
TSP Mass Emission Rate results:	24.3	lb/hr	24.23
Average PM readout on the Recovery CAM Particulate Monitor:	17.8	mg/m3	48.1
* BETA GUARD PARTICULATE MONITOR. MANUFACTURER F., MECHANICAL SYSTEMS INC.			STAC
(End of test value - Start of test value)(60 min./hr / Test time, min.) = Units/hr			TEST
			DATA

Recovery Boiler Compliance Test

Date: 16-May-08

Run: # Eng 3

	Start of Test		End of Test		Difference	%of hour	
	hour	min	hour	min			
Time	12	40	13	42	62	0.967742	
"B" Liquor Flow, gallons	67772.9		79625.9		11853	11470.65	gph
Liquor Flow, gpm meter	192		190		191	11460	gph
Liquor Temperature, deg F	197		197		197		
Liquor Hydrometer Reading	1.25		1.25		1.25		
Liquor solids, % OD	60.4		60.8		60.6		
No. of Liquor guns	10		10		10		
No. of oil guns	0		0		0		
No. of oil guns @ pressure	0		0		0		
Steam load, lbs/hr chart x 1000	384		373		378.5		
Steam Flow Integrator x 1000, lb	2265		2658.1		393100	380419.4	lb/hr
Steam Temperature, deg F	865		876		870.5		
Steam Pressure, psi	991		988		989.5		
SO2, ppm	101		127		114		
Brinks By-pass Position	Closed		Closed				
Methanol System	In Operation		In Operation				

Liquor Flow Calculation	(gph)(8.345)(sp.gr.)(%OD)	72509.82 lb/hr	
TSP Mass Emission Rate results:	24.6 lb/hr	24.73	
Average PM readout on the Recovery CAM Particulate Monitor*:	15.5 mg/m3	46.5	
* BETA GUARD PARTICULATE MONITOR. MANUFATURER F., MECHANICAL SYSTEMS INC.			STACS
(End of test value - Start of test value)(60 min./hr / Test time, min.) = Units/hr			TEST DATA

Sulfite Recovery Boiler Scrubber Stack Test Analysis

for 14-May-08

Steam Output from the Sulfite Recovery Boiler

Run Steam Production [1000 lb./hr. of 1000 BTU/lb. Steam]

Number Sulfite Recovery Boiler

Eng 1 395
 Eng 2 391
 Eng 3 380

Average 389

Oil Input to Boiler					Liquor Input to Boiler		Test Result	
Sulfite Recovery Boiler					Gal. Liquor	Liquor Flow lbs/hr.	Particulate	Particulate
Run Number	Gal. Oil	Test Min.	BTU/gal	MMBTU/hr from Oil			(per Stack test) lbs/hr.	CAM PM Monitor mg/m3
Eng 1	0	64	154,335	0	11670	73,237	19.9	17.4
Eng 2	0	62	154,335	0	11834	73,353	24.3	17.8
Eng 3	0	62	154,335	0	11471	72,510	24.6	15.5
Average	0	63	154,335	0	11,658	73,033	22.9	

Permit Maximum	[lbs/hr. SSL]	70,000
Recovery Boiler Actual Total % of Capacity =		104%
Permit Maximum (particulate)		43.18 lbs/hr.

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Tuesday, September 30, 2008 9:54 AM
To: 'Forney.Kathleen@epamail.epa.gov'
Cc: Felton-Smith, Rita; 'forney.kathleen@epa.gov'; 'dee_morse@nps.gov'; 'catherine_collins@fws.gov'; Walker, Elizabeth (AIR); Mitchell, Bruce
Subject: Rayonier Performance Fibers, LLC -0890004-023-AC

A new Permit Application has been received in Florida and is currently under review.

Link to Permit Application Documents:

<http://arm-permit2k.dep.state.fl.us/psd/0890004/00003113.pdf>

ARMS PA Project ID:	0890004-023-AC

Facility Name:	Rayonier Performance Fibers, LLC
Florida County:	Nassau
Project Description:	NO. 6 BOILER REVISION EXTENSION
Permit Application Processor:	Bruce Mitchell
Processor Phone:	(850)413-9198
Processor Email Address:	Bruce.Mitchell@dep.state.fl.us

Or, Search for other Air Permit Documents on [Florida's Air Permit Documents Search](#).

