STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit

Mr. Jack M. Kriesel
Rayonier, Inc.
Post Office Box 2002
Fernandina Beach, Florida 32035-1309

DEP File No. 0890004-006-AC
PSD-FL-256

Enclosed is the FINAL Permit Number PSD-FL-256 for the installation of a 212 Million British Thermal Units per hour boiler (Unit 8) at the Fernandina Mill, Nassau County. This permit is issued pursuant to Chapter 403, Florida Statutes and in accorance with Rule 62-212.400., F.A.C. - Prevention of Significant Deterioration(PSD).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

C.H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 12-17-98 to the person(s) listed:

Mr. Jack M. Kriesel, Rayonier *
Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS
Mr. Chris Kirts, DEP

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk) 12-17-98 (Date)

FINAL DETERMINATION

Rayonier, Incorporated

Permit No. 0890004-006-AC, PSD-FL-256

Fernandina Mill

An Intent to Issue an air construction permit to Rayonier, Inc., to install a temporary fuel oil boiler at Fernandina Mill in Nassau County, was distributed on November 9, 1998. The Notice of Intent was published in the News-Leader on November 11, 1998. Copies of the draft construction permit were available for public inspection at the Department offices in Jacksonville and Tallahassee.

No comments were submitted by the National Park Service, the U.S. Environmental Protection Agency or the public. No comments were received from the applicant other than inquiries regarding the earliest possible issue date of the final permit. The Department will delete Condition No. 3 of Section II. Emission Unit(s) Administrative Requirements. This condition is not required as the facility does not have Emission Unit(s) Common Specific Conditions attached to the permit.

The final action of the Department is to issue the permit with the change noted above.

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:

Rayonier, Inc.
Post Office Box 2002
Fernandina Beach, Florida 32035-1309

Authorized Representative:
Jack M. Kriesel
General Manager

FID No.	0890004
PSD No.	PSD-FL-256
SIC No.	2611
Project:	Temporary Boiler
Permit No.	0890004-006-AC
Expires:	January 31, 2000

PROJECT AND LOCATION:

Permit for the construction of a 212 MMBtu/hr Combustion Engineering boiler at the Fernandina Mill, Foot of Gum Street, Fernandina Beach, Nassau County. UTM coordinates are Zone 17; 454.7 km E; 3392.2 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the 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 authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices are made a part of this permit:

Appendix BD	BACT Determination
Appendix GC	Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION

The Fernandina Mill presently consists of three power boilers designated as Units 1, 2 and 3, and one recovery boiler designated as Unit 6. This permit is to construct a 212 MMBtu/hr temporary boiler designated as Unit 8 and will be used to replace Units 1 & 2 while they undergo foundation repairs.

REGULATORY CLASSIFICATION

The Fernandina Mill is classified as a Major Source of Air Pollution or Title V Source because it emits or has the potential to emit at least 100 tons per year of a regulated air pollutant. It is also a Major Facility with respect to preconstruction review because it emits or has the potential to emit at least 250 tons per year of a regulated air pollutant.

PERMIT SCHEDULE:

- 08-07-98: Date of Receipt of Application
- 10-26-98: Application deemed complete
- 11-09-98: Intent issued
- 11-11-98: Notice of Intent published in News-Leader

RELEVANT DOCUMENTS:

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

- Application received 08-07-98
- Department's letter dated 09-01-98, 09-03-98, and 10-19-98
- Company letters dated 10-06-98, and 10-26-98
- Technical Evaluation and Preliminary Determination dated 11-09-98
- Best Available Control Technology determination (issued concurrently with permit)

SECTION II. EMISSION UNIT(S) ADMINISTRATIVE REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department of Environmental Protection, Northeast District Office located at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256, and phone number (904) 448-4300. All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration (PSD)* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850) 488-0114.

2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* 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.]**

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. **[Rule 62-210.900, F.A.C.]**

5. Expiration: This air construction permit shall expire on **January 31, 2000**. **[Rule 62-210.300(1), F.A.C.].** The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the permitting authority office of any delays in completion of the project which would affect the startup day by more than 90 days. **[Rule 62-4.090, F.A.C.]**

6. Applicable Regulations: The facility is subject to the following regulations: Florida Administrative Code Chapters 62-4; 62-103; 62-204; 62-210; 62-212, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C.]**

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

LISTING OF EMISSIONS UNITS

This permit addresses the following emission units.

EMISSION UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	Existing No. 1 Power Boiler, oil fired boiler
002	Existing No. 2 Power Boiler, oil and wood waste fired boiler
008	New 212 MMBtu/hr Temporary Boiler, oil fired boiler

SPECIFIC CONDITIONS (UNIT 008):

The following Specific Conditions apply to the following emission unit:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
008	212 MMBtu/hr Temporary Boiler, oil fired boiler

EMISSION LIMITATIONS

1. The maximum allowable emission rates for NO_X for Unit No. 008 shall not exceed 0.425 pounds per million Btu (lb/mmBtu) or 90 pounds per hour (lb/hr) and 395 tons per year (TPY) pursuant to the Best Available Control Technology (BACT) Determination. **[Rule 62-212.410, F.A.C.]**
2. The maximum allowable emission rates for SO_2 for Unit No. 008 shall not exceed 0.26 lb/mmBtu or 55 lb/hr and 244 TPY. **[Per application]**
3. The maximum allowable emission rates for PM/PM_{10} for Unit No. 008 shall not exceed 0.03 lb/mmBtu or 5 lb/hr and 21 TPY. **[Per application]**
4. Visible emissions shall not exceed 20 percent opacity except for either one six-minute period per hour during which opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent. **[Rule 62-296.406(1), F.A.C.]**
5. In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. **[Rule 62-210.700, F.A.C.]**

OPERATIONAL LIMITATIONS

6. The emission unit is allowed to operate continuously (8760 hours/year) **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit].
7. Only No. 6 fuel oil may be fired in the boiler. The maximum sulfur content of the No. 6 fuel oil shall not exceed 2.5 percent, by weight. **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit].
8. The maximum heat input rate to Unit No. 008 shall not exceed 212 MMBtu/hr **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit].

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

9. The maximum No. 6 fuel oil consumption allowed to be burned in Unit No. 008 is 12,400,000 gallons per year, which is equivalent to 8760 hours per year of operation at full load. **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit]

10. Unit No. 008 can be operated for one year (12 months) from the start-up date. The facility will notify Bureau of Air Regulation and the Northeast District of the start-up date for the emission unit. Quarterly progress reports shall be submitted to the Northeast District concerning the project. Any deviations from the project schedule as outlined in the PSD application shall be approved by the Bureau of Air Regulation. **[Per application]**

11. Unit No. 008 can be operated only when either Unit No. 001 or Unit No. 002 is down for foundation repairs. **[Per application]**

TEST METHODS AND PROCEDURES

12. Compliance with the allowable emission limiting standards for NO_X in Specific Condition 1 shall be determined by using EPA Reference Method **7E** (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.310, F.A.C.]**

13. Compliance with the allowable emission limiting standards for SO_2 in Specific Condition 2 shall be determined by using EPA Reference Method **6C** (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.310, F.A.C.]**

14. Compliance with the allowable emission limiting standards for PM/PM_{10} in Specific Condition 3 shall be determined by using EPA Reference Method **5** (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.310, F.A.C.]**

15. The fuel shall be monitored initially and annually for the sulfur content using ASTM D4294 Method (or equivalent). **[Rule 62-297.440, F.A.C.]**

16. The permittee shall maintain daily records of fuel oil consumption for the emission unit. **[Rule 62-210.200, F.A.C.]**

17. Compliance with the visible emission standard shall be demonstrated with EPA Reference Method 9 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.401, F.A.C.]**

RECORDKEEPING AND REPORTING REQUIREMENTS

18. All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. **[Rule 62-4.070(3), F.A.C.]**

19. Two copies of the results of the emission tests for the pollutant listed in Specific Conditions 1, 2 and 3 for Unit No. 8 shall be submitted within forty-five days of the last sampling run to the Northeast

District office in Jacksonville. All reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.310 (8), F.A.C. **[Rule 62-297.310(8), F.A.C.]**

SPECIFIC CONDITIONS (UNIT 001-002)

The following Specific Conditions apply to the following emission units:

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	No. 1 Power Boiler, oil fired boiler
002	No. 2 Power Boiler, oil and wood waste fired boiler

20. Emission Units No. 001 and 002 shall comply with all the requirements and emission limitations of Title V Air Operation Permit No. 0890004-005-AV. **[Air Operation Permit 0890004-005-AV]**

21. In order to minimize excess emissions during startup/shutdown/malfunction emission units No. 001 and 002 shall adhere to best operational practices. **[Rule 62-210.700, F.A.C.]**

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Fernandina Mill
Rayonier, Incorporated
PSD-FL-256 and 0890004-006-AC
Fernandina Beach, Nassau County

Rayonier plans to install a leased package #6 fuel oil boiler at its existing Fernandina Mill in Fernandina Beach, Nassau County. The unit is a Combustion Engineering 37-A-15 Type A Boiler. The boiler will temporarily be used to supply steam to replace either No. 1 or No. 2 power boiler while that boiler undergoes foundation repair. The facility currently consists of three (3) power boilers and a recovery boiler used for generating steam. Power Boiler No. 1 burns #6 fuel oil with a 2.5% sulfur content and has a heat input capacity of 185 MMBtu/hr. Power Boiler No. 2 primarily fires wood waste and also #6 fuel oil with 2.5% sulfur content when required. The heat input capacity for boiler No. 2 varies depending on the fuel fired and can vary from 185 MMBtu/hr on #6 oil to 218 MMBtu/hr on wood fuels. The proposed temporary unit will have a heat input capacity of 212 MMBtu/hr and will burn #6 fuel oil with a 2.5% sulfur content by weight. There is a single #6 fuel oil storage and supply system at the facility that supplies fuel to Boiler Nos 1 and 2 and supplies fuel as needed to other combustion units.

Rayonier has indicated that the maximum annual air pollutant emission rates in tons per year for the 212 MMBtu/hr temporary boiler, based on an annual consumption of 12.4 million gallons of No. 6 fuel oil and 100% capacity factor or 8760 hours of operation will be:

Pollutant	#1 boiler actual emissions (TPY)	#2 boiler actual emissions (TPY)	Temporary boiler potential emissions (TPY)	Delta emissions with temp. on & #1 off (TPY)	Delta emissions with temp. on & #2 off (TPY)	Delta emissions with repair of 8 mos. to # 2 & 4 mos. to #1 (TPY)	Subject to PSD Review
PM & PM_{10}	111	159	21	-90	-138	-122	No
SO_2	467	81	244	-223	162	34	No
CO	16	376	31	15	-345	-225	No
NO_x	227	58	395	167	336	280	Yes
VOC	1	10	7	6	-3	0	No

BACT DETERMINATION REQUESTED BY THE APPLICANT:

POLLUTANT	EMISSION LIMIT
Nitrogen Oxides	0.425 lb/mmBtu by flue gas recirculation and low NO_x burners

The Fernandina Mill is a major source of air pollution or Title V source. Because emissions of a pollutant are greater than 250 tons per year, it is a major facility with respect to the Prevention of Significant Deterioration (Rule 62-212.400). Because the project will result in a significant increase in nitrogen oxides emissions per Table 62-212.400-2, F.A.C., "Regulated Air Pollutants - Significant Emissions Rates," a BACT determination is required pursuant to Rule 62-212.410, F.A.C.

DATE OF RECEIPT OF A BACT APPLICATION:

October 6, 1998

REVIEW GROUP MEMBERS:

Syed Arif, P.E., prepared BACT

BACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

The air pollutant emissions from this facility can be grouped into categories based upon the control equipment and techniques that are available to control emissions from these emission units. Using this approach, the emissions can be classified as follows:

- ***Combustion Products*** (e.g., SO_2, NO_X, PM). Controlled generally by good combustion of clean fuels, removal in add-on control equipment.

- ***Products of Incomplete Combustion*** (e.g., CO, VOC). Control is largely achieved by proper combustion techniques.

Grouping the pollutants in this manner facilitates the BACT analysis because it enables the equipment available to control the type or group of pollutants emitted and the corresponding energy, economic, and environmental impacts to be examined on a common basis. Although all of the pollutants addressed in the BACT analysis may be subject to a specific emission limiting standard as a result of PSD review, the control of "non-regulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., PM, SO_2, H_2SO_4, fluorides, etc.), if a reduction in "non-regulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

BACT POLLUTANT ANALYSIS

NITROGEN OXIDES (NO_X)

Oxides of nitrogen (NO_x) are generated during fuel combustion by oxidation of chemically bound nitrogen in the fuel (fuel NO_x) and by thermal fixation of nitrogen in the combustion air (thermal NO_x). As flame temperature increases, the amount of thermally generated NO_x increases. Fuel type affects the quantity and type of NO_x generated. Generally, natural gas is low in nitrogen. However it causes higher flame temperatures and generates more thermal NO_x than oil or coal, which have higher fuel nitrogen content, but exhibit lower flame temperatures.

NO_x emissions represent a significant portion of the total emissions generated by this project, and must be minimized using BACT. A review of EPA BACT/LAER Clearinghouse (BACT Clearinghouse) information indicates that NO_x emissions at most small facilities are minimized by process control and good combustion practices.

The applicant has proposed combustion controls equipped on the temporary boiler which includes flue gas recirculation (FGR) and low NO_x burners. The combination of FGR and low NO_x burners results in less NO_x formation. Low NO_x burners reduce NO_x by conducting the combustion process in stages. Staging partially delays the combustion process, resulting in a cooler flame which suppresses thermal NO_x formation. NO_x reductions of 40 to 85 percent (relative to uncontrolled emission levels) have been observed with low NO_x burners when combined with flue gas recirculation.

In a FGR system, a portion of the flue gas is recycled from the stack to the burner windbox. Upon entering the windbox, the cooler gas is mixed with combustion air prior to being fed to the burner. The FGR system reduces NO_x emissions by two mechanisms. In the first mechanism, the recycled flue gas is made up of combustion products which acts as inserts during combustion of the fuel/air mixture. This additional mass is heated in the combustion zone, thereby lowering the peak flame temperature and reducing the amount of NO_x formed. Second, to a lesser extent, FGR also reduces NO_x formation by lowering the oxygen concentration in the primary flame

zone. **This combination of NO_x controls and good combustion practices should provide effective emissions control.**

BACT DETERMINATION BY DEP:

Based on the information provided by the applicant and the information searches conducted by the Department, lower emissions limits can be obtained employing the top-down BACT approach for NO_x.

NO_x DETERMINATION

The top-down BACT approach for fuel oil boilers listed in order from most stringent control to least:

1. Selective Catalytic Reduction (SCR)
2. Selective Noncatalytic Reduction (SNCR)
3. Good combustion design/practices

The following table summarizes the feasibility of using these control technologies with the Combustion Engineering Boiler as designed for installation in Rayonier's Fernandina Mill.

Control Technology	Emission Reduction (%)	Technically Feasible	Cost per ton	Adverse Environ. Impacts
SCR with ammonia	80-90	Yes	$6,970	Yes
SNCR	40-70	Yes	$8,750	No
Low NO_x Burners with Flue Gas Recirculation	20-50	Yes	N/A	No
Fuel Substitution	7- 35	Yes	$21,000	No

The BACT/LAER database does not list any facilities which uses post-combustion add-on controls for temporary boiler installations. Because the boiler is temporary (12 months), the economic impact analysis of add-on type controls were based on a one year equipment life amortization versus a typical 10 year life. The one year time frame results in a very high economic impact.

For NO_x emissions, the Department accepts the applicants proposed use of low NO_x burners with flue gas recirculation as BACT for this project.

The BACT emission level established by the Department is as follows:

POLLUTANT	EMISSION LIMIT
Nitrogen Oxides (NO_x)	0.425 lb/mmBtu; 90 lbs/hr (395 TPY)

COMPLIANCE

Compliance with the NO_x limitations shall be in accordance with the EPA Reference Method 7E as contained in 40 CFR 60, Appendix A.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Syed Arif, P.E.
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

12/15/98
Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

12/15/98
Date:

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

G.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 these conditions.

G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and 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 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.

G.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.

G.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 permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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.

G.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 and records 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.

G.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 noncompliance, 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.

G.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 extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.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.

G.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.

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

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology *(X)*
(b) Determination of Prevention of Significant Deterioration *(X)*; and
(c) Compliance with New Source Performance Standards *( )*.

G.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 or 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:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.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.

Memorandum

Florida Department of
Environmental Protection

TO: Howard L. Rhodes

THRU: Clair Fancy
Al Linero

FROM Syed Arif

DATE: December 15, 1998

SUBJECT: Rayonier, Inc., 0890004-006-AC,
PSD-FL-256

Attached for approval and signature is a construction permit number 0890004-006-AC, PSD-FL-256 for Rayonier, Inc., Fernandina Mill's 212 MMBtu/hr temporary boiler (Unit No. 8) to be located in Fernandina Beach, Florida. A Technical Evaluation and Preliminary Determination was issued, and the facility was required to do a public notice.