Please direct any questions regarding this permit application to the permit application processor. If you have any problems accessing these documents please let me know.

Thanks,

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-0771



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

October 16, 2008

Electronically Sent – Received Receipt Requested

Mr. F. J. Perrett
Environmental Manager
Rayonier Performance Fibers LLC
Fernandina Beach Mill
The Foot of Gum Street
P.O. Box 2002
Fernandina Beach, Florida 32035

RE: Request for Permit Expiration Date Extension and Modification to the Sulfite Recovery Boiler
Project No. 0890004-023-AC

Dear Mr. Perrett:

On September 22, 2008, the Department's Bureau of Air Regulation received a request for a permit expiration date extension and for an increase in the red liquor solids firing rate to the sulfite recovery boiler at the existing sulfite mill located in Fernandina Beach, Nassau County, Florida. Based on our review of the proposed project, we have determined that the application is incomplete and the following additional information is needed in order to continue processing this application package. Please provide all assumptions, calculations, and reference material(s), that are used or reflected in any of your responses to the following issues:

1. The following changes and schedule were authorized in Subsection D. in air construction (AC) permit No. 0890004-018-AC, with an expiration date of March 1, 2009:

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.

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.

Mr. F. J. Perrett

Request for Permit Expiration Date Extension and Modification to the Sulfite Recovery Boiler
Project No. 0890004-023-AC
Page 2 of 3

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.

In regards to the authorized work and testing, as detailed above, please provide the following information:

- a. a detailed description of work and testing performed to date;
- b. a detailed description of work and testing remaining;
- c. a preliminary schedule for completing any remaining work; and,
- d. the current production capacity of the mill (ADMT per year).

Mr. F. J. Perrett

Request for Permit Expiration Date Extension and Modification to the Sulfite Recovery Boiler

Project No. 0890004-023-AC

Page 3 of 3

2. Explain in detail how the sulfite recovery boiler is now able to increase the red liquor solids firing rate. Describe in detail the physical changes that have been made to the sulfite recovery boiler to facilitate an increase in the red liquor solids firing rate. What is the manufacturer's design/name plate capacity of the sulfite recovery boiler's red liquor solids firing rate (provide documentation)?
3. What authorization did you have to test the sulfite recovery boiler at greater than its maximum permitted processing rate limit of 70,000 lbs/hr of red liquor solids? Please identify the permit project number authorizing the increase in firing rate and provide a copy of the authorizing document.
4. Any increase in actual emissions due to a modification are required to be evaluated in accordance with the Prevention of Significant Deterioration (PSD) regulations at Rule 62-212.400, Florida Administrative Code (F.A.C.), prior to making any change to the emissions unit. Please submit the actual emissions increase of pollutants due to the production request to increase the red liquor solids firing rate in the sulfite recovery boiler. Since the pollutant emissions are contemporaneous to permit project No. 0890004-018-AC, provide a PSD netting analysis that includes permit project No. 0890004-018-AC and all subsequent projects to date. Also, complete and submit the appropriate application and signature/seal pages for the modification request, which should include the R.O. signature and the seal and signature from a Professional Engineer (P.E.) registered in the State of Florida. If the emissions netting analysis requested reflects that the proposed facility's modification is equal to or greater than the significant emission rate for any pollutant pursuant to Rule 62-210.200(Definitions – Significant Emissions Rate); F.A.C., then a processing fee is required pursuant to Rule 62-4.050, F.A.C., and the requirements of Rule 62-212.400, F.A.C., must be addressed and provided.
5. The Department's Northeast District office is responsible for making all changes to your existing Title V Air Operation Permit. In regards to the Revision to the Title V Air Operation Permit, project No. 0890004-022-AV, you need to submit the appropriate application and signature/seal pages to the Department's Northeast District office for processing any changes to your existing Title V Air Operation Permit.

The Department will resume processing this application after receipt of the requested information. If you have any questions regarding this matter, please call Bruce Mitchell at (850)413-9198.

Sincerely,



Syed Arif, P.E.
New Source Review Section
Bureau of Air Regulation

SA/rbm

cc: Fred J. Perrett, General Manager, Rayonier Performance Fibers LLC (jack.perrett@rayonier.com)
Chris Kirts, Air Permitting Administrator, Northeast District (Christopher.Kirts@dep.state.fl.us)
David Rogers, Rayonier Performance Fibers LLC (david.rogers@rayonier.com)
David Tudor, Rayonier Performance Fibers LLC (david.tudor@rayonier.com)

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Thursday, October 16, 2008 4:12 PM
To: 'Jack.perrett@rayonier.com'; 'David.rogers@rayonier.com'; 'David.tudor@rayonier.com'
Cc: Kirts, Christopher; Arif, Syed; Walker, Elizabeth (AIR); Gibson, Victoria; Mitchell, Bruce
Subject: RAI -0890004-023-AC (Rayonier Performance Fibers LLC - Fernandina Beach Mill)

Attachments: 0890004-023-AC.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software, *noting that you can view the documents*, and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <<http://www.adobe.com/products/acrobat/readstep.html>> .

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

Sylvia Livingston
Bureau of Air Regulation
Division of Air Resource Management (DARM)
850/921-0771
sylvia.livingston@dep.state.fl.us



0890004-023-AC.pdf (826 KB)

Tracking:

Recipient	Delivery	Read
✓ Jack.perrett@rayonier.com'		
✓ David.rogers@rayonier.com'		
✓ David.tudor@rayonier.com'		
✓ Kirts, Christopher	Delivered: 10/16/2008 4:12 PM	
✓ Arif, Syed	Delivered: 10/16/2008 4:12 PM	
✓ Walker, Elizabeth (AIR)	Delivered: 10/16/2008 4:12 PM	
✓ Gibson, Victoria	Delivered: 10/16/2008 4:12 PM	Read: 10/16/2008 4:13 PM
✓ Mitchell, Bruce	Delivered: 10/16/2008 4:12 PM	

Debra Lane for David Tudor

Livingston, Sylvia

From: David.Rogers@rayonier.com
Sent: Friday, October 17, 2008 7:54 AM
To: Livingston, Sylvia
Subject: Re: RAI -0890004-023-AC (Rayonier Performance Fibers LLC - Fernandina Beach Mill)

Attachments: 0890004-023-AC.pdf



0890004-023-AC.pdf (1 MB)

We have received the transmission, thank you.

David Rogers

"Livingston,
Sylvia"
<Sylvia.Livingston@dep.state.fl.us>
>
10/16/2008 04:12
PM

<Jack.perrett@rayonier.com>,
<David.rogers@rayonier.com>,
<David.tudor@rayonier.com>
cc
"Kirts, Christopher"
<Christopher.Kirts@dep.state.fl.us>
, "Arif, Syed"
<Syed.Arif@dep.state.fl.us>,
"Walker, Elizabeth \ (AIR\)"
<Elizabeth.Walker@dep.state.fl.us>,
"Gibson, Victoria"
<Victoria.Gibson@dep.state.fl.us>,
"Mitchell, Bruce"
<Bruce.Mitchell@dep.state.fl.us>
Subject
RAI -0890004-023-AC (Rayonier
Performance Fibers LLC - Fernandina
Beach Mill)

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be

Livingston, Sylvia

From: Debra.Lane@rayonier.com on behalf of davidtudor@hughes.net
Sent: Friday, October 24, 2008 4:40 PM
To: Livingston, Sylvia
Cc: Mitchell, Bruce; Kirts, Christopher; Walker, Elizabeth (AIR); Arif, Syed; Gibson, Victoria
Subject: Re: RAI -0890004-023-AC (Rayonier Performance Fibers LLC - Fernandina Beach Mill)

Dear Ms. Livingston:

David Tudor has retired from Rayonier, effective September 30, 2008. I have recently joined the company as part of the corporate environmental team, and will be assuming Dave's responsibilities.