The new unit is a source of nitrogen oxides emissions which are controlled by flue gas recirculation and low NO_x burners. The temporary boiler will be utilized for a period of 12 months while the No. 1 and No. 2 Power boilers undergo foundation repairs. The existing scrubber systems will be used to minimize other pollutant emissions.

The project modification provides reasonable assurance that all the requirements of the permit and BACT determination will be complied with. I recommend your approval and signature.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Jack Kriesel
Rayonier, Inc.
PO Box 2002
Fernandina Beach, Fl
32035-1309

4a. Article Number
Z 333 612 569

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
12-22-98

5. Received By: *(Print Name)*
C L MITCHELL

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 **Domestic Return Receipt**

Thank you for using Return Receipt Service.

Z 333 612 569

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Kriesel
Street & Number Rayonier
Post Office, State, & ZIP Code Fernandina Beach, FL

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	12-17-98

0890004-006-AC
PSD-FL-256

PS Form **3800**, April 1995

Rayonier *Specialty Pulp Products*

Fernandina Mill

December 3, 1999

Christopher Kirts
District Air Program Administrator
Department of Environmental Protection
7825 Baymeadows Way, Suite B200
Jacksonville, FL 32256-7590

RE: Permit Revision of Title V Permit No. 08900004-005-AV, Project 008,
Request for Additional Information dated September 20, 1999; and
Removal of Project 007 from Title V Permit No. 08900004-005-AV

Dear Mr. Kirts:

On April 26, 1999 the Department issued a final revision to the above referenced Title V permit to include project 007, a temporary 212 MMBtu/hr oil fired boiler. On July 28, 1999 Mr. Jack Kriesel, General Manager, made a letter request to change the oil burned by this temporary boiler from No. 6 oil to No. 2 oil. On September 20, 1999 you requested additional information regarding the July 28, 1999 permit modification request. This became Title V project 008.

This temporary boiler is no longer needed and has been removed from the mill site. Therefore, Rayonier can withdraw its July 28, 1999 permit modification request. This removes the requirement to pursue answers to your September 20, 1999 Request for Further Information.

Also, since this boiler is no longer on site, it can be removed from the mill's Title V permit. Please consider this letter our application to remove Project 007 from Title V permit No. 08900004-005-AV.

If you have questions, please contact David Tudor at (904)277-1452 or E-mail at david.tudor@rayonier.com.

Sincerely,

Jack M. Kriesel
General Manager

cc: Rita Felton-Smith
Syed Arif

Dick | Dave T
cc: Reed
9/28

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

September 20, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jack M., Kriesel, General Manager
Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035-1309

Nassau County – AP
Rayonier, Inc. - Fernandina Mill
Request for Additional Information
Permit Revision of Title V Permit No.: 0890004-005-AV
Project 008

Dear Mr. Kriesel:

In accordance with Rule 62-213.420(1)(b)2., F.A.C., and Rule 62-4.055(1)., F.A.C., the Department has reviewed the subject application and has determined that the following information and questions need to be answered before the application can be further processed.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. In accordance with Rule 62-213.420(1)(b)1., an applicant for permit revision must submit an application on form number 62-210.900(1) F.A.C. containing only that information related to the proposed change(s). Please complete the necessary application pages, including but not limited to the Segment (Process/Fuel) information, Purpose of Application, and Certification by the Responsible Official in accordance with Rule 62-213.420(4), F.A.C.

2. Because No. 6 fuel oil is currently the only permitted fuel for the temporary package boiler (Emissions Unit 008) in referenced the Title V permit, (0890004-005-AV revised April 26, 1999), does Rayonier anticipate installing a separate, storage tank for the proposed No. 2 fuel oil? If so, will the tank be such that the requirements of 40 CFR 60 Subpart Kb are triggered?

3. In the permit revision letter received July 30, 1999, it is stated that Rayonier wishes Specific Condition I.5. Methods of Operation Fuel(s) to read, "Number 2 fuel oil may be used and the sulfur content shall not exceed 2.5% by weight."

a. Please explain why Rayonier wishes to maintain the 2.5% sulfur content limit since typically No. 2 fuel oil has a sulfur content in the range of 0.2 – 1.0% by weight.

b. In accordance with Rule 62-296.406, sulfur dioxide emissions are limited by Best Available Control Technology. Guidance Memo DARM-PER/GEN-17 states that BACT Determinations for boilers which fire fuels containing higher than 0.05% sulfur, by weight, are to be completed by the Bureau of Air Regulation. Should Rayonier wish a sulfur content limit greater than 0.05%, a BACT determination must be completed by BAR.

Responsible Official (R.O.) Certification Statement:

Rule 62-213.420(4)., F.A.C. requires that all Title V permit applications must be certified by a responsible official. Due to the nature of the information requested above, your response should be certified by the responsible official. Please complete and submit a new R.O. certification statement page from the new long application form, DEP Form No. 62-210.900(1), effective February 11, 1999.

Professional Engineer (P.E.) Certification Statement:

Rule 62-4.050(3)., F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result, your response should be certified by a professional engineer registered in the State of Florida. Please complete and submit a new P. E. certification statement page from the new long application form, DEP Form No. 62-210.900(1), effective February 11, 1999.

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C.

If you should have any questions, please call Rita Felton-Smith at (904) 448-4310, extension 237

Sincerely,

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

CLK:RFS

Main file

Rayonier

Specialty Pulp Products

Fernandina Mill

November 2, 1999

FAX to Mort Benjamin 904/446-4366
Department of Environmental Protection

Dear Mr. Benjamin:

This note is to inform you that temporary power boiler no. 8 was shutdown on October 28, and will be dismantled and returned to its owner during the weeks of November 1 & 8. As reported to you before we are testing the recovery boiler for particulate emissions today, and will test no. 2 power boiler through A-scrubber tomorrow. No. 2 power boiler was returned to service on October 25. Work has begun on No. 1 power boiler foundation. The mill plans to be down for its annual maintenance shutdown and pulp inventory adjustment from December 6 through January 3.

If you have any questions feel free to call me at (904) 277-1480.

Yours very truly,

Richard Hopper

Richard W. Hopper
Manager, Environmental Operations

cc: JMK, FJP, WPH, DET
Rita Felton-Smith, DEP Jacksonville
Syed Arif

aa

Rayonier

Specialty Pulp Products

Fernandina Mill

October 26, 1999

A. A. Linero
New Source Review Section
Department of Environment Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: DEP File No. 0890004-006-AC (PSD-FL-256)
Fernandina mill, Temporary Replacement Boiler

Dear Mr. Linero:

I am responding to your letter of October 7, 1999 to Mr. Jack M. Kriesel, General Manager at Rayonier's sulfite pulp mill in Fernandina Beach.

The permit for this temporary replacement boiler expires January 31, 2000. By that time this boiler will be dismantled and removed from the mill site. No further permitting action is anticipated on this source.

Sincerely,

David E. Tudor
Manager Environmental
Affairs – Air

CC: Rita Felton-Smith
Syed Arif
Christopher Kirts

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

October 7, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jack M., Kriesel, General Manager
Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, Florida 32035-1309

RE: DEP File No. 0890004-006-AC (PSD-FL-256)
Fernandina Mill, Temporary Replacement Boiler

Dear Mr. Kriesel:

We were reminded by our District office that Permit No. 0890004-006-AC, for the temporary boiler expires on January 31, 2000. In addition to an expiration date, it is also a specific permit condition (Specific Condition 10) of the subject permit. Please confirm that Rayonier will cease operating the boiler in accordance with the permit.

Pursuant to Rule 62-4.080 F.A.C., you may request that this permit be extended as a modification of the permit. Such a request must be submitted in writing to this office before the January 31, 2000 expiration date. If such a request is made, you will need to request a modification of Specific Condition 10 and demonstrate the adequacy of the Best Available Control Technology (BACT) for this project. The main reason is that our BACT was based on the assumption of short-term operation (until January 31, 2000) of this temporary boiler.

If there are any questions regarding the above, please contact Syed Arif, P.E. at (850) 921-9528.

Sincerely,

10/7

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/sa

cc: Rita Felton-Smith, NED

Fold at line over top of envelope to

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Jack M. Kriesel, Gen. Mgr
Rayonier, Inc
Foot of Gum St.
Fernandina Bch, Fl
32035-1389

4a. Article Number
Z 031 392 018

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
10-13-99

5. Received By: *(Print Name)*
L L MITCHELL

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form 3811, December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 031 392 018

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Kriesel	
Street & Number Rayonier, Inc	
Post Office, State, & ZIP Code Fernandina Bch	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0890004-000-AC PSD-FI-256 10-8-99	

PS Form 3800, April 1995

Check Sheet

Company Name: Raytheon, Inc.
Permit Number: 089b04-006-AC
PSD Number: 256
Permit Engineer: Joseph Brief

Application:

- [x] Initial Application
  - [x] Incompleteness Letters
  - [x] Responses
  - [ ] Waiver of Department Action
  - [ ] Department Response
  - [ ] Other

Cross References:

- [ ]
- [ ]
- [ ]

Intent:

- [x] Intent to Issue
- [x] Notice of Intent to Issue
- [x] Technical Evaluation
- [x] BACT Determination
- [x] Unsigned Permit

Correspondence with:

- [ ] EPA
- [ ] Park Services
- [ ] Other

- [x] Proof of Publication
  - [ ] Petitions - (Related to extensions, hearings, etc.)
  - [ ] Waiver of Department Action
  - [ ] Other

Final Determination:

- [x] Final Determination
- [x] Signed Permit
- [x] BACT Determination
  - [ ] Other

Post Permit Correspondence:

- [ ] Extensions/Amendments/Modifications
- [ ] Other

Rayonier

Specialty Pulp Products

Fernandina Mill

November 17, 1998

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

RE: DEP File No. 08900004-006-AC (PSD-FL-256)
Specialty Pulp Products, Temporary Replacement Boiler

Dear Mr. Arif:

Attached is an actual page 7B from the November 11, 1998 Fernandina Beach News Leader, containing the Legal Notices. Please note that one of the notices is the Public Notice of Intent to Issue Air Construction Permit for the above referenced permit. I am also enclosing a copy of the affidavit from the News Leader relating to this notification. I am submitting this material within 7 days of the publication date as proof of publication of the required notice.

If you need additional information please contact me at telephone: 904-277-1452, Email: david.tudor@rayonier.com.

Sincerely,

David E. Tudor/CO

David E. Tudor
Manager Environmental Affairs - Air

Enclosures

cc: Rita Felton-Smith w/enclosure
cc: S. Arif, BAR
NED
EPA
NPS

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0890004-006-AC
(PSD-FL-256)
Fernandina Mill
Rayonier, Incorporated
Nassau County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Rayonier, Inc. to install a temporary boiler at its sulfite pulp mill. The plant is located at Foot of Gum Street, Fernandina Beach, Nassau County. A Best Available Control Technology (BACT) determination was required for nitrogen oxides, pursuant to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). The applicant's name and address are: Rayonier, Inc., Post Office Box 2002, Fernandina Beach, Florida 32035.

The temporary boiler has a heat input rate of 212 Million British Thermal Units per hour and will be in operation for a period of only one year. The temporary boiler will be used in lieu of Power Boilers 1 and 2 while they undergo foundation repairs. The existing control equipments of venturi scrubbers will be used to control particulate matter and sulfur dioxide emissions from the temporary boiler. Nitrogen oxides (NO_x) emission will be minimized from the temporary boiler by utilizing low NO_x burners and flue gas recirculation. An air quality impact analysis was not required because of the temporary nature of the project.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. 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 will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department'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 how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department'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.

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979
Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/448-4300
Fax: 904/448-4363

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

1t 11-11-98
8468

News-Leader

Published Weekly
Ash Street/P.O. Box 766 (904) 261-3696
Fernandina Beach, Nassau County, Florida 32034

STATE OF FLORIDA
COUNTY OF NASSAU:

Before the undersigned authority personally appeared **Foy R. Maloy, Jr.** who on oath says that he is the Publisher of The Fernandina Beach *News-Leader*, a weekly newspaper published at Fernandina Beach in Nassau County, Florida; that the attached copy of advertisement, being a **Legal Notice** in the matter of

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0890004-006-AC
Rayonier, Incorporated

was published in said newspaper in the issues of
11-11-98
ref. No. 8468

Affiant further says that the said Fernandina Beach *News-Leader* is a newspaper published at Fernandina Beach, in said Nassau County, Florida, and that the said newspaper has heretofore been continuously published in said Nassau County, Florida, each week and has been entered as second class mail matter at the post office in Fernandina Beach in said Nassau County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me

this **13th day of November, A.D. 1998.**

Angeline B. Mudd Notary Public

TYPE OF IDENTIFICATION
Personally Known

ANGELINE B. MUDD
Notary Public, State of Florida
My Comm. expires Jan. 4, 2000
Comm. No. CC 522754

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

November 6, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jack M. Kriesel
General Manager
Rayonier, Inc.
Post Office Box 2002
Fernandina Beach, Florida 32035-1309

Re: DEP File No. 0890004-006-AC (PSD-FL-256)
Fernandina Mill, Temporary Replacement Boiler

Dear Mr. Kriesel:

Enclosed is one copy of the Draft Air Construction Permit for the Fernandina Mill located at Foot of Gum Street, Fernandina Beach, Nassau County. The Technical Evaluation and Preliminary Determination, Best Available Control Technology, the Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" must be published in the legal section of a newspaper of general circulation in Nassau County. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to the Mr. Syed Arif, P.E. of the New Source Review Section at the above letterhead address. If you have any other questions, please contact Mr. Arif at 850/921-9528.

Sincerely,

C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/sa

Enclosures

In the Matter of an
Application for Permit by:

Rayonier, Inc.
P.O. Box 2002
Fernandina Beach, Florida 32035-1309
_____/

DEP File No. 0890004-006-AC
Draft Permit No. PSD-FL-256
Fernandina Mill
Nassau County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Rayonier, Inc. submitted a complete application on October 26, 1998 to the Department for an air construction permit to install a temporary fuel oil fired boiler. The temporary boiler will be used to supply steam to replace the existing No. 1 and No. 2 power boilers when they undergo foundation repairs at Fernandina Mill located at Foot of Gum Street, Fernandina Beach, Nassau County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a review for the Prevention of Significant Deterioration (PSD), a determination of Best Available Control Technology (BACT) and an air construction permit are required.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed ""Public Notice of Intent to Issue Air Construction Permit." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). The Department suggests that you publish the notice within thirty days of receipt of this letter. You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit or other authorization. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road,

Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. 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 will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department'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 how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department'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

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

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 11-9-98 to the person(s) listed:

Mr. Jack M. Kriesel, Rayonier *
Mr. Doug Neeley , EPA
Mr. John Bunyak, NPS
Mr. Chris Kirts, DEP

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kyri Dobes 11-9-98
(Clerk) (Date)

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Jack Kriesel, GM
Rayonier, Inc
PO Box 2002
Fernandina Bch, Fl
32035-1309

4a. Article Number
Z 333 612 495

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
11-12-98

5. Received By: *(Print Name)*
C. M. TUCKER

6. Signature: *(Addressee or Agent)*
X

8. Addressee's Address *(Only if requested and fee is paid)*

Thank you for using Return Receipt Service.

Z 333 612 495

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to: Jack Kriesel
Street & Number: Rayonier, Inc
Post Office, State, & ZIP Code: Fernandina Bch, Fl

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form 3800, April 1995

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0890004-006-AC (PSD-FL-256)
Fernandina Mill
Rayonier, Incorporated
Nassau County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Rayonier, Inc. to install a temporary boiler at it sulfite pulp mill. The plant is located at Foot of Gum Street, Fernandina Beach, Nassau County. A Best Available Control Technology (BACT) determination was required for nitrogen oxides, pursuant to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). The applicant's name and address are: Rayonier, Inc., Post Office Box 2002, Fernandina Beach, Florida 32035.

The temporary boiler has a heat input rate of 212 Million British Thermal Units per hour and will be in operation for a period of only one year. The temporary boiler will be used in lieu of Power Boilers 1 and 2 while they undergo foundation repairs. The existing control equipments of venturi scrubbers will be used to control particulate matter and sulfur dioxide emissions from the temporary boiler. Nitrogen oxides (NO_x) emission will be minimized from the temporary boiler by utilizing low NO_x burners and flue gas recirculation. An air quality impact analysis was not required because of the temporary nature of the project.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by

any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. 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 will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department'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 how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department'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

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/448-4300
Fax: 904/448-4363

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

Technical Evaluation
and
Preliminary Determination

Sulfite Pulp Mill
Rayonier, Inc.
Nassau County, Florida

Temporary Replacement Boiler
(212 Million Btu per hour)

Construction Permit No. 089004-006-AC
PSD-FL-256

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

November 6, 1998

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Rayonier, Inc.
P.O. Box 2002
Fernandina Beach, Florida 32035-1309

Authorized Representative: Mr. Jack M. Kriesel, General Manager

1.2 Reviewing and Process Schedule

08-07-98:	Date of Receipt of Application
09-01-98:	DEP Completeness Request
09-03-98:	DEP Additional Completeness Request
10-06-98:	Rayonier's response to DEP's Completeness Requests of 09-01-98 and 09-03-98
10-19-98:	DEP Completeness Request
10-26-98:	Rayonier's response to DEP's Completeness Request of 10-19-98. Application complete
11-09-98:	Issue Intent

2 FACILITY INFORMATION

2.1 Facility Location

This facility is located at Foot of Gum Street, Fernandina Beach, Nassau County, Florida. The UTM coordinates are Zone 17, 454.7 km east and 3392.2 km north.