Please add me to your contact lists for the Rayonier Performance Fibers mill in Fernandina Beach, and remove David Tudor. My contact information is provided below.

I look forward to working with the Florida DEP on this and future projects.

Sincerely,

Debra D. Lane
 Environmental Manager, Manufacturing
 Corporate Environmental
 Rayonier

Marketing and Research Center
 P.O. Box 1280
 Jesup, GA 31598

office: (912) 588-8117
 cell: (904) 710-6243
 fax: (912) 588-1476
 debra.lane@rayonier.com

"Livingston, Sylvia" <Sylvia.Livingston@dep.state.fl.us>

10/16/2008 04:12 PM

To <Jack.perrett@rayonier.com>, <David.rogers@rayonier.com>, <David.tudor@rayonier.com>
 cc "Kirts, Christopher" <Christopher.Kirts@dep.state.fl.us>, "Arif, Syed" <Syed.Arif@dep.state.fl.us>, "Walker, Elizabeth (AIR)" <Elizabeth.Walker@dep.state.fl.us>, "Gibson, Victoria" <Victoria.Gibson@dep.state.fl.us>, "Mitchell, Bruce" <Bruce.Mitchell@dep.state.fl.us>
 Subject: RAI -0890004-023-AC (Rayonier Performance Fibers LLC - Fernandina Beach Mill)

Dear Sir/Madam:

10/24/2008

Rayonier

Performance Fibers

Fernandina Mill

January 8, 2009

RECEIVED

JAN 12 2009

Certified Mail, Return Receipt Requested

Mr. Syed Arif, P.E.
New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

RE: Request for Permit Expiration Date Extension and Approval to Increase the Red Liquor Solids Firing Rate for the Sulfite Recovery Boiler
Project No. 0890004-023-AC

Dear Mr. Arif:

This letter is in response to your October 16, 2008 request for additional information regarding Rayonier's request for extension of the expiration date for construction permit No. 08900004-018-AC, and approval to increase the red liquor solids firing rate for the existing sulfite recovery boiler. For ease of reference, our responses are numbered in the same order as your questions.

1. Regarding subsection D of the construction permit, you requested that we submit the following information:
 - a. a detailed description of work and testing performed to date;
 - b. a detailed description of work and testing remaining;
 - c. a preliminary schedule for completing any remaining work; and,
 - d. the current production capacity of the mill (ADMT per year).

This information was submitted on February 26, 2008 with the facility's AOR as required by condition D.5. A copy of that submittal is attached. The production capacity of the mill is still 162,000 ADMT/year.

Table 1, below, provides an updated project schedule. Because the schedule for several of the planned projects remains indefinite, it is our understanding that the Department will require us to obtain a new permit for those projects rather than granting a multi-year permit extension. Therefore, those projects are noted as "cancelled" in Table 1.

Registered to ISO 9001:2000



Certificate No. A2072

10 Gum Street • P.O. Box 2002 • Fernandina Beach, FL 32035-2002
Telephone (904) 261-3611 • Fax (904) 277-1411

Table 1

<i>Project</i>	<i>Date</i>
Upgrade dryer cans (machine speed increase)	Completed
Continue first improvements to pulp machine (replace lump breaker arms)	Completed
Add Red Stock Washer Press Roll	Cancelled
Begin second improvements to pulp machine (Pocket Ventilation piping and headbox)	Cancelled
Add an new HCE cell	Cancelled
Install a new HCE washer	Cancelled
Install a new post HCE washer	Cancelled
Install new HCE blow heat recovery system to control all HCE cells	First Half 2010

In addition to authorizing the above projects, the construction permit imposed a requirement to install bleach plant emission controls by February 20, 2010 to meet the requirements of 40 CFR 63.445 (MACT Subpart S). Although this date is well before the deadline imposed by Subpart S, Rayonier accepted this permit condition and plans to install a bleach plant scrubber. Our tentative construction schedule is shown in Table 2.

Table 2

<i>Project</i>	<i>Date</i>
Washer hood installation/ modification and equipment tie-ins	February 2009
Install collecting ductwork, scrubber tower, and associated equipment	Third Quarter 2009
Scrubber start-up	Fourth Quarter 2009
Compliance testing	January 2010

In order to provide sufficient time for installation and testing of this emissions control equipment and time for incorporation of the scrubber into the Title V permit, we are requesting extension of the construction permit until September 1, 2010.

Finally, the construction permit authorized burning wastewater treatment sludge on a trial basis. We completed the first set of sludge burn trials and submitted the results on November 25, 2008. The extension of the permit expiration date will enable us to complete the sludge burning trials. We anticipate conducting the remaining sludge burning in March/April 2009, and will not exceed the limit of 500 ODT total sludge burned that was established in the construction permit.

2. You requested an explanation of changes made to the recovery boiler to allow an increase in the red liquor solids firing rate. *Rayonier has not made any modifications to the boiler.* The rated capacity of the boiler is 653.1 MM Btu/hour heat input, as stated in the existing Title V permit. Attached is the original recovery furnace specification sheet that outlined predicted capacity of the boiler. As with most industrial units, the boiler can operate at somewhat higher rates on a short-term basis but would not be expected to do so on a sustained basis, and would average less than the rated capacity on a rolling twelve-month basis. The heat content of the red liquor solids can also vary, so the boiler could actually require a greater volume of red liquor solids to achieve the rated heat input.
3. Testing of the recovery boiler was conducted in a way that ensured the processing rate of 70,000 lbs/hr of red liquor solids was not exceeded for any consecutive three-hour average. Rayonier believed this was compliant with the conditions of the Title V permit, but has since been engaged in discussions around a consent order with the Northeast District office regarding the appropriate averaging time for this limit, and we are currently controlling the liquor processing rate on a one-hour average basis.
4. Because the recovery boiler can operate at a slightly higher liquor firing rate without a physical change or change in the method of operation, the requested increase in liquor firing rate should not be considered a "modification" under the Prevention of Significant Deterioration (PSD) regulations. In order to facilitate completion of the construction permit extension; however, Rayonier is withdrawing the request to increase the liquor firing rate and will submit a separate request for that permit revision at a later time.
5. An application has been submitted to the Northeast District office to incorporate the new No. 6 power boiler and the production increase into the Title V permit. Should we decide to pursue a permit change for the recovery boiler red liquor solids firing rate, we will submit a separate application at that time.

As required by Rule 62-212.420, F.A.C. and Rule 62-4.050(3), F.A.C., Responsible Official (R.O.) Certification and Professional Engineer (P.E.) Certification Statements from DEP Form No. 62-210.900(1) are enclosed with this submittal.

If you have additional questions regarding this information, please contact David Rogers at (904) 277-1346, email: david.rogers@rayonier.com or Debra Lane at (912) 588-8117, email: debra.lane@rayonier.com.

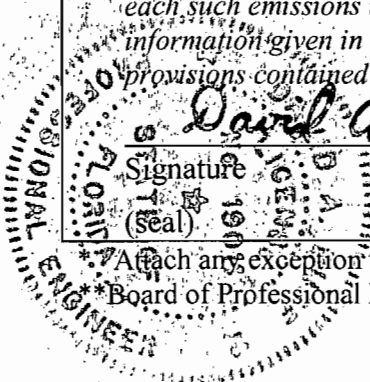
Sincerely,



Jack Perrett
General Manager

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: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 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> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) 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> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" 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> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input 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> <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">  <p><i>David A. Buff</i> _____ Signature (Seal)</p> </div> <div style="text-align: center;"> <p><u>1/8/09</u> _____ Date</p> </div> </div>

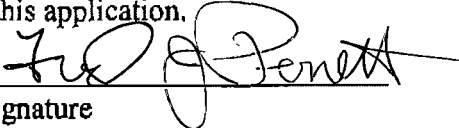
*Attach any exception to certification statement.

Board of Professional Engineers Certificate of Authorization #00001670.