2.2 Standard Industrial Classification Code (SIC)

Major Group No. 26 - Paper & Allied Products

Industry Group No. 2611 - Pulp Mills

2.3 Facility Category

This facility extracts cellulose from fibrous sources using a variation of the sulfite pulping process. It produces what is referred to as dissolving pulps. The production of acid sulfite pulp proceeds similarly to kraft pulping, except that different chemicals are used in the cooking liquor. In place of the caustic solution used to dissolve the lignin in the wood, sulfurous acid is employed. To buffer the cooking solution, ammonia as a base chemical is used.

The facility is classified as a major or Title V source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceed 100 Tons Per Year (TPY). Because emissions are greater than 250 TPY for at least one criteria pollutant, the facility is also a major facility with respect to 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than 40 TPY of NO_x require review per the PSD rules and a determination of Best Available Control Technology (BACT) per Rule 62-212, F.A.C. Since the temporary emissions increase for this project would not exceed two years, 62-212.400(3)(c) exempts Source Impact Analysis for this modification.

3. PROJECT DESCRIPTION

Rayonier is proposing to install a leased No. 6 fuel oil-fired boiler that will temporarily be used to supply steam to replace either No. 1 or No. 2 Power Boilers while that boiler undergoes foundation repair. No. 1 Power Boiler will be down for four months and No. 2 Power Boiler will be down for eight months, for an estimated total of one year to repair both boilers. The temporary boiler will be located west of and near the existing Nos. 1, 2 and 3 Power Boilers on the old foundation of the previously abandoned No. 4 Power Boiler. This will locate it near the existing scrubbers and stacks so that it can be tied into the ductwork leading to the "A" scrubber currently serving Nos. 1 and 2 Power Boilers. The temporary boiler will exhaust out the same stack associated with that scrubber.

Power Boiler No. 1 burns No. 6 fuel oil with a 2.5% sulfur content and has a heat input capacity of 185 MMBtu/hr. Power Boiler No. 2 primarily fires wood waste and also No. 6 fuel oil with 2.5% sulfur content when required. The heat input capacity for boiler No. 2 varies depending on the fuel fired and can vary from 185 MMBtu/hr on No. 6 oil to 218 MMBtu/hr on wood fuels. The proposed temporary unit will have a heat input capacity of 212 MMBtu/hr and will burn #6 fuel oil with a 2.5% sulfur content by weight. There is a single No. 6 fuel oil storage and supply system at the facility that supplies fuel to Boiler Nos. 1 and 2 and supplies fuel as needed to other combustion units.

4. PROJECT EMISSIONS

The proposed project, a 212 MMBtu/hr temporary boiler, will produce maximum emissions of 280 tons per year (TPY) of nitrogen oxides (NO_X) and 34 TPY of sulfur dioxide (SO_2) based on an annual consumption of 12.4 million gallons of No. 6 fuel oil and 100% capacity factor or 8760 hours of operation for the temporary boiler. The No. 6 fuel oil will be limited to maximum of 2.5% sulfur content, by weight. Future emissions are dependent on the operating scenario being used. Either No. 1 power boiler is being repaired and is replaced by the temporary boiler or No. 2 boiler is being repaired and is replaced by the temporary boiler. The Summary Table of Emissions below indicates the increases and decreases for each scenario and the actual annual increase or decrease expected given the time the temporary boiler substitutes for each boiler undergoing repair.

Pollutant	#1 boiler actual emissions (TPY)	#2 boiler actual emissions (TPY)	Temporary boiler potential emissions (TPY)	Delta emissions with temp. on & #1 off (TPY)	Delta emissions with temp. on & #2 off (TPY)	Delta emissions with repair of 8 mos. to # 2 & 4 mos. to #1 (TPY)
PM/PM_{10}	111	159	21	-90	-138	-122
SO_2	467	81	244	-223	162	34
CO	16	376	31	15	-345	-225
NO_x	227	58	395	167	336	280
VOC	1	10	7	6	-3	0

5. RULE APPLICABILITY

The proposed project, installation of a 212 MMBtu/hr temporary boiler in Nassau County, is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.).

This facility is located in an area designated attainment for all criteria pollutants in accordance with F.A.C. Rule 62-275.400.

The proposed project was reviewed under Rule 62-212.400(5), F.A.C., New Source Review (NSR) for Prevention of Significant Deterioration (PSD), because it will be a major stationary source. This review consisted of a determination of Best Available Control Technology (BACT). Since the temporary emissions increase for this project would not exceed two years, 62-212.400(3)(c) exempts Source Impact Analysis for this modification.

The emission units affected by this PSD permit shall comply with all applicable provisions of the Florida Administrative Code and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits.
Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted By Reference
Rule 62-210.200	Definitions
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods

6. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by Rayonier , the Department has made a preliminary determination that the proposed project will comply with all applicable state air pollution regulations provided the Department's Best Available Control Technology Determination is implemented.

Permit Engineer: Syed Arif, P.E.

PERMITTEE:

Rayonier, Inc.
Post Office Box 2002
Fernandina Beach, Florida 32035-1309

Authorized Representative:
Jack M. Kriesel
General Manager

FID No.	0890004
PSD No.	PSD-FL-256
SIC No.	2611
Project:	Temporary Boiler
Permit No.	0890004-006-AC
Expires:	January 31, 2000

PROJECT AND LOCATION:

Permit for the construction of a 212 MMBtu/hr Combustion Engineering boiler at the Fernandina Mill, Foot of Gum Street, Fernandina Beach, Nassau County. UTM coordinates are Zone 17; 454.7 km E; 3392.2 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the 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 authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices are made a part of this permit:

Appendix BD	BACT Determination
Appendix GC	Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION

The Fernandina Mill presently consists of three power boilers designated as Units 1, 2 and 3, and one recovery boiler designated as Unit 6. This permit is to construct a 212 MMBtu/hr temporary boiler designated as Unit 8 and will be used to replace Units 1 & 2 while they undergo foundation repairs.

REGULATORY CLASSIFICATION

The Fernandina Mill is classified as a Major Source of Air Pollution or Title V Source because it emits or has the potential to emit at least 100 tons per year of a regulated air pollutant. It is also a Major Facility with respect to preconstruction review because it emits or has the potential to emit at least 250 tons per year of a regulated air pollutant.

PERMIT SCHEDULE:

- 08-07-98: Date of Receipt of Application
- 10-26-98: Application deemed complete
- 11-09-98: Intent issued

RELEVANT DOCUMENTS:

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

- Application received 08-07-98
- Department's letter dated 09-01-98, 09-03-98, and 10-19-98
- Company letters dated 10-06-98, and 10-26-98
- Technical Evaluation and Preliminary Determination dated 11-09-98
- Best Available Control Technology determination (issued concurrently with permit)

SECTION II. EMISSION UNIT(S) ADMINISTRATIVE REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department of Environmental Protection, Northeast District Office located at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256, and phone number (904) 448-4300. All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration (PSD)* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850) 488-0114.

2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* 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.]**

3. Emission Unit(s) Common Specific Conditions: The owner and operator is subject to and shall operate under the attached Emission Unit(s) Common Specific Conditions listed in *Appendix CSC* of this permit. The Emission Unit(s) Common Specific Conditions are binding and enforceable pursuant to Chapters 62-204 through 62-297 of the Florida Administrative Code.

4. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

5. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. **[Rule 62-210.900, F.A.C.]**

6. Expiration: This air construction permit shall expire on **January 31, 2000. [Rule 62-210.300(1), F.A.C.]**. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the permitting authority office of any delays in completion of the project which would affect the startup day by more than 90 days. **[Rule 62-4.090, F.A.C.]**

7. Applicable Regulations: The facility is subject to the following regulations: Florida Administrative Code Chapters 62-4; 62-103; 62-204; 62-210; 62-212, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C.]**

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

LISTING OF EMISSIONS UNITS

This permit addresses the following emission units.

EMISSION UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	Existing No. 1 Power Boiler, oil fired boiler
002	Existing No. 2 Power Boiler, oil and wood waste fired boiler
008	New 212 MMBtu/hr Temporary Boiler, oil fired boiler

SPECIFIC CONDITIONS (UNIT 008):

The following Specific Conditions apply to the following emission unit:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
008	212 MMBtu/hr Temporary Boiler, oil fired boiler

EMISSION LIMITATIONS

1. The maximum allowable emission rates for NO_X for Unit No. 008 shall not exceed 0.425 pounds per million Btu (lb/mmBtu) or 90 pounds per hour (lb/hr) and 395 tons per year (TPY) pursuant to the Best Available Control Technology (BACT) Determination. **[Rule 62-212.410, F.A.C.]**
2. The maximum allowable emission rates for SO_2 for Unit No. 008 shall not exceed 0.26 lb/mmBtu or 55 lb/hr and 244 TPY. **[Per application]**
3. The maximum allowable emission rates for PM/PM_{10} for Unit No. 008 shall not exceed 0.03 lb/mmBtu or 5 lb/hr and 21 TPY. **[Per application]**
4. Visible emissions shall not exceed 20 percent opacity except for either one six-minute period per hour during which opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent. **[Rule 62-296.406(1), F.A.C.]**
5. In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. **[Rule 62-210.700, F.A.C.]**

OPERATIONAL LIMITATIONS

6. The emission unit is allowed to operate continuously (8760 hours/year) **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit].
7. Only No. 6 fuel oil may be fired in the boiler. The maximum sulfur content of the No. 6 fuel oil shall not exceed 2.5 percent, by weight. **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit].
8. The maximum heat input rate to Unit No. 008 shall not exceed 212 MMBtu/hr **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit].

9. The maximum No. 6 fuel oil consumption allowed to be burned in Unit No. 008 is 12,400,000 gallons per year, which is equivalent to 8760 hours per year of operation at full load. **[Rule 62-210.200, F.A.C.,** Definitions: Potential-to-Emit]

10. Unit No. 008 can be operated for one year (12 months) from the start-up date. The facility will notify Bureau of Air Regulation and the Northeast District of the start-up date for the emission unit. Quarterly progress reports shall be submitted to the Northeast District concerning the project. Any deviations from the project schedule as outlined in the PSD application shall be approved by the Bureau of Air Regulation. **[Per application]**

11. Unit No. 008 can be operated only when either Unit No. 001 or Unit No. 002 is down for foundation repairs. **[Per application]**

TEST METHODS AND PROCEDURES

12. Compliance with the allowable emission limiting standards for NO_X in Specific Condition 1 shall be determined by using EPA Reference Method **7E** (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.310, F.A.C.]**

13. Compliance with the allowable emission limiting standards for SO_2 in Specific Condition 2 shall be determined by using EPA Reference Method **6C** (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.310, F.A.C.]**

14. Compliance with the allowable emission limiting standards for PM/PM_{10} in Specific Condition 3 shall be determined by using EPA Reference Method **5** (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.310, F.A.C.]**

15. The fuel shall be monitored initially and annually for the sulfur content using ASTM D4294 Method (or equivalent). **[Rule 62-297.440, F.A.C.]**

16. The permittee shall maintain daily records of fuel oil consumption for the emission unit. **[Rule 62-210.200, F.A.C.]**

17. Compliance with the visible emission standard shall be demonstrated with EPA Reference Method 9 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. **[Rule 62-297.401, F.A.C.]**

RECORDKEEPING AND REPORTING REQUIREMENTS

18. All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. **[Rule 62-4.070(3), F.A.C.]**

19. Two copies of the results of the emission tests for the pollutant listed in Specific Conditions 1. 2 and 3 for Unit No. 8 shall be submitted within forty-five days of the last sampling run to the Northeast

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

District office in Jacksonville. All reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.310 (8), F.A.C. **[Rule 62-297.310(8), F.A.C.]**

SPECIFIC CONDITIONS (UNIT 001-002)

The following Specific Conditions apply to the following emission units:

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	No. 1 Power Boiler, oil fired boiler
002	No. 2 Power Boiler, oil and wood waste fired boiler

20. Emission Units No. 001 and 002 shall comply with all the requirements and emission limitations of Title V Air Operation Permit No. 0890004-005-AV. **[Air Operation Permit 0890004-005-AV]**

21. In order to minimize excess emissions during startup/shutdown/malfunction emission units No. 001 and 002 shall adhere to best operational practices. **[Rule 62-210.700, F.A.C.]**

Fernandina Mill
Rayonier, Incorporated
PSD-FL-256 and 0890004-006-AC
Fernandina Beach, Nassau County

Rayonier plans to install a leased package #6 fuel oil boiler at its existing Fernandina Mill in Fernandina Beach, Nassau County. The unit is a Combustion Engineering 37-A-15 Type A Boiler. The boiler will temporarily be used to supply steam to replace either No. 1 or No. 2 power boiler while that boiler undergoes foundation repair. The facility currently consists of three (3) power boilers and a recovery boiler used for generating steam. Power Boiler No. 1 burns #6 fuel oil with a 2.5% sulfur content and has a heat input capacity of 185 MMBtu/hr. Power Boiler No. 2 primarily fires wood waste and also #6 fuel oil with 2.5% sulfur content when required. The heat input capacity for boiler No. 2 varies depending on the fuel fired and can vary from 185 MMBtu/hr on #6 oil to 218 MMBtu/hr on wood fuels. The proposed temporary unit will have a heat input capacity of 212 MMBtu/hr and will burn #6 fuel oil with a 2.5% sulfur content by weight. There is a single #6 fuel oil storage and supply system at the facility that supplies fuel to Boiler Nos 1 and 2 and supplies fuel as needed to other combustion units.

Rayonier has indicated that the maximum annual air pollutant emission rates in tons per year for the 212 MMBtu/hr temporary boiler, based on an annual consumption of 12.4 million gallons of No. 6 fuel oil and 100% capacity factor or 8760 hours of operation will be:

Pollutant	#1 boiler actual emissions (TPY)	#2 boiler actual emissions (TPY)	Temporary boiler potential emissions (TPY)	Delta emissions with temp. on & #1 off (TPY)	Delta emissions with temp. on & #2 off (TPY)	Delta emissions with repair of 8 mos. to # 2 & 4 mos. to #1 (TPY)	Subject to PSD Review
PM & PM_{10}	111	159	21	-90	-138	-122	No
SO_2	467	81	244	-223	162	34	No
CO	16	376	31	15	-345	-225	No
NO_x	227	58	395	167	336	280	Yes
VOC	1	10	7	6	-3	0	No

BACT DETERMINATION REQUESTED BY THE APPLICANT:

POLLUTANT	EMISSION LIMIT
Nitrogen Oxides	0.425 lb/mmBtu by flue gas recirculation and low NO_x burners

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

The Fernandina Mill is a major source of air pollution or Title V source. Because emissions of a pollutant are greater than 250 tons per year, it is a major facility with respect to the Prevention of Significant Deterioration (Rule 62-212.400). Because the project will result in a significant increase in nitrogen oxides emissions per Table 62-212.400-2, F.A.C., "Regulated Air Pollutants - Significant Emissions Rates," a BACT determination is required pursuant to Rule 62-212.410, F.A.C.

DATE OF RECEIPT OF A BACT APPLICATION:

October 6, 1998

REVIEW GROUP MEMBERS:

Syed Arif, P.E., prepared BACT

BACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

The air pollutant emissions from this facility can be grouped into categories based upon the control equipment and techniques that are available to control emissions from these emission units. Using this approach, the emissions can be classified as follows:

- ***Combustion Products*** (e.g., SO_2, NO_X, PM). Controlled generally by good combustion of clean fuels, removal in add-on control equipment.

- ***Products of Incomplete Combustion*** (e.g., CO, VOC). Control is largely achieved by proper combustion techniques.

Grouping the pollutants in this manner facilitates the BACT analysis because it enables the equipment available to control the type or group of pollutants emitted and the corresponding energy, economic, and environmental impacts to be examined on a common basis. Although all of the pollutants addressed in the BACT analysis may be subject to a specific emission limiting standard as a result of PSD review, the control of "non-regulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., PM, SO_2, H_2SO_4, fluorides, etc.), if a reduction in "non-regulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

BACT POLLUTANT ANALYSIS

NITROGEN OXIDES (NO_X)

Oxides of nitrogen (NO_x) are generated during fuel combustion by oxidation of chemically bound nitrogen in the fuel (fuel NO_x) and by thermal fixation of nitrogen in the combustion air (thermal NO_x). As flame temperature increases, the amount of thermally generated NO_x increases. Fuel type affects the quantity and type of NO_x generated. Generally, natural gas is low in nitrogen. However it causes higher flame temperatures and generates more thermal NO_x than oil or coal, which have higher fuel nitrogen content, but exhibit lower flame temperatures.