APPLICATION INFORMATION

Application Responsible Official Certification

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

1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input 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: Street Address: City: State: Zip Code:
4. Application Responsible Official Telephone Numbers... Telephone: () ext. Fax: ()
5. Application Responsible Official E-mail Address:
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.  Signature 1-8-09 Date

Rayonier

February 26, 2008

Performance Fibers

Fernandina Mill

Certified Mail, Return Receipt Requested

7007 0710 0005 5955 2601

Department of Environmental Protection
 Division of Air Resources Management, MS5500
 2600 Blair Stone Road
 Tallahassee, Florida 32399-2400

Re: Permit 0890004
 Construction Permit Condition D.5 and E.1 Submittal, Project No. 0890004-018-AC

Please find enclosed pages 1 and 2 of our 2007 EAOR. We have filed the AOR electronically.

Condition D.5. of the Construction Permit Project 30890004-018-AC requires an annual report of construction progress be submitted to the FDEP along with the Annual Operating Report. This correspondence is that report. It should be noted that this construction permit was a non-PSD permit and therefore the elapsed time restrictions on construction do not apply. Nevertheless construction was commenced within 18 months of issuance and will continue at regular intervals.

a. Thus far, the #6 power boiler has been installed and is operational (December 2006), the HCE Evaporator line has been installed and is operational (June 2007), and a portion of the machine speed improvements project (Machine Dandy roll) has been installed and is operational (May 2007).

b/c. The current projects and estimated schedule for those listed on the permit are:

<i>Project</i>	<i>Date</i>
Upgrade dryer cans (machine speed increase)	February 2008
Continue first improvements to pulp machine (replace lump breaker arms)	2008
Add Red Stock Washer Press Roll	February 2009
Begin second improvements to pulp machine (Pocket Ventilation piping and headbox)	2009
Add a new HCE cell	2013
Install a new HCE washer	2013
Install a new post HCE washer	2013
Install new HCE blow heat recovery system to control all HCE cells	TBD

* It continues to be noted that this schedule is preliminary and subject to the success of the earlier projects.

Registered to ISO 9001:2000



Certificate No. A2072

d. The present production capacity of the mill is 162,000 ADMT/year.

Condition E.1, of the above referenced Construction Permit also requires an annual report of Demand Growth Emissions submitted in conjunction with the Annual Operating Report. Demand Growth emissions are associated with the production increase portion of the Construction Permit. The application demonstrated that the existing power boilers and recovery boiler could maintain the 175,000 ADMT production rate. The Power boiler baseline used in the application is presented in the table below along with the reported emissions in the 2007 AOR. The difference is taken as Demand Growth Emissions. However, as there is yet to be any realized production increase above our previously permitted limits, there is yet to be any true demand growth emissions.

Power Boiler Demand Growth Emissions Accounting:

Pollutant	Baseline Emissions from No. 1,2 & 3 boilers ton/yr	Reported Emissions No.6 boiler 2007 AOR ton/yr	Demand Growth Emissions from Boiler ton/yr
PM	276.06	21.59	-254.47
PM10	242.48	21.59	-220.89
SO ₂	181.96	146.1	-35.86
NO _x	340.95	270.1	-70.85
CO	690.75	158.8	-531.95
VOC	52.40	0.93	-51.47

Likewise the application demonstrated that the existing recovery boiler was capable of burning 70,000 lbs/hour of red liquor solids. Its baseline was not provided in the application, but the baseline below is based on the 2003-2004 Annual Operating Report.

The emissions from the current 2007 Annual Operating Report are compared to determine Demand Growth Emissions. However, this overstates these emissions by that portion of the Significance Level applied to the Recovery Boiler, which has not been calculated as it makes the determination unnecessarily complicated.

Recovery Boiler Demand Growth Emissions Accounting

Pollutant	Baseline Emissions from Recovery Boiler ton/yr	Reported Emission from Recovery Boiler 2007 AOR ton/yr	Demand Growth Emissions from Recovery Boiler ton/yr
PM	61.88	72.5	10.62
PM10	55.26	64.76	12.5
SO ₂	821.25	486.4	-334.85
*NO _x	1997.96	1940.1	-57.86
CO	344.84	623.32	-278.48
VOC	31.26	22.99	-8.27

*The Nox emission factor from the 2003 AOR was recalculated in 2004. For this demand growth discussion the 2003 NO_x emissions were recalculated using the 2004 emission factor in order to develop an accurate baseline.