NO_x emissions represent a significant portion of the total emissions generated by this project, and must be minimized using BACT. A review of EPA BACT/LAER Clearinghouse (BACT Clearinghouse) information indicates that NO_x emissions at most small facilities are minimized by process control and good combustion practices.

The applicant has proposed combustion controls equipped on the temporary boiler which includes flue gas recirculation (FGR) and low NO_x burners. The combination of FGR and low NO_x burners results in less NO_x formation. Low NO_x burners reduce NO_x by conducting the combustion process in stages. Staging partially delays the combustion process, resulting in a cooler flame which suppresses thermal NO_x formation. NO_x reductions of 40 to 85 percent (relative to uncontrolled emission levels) have been observed with low NO_x burners when combined with flue gas recirculation.

In a FGR system, a portion of the flue gas is recycled from the stack to the burner windbox. Upon entering the windbox, the cooler gas is mixed with combustion air prior to being fed to the burner. The FGR system reduces NO_x emissions by two mechanisms. In the first mechanism, the recycled flue gas is made up of combustion products which acts as inserts during combustion of the fuel/air mixture. This additional mass is heated in the combustion zone, thereby lowering the peak flame temperature and reducing the amount of NO_x formed. Second, to a lesser extent, FGR also reduces NO_x formation by lowering the oxygen concentration in the primary flame

zone. **This combination of NO_x controls and good combustion practices should provide effective emissions control.**

BACT DETERMINATION BY DEP:

Based on the information provided by the applicant and the information searches conducted by the Department, lower emissions limits can be obtained employing the top-down BACT approach for NO_x.

NO_x DETERMINATION

The top-down BACT approach for fuel oil boilers listed in order from most stringent control to least:

1. Selective Catalytic Reduction (SCR)
2. Selective Noncatalytic Reduction (SNCR)
3. Good combustion design/practices

The following table summarizes the feasibility of using these control technologies with the Combustion Engineering Boiler as designed for installation in Rayonier's Fernandina Mill.

Control Technology	Emission Reduction (%)	Technically Feasible	Cost per ton	Adverse Environ. Impacts
SCR with ammonia	80-90	Yes	$6,970	Yes
SNCR	40-70	Yes	$8,750	No
Low NO_x Burners with Flue Gas Recirculation	20-50	Yes	N/A	No
Fuel Substitution	7-35	Yes	$21,000	No

The BACT/LAER database does not list any facilities which uses post-combustion add-on controls for temporary boiler installations. Because the boiler is temporary (12 months), the economic impact analysis of add-on type controls were based on a one year equipment life amortization versus a typical 10 year life. The one year time frame results in a very high economic impact.

For NO_x emissions, the Department accepts the applicants proposed use of low NO_x burners with flue gas recirculation as BACT for this project.

The BACT emission level established by the Department is as follows:

POLLUTANT	EMISSION LIMIT
Nitrogen Oxides (NO_x)	0.425 lb/mmBtu; 90 lbs/hr (395 TPY)

COMPLIANCE

Compliance with the NO_x limitations shall be in accordance with the EPA Reference Method 7E as contained in 40 CFR 60, Appendix A.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Syed Arif, P.E.
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

G.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 these conditions.

G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and 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 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.

G.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.

G.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 permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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.

G.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 and records 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.

G.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 noncompliance, 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.

G.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 extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.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.

G.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.

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

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology *(X)*
(b) Determination of Prevention of Significant Deterioration *(X)*; and
(c) Compliance with New Source Performance Standards *( )*.

G.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 or 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:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.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.

Florida Department of
Environmental Protection

Memorandum

TO: Clair Fancy

THRU: Al Linero 11/5

FROM: Syed Arif

DATE: November 5, 1998

SUBJECT: Rayonier, Inc./ Fernandina Mill /
0890004-006-AC (PSD-FL-256)

Attached is the Public Notice package for installing a temporary boiler at the above referenced sulfite pulping facility. This boiler will operate while the foundation for the existing boilers is repaired.

The only pollutant subject to PSD review was nitrogen oxides (NO_x). The Best Available Control Technology (BACT) determination concluded that the low NO_x burners with flue gas recirculation meets BACT requirements for a temporary installation. The BACT emission limit for NO_x was determined to be 0.425 lb/mmBtu. The existing control equipment of venturi scrubbers for particulate matter and sulfur dioxide emissions will be used with the temporary boiler to minimize those emissions. Since the project is of a temporary nature, source impact analysis is not required for this modification.

Regarding the existing boilers, Rayonier has certified that the repairs will not increase the capacity of the units and that they do not involve major repairs or modifications of internal boiler components.

I recommend your approval and signature.

AAL/sa

Attachments

RAYONIER - FERNANDINA BEACH
Temporary Boiler

SO_2 Emission Rates in Lb/MMbtu by Type/Sulfur Content of Oil

1000000 Btu/MMBtu

#2 oil		#6 oil
142S	= lb/1000 gal	157S = lb/1000 gal
Btu/gal #2 oil	140000	150,000
gal/MMbtu	7.14	6.67
Sulfur percent	0.5	1.5
lb SO_2/1000 =	71	213
lb/MMbtu =	***0.51***	***1.42***

Tested SO_2 Emission Rate at Rayonier
as submitted to FL DEP
150,000 btu/gal
2.34% Sulfur

	gal/hr	MMbtu/hr	SO_2 lb/hr	SO_2 emitted	pH	SO_2 lb/MMBtu	Reduction
Scrubber A							
	1260	189.0	241.5	36.70	6.6	0.19	85%
	1576	236.4	302.1	26.00	6.5	0.11	91%
	1418	212.7	271.8	31.35		0.15	88%
	1520	228.0	271.4	11.0	7.4	0.05	
	1115	167.3	213.7	16.2	7.4	0.10	
	1317.5	197.6	242.55	13.6		0.07	94%
Scrubber B							
with wood particulate							
	320	48.0	61.3	4.6	6.6	0.10	
	354	53.1	67.9	3.9	6.5	0.07	
	337	50.6	64.6	4.3		0.08	93%
	236	35.4	45.2	2.0	7.4	0.06	
	262	39.3	50.2	1.4	7.5	0.04	
	249	37.4	47.7	1.7		0.05	96%

RAYONIER - FERNANDINA BEACH
Temporary Boiler

Particulate Calculations

Fuel Oil Particulate Emissions

	#6 Oil 9.19(S)+3.22 *		#2 Oil @ 0.5%
Btu/gal	150,000	150,000	140000
gal/MMbtu	6.67	6.67	7.14
S content	2.5	1.5	na
lb/1000 gal*	26.2	17.0	2
lb/MMbtu*	0.175	0.113	0.014
87% reduction	0.023		

	Uncontrolled* ton/yr	Reduction in ton/yr	Controlled
Existing Fuel	162.5		21.1
#6 Oil @ 1.5%	105.5	57.0	
#2 Fuel Oil	13.3	149.2	

**Based on EPA AP- 42 Emissions Factors*

Fuel Substitution

	Emissions without scrubber reductions	
	Added Cost	$/ton removed
2.5%-1.5%	$ 1,240,800	$ 21,762
2.5% - #2 oil	$ 2,924,743	$ 19,600

RAYONIER - FERNANDINA BEACH
Temporary Boiler

BACT Analysis for a Fabric Filter

ACFM (from Rayonier test)	120,000
Net Gas to Cloth Ratio	5
Net Cloth Area (ft^2)	24,000
Gross Cloth Area Multiplier	1.25
Gross Cloth Area (ft^2)	30,000

From Table 5.6, select Continuous, Pulse jet, modular ---> Figure #5.5

Base Cost of cloth	47,220.00
Cost per ft2 of cloth	7.323
Cost of cloth for Rayonier boiler	219,690.00
Base Cost of Insulation	3,000.00
Cost per ft^2 of cloth	2.079
Cost of Insulation	62,370.00
Total Base Cost in 1986 Dollars:	332,280.00
Difference in years '86 - '98	11
Cost multiplier '86 --> '98 @3%	1.384
Total Cost in 1998 Dollars:	459,953.23
Number of Boilers	1
Total Cost:	459,953.23

Bag Costs:	
Cost per ft2	6.80
Total Bag Costs:	204,000.00
Cage Costs:	
diameter of bag/cage (ft)	0.50
length of bag (ft)	10.00
Area per bag	15.71
Minimum # of bags needed (+10% spares)	2101
Number of cages purchased	2100.85
Cost per cage of flange top	1.00
Cost per cage of venturi	5.00
Cost per cage	12.50
Total cost of cages	26263.50
Cost of bags & cages, '86 dollars:	230263.50
Difference in years '86 - '98	11
Cost multiplier '86 --> '98 @3%	1.384
Total Cost in 1998 Dollars:	318,738.54
Number of Boilers	1
Total Cost:	318,738.54
Purchased Equipment Cost:	
Grand Total:	778,691.77

RAYONIER - FERNANDINA BEACH
Temporary Boiler

BACT Analysis for a Fabric Filter

Estimating Total Capital Investment

Direct Costs

Purchased equipment costs		
Fabric Filter + Bags + auxilliary equipment	As estimated, A_1	$778,691.77
Instrumentation	(0.10)*A	$77,869.18
Sales taxes	(0.03)*A	$23,360.75
Freight	(0.05)*A	$38,934.59
Purchased Equipment Cost, PEC	B = (1.18)*A	$918,856.29
Direct installation costs		
Foundations & supports	(0.04)*B	$36,754.25
Handling & erection	(0.50)*B	$459,428.14
Electrical	(0.08)*B	$73,508.50
Piping	(0.01)*B	$9,188.56
Insulation for ductwork	(0.07)*B	$64,319.94
Painting	(0.02)*B	$18,377.13
Direct Installation Costs	(0.72)*B	$661,576.53
Total Direct Costs, DC	(1.72)*B + SP + Bldg.	$1,580,432.82

Indirect Costs (installation)

Engineering	(0.10)*B	$91,885.63
Construction and field expenses	(0.20)*B	$183,771.26
Contractor fees	(0.10)*B	$91,885.63
Start-up	(0.01)*B	$9,188.56
Performance test	(0.01)*B	$9,188.56
Contingencies	(0.03)*B	$27,565.69
Total Indirect Costs, IC	(0.45)*B	$413,485.33
Total Capital Investment = DC + IC	(2.17)*B + SP + Bldg.	$1,993,918.15

RAYONIER - FERNANDINA BEACH
Temporary Boiler

BACT Analysis for a Fabric Filter

Estimating Annual Costs

Direct Costs

Operating labor		
Operator	(3 hr/day)*(365 day/yr)*($25/hr)	$27,375.00
Supervisor	15% of Operator	$4,106.25
Coordinator	1/3 of Operator	$9,125.00
Operating materials		
Maintenance		
Labor	(3 hr/day)*(365 day/yr)*($25/hr)	$27,375.00
Material	100% of maintenance labor	$27,375.00
Utilities		
Electricity - fan	fan power requirement(kWh/yr)*0.08/kWh	$74,178.84
Waste Disposal	(TPY Particulate controlled)*$20/ton	$3,217.50
	Total Direct Annual Costs	$172,752.59

Indirect Costs

Overhead	60%*(labor$_{(oper.+supv.+coord.+maint.)}$+(maint mat.))	$57,213.75
Administrative charges	2% of Total Capital Investment	$39,878.36
Property taxes	1% of Total Capital Investment	$19,939.18
Insurance	1% of Total Capital Investment	$19,939.18
Capital recovery	CRF*(Total Capital Investment) assume a 1 year life	$1,993,918.15
	Total Indirect Annual Costs	$2,130,888.62
	Total Annual Costs	$2,303,641.21
	Amount of Particulate Controlled (TPY) 162.5 TPY * 99% efficiency	160.88
	Total Annual Cost per Ton of Particulate Controlled	$14,319.45

APPENDIX B

RACT/BACT/LAER CLEARINGHOUSE DETERMINATIONS

RAYONIER - FERNANDINA BEACH

TEMPORARY BOILER BACT REVIEW

RBLC Results for NOx Control

STATE	LAST UPDATE	PROCESS	THROUGHPUT		EMISSION RATE		CONTROL DESCRIPTION	BASIS
PA	11/27/95	BOILER #3, OIL/NATURAL GAS	4116	MMBTU/HR	0.23	LB/MMBTU	SOFA	RACT
NJ	5/29/95	BOILER (DISTILLATE FUEL)	131	MMBTU/HR	0.2	LB/MMBTU	LOW NOX BURNERS	BACT-OTHER
FL	3/24/95	BOILER, 1 EACH	205	MMBTU/H	0.18	LB/MMBTU	COMBUSTION CONTROL	BACT-PSD
SC	3/24/95	BOILER, NO 2 OIL - AUXILIARY	190.35	MMBTU/HR	32.4	LB/HR [A]		BACT-PSD
VA	5/7/97	BOILER, STEAM, 3	205.8	MMBTU	74.6	TPY [B]	LOW NOX BURNER, FGR (INTERNAL OR EXTERNAL)	NSPS
NY	9/13/94	BOILERS, AUXILIARY	750	MMBTU/HR	0.2	LB/MMBTU	COMBUSTION CONTROLS	BACT-OTHER
FL	1/19/95	SUBPART DB BOILER, 0.05% S FO	190	MMBTU/HR	28.5	LB/HR [C]	LOW NOX BURNERS, EGR	BACT-PSD

A - Calculated Emission Rate (assuming 8760 hr/yr) in MMBtu = 0.17
B - Calculated Emission Rate (assuming 8760 hr/yr) in MMBtu = 0.08
C - Calculated Emission Rate (assuming 8760 hr/yr) in MMBtu = 0.0003

RAYONIER - FERNANDINA BEACH

TEMPORARY BOILER BACT REVIEW

RBLC Results SOx Control

STATE	LAST UPDATE	PROCESS	THROUGHPUT		EMISSION RATE		CONTROL DESCRIPTION	BASIS
NJ	5/29/95	BOILER (DISTILLATE FUEL)	131	MMBTU/HR	0.21	LB/MMBTU	FUEL SPEC: USE OF LOW SULFUR OIL	BACT-OTHER
FL	3/24/95	BOILER, 1 EACH	205	MMBTU/H			FUEL SPEC: LIMIT FUEL SULFUR CONTENT	BACT-PSD
FL	1/13/95	BOILER, AUXILIARY, NG	100	MMBTU/H	0.003	LB/MMBTU	FUEL SPEC: LOW SULFUR FUEL, GAS FIRED	BACT-PSD
FL	1/13/95	BOILER, SPREADER STOKER, FUEL OIL, 3	490	MMBTU/H	0.05	LB/MMBTU	FUEL SPEC: LOW SULFUR FUEL OIL. LIMITED FIRING. APCE INCLUDES ESP, SNCR, AND CARBON INJECTION.	BACT-PSD
VA	5/7/97	3 STEAM BOILERS	205.8	MMBTU EA	152.4	TPY [A]	FUEL SPEC: 0.20% S FUEL OIL	NSPS
VA	5/7/97	BOILER, 14			2.64	LB/MMBTU	FUEL SPEC: %S LIMITS	NSPS

A - Assuming 8760 hours of operation, emission rate is
0.17 lb/MMbtu

RAYONIER - FERNANDINA BEACH

TEMPORARY BOILER BACT REVIEW

RBLC Results for PM Control

STATE	LAST UPDATE	PROCESS	THROUGHPUT		EMISSION RATE		CONTROL DESCRIPTION	BASIS
NJ	5/29/95	BOILER (NATURAL GAS)	131	MMBTU/HR	0.005	LB/MMBTU	BOILER DESIGN	BACT-OTHER
NJ	5/29/95	BOILER (DISTILLATE FUEL)	131	MMBTU/HR	0.02	LB/MMBTU	BOILER DESIGN	BACT-OTHER
NY	9/13/94	BURNERS, DUCT (2)	553	MMBTU/HR	0.003	LB/MMBTU	COMBUSTION CONTROLS	BACT-OTHER
NY	9/13/94	BOILERS, AUXILIARY	750	MMBTU/HR	0.05	LB/MMBTU	COMBUSTION CONTROLS	BACT-OTHER
SC	3/24/95	BOILER, NO 2 OIL - AUXILIARY	190.35	MMBTU/HR	2.7	LB/H [A]	FUEL SPEC: LOW ASH CONTENT FUEL OIL	BACT-PSD
VA	5/7/97	3 STEAM BOILERS	205.8	MMBTU EA	4.8	TPY [B]	MULTICYCLONE	NSPS

A - Emission rate in lb/MMbtu (assuming 8760 hrs)= 0.014 lb/MMbtu
A - Emission rate in lb/MMbtu (assuming 8760 hrs)= 0.001 lb/MMbtu

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 3, 1998

CERTIFIED - RETURN RECEIPT

Mr. Jack M. Kriesel, General Manager
Rayonier, Inc.
Foot of Gum Street
Fernandina Beach, FL 32035-1309

Dear Mr. Kriesel:

PSD-FL-256

Nassau County - AP
Rayonier, Inc.
Temporary Replacement Boiler
File No.: 0890004-006
Request For Additional Information (Amended)

On September 1, the Northeast District determined that additional information and questions needed to be answered before the referenced application could be further processed. At that time, there were issues concerning the applicability of PSD to this project, and it was requested that Rayonier contact the Tallahassee office. It has been determined that the following information and questions need to be answered (in addition to those requested in the September 1 correspondence) before the application can be further processed.

1. Based on the information presented in the application, specifically the Summary of Emissions and Increases/Decreases Table, it appears that the PSD significant thresholds will be triggered for the following pollutants:

   a. PM_{10}, 41 tons (Delta emissions with the temporary boiler on and #1 boiler off)
   b. SO_2, 406 tons (Delta emissions with temporary boiler on and #2 boiler off)
   c. NO_x, 122 tons (Delta emissions with temporary boiler on and #2 off)

2. It is requested that the same analysis used in the Summary of Emissions and Increases/Decreases Table be conducted for Particulate Matter. Please submit this information.

3. Please provide the Department with the information that you propose as BACT for PM_{10}, SO_2, NO_x, and PM (if PM is above the significant threshold).

4. In accordance with 62-4.050(4)(a)1., the processing fee for a construction permit for an emissions unit requiring PSD review shall be $7500.00. Please submit a check in this amount made payable to the Florida Department of Environmental Protection.

5. Because the processing of construction permits requiring PSD reviews are processed in the Tallahassee Office, it is requested that a copy of the original application and subsequent information (requested in this letter and the September 1 letter), be sent to Tallahassee for processing.

The subject application can not be processed until the above requested information is provided or corrected. The application will be held in abeyance until October 1 to allow for supplement or amendment.

All information requested must be submitted by the applicant and certified by the professional engineer named in the application. Three copies of the requested information must be submitted. Please note that it would be helpful, if as much information as possible (the application) could be resubmitted using ELSA on diskette.

If you have any questions concerning this matter, please contact Rita Felton-Smith at (904) 448-4310, extension 237.

Sincerely,

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

CLK:RFS

Attachment

cc: David E. Tudor
Al Linero, BAR/DARM
John Reynolds, BAR/DARM
Syed Arif, BAR /DARM

Rayonier

Specialty Pulp Products

Fernandina Mill

August 7, 1998

Mr. Christopher L. Kirts, P. E.
Department of Environmental Protection
7825 Baymeadows Way, Suite B200
Jacksonville, FL 32256-7590

RE: Construction Permit for Temporary Replacement Boiler

Dear Mr. Kirts:

Repairs must be made on an emergency basis to both no. 1 and no. 2 power boilers at Rayonier's dissolving sulfite mill in Fernandina Beach. These boilers will be taken off line sequentially and repaired. This repair is scheduled to take one year. The mill intends to lease a boiler capable of producing 150,000 pounds of 600 psi steam and to connect it to the existing scrubbers and stacks serving nos. 1 and 2 power boilers. This temporary boiler will burn only number 6 fuel oil. At the end of the repair the leased boiler will be returned to the lender. A boiler of this size will enable full operation of the mill.

The mill is expecting delivery of this temporary boiler in December 1998 with operations beginning in February 1999. It will be located west of and near the existing nos. 1, 2 and 3 power boilers on an old foundation for the abandoned no. 4 power boiler. This will locate it near the existing scrubbers and stacks so that it can be tied into the ductwork leading to A scrubber currently serving nos. 1 and 2 power boilers and will exhaust out the stack associated with that scrubber.

Attached to this letter I have estimated both present actual emissions of nos. 1 and 2 power boilers and the expected emissions of the temporary boiler. Future emissions are dependent on the operating scenario being used. Only two operating scenarios are contemplated in this application. Either no. 1 boiler is off-line being repaired and is replaced by the temporary boiler or no. 2 boiler is off-line being repaired and is replaced by the temporary boiler. The Summary Table of Emissions below indicates the increases and decreases for each scenario and the actual annual increase or decrease expected given the time the temporary boiler substitutes for each boiler being repaired.

Pursuant to my conversations with Rita Felton-Smith, I have enclosed an application for a construction permit for the temporary boiler. Two issues are raised by this application that require further explanation.

I understand that this boiler will be required to meet any applicable New Source Performance Standards (NSPS). I also understand that increases of applicable pollutants over the significant levels will trigger a Prevention of Significant Deterioration review. These two regulatory requirements are discussed further below.

1. NSPS ISSUES. The temporary boiler will have a maximum heat input rate 212.47 Million Btu per hour (mmBtu/hr). It was constructed in 1974, before the New Source Performance Standards (Subpart Db) were promulgated or for similar new sources. However, the boiler will meet all the New Source Performance Standards that a modern boiler would be required to meet except for the NOx standards proposed on July 9, 1997 in 62 FR 36948. In any event, because of its construction date no NSPS's apply to this boiler.

Section 40 CFR 60.42b NSPS would require a 90% reduction of potential sulfur dioxide emissions for those boilers subject to it. Rayonier estimates its present sulfur dioxide removal efficiency in the venturi scrubber to be approximately 80%.

2. PSD ISSUES. As stated above, the leased boiler was constructed in 1974. This was before the promulgation of the PSD Program. Sources constructed prior to August 7, 1977 are not subject to PSD review. See Section 40 CFR 52.21(i)(4).

However, in order to show what effect the temporary installation will have, the actual increases and decreases have been estimated to determine whether the PSD significance levels would be exceeded. The table below provides a summary of that analysis. The emissions for no. 1 and 2 boilers were taken from the Annual Operating Report for 1997. The basis for the emission estimation calculations for the temporary boiler are also attached. Since repair to no. 1 boiler is only expected to take 4 months, and the repair to no. 2 boiler is to take 8 months, the actual increases or decreases have been proportioned between the two scenarios. Only for nitrogen dioxide are the significance levels exceeded, and then only by 40 tons per year.

The NO_x emissions from the newer oil fired boiler are approximately the same as those from the existing oil fired boiler, but are greater than for the wood fired no. 2 boiler possibly because of the lower thermal NOx generated. NO_x emissions will increase while no. 2 boiler is being repaired and the temporary boiler is on-line. However, in order to minimize any increase, Rayonier will install low excess air boiler controls and low NOx burners. Even if this boiler were subject to PSD review, and BACT were required, it is unlikely that controls on a temporary source in addition to the low excess air and low NOx burners would be required.

The table below summarizes the various existing and projected emissions changes for the two scenarios.

SUMMARY OF EMISSIONS AND INCREASES/DECREASES

Pollutant	#1 boiler actual emissions 97 AOR	#2 boiler actual emissions 97 AOR	Temp boiler Potential emissions AP42	Delta emissions With temp on and #1 off	Delta emissions with temp on and #2 off	Delta emissions with repair of 8 mos. to No 2 and 4 mos. No. 1
PM10	111	159	151.48	41	-7	9
SO2	467	81	487	20	406	277
CO	16	376	31	15	-345	-225
NOx	172	48	171	-1	122	81
VOC	1	10	7	6	-3	0

These repairs must be made to the foundations of nos. 1 and 2 boilers immediately. Even though the temporary boiler is exempt from NSPS and PSD, Rayonier has made every reasonable effort to comply with those requirements. The existing level of sulfur dioxide removal will be continued by using the existing scrubbers. Low NOx burners and whatever low excess air control that can be placed on a boiler of this age will be used to reduce NOx emissions. It is requested that a permit be issued immediately so that these repairs can be made without significant loss of production.

If you have any questions, please call me at 904-277-1452.

Sincerely,

David E. Tudor
Manager, Environmental
Affairs – Air

Cc: Rita Felton-Smith

Enc.

tempblrltr

Attachment to Letter for Fernandina Temporary Boiler Permit
Christopher Kirts
August 7, 1998

FERNANDINA TEMPORARY BOILER EMISSIONS ANALYSIS

#1 power boiler - 6255 x 10^3 gal/yr. #6 oil

#2 power boiler – 977 x 10^3 gal/yr. #6 oil and 113,233 ton/yr. wood waste/yr.

Take emissions from 1997 Annual Operating Report

Temp boiler

150,000 lbs. steam x 1204 Btu/lbs. / 0.85 fuel efficiency = 212.47 mmBtu/hr
212.47 mmBtu/hr / 0.150000 mmBtu/gal = 1416.46 gal/hr
1.416.46 tgal./hr. x 8760 hr./yr. = 12,408 tgal/yr.

PM - Using AP42 and venturi scrubber control efficiency of 87%

8.34 x (9.19 x 2.5 + 3.22) x 12,408) x (1/2000 ton/lbs.) x (1.0 - 0.87)
= 176.2 ton/yr.

allowed:
0.1 lbs./mmBtu x 212.47 mmBtu/hr x 8760/2000 = 93.06 tons/yr

PM10 - Using AP42 and venturi scrubber control efficiency of 87%

7.17 x (9.19 x 2.5 + 3.22) x 12,408 x (1/2000 ton/lbs.) x (1.0 - 0.87)
= 151.48 tons/yr

SO_2 - Using AP42 and venturi scrubber control efficiency of 80%

157 x 2.5 % fuel sulfur x 12,408 tgal/yr. x (1/2000 ton/lbs.) x (1-0.8 scrubber eff)
= 487.01 tons/yr.

CO - Using AP42

5 lbs./tgal x 12,408 tgal/yr x (1/2000 ton/lbs.) = 31.02 tons/yr.

NO_x - Using AP42 and low excess air and low NO_x burners for a 50% reduction

55lb/tgal x 12,408 tgal/yr x (1/2000 ton/lbs.) x 0.5 = 170.61 tons/yr.

proposed NSPS:
0.2 lbs/mmBtu x 212.47 mmBtu/hr x 8760/2000 = 186.12 tons/yr.

VOC - Using AP42

1.13 lbs./tgal x 12,408 tgal/yr. (1/2000 ton/lbs.) = 7.01 tons/yr.

FLORIDA DEP LOGO

Department of Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: **Rayonier, Inc.**	
2. Site Name: **Fernandina Mill**	
3. Facility Identification Number: **31JAX450004**	[ ] Unknown
4. Facility Location: Street Address or Other Locator: **Foot of Gum Street** City: **Fernandina Beach** County: **Nassau** Zip Code: **32035-1309**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Processing Information (DEP Use)

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

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
Jack M. Kriesel, General Manager, Rayonier, Inc.

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: **Rayonier, Inc.**
Street Address: **Foot of Gum Street**
City: **Fernandina Beach** State: **FL** Zip Code: **32035-1309**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
Telephone: (**904**) **261-3611** Fax: (**904**) **277-1413**

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions unit.*

Jack M Kriesel
Signature

8/7/98
Date

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID	Description of Emissions Unit	Permit Type
TB1	Temporary package #6 oil boiler	AC1B

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: _____

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit to be revised: _____

[X] Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

[ ] Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category II: All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain:

[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s):

_____

[ ] Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

[ ] Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

_____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain:

[X] Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: _____

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s): _____

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee

Check one:

[ ] Attached - Amount: $_____ [X] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations: **A temporary #6 fuel oil fired boiler will be leased and installed to provide steam while either power boiler no. 1 or no. 2 are off line and undergo foundation repairs. Repairs are expected to take 12 months, 4 months for no. 1 boiler and 8 months for no. 2 boiler. This temporary boiler will be removed from the site when repairs to nos. 1 and 2 boilers are completed.**
2. Projected or Actual Date of Commencement of Construction: **December 1998**
3. Projected Date of Completion of Construction:

Professional Engineer Certification

1. Professional Engineer Name: **Michael G. Ryan** Registration Number: **52090**
2. Professional Engineer Mailing Address: Organization/Firm: **EMCON** Street Address: **8021 Phillips Highway, Suite 12** City: **Jacksonville** State: **FL** Zip Code: **32256**
3. Professional Engineer Telephone Numbers: Telephone: (**904**) **636-9360** Fax: (**904**) **636-9356**

4. Professional Engineer Statement:

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

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

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

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

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] 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.

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

8/7/98

Signature Date

(seal)

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact: **David E. Tudor** **Manager Environmental Affairs – Air**
2. Application Contact Mailing Address: Organization/Firm: **Rayonier, Inc.** Street Address: **P. O. Box 2002** City: **Fernandina Beach** State: **FL** Zip Code: **32035-1309**
3. Application Contact Telephone Numbers: Telephone: **(904) 277-1452** Fax: **(904) 277-1413**

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: **17** East (km): **454.7** North (km): **3392.2**			
2. Facility Latitude/Longitude: **NA** Latitude (DD/MM/SS): Longitude (DD/MM/SS):			
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **26**	6. Facility SIC(s): **2611**
7. Facility Comment (limit to 500 characters): **This facility extracts cellulose from fibrous sources using processes similar to the sulfite pulping process. It produces what is referred to as dissolving pulps.**			

Facility Contact

1. Name and Title of Facility Contact: **Richard Hopper, Manager Environmental Operations**
2. Facility Contact Mailing Address: Organization/Firm: **Rayonier, Inc.** Street Address: **P. O. Box 2002** City: **Fernandina Beach** State: **FL** Zip Code: **32035-1309**
3. Facility Contact Telephone Numbers: Telephone: (**904**) **277-1480** Fax: (**904**) **261-0333**

Facility Regulatory Classifications

1. Small Business Stationary Source? [ ] Yes [X] No [ ] Unknown
2. Title V Source? [X] Yes [ ] No
3. Synthetic Non-Title V Source? [ ] Yes [X] No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? [X] Yes [ ] No
5. Synthetic Minor Source of Pollutants Other than HAPs? [ ] Yes [X] No
6. Major Source of Hazardous Air Pollutants (HAPs)? [X] Yes [ ] No
7. Synthetic Minor Source of HAPs? [ ] Yes [X] No
8. One or More Emissions Units Subject to NSPS? [ ] Yes [X] No
9. One or More Emission Units Subject to NESHAP? [ ] Yes [X] No
10. Title V Source by EPA Designation? [ ] Yes [X] No
11. Facility Regulatory Classifications Comment (limit to 200 characters):

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

The Rule Applicability Analysis is not required for the facility. This is a Category III application, but involving a Title V source. A Rule Applicability Analysis for the temporary boiler is presented in Section III of the application.

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment 1 for a list	

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
See Attachment 2 for a list	

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information: Pollutant _____ of _____

1. Pollutant Emitted: **NA**		
2. Requested Emissions Cap:	(lb/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters): **This section is not applicable. No cap is requested.**		

Facility Pollutant Detail Information: Pollutant _____ of _____

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: [X] Attached, Document ID: 3 [ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID: 4 [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Fugitive Emissions Identification: [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [ ] Attached, Document ID:_____ [X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: [ ] Attached, Document ID:_____ [X] Not Applicable
8. List of Equipment/Activities Regulated under Title VI: [ ] Attached, Document ID:_____ [ ] Equipment/Activities On site but Not Required to be Individually Listed [X] Not Applicable
9. Alternative Methods of Operation: [X] Attached, Document ID: 5 [ ] Not Applicable
10. Alternative Modes of Operation (Emissions Trading): [ ] Attached, Document ID: _____ [ ] Not Applicable

11. Identification of Additional Applicable Requirements: [ ] Attached, Document ID:_____ [X] Not Applicable
12. Compliance Assurance Monitoring Plan: [ ] Attached, Document ID:_____ [X] Not Applicable
13. Risk Management Plan Verification: [ ] Plan Submitted to Implementing Agency - Verification Attached, Document ID:_____ [X] Plan to be Submitted to Implementing Agency by Required Date [ ] Not Applicable
14. Compliance Report and Plan: [ ] Attached, Document ID:_____ [X] Not Applicable
15. Compliance Certification (Hard-copy Required): [ ] Attached, Document ID:_____ [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

[X] 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.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[X] 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.

B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): **Type 1 - Temporary #6 fuel oil fired boiler to replace either no.1 or no. 2 boiler while the other is being repaired. Duration on-site is expected to be 1 year.**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [**X**] Unknown		
3. Emissions Unit Status Code: **C**	4. Acid Rain Unit? [ ] Yes [**X**] No	5. Emissions Unit Major Group SIC Code: **26**
6. Emissions Unit Comment (limit to 500 characters): **This is a construction permit application but issuance of the construction permit should include this emissions unit on the facility's Title V operating permit.**		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters): **Venturi scrubber**
2. Control Device or Method Code: **053**

B.

1. Description (limit to 200 characters): **Low Excess Air Control** **Low NOX Burners**
2. Control Device or Method Code: **029**

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

This application is for a construction permit for a leased #6 fuel oil fired boiler that will temporarily be used to supply steam while another boiler is being repaired. It will be used for approximately one year. The specific boiler being permitted was constructed in 1974 and therefore is not subject to NSPS subpart Db as that rule was not promulgated until 1985. This boiler is not subject to PSD also because of it construction date. The PSD rules apply to sources constructed after August 7, 1977. See 40 CFR 52.21(i)(4). Below is the analysis by 62-212.FAC citations.

62-212.300 FAC – General Preconstruction Review Requirements - This section requires application for a construction permit demonstrating compliance with other regulations. This application for a construction permit constitutes compliance with this section and so demonstrates. Because emission increases are negative or small and the stack gas parameters are very similar and because the same scrubber and stack are being used, no changes from previously submitted ambient modeling are expected.