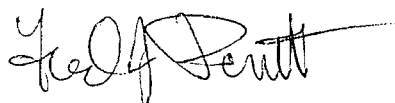
Due to the fact that pulp production and steam production in the first full year of power boiler #6 operation in 2007 was less than the prior two-year average, it is reasonable to state that all pulp produced in 2007 could have been accommodated by the previous boilers and thus qualify as emissions due to demand growth.

Designated Representative Certification

I, the undersigned, am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

If you have any questions, please contact David Rogers at (904) 277-1346 or david.rogers@rayonier.com.

Sincerely,



F. J. Perrett
General Manager

A		B		C			
FUEL		PREDICTED PERFORMANCE		EQUIPMENT PER. AIR			
SPECIFIED BY PURCHASER		STEAM	M LB/HR	392	2	TYPE TWO DRUM RECOVERY	DESIGN PRESSURE 1150
TYPE ALUMINA LIQUOR		LIQUOR SOLIDS	M LB/DAY	1600	4	SIZE 22 - 20/24	MAX SOLIDS IN BLR. WATER 1000 PPM
% BY WEIGHT, DRY SOLIDS		EXCESS AIR LVC. BOILER	%	12	5	95 - 50/48	MAX SOLIDS IN STEAM 1.0 PPM
C1 0.2		B&W BTU-TONS/DAY			6	BOILER H.S. SQ. FT. 22651	
Na 0.2		TOTAL HEAT INPUT	MKB/HR	669	8	DRUM BAFFLE, TYPE 38 - 111" CYCLOPS TYPICALLY PRIMARY	
S 5.0		HEAT AVAILABLE TO FURNACE	MKB/HR	599	9	AND TYPE OF SECONDARY SCRUBBERS	
H 5.8		LIQUOR TO BURNERS		125.8	10		
C 51.7		SALT CAKE MAKEUP		---	11		
O 34.7		STEAM TO STEAM COIL AH		15.8	12		
INERTS 0.7		STEAM TO LIQUOR HEATERS		---	13		
N 1.7		FLUE GAS LVC. ECONOMIZER		647.0	14		
TOTAL 100.0		AIR TO AH		496.5	15		
GROSS HEATING VALUE, 80F		STEAM AT SUPERHEATER OUTLET		900	17		
2500 BTU/LB DRY SOLIDS		DROP, DRUM TO SH OUTLET		98	18		
% BY WEIGHT, AS DELIVERED		DROP THRU ECONOMIZER		15	19		
SOLIDS 53.0		SUPERHEATED STEAM		875	20		
WATER 47.0		LEAVING BOILER		850	22		
TOTAL 100.0		LEAVING ECONOMIZER		450	23		
SPECIFIED BY PURCHASER		LEAVING TUBULAR AIR HEATER		555	24		
TYPE BUNKER "C" FUEL OIL					25		
TEMPERATURE, F					26		
FLUE GAS					27		
AIR WATER					28		
TO ECONOMIZER					29		
TO BOILER					30		
TO AIR HEATER (SCAH/TUB A.H.)					31		
LEAVING AIR HEATER					32		
L.I.O.					33		
TO EVAPORATOR					34		
TO BURNERS					35		
LIQUOR SOLIDS					36		
TO EVAPORATOR					37		
LEAVING EVAPORATOR					38		
TO BURNERS					39		
RESISTANCE, INCHES OF WATER					40		
FLUE GAS					41		
FURNACE DRAFT					42		
BOILER & SUPERHEATER					43		
ECONOMIZER					44		
TUBULAR AIR HEATER					45		
DUST COLLECTOR					46		
SECONDARY SYSTEM (SPECIFIED)					47		
DAMPERS & FLUES					48		
NET DRAFT LOSS					49		
WINDBOX AND BURNERS					50		
AIR HEATER (SCAH/TUB A.H.)					51		
DUCTS & DAMPERS					52		