62-212.400 FAC – Prevention of Significant Deterioration - Due to the age of this source, it is exempt from this permit review. See above.

62-212.500 FAC – Preconstruction Review for Nonattainment Areas - There are no Nonattainment areas involved.

62-212.600 FAC – Sulfur Storage and Handling Facilities - This facility has a molten sulfur storage facility included on its Title V permit. This application does not include any sulfur storage or handling facility.

62-212.710 FAC – Air Emission Bubble - There is no bubble involved with this application.

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

Rayonier Core List of Rules applying to entire facility. See Attachment 1.	
62-296.410(2)(b) FAC	
62-297.310 FAC	
62-297.401(1) FAC	
62-297.401(2) FAC	
62-297.401(3) FAC	
62-297.401(4) FAC	
62-297.401(5) FAC	
62-297.401(6) FAC	
62-297.401(7) FAC	
62-297.401(9) FAC	
62-297.401(10) FAC	

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **TB1 Stack A**
2. Emission Point Type Code: [ ] 1 [**X**] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **All boilers can vent to either scrubber or stack. Generally boilers nos. 1 and 2 and this temporary boiler vents to stack scrubber A and stack A and boiler no. 3 vents to scrubber B and stack B.**
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **B1 - no. 1 power boiler** **B2 - no. 2 power boiler** **B3 - no. 3 power boiler** **TB1 – temporary power boiler**
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [**X**] V [ ] W
6. Stack Height: **180** feet
7. Exit Diameter: **10.0** feet
8. Exit Temperature: **136** °F

9. Actual Volumetric Flow Rate:	**UNK** acfm
10. Percent Water Vapor :	**UNK** %
11. Maximum Dry Standard Flow Rate:	**UNK** dscfm
12. Nonstack Emission Point Height: **NA**	feet
13. Emission Point UTM Coordinates: Zone: **17** East (km): **454.7** North (km): **3392.2**	
14. Emission Point Comment (limit to 200 characters):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment __1__ of __1__

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **#6 fuel oil fired in boiler (emissions related to thousands of gallons burned)**	
2. Source Classification Code (SCC): **1-02-004-01**	
3. SCC Units: **thousands gallons burned**	
4. Maximum Hourly Rate: **1.42**	5. Maximum Annual Rate: **12,408**
6. Estimated Annual Activity Factor: **NA**	
7. Maximum Percent Sulfur: **2.5**	8. Maximum Percent Ash: **0.03**
9. Million Btu per SCC Unit: **150**	
10. Segment Comment (limit to 200 characters):	

Emissions Unit Information Section __1___ of ___1__

Segment Description and Rate: Segment _____ of _____.

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	**053**	**NA**	**EL**
SO2	**052**	**NA**	**EL**
CO	**NA**	**NA**	**NA**
NOx	**NA**	**NA**	**NA**
VOC	**NA**	**NA**	**NA**

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **PM**

2. Total Percent Efficiency of Control: **87 %**

3. Potential Emissions: **40.2** lb/hour **176.2** tons/year

4. Synthetically Limited?
   [ ] Yes [**X**] No

5. Range of Estimated Fugitive/Other Emissions: **NA**
   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year

6. Emission Factor: **8.34 x ((9.19 x S%) +3.22) x tgal/yr**
   Reference: **AP42**

7. Emissions Method Code:
   [ ] 0 [**X**] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

8.34 x ((9.19 x 2.5%) +3.22) x 12,408 tgal/yr x (1/2000 ton/lbs) x 0.13
= 176.2 ton/year

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: **Rule**
2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **0.1 lbs/mmBtu**
4. Equivalent Allowable Emissions: **21.2** lb/hour **93** tons/year
5. Method of Compliance (limit to 60 characters): **Quarterly Stack Test EPA Method 5**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **0.1 lbs/mmBtu x 212.47 mmBtu/hr x 8760/2000 = 93 tons/yr**

B.

1. Basis for Allowable Emissions Code:
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:
4. Equivalent Allowable Emissions: lb/hr tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **556** lb/hour **2435** tons/year

4. Synthetically Limited?
   [ ] Yes [**X**] No

5. Range of Estimated Fugitive/Other Emissions: **NA**
   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year

6. Emission Factor: **157 x S% x tgal/yr**
   Reference: **AP42**

7. Emissions Method Code:
   [ ] 0 [**X**] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):
157 x 2.5% x 12,408 tgal/yr x (1/2000 ton/lbs) x = 2435 ton/year

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: **Rule**
2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **2.5% sulfur in fuel oil**
4. Equivalent Allowable Emissions: **587.83** lb/hour **2574.71** tons/year
5. Method of Compliance (limit to 60 characters): **fuel analysis and fuel usage measurements**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **212.47 mmBtu/hr x 8.3 lb/gal x 8760 hr/yr x 0.025 %S x 2 SO2/S = 2574.71** **150,000 Btu/gal x 2000 lb/ton**

B.

1. Basis for Allowable Emissions Code:
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:
4. Equivalent Allowable Emissions: lb/hr tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation __1___ of __1___

1. Visible Emissions Subtype: **VE30**
2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested 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 (limit to 200 characters): **Wet scrubber on stack.** **Rule basis for allowable opacity is FAC 62-296.410(2)(b)(1)**

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:
2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance:
5. Visible Emissions Comment (limit to 200 characters):

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): **This section is NA. No continuous emission monitors are required for this temporary source.**	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [ ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [X] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[**X**] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[**X**] Unknown
SO2	[ ] C	[ ] E	[**X**] Unknown
NO2	[ ] C	[ ] E	[**X**] Unknown

4. Baseline Emissions: **NA**		
PM	lb/hour	tons/year
SO2	lb/hour	tons/year
NO2		tons/year

5. PSD Comment (limit to 200 characters):

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements for All Applications

1. Process Flow Diagram [X] Attached, Document ID:__6_____ [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [X] Attached, Document ID:__7____ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID:__8____ [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [X] Attached, Document ID:__9_____ [ ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation
[**X**] Attached, Document ID:___**5**___ [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [**X**] Not Applicable

13. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [{**X**] Not Applicable

14. Acid Rain Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[**X**] Not Applicable

ATTACHMENT 1

List of Applicable Requirements for the Facility

Federally Enforceable Regulations Applicable to the Entire Facility

40CFR61.145
40CFR61.148
40CFR61.150
40CFR61.153
40CFR80.29
40CFR80.30
62-103.150
62-103.155
62-210.300(1)
62-210.300(2)
62-210.300(3)(a)
62-210.300(3)(b)
62-210.300(5)
62-210.300(6)
62-210.350(1)
62-210.350(2)
62-210.350(3)
62-210.360
62-210.370(3)
62-210.550
62-210.550
62-210.650
62-210.700(1)
62-210.700(2)
62-210.700(3)
62-210.700(4)
62-210.700(6)
62-210.900(1)
62-210.900(5)
62-212.300
62-212.400
62-212.600
62-213.205
62-213.400
62-213.410
62-213.412
62-213.420
62-213.430
62-213.440
62-213.460
62-213.900(1)
62-256
62-257
62-4.030
62-4.040
62-4.050
62-4.055
62-4.060
62-4.070
62-4.080
62-4.090
62-4.100
62-4.110
62-4.120
62-4.130
62-4.150
62-4.160
62-4.210
62-4.220

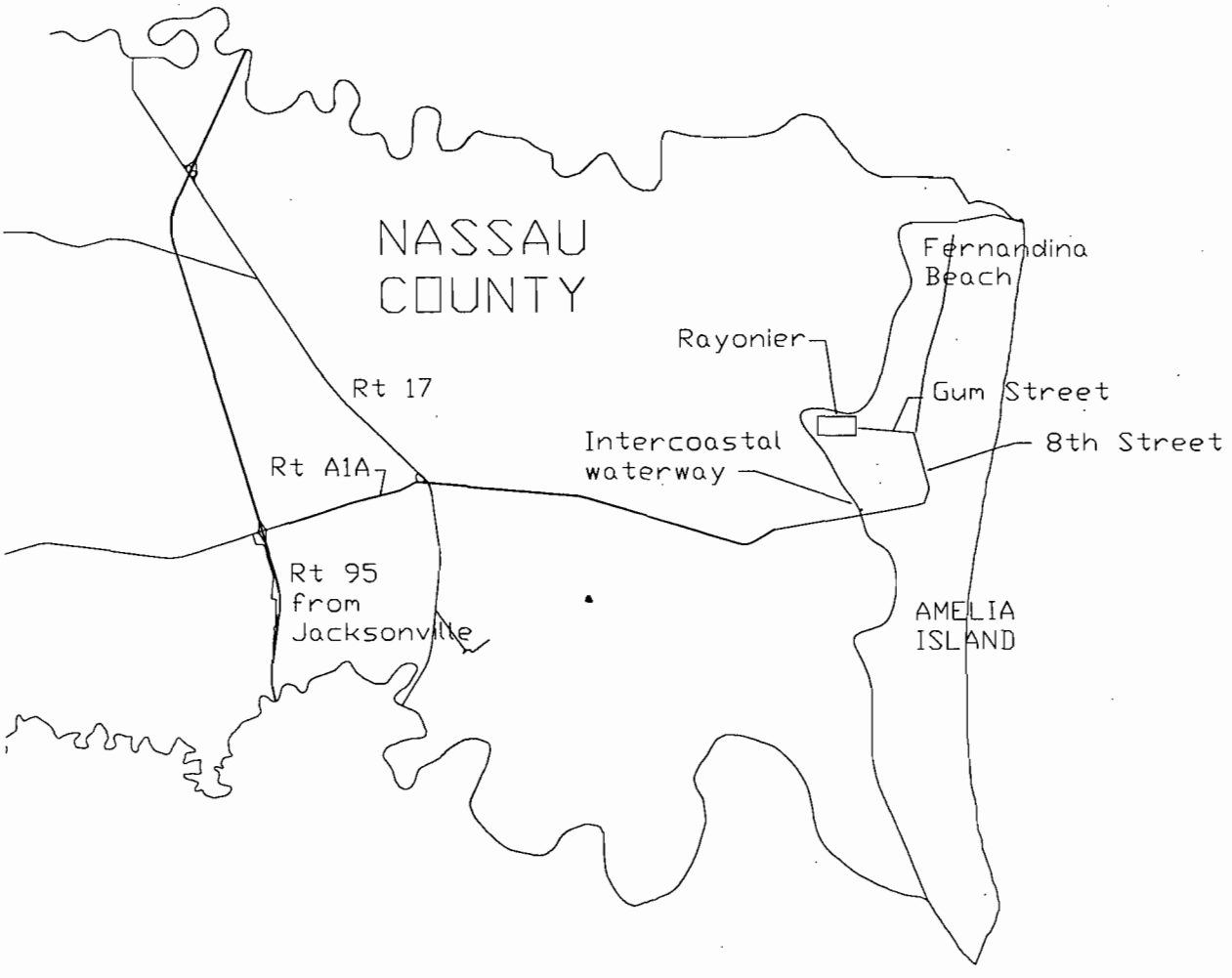
State Only Enforceable Applicable Regulations Applicable to the Entire Facility

62-296.320(2)

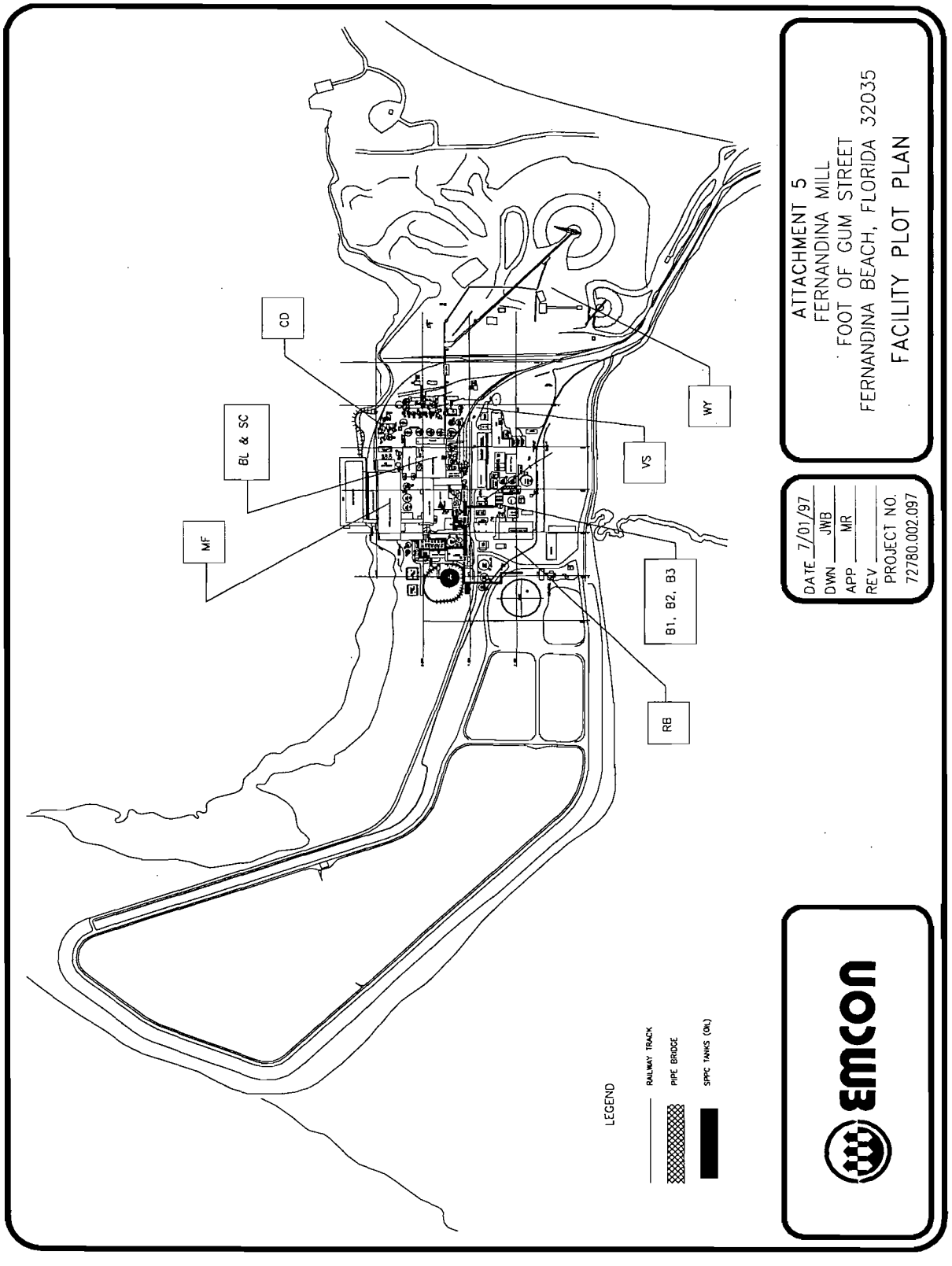
ATTACHMENT 2
List of Facility Pollutants

PM10	(Particles)	A
SO2	(Sulfur Dioixde)	A
NOx	(Nitrogen Dioxide)	A
CO	(Carbon Monoxide)	A
VOC	(Volitile Organic Compounds)	A
H115	(Methanol)	A
H038	(Chlorine)	A
H043	(Chloroform)	A
PB	(Lead)	B
H047	(Colbalt)	B
H120	(MEK)	A
H001	(Acetaldehyde)	A
H106	(HCl)	B
H095	(Formaldehyde)	B
H006	(Acrolein)	B
H118	(Chloromethane)	B
H163	(Styrene)	B
CFC	(totalCFCs)	B
H128	(Methylene chloride)	B
H033	(Carbon Tetrachloride)	B
H017	(Benzene)	B
H123	(Methyl Isobutyl Ketone)	B
H169	(Toluene)	B
H041	(Chlorobenzene)	B
H085	(Ethyl benzene)	B
H187	(Xylene)	B
H166	(1,1,2,2-tetrachloroethane)	B
H061	(1,4, dichlorobenzene)	B
H174	(1,2,4-trichlorobenzene)	B
H165	(TCDD)	B
H2S	(Hydrogen sulfide)	B
H167	(Tetrachloroethene)	B
H176	(Trichloroethylene)	B
H119	(1,1,1-trichloroethane)	B
H104	(Hexane)	B
H0323	(Carbon disulfide)	B
H117	(Bromomethane)	B
	(Chlorine dioxide)	A
H113	(Manganese)	B
H114	(Mercury)	B
H133	(Nickel)	B
H148	(Phosphorous)	B

ATTACHMENT 3
Area Map



ATTACHMENT 4
Facility Plot Plan



ATTACHMENT 5
Alternate Modes of Operation

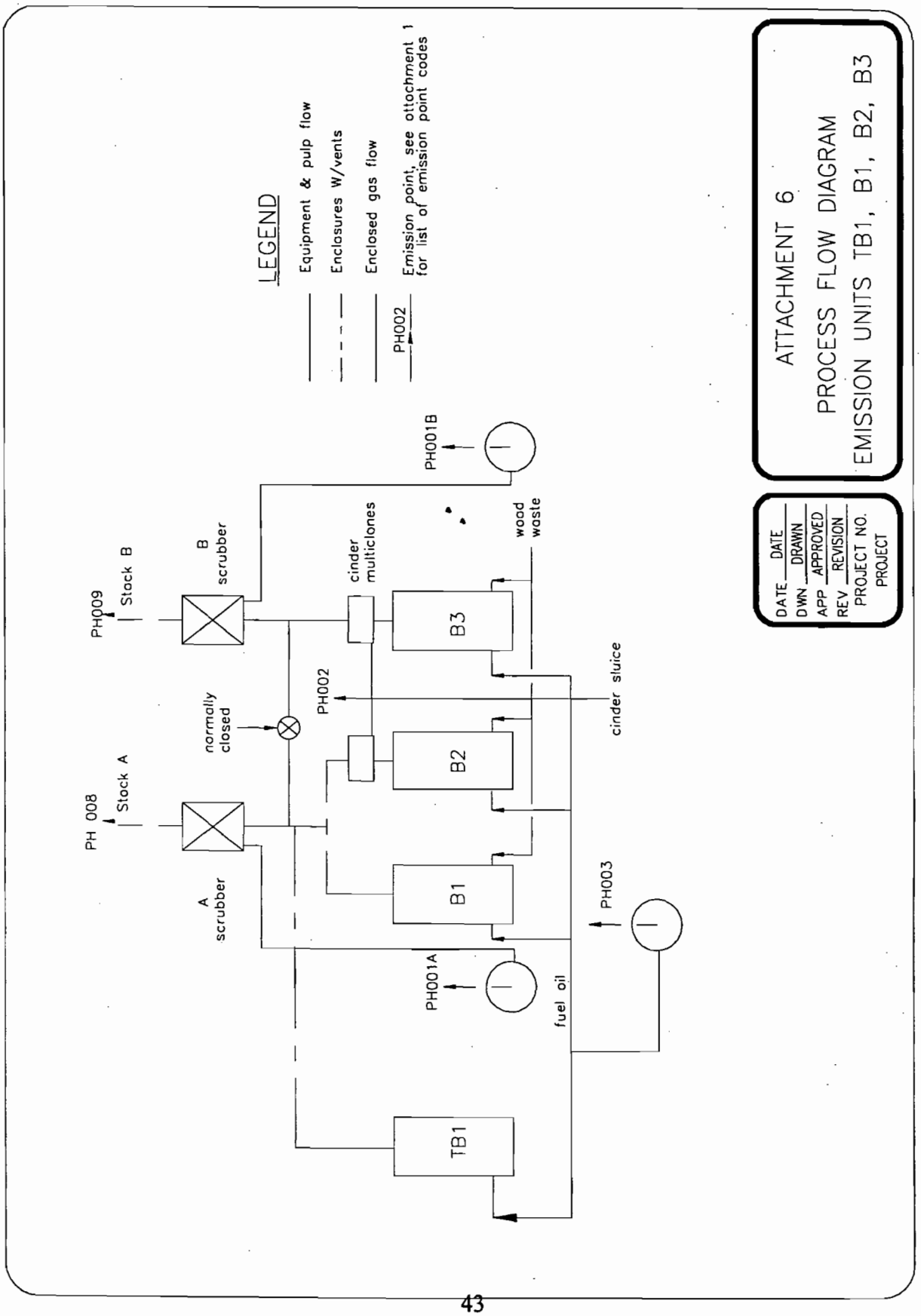
A temporary #6 fuel oil fired boiler will be leased and operated to produce steam to replace either no. 1 or no. 2 boiler while that boiler undergoes foundation repair. No. 1 boiler will be down for 4 months and no. 2 boiler will be down for 8 months, for an estimated total of 1 year to repair both boilers.

The temporary boiler will only replace either no.1 or no. 2 boiler while that boiler is undergoing foundation repairs. This temporary replacement boiler will be tied into the same scrubber and stack that nos. 1 and 2 boiler use. Because the emissions from the three boilers are not identical net emissions change slightly as the temporary boiler replaces first no.1 and then no. 2 boiler. Those changes are presented below.

SUMMARY OF EMISSIONS AND INCREASES/DECREASES

Pollutant	#1 boiler actual emissions 97 AOR	#2 boiler actual emissions 97 AOR	Temp boiler Potential emissions AP42	Delta emissions With temp on and #1 off	Delta emissions with temp on and #2 off	Delta emissions with repair of 8 mos. to No 2 and 4 mos. No. 1
PM10	111	159	151	41	-7	9
SO2	467	81	244	-223	162	34
CO	16	376	31	15	-345	-225
NOx	172	48	171	-1	122	81
VOC	1	10	7	6	-3	0

ATTACHMENT 6
Process Flow Diagram



ATTACHMENT 7
Fuel Analysis Specifications

The following represent typical fuel analyses for the fuels to be used in this emissions unit.

NR 6 FUEL OIL
Description:..... Standard, commercially available residual, nr 6, fuel oil.
density ..... 8.25 lb/gal
heat value ..... 150,000 Btu/gal
percent Sulfur by weight Not to exceed 2.5%
percent nitrogen by weight 0.6%
percent ash by weight.... 0.03%
Additives ..... None

ATTACHMENT 8
Description of Control Equipment

POWER BOILER STACKS A & B:

Each of the two combination wood waste and oil boilers have multi-cyclone units with no re-injection of fly-ash. Under normal operations power boilers 1 and 2 feed A scrubber and boiler 3 feeds B scrubber. The scrubbers are AirPol "Wet Approach" Venturi with a throat approximately 7.5 ft. diameter gas inlet by 22 ft. high round cross section. The Venturi pressure drop is 15 inches water pressure. The Cyclone Entrainment Separator is 17 ft. in diameter and 39 ft high. 7,500 gallon Scrubbing Liquid Recycle Tanks are used. The scrubbers have met the particulate emissions standards routinely since installed in 1975.

Existing sulfur dioxide emissions are controlled by utilizing fuel oil with 2.5% sulfur content or less. In addition alkaline materials are added to the scrubbing media for pH control. This alkaline material removes sulfur dioxide from the flue gases. All boilers vent through a scrubber, including this temporary boiler.

The new boiler will have low excess air operations in the boiler reduce the air in the combustion flame zone, and thereby reduces the nitrogen available for thermal NOx formation. It will also have Low NOx Burners that control the air to fuel mixing and increase heat dissipation thereby further reducing the thermal NOx formed.

ATTACHMENT 9
Stack Sampling Facilities

POWER BOILER STACKS A AND B:

For each stack there are two sample ports oriented at a 90 degree angle, 56.5 feet (5.5 stack diameters) from the stack discharge and 40 feet (4 stack diameters) from any upstream changes in stack dimensions. A railed sampling platform for each stack with a bridge between stacks is provided along with a sampling equipment monorail for each port. Ladders with safety guards are provided to access the sampling platforms.

Rayonier

Specialty Pulp Products

Fernandina Mill

October 23, 1998

A. A. Linero
New Source Review Section
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: DEP File No. 08900004-006-AC (PSD-FL-256)
Specialty Pulp Products, Temporary Replacement Boiler

Dear Mr. Linero:

In response to your letter of October 19, 1998, Mr. William Shuman, the engineer for the foundation repairs to No. 1 and No. 2 boilers, has sent to you under separate cover a certification that the foundation work will not increase the annual capacity factor of the boilers.

Capacity factor is driven by pulp and energy production. This work will not change either. Some new burner management systems will also be installed, but these will decrease emissions.

In response to your second request, average annual capacity factor for the last two years I am providing the oil and wood fuel usage for the years 1996 and 1997 from the annual operating report, which has been provided to the Department previously.

	Oil(thous. gals)		Wood (tons)	
	1996	1997	1996	1997
No. 1 boiler	6,133	6,255	none	None
No. 2 boiler	1,020	977	96,587	113,233

I appreciate the attention Syed is giving to this permit application. We still plan to begin work on No. 2 boiler during our December shutdown. We must have this temporary boiler functional to be able to start up the mill in January. Fortunately it can sit on a existing foundation. Once we receive the draft permit we will make further arrangements to receive the boiler. If I can assist your review in any way please do not hesitate to call me at 904-277-1452, Email: david.tudor@rayonier.com.

Sincerely,

David E. Tudor
Manager Environmental
Affairs – Air

CC: Syed Arif
Michael Ryan, EMCON
Rita Fenton-Smith
Christopher Kirts

EPA
NPS

Rayonier

Specialty Pulp Products

Fernandina Mill

October 22, 1998

Mr. A. A. Linero, P.E., Administrator
New Source Review Section
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: DEP File No. 0890004-006-AC (PSD-FL-256)
Specialty Pulp Products, Temporary Replacement Boiler

Dear Mr. Linero:

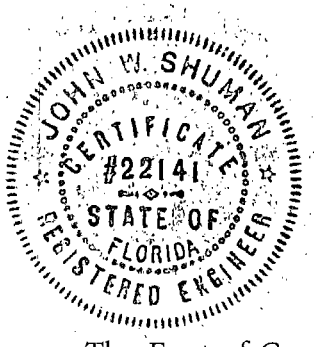
Foundation repairs for No's. 1 & 2 Power Boilers at our Fernandina Beach, Florida Mill will have no effect on the capacity of the boilers. The foundation repairs are solely for the purpose of stabilizing the structures to insure continuous, reliable operation of the boilers. David Tudor will be responding to other requests in your letter dated October 19, 1998. This letter is only in response to your question of the effect the foundation repairs will have on the boilers' capacity. If you have any other questions regarding the repairs, please call me at (904) 277-1383.

Sincerely,

John W. Shuman

John W. Shuman, P.E.
Manager – Special Engineering Projects
FL Reg. No. 22141

cc: Mr. Michael Ryan - EMCON



Dave Tudor - FYI & File
Syed Arif

Rayonier

Specialty Pulp Products

Fernandina Mill

October 22, 1998

Mr. A. A. Linero, P.E., Administrator
New Source Review Section
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: DEP File No. 0890004-006-AC (PSD-FL-256)
Specialty Pulp Products, Temporary Replacement Boiler

Dear Mr. Linero:

Foundation repairs for No's. 1 & 2 Power Boilers at our Fernandina Beach, Florida Mill will have no effect on the capacity of the boilers. The foundation repairs are solely for the purpose of stabilizing the structures to insure continuous, reliable operation of the boilers. David Tudor will be responding to other requests in your letter dated October 19, 1998. This letter is only in response to your question of the effect the foundation repairs will have on the boilers' capacity. If you have any other questions regarding the repairs, please call me at (904) 277-1383.

Sincerely,

John W. Shuman

John W. Shuman, P.E.
Manager – Special Engineering Projects
FL Reg. No. 22141

cc: Mr. Michael Ryan - EMCON

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location)

1. Al Linero
2. MS-5505
3.
4.

(Hand Delivered - Courier Service)

Remarks:

Patty:

Per our Phone Conversation I am forward the check and application to your office for Al Linero Attention.

From: Ollie Henderson

Date 10/7/98

Phone

Rayonier *FERNANDINA DIVISION* *FERNANDINA BEACH, FLORIDA*

052229 ORIGINAL-ACCOUNTS PAYABLE CHECK

MO.	DAY	YR.	INVOICE NUMBER	EXPLANATION	GROSS AMT.	DISCOUNT
9	25	98	9/25/98	PSD PERMIT F/TEMP B/U BLR	7500.00	

VENDOR NO.	CHECK NUMBER	DATE	GROSS AMT.	DISCOUNT	NET AMT.
02437		9/30/98	7500.00		7500.00

ATTACHED CHECK IN PAYMENT OF ITEMS LISTED ABOVE NO RECEIPT REQUIRED DETACH THIS STATEMENT

Trust Company Bank
Atlanta, Georgia or
FNB Rome, Georgia

Rayonier
FERNANDINA MILL
FERNANDINA BEACH, FLORIDA

64-79
611

052229

LOCATION NO.

DATE
9/30/98

DOLLARS	CENTS
7,500	AND 00

NOT GOOD AFTER 90 DAYS

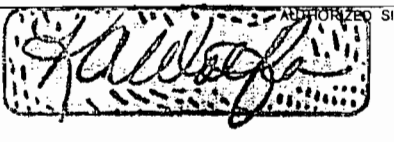
PAY

TWO SIGNATURES REQUIRED OVER $24,999.99

*Seven-Thousand Five-Hundred 00/100 dollars **********

TO THE ORDER OF
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT
7825 BAYMEADOWS WAY SUITE B200
JACKSONVILLE, FL
322567577

AUTHORIZED SIGNATURE



AUTHORIZED SIGNATURE

[redacted]

Rayonier

Specialty Pulp Products

Fernandina Mill

REQUEST FOR CHECK

Date: _____

Payable to: Florida Department of Environmental Protection

Address: _____

give To Dave Tuter on Fri 10/2/98

RECEIVED
OCT - 2 1998
DEPT. OF ENV. PROTECTION
NORTHEAST DISTRICT - JAX

For: PSD Permit for Temp backup boiler

Charge Account: PAR 6F 97-068 $7500.00

Charge Account: _____

Charge Account: _____

Requested By: David E Tuter

Department Head Approval: _____

Accounting Office Approval: _____

FORM1 - 12/6/94

Rayonier

Specialty Pulp Products

Fernandina Mill

October 2, 1998

Christopher L. Kirts, P.E.
Department of Environmental Protection
7825 Baymeadows Way, Suite B200
Jacksonville, FL 32256-7590

0890004-006- AC
PSD-FL-256

RE: Nassau County – AP
Rayonier, Inc.
Temporary Replacement Boiler
File No.: 0890004-006
Request for Additional Information (September 1, 1998 and September 3, 1998)

Dear Mr. Kirts:

On August 7, 1998 Rayonier submitted a construction permit for a temporary boiler to replace either boiler No. 1 or No. 2 while foundations under those boilers are repaired. On September 1 and 3, 1998 you requested additional information regarding those permits. This letter responds to both requests. Responses numbers correspond to the request number in each letter.

Responses to the September 1, 1998 Request for Additional Information

1. A BACT analysis has been prepared and is enclosed as part of a revision to the application. This BACT analysis includes the pollutants particulate matter, sulfur dioxide, and nitrogen oxides. However, our netting analysis indicates that only NO_x emissions increase by an amount greater than the significance levels. Particulate emissions are assumed to be all PM10 emissions and increases of that pollutant are projected at 9 TPY. Sulfur dioxide emissions increases are projected at 34 TPY. A BACT for particulate matter and sulfur dioxide has been submitted for information.

2. The BACT analysis includes feasibility and cost effectiveness for alternate control strategies for sulfur dioxide.

3. The wrong opacity standard rule was indicated as the applicable rule. The applicable opacity rule is FAC 62-296.406(1). A revised page 32 to the application is enclosed with this letter indicating the correct standard and basis.

4. This application has been revised to be a PSD application. A revised page 34 of the application is enclosed to indicate that this unit is undergoing PSD review as part of this application. A technology review (BACT) is enclosed. The other elements of PSD, such as source impact analysis, air quality analysis, additional impact analysis and class I review are not applicable to this application because this is a temporary source.

Responses to the September 3, 1998 Request for Additional Information

1. The response letter indicates the wrong emissions increases. The delta emissions that should be used are those in the far right hand column which reflects the times each existing boiler will be off line and replaced with the temporary boiler. The NO_x emissions in that table were estimated using AP42 emission factors generic to the N content. However, in the process of completing the BACT analysis, actual Nitrogen content of the fuel was determined and the table submitted with the original letter is reproduced here using AP42 emission factors corrected for the N content of the fuel used at Fernandina.

The revised emission factor and NOx emission calculations are:

Quantity of fuel burned in 1997:
#1 boiler 6,255 x 10^3 gals. #6
#2 boiler 977 x 10^3 gals. #6; 113,233 tons bark

NO_x #1 boiler using AP42 emission factor adjusted for #6 oil at 0.5% N content.

(20.54 + 104.39 x N) lb./tgal. x 6,255 tgal./yr. x 1/2000 ton/lb. = 227 TPY

NO_x #2 boiler using AP 42 emissions factors adjusted for #6 oil at 0.5% N content.

(20.54 + 104.39 x N) lb/tgal x 977 tgal./yr x 1/2000 ton/lb. = 36 TPY

Bark portion of NO_x generated as per AOR = 22 TPY

NO_x temporary boiler using BACT emissions

0.425 lb NO_x/MMBtu x 212 MMBtu/hr x 8760 hr/yr x 1/2000 ton/lb = 395 TPY

Pollutant	#1 boiler actual emissions 97 AOR	#2 boiler actual emissions 97 AOR	Temp boiler Potential emissions AP42	Delta emissions With temp on and #1 off	Delta emissions with temp on and #2 off	Delta emissions with repair of 8 mos. to No 2 and 4 mos. No. 1
PM10 & PM	111	159	21[2]	-90	-138	-122
SO2	467	81	244	-223	162	34
CO	16	376	31	15	-345	-225
NOx	227[1]	58[1]	395[2]	167	336	280
VOC	1	10	7	6	-3	0

[1]NO_x emissions have been adjusted from the AOR to reflect N content of fuel.
[1]PM & NOx emission reflects BACT determination.

2. The table submitted with the permit application was calculated for Particulate Matter. It was assumed that all Particulate Matter is emitted as PM10. The revised table above indicates this assumption. Note that the increase in PM and PM10 both are less that the PSD significant levels.

3. The BACT analysis is enclosed and is submitted as an amendment to the permit application.

4. A check for $7500.00 is attached to the submittal.

5. A copy of this letter with enclosures has been sent to Syed Arif in Tallahassee.

Also attached is a copy of the certification by the professional engineer named in the application, Michael Ryan of Emcon.

Sincerely,

David E. Tudor
Manager Environmental
Affairs Air

Enc.

Cc: Syed Arif
Michael Ryan, Emcon
CC: EPA
NPS

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation __1___ of __1___

1. Visible Emissions Subtype: **VE30**
2. Basis for Allowable Opacity: [**X**] Rule [ ] Other
3. Requested 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 (limit to 200 characters): **Wet scrubber on stack.** **Rule basis for allowable opacity is FAC 62-296.406(1)**

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:
2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance:
5. Visible Emissions Comment (limit to 200 characters):

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

   If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

   [X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

   [ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

[**X**] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:

PM	[ ] C	[ ] E	[**X**] Unknown
SO2	[ ] C	[ ] E	[**X**] Unknown
NO2	[ ] C	[ ] E	[**X**] Unknown

4. Baseline Emissions: **NA**

PM	lb/hour	tons/year
SO2	lb/hour	tons/year
NO2		tons/year

5. PSD Comment (limit to 200 characters):

4. Professional Engineer Statement:

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

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

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

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

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] 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.

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

Signature

10/29/08
Date

(seal)

MICHAEL G. BRAUN No. 0052051 STATE OF FLORIDA REGISTERED ENGINEER

* Attach any exception to certification statement.

BEST AVAILABLE CONTROL TECHNOLOGY ANALYSIS FOR TEMPORARY BACK-UP BOILER AT

RAYONIER CELLULOSE FACILITY

FERNANDINA BEACH, FLORIDA

Prepared for

Rayonier, Inc.

October 2, 1998

Prepared by

EMCON
3 Riverside Drive
Andover, MA 01810-1121

Project 72780-006.098

CONTENTS

1 INTRODUCTION

On behalf of Rayonier, Inc., EMCON has compiled this best available control technology (BACT) information to supplement the application for a temporary replacement boiler at the Fernandina Beach cellulose manufacturing plant. This supplement to the application is in response to the Florida Department of Environmental Protection (DEP) Request for Additional Information (September 1, 1998) and the amended request (September 3, 1998).

The purpose of the temporary boiler is to enable the Rayonier facility to repair the foundations under two of the boilers in its power house. As the boilers are taken off-line, the facility will still require production steam, and a leased 212 mmBtu/hr temporary unit is proposed as the back-up steam source.

An application for a preconstruction air quality permit under FL 62-300 was initially submitted by Rayonier in August 1998. This supplemental BACT analysis provides information supporting the BACT conclusion for sulfur dioxide (SO_2), nitrogen dioxide (NO_X), and particulate. The analysis includes a Feasibility and Cost Effectiveness analysis for the proposed fuel. The emission standard for SO_2 and particulate emissions from a fuel combustion unit boiler is BACT as specified in 62-296.406 Florida Administrative Code (FAC).

To conduct the BACT analysis, EMCON followed BACT guidelines set forth by the United States Environmental Protection Agency (USEPA) Guidance in the NSR/PSD Handbook (1990). The guideline states that the BACT analysis must be evaluated on a "top-down" basis. That is, the very best option that has been demonstrated or is technically feasible must be considered first, then, only if that option is ruled out for environmental, energy or economic reasons can the next best option be considered. This top-down progression continues until a "Best Available Control Technology" is identified.

In accordance with the above referenced guidance, the BACT analysis is conducted on a pollutant specific basis. In the case of the temporary boiler proposed for Rayonier, the DEP specifically requested analysis of NO_x, SO_2 and particulate matter. Post combustion control technologies, including scrubbers and catalytic reduction technologies, and fuel substitution were examined for reducing all emissions. Combustion controls were considered to reduce NO_x.

This document includes the following:

- Facility and Equipment Description — Section 2
- NO_X Control Systems and BACT — Section 3
- SO_2 Control Systems and BACT — Section 4
- Particulate Control Systems and BACT — Section 5

2 FACILITY AND EQUIPMENT DESCRIPTION

Rayonier, Inc., owns and operates a dissolving sulfite cellulose manufacturing facility located in Fernandina Beach, Florida. Detailed information about the facility is contained in the Title V permit application submitted to the DEP and US EPA on June 15, 1996.

Repairs that must be made to the foundations of power boilers nos. 1 and 2 require the installation of a temporary boiler to compensate for the boilers that will be shut down. The proposed temporary boiler will be operated for a total of 12 months while each permanent boiler is sequentially repaired. It will have a heat input capacity of 212 mmBtu/hr. The temporary installation is designed to connect to the existing fuel supply system and the existing particulate/SO_2 emission control system.

2.1 Existing Boiler Equipment

Boiler no. 1 at the Rayonier facility uses #6 fuel with a 2.5% sulfur content and has a heat input capacity of 185 mmBtu/hr. Boiler no. 2 primarily fires wood waste and also fires #6 oil with 2.5% sulfur content when required. The heat input capacity for boiler no. 2 varies depending on fuel fired, and can fire 218 mmBtu/hr on wood fuels and 184 mmBtu/hr on #6 oil. There is a single #6 oil fuel storage and supply system at the facility that supplies fuel to boiler nos. 1 and 2 and supplies fuel as needed by other combustion units.

2.2 Existing Control Systems

Because of the need to control particulate from its wood and #6 oil fired boilers, Rayonier operates two venturi scrubber systems. Rayonier's venturi scrubber system recycles the caustic waste stream from the bleach plant, a dilute sodium hydroxide solution, as a scrubber solution. As different waste streams from different products are used, the acidity is controlled to maintain a pH of approximately 7.0 to protect the system. This is achieved by adding caustic soda and/or a defoaming chemical as needed. The scrubber system adds humidity to the exhaust stream and cools it significantly.

The particulate emission rate (all particulate is assumed to be PM10 for the purpose of this application) is under 0.2 grains/dry standard cubic foot, as demonstrated by testing.

A secondary benefit of the venturi scrubber systems is the reduction of SO_2 emissions. A recent test shows the SO_2 reduction efficiency is approximately 90 percent.

The exhaust from both boiler nos. 1 and 2 is vented through the Scrubber A system, as described in the permit application. The proposed temporary boiler will be hooked in to Scrubber A. Because the temporary boiler will fire #6 fuel oil while the wood boiler (no. 2) foundation is repaired, this will eliminate the wood combustion particulate for that time period.

Emission rates are also a function of the fuels used. Rayonier's first choice of fuel is its wood waste, which is fired in boiler no. 2 and others not included in this project. Because the facility requires more process steam than its wood waste fuels can produce, it also stores and uses #6 residual oil with a sulfur content of 2.5%. The use of 2.5% fuel oil is permitted for these units, and the particulate and SO_2 emission rates are reduced by the wet scrubber system.

Table 2-1
Equipment Summary for Boiler Project

Equipment	Size or Capacity	Fuel(s)
Boiler no.1	185 mmBtu/hr	2.5% Sulfur, #6 Fuel Oil
Boiler no.2	218 / (184) mmBtu/hr	Wood Waste / (2.5% Sulfur, #6 Fuel Oil)
Proposed Temporary Boiler	212 mmBtu/hr	2.5% Sulfur, #6 Fuel Oil
Venturi Scrubbers	N/A	N/A

2.3 Operations and Emissions

The power requirement at Rayonier varies as different products are made, which typically changes twice a week. The process liquids also change with production, so the scrubber systems use different amounts of chemicals during different production scenarios to avoid acid conditions.

Boiler no.2 is a preferred steam source because it uses fuel that would otherwise be waste. The annual capacity factor for boiler no.1 was about 50 percent in 1997.

The temporary boiler will replace the steam generating capacity of whichever of the two boilers is being repaired. To fulfill the steam demand for the boiler under repair, the proposed temporary unit will have a heat input capacity of 212 mmBtu/hr. Because the boiler is a temporary unit designed for ease of transport, it is designed for minimal boiler size and maximum boiler output. Therefore, the boiler will be a high heat release boiler

with a smaller combustion camber volume under high load. By nature of the temporary boiler design, the thermal NO_x generation will be higher.

The temporary boiler is expected to be under high load while boiler no. 2 is off-line for about 8 months in the first part of 1999. At the end of eight months, it will then replace boiler no. 1 and be in use at an average 50 percent capacity for the next four months while the wood waste unit is back in operation. As a result, actual emissions are expected to be less than 85 percent of potential emissions. For purposes of BACT and permitting, Rayonier has assumed potential uncontrolled emissions based on maximum heat output and 8760 hours of operation although actual emissions are expected to be lower than calculated potentials.

3 NO_X CONTROL SYSTEMS AND BACT

The following provides a discussion of available NO_x control techniques with analysis of control scenarios for Rayonier which leads to the BACT selection. Supporting calculations are found in Appendix A.

NO_x is formed in combustion processes through the thermal fixation of atmospheric nitrogen in the combustion air and the oxidation of fuel bound nitrogen. The thermal reaction is dependent on peak temperature, oxygen concentration, and time of exposure at peak temperature. The conversion of fuel nitrogen to NO_x can be as high as 90 percent, but as low as 20 percent. The nitrogen content of oils vary from values in the range of 0.1 to 0.2% for distillate oil (#2 oil) while residual #6 oils may have nitrogen contents in the range of 0.3 to 0.6%. There are no refining specifications or regulatory requirements targeted toward the nitrogen content of fuels.

EMCON developed a list of NO_x control techniques through review of EPA's Compilation of Emission Factors (AP-42), investigation of the EPA RACT/BACT/LAER Clearinghouse (RBLC or "BACT/LAER database"), and discussions with vendors. The principle types of control techniques for NO_x can be described as: (1) control techniques that affect the boiler combustion and (2) control techniques that are applied to the flue gas from the boiler after combustion. Post combustion techniques are add-on controls that are additional processes to the boiler itself. For Rayonier both types of control techniques were examined.

The RBLC contained NO_X emission rate information on six permits for fuel oil boilers over 100 mmBtu/hr, with three BACT determinations reported in lb/mmBtu. No NO_x BACT determinations were based on post-combustion add-on controls. None of the BACT determinations provided in the RBLC were for temporary boiler installations. A summary chart of the RBLC determinations is contained in Appendix B.

The combustion controls equipped on the temporary boiler proposed by Rayonier include flue gas recirculation (FGR) and low NO_x burners. A discussion with the vendor indicated that no boilers were available without these controls, hence, EMCON assumed that level of control to be part of the baseline equipment, and therefore, it was not costed separately.

Because the boiler is temporary (12 months), the economic impact analysis of add-on type controls were based on a one year equipment life amortization versus a typical 10

year life. The one year timeframe results in a very high economic impact as calculated following BACT guidelines. Combustion controls can be incorporated into the boiler design and, therefore, have a lower economic impact.

Table 3-1 provides options presented in descending order of control efficiency:

Table 3-1
NO_x Control Techniques

Control Technology	Control Efficiency
Flue Gas Controls	
Conventional Selective Catalytic Reduction	90 - 80%
Selective Noncatalytic Reduction	70-40%
Combustion Controls	
Low NO_X Burners with Flue Gas Recirculation	50-20%
Staged Combustion	50-20%
Low NO_X Burners	50-20%
Fuel Substitution	35-7%
Load Reduction	33-25%
Flue Gas Recirculation	30-15%
Low Excess Air	28-0%

The following provides a discussion of control alternatives which could potentially be employed for the reduction in NO_X emissions from the proposed temporary boiler

3.1 Selective Catalytic Reduction

Selective Catalytic Reduction (SCR) involves injecting ammonia or urea into the emission stream where it selectively reacts with NO_x and a catalyst in the presence of oxygen to form nitrogen gas and steam. The combustion temperature and the amount of ammonia injection must be closely monitored to achieve the desired pollutant reductions. An SCR is effective in removing NO_X, with reductions as great as 80 to 90 percent under ideal temperature conditions (steady load and 600 to 800 °F). However, the SCR process may actually increase the amount of NO_x if operated outside of the prescribed temperature range and/or wide load variations.

The demand on the temporary boiler proposed for the Fernandina Beach facility will vary considerably during the course of the repairs of the permanent boilers. The load changes and frequent startup and shutdowns are detrimental to the operation of the SCR process, particularly the catalyst. Ideal reductions of 80 to 90 percent control efficiency would not

be achieved under these conditions. Reductions of 80 percent have been anticipated for the purpose of calculating NO_x emissions for the SCR options analysis.

Other environmental concerns of using a SCR unit are the handling and storage of ammonia, unreacted ammonia emissions, and disposal of spent catalysts. Ammonia is a hazardous compound. For the quantities of ammonia that Rayonier would be required to store, they would have to undergo additional environmental and safety permitting. Unreacted ammonia ("Ammonia Slip") emissions can occur if ammonia is fed to the process at greater than stiochiometric concentrations. Ammonia slip may occur during startup or shut down, sudden load changes, injection at other than the optional temperature range, insufficient carrier gas, or greater than stoichiometric concentrations of ammonia

The annualized capital and operating cost of the SCR unit is approximately $2.2 million. Using a 80% reduction of NO_x, the economic impact in terms of cost per ton of NO_x removed would be approximately $6,970. Detailed cost calculations are provided in Appendix A. Based on the cost of an SCR system for the proposed temporary boiler, this option is considered to be economically unfeasible.

3.2 Selective Non-Catalytic Reduction

Selective non-catalytic reduction (SNCR) is similar in principal to SCR but is practiced at a much higher temperature and without a catalyst. The process utilizes injection of ammonia or urea at high temperatures to reduce NO_x. This process is highly dependent on injection of the reagent at the appropriate temperature. Required temperatures usually run between 1600 and 1800 °F with control efficiencies ranging from 30 - 60 percent for SNCR units.

In applying SNCR, a temperature profile of the boiler is developed to identify the most appropriate location for the ammonia or urea injection ports. As mentioned in the discussion on SCR, the facility's boilers will be undergoing load changes, startup and shutdown. These conditions will change the temperature profile of the boiler. Because the injection point cannot be relocated during operation, changing the temperature profile may change the temperature at the injection point beyond the 1600 to 1800°F range necessary for optional NO_x reduction. When this occurs, emissions of both NO_x and ammonia will increase. A control efficiency of 30% was assumed, because efficiencies at the higher end of the range are rarely achieved in practice and the temperature profile will change with load swings,reducing efficiency.

The annualized capital and operating cost of the SNCR unit is approximately $1.03 million. Using 30% reduction of NO_x, the economic impact in terms of cost per ton of NO_x removed would be approximately $8,750. Detailed cost calculations can be found in Appendix A. Based on the cost of an SNCR system for the proposed temporary boiler, this option is considered to be economically unfeasible.

3.3 Low NO_X Burners with Flue Gas Recirculation

Low NO_x burners reduce NO_x by conducting the combustion process in stages. Staging partially delays the combustion process, resulting in a cooler flame which suppresses thermal NO_x formation. Nitrogen oxide emission reductions of 40 to 85 percent (relative to uncontrolled emission levels) have been observed with low NO_x burners when combined with flue gas recirculation.

Low NO_x burners are frequently used on the type and size of the temporary boiler proposed by Rayonier. The low relative cost and NO_x reduction capability make it the most widely used NO_x control option identified in the BACT/LAER database. Low NO_x burners are an available and applicable NO_x reduction technology.

In a flue gas recirculation (FGR) system, a portion of the flue gas is recycled from the stack to the burner windbox. Upon entering the windbox, the cooler gas is mixed with combustion air prior to being fed to the burner. The FGR system reduces NO_x emissions by two mechanisms. In the first mechanism, the recycled flue gas is made up of combustion products which act as inserts during combustion of the fuel/air mixture. This additional mass is heated in the combustion zone, thereby lowering the peak flame temperature and reducing the amount of NO_x formed. Second, to a lesser extent, FGR also reduces NO_x formation by lowering the oxygen concentration in the primary flame zone. The temperature and amount of the flue gas recirculated are a key operating parameters influencing NO_x emission rates for these systems. FGR is normally used in combination with low NO_x burners.

The installed cost of a low NO_x burner and FGR have not been detailed as they were part of the base temporary boiler package in the lease agreement that Rayonier is seeking. Operating costs for a low NO_x burner are essentially the same as those for other burners, as such, no economic impact has been assumed for the low NO_x burner/FGR control option. Based on vendor guarantees, based on the high nitrogen content of fuel typically supplied to Rayonier and the maximum heat output for the high heat release temporary boiler, the NO_X emission rate with low NO_x and FGR will be 0.425 lb/mmBtu.

The other techniques, low excess air and load reduction, are not as effective as the low NO_X burner and FGD, and no further BACT review was conducted for these techniques.

3.4 Fuel Substitution

NO_x emissions decrease as the nitrogen