NET RESISTANCE					53		
DRY GAS					54		
WATER EVAP IN FURNACE					55		
WATER EVAP IN EVAPORATOR					56		
HYDROGEN IN SOLIDS					57		
MOISTURE IN AIR					58		
RADIATION LOSS					59		
UNACC. FOR & MFRS. MARGIN					60		
WATER FROM ATOMIZED STEAM							
HEAT OF REACTION CORRECTION							
REDUCTION OF SULPHUR IN LIQUOR							
STEAM							
PREDICTED PERF. IS BASED ON COMBUSTION AIR ENTERING UNIT AT 80 F, 0.013LB MOISTURE/LB DRY AIR, 29.92 IN HG. BAROMETRIC PRESSURE ON CONDITIONS & EQUIPMENT GIVEN ON SUMMARY SHEET & ON ARRANGEMENT SHOWN ON DRAWING.							
PI 2-6014-210							
BY MPB DATE 1-3-74 APPD. Ad							
THE BARCOCK & WILCOX COMPANY							
PI 2-6014-210-130							
EQUIPMENT PER. AIR							
TYPE TWO DRUM RECOVERY							
DESIGN PRESSURE 1150							
SIZE 22 - 20/24							
MAX SOLIDS IN BLR. WATER 1000 PPM							
95 - 50/48							
MAX SOLIDS IN STEAM 1.0 PPM							
BOILER H.S. SQ. FT. 22651							
DRUM BAFFLE, TYPE 38 - 111" CYCLOPS TYPICALLY PRIMARY							
AND TYPE OF SECONDARY SCRUBBERS							
H.S. SQ. FT. 11700							
NO. OF STEAM PASSES 6							
TUBES, OD, IN. 2.1							
NO. LOOPS 9							
ROWS AT 4 IN. 20 WIDE AT 10 IN.							
H.S. SQ. FT. 9271							
TUBE LENGTH, FT. 20'-2"							
TUBES, OD, IN. 2.0							
DESIGN PRESSURE, LB/SQ. IN. 1150							
FURNACE VOLUME 10100 CU. FT.							
FURNACE WIDTH 20'-8" FURNACE DEPTH 24'-0"							
FURN. HS. 11250* SQ. FT.							
INCLUDES 11300 CU. FT. IN SECONDARY FURNACE							
INCLUDES 5780 SQ. FT. IN SECONDARY FURNACE							
TYPE TUBULAR - 2" O.D. 11 GAGE - H.S. = 68615 SQ. FT.							
TYPE SCAH REQUIRE SATURATED STEAM AT 60 PSIG							
TYPE NO. MAKE NO./UNIT							
DIAM. FT. WIDTH FT.							
LIQUOR SPRAY OSCILLATOR NO/UNIT							
TYPE CIRCULAR - 21 1/2"							
LOCATION: 6 EACH WALL							
REAR WALL - 2 (LIQUOR ONLY)							
TOTAL 14							
ALL (6) ARE COMBINATION LIQUOR AND OIL							
STEAM CAPACITY, AUXILIARY BURNERS (APPROX) 50							
TYPE SPRAY ATTEMPERATOR							
LOCATION INTERSTAGE							
NET REQUIREMENTS 496,500 LB/HR AT 15.3 IN. H2O AND 90 F NO./UNIT							
TEST BLOCK SPECS 595,500 LB/HR AT 16.6 IN. H2O AND 105 F 20.00 *HG							
NET REQUIREMENTS LB/HR AT IN. H2O AND F NO./UNIT							
TEST BLOCK SPECS LB/HR AT IN. H2O AND F *HG							
NET REQUIREMENTS 647,000 LB/HR AT 34.9 IN. H2O AND 130 F NO./UNIT							
TEST BLOCK SPECS 768,000 LB/HR AT 37.4 IN. H2O AND 145 F 22.00 *HG							
* NO TEST BLOCK MARGINS INCLUDED FOR THE SECONDARY SYSTEM.							
NO. DESCRIPTION BY DATE							
1 FURNACE HS. MJB 2-13-74							
I.T.T. FAYONIER							
FERNANDINA BEACH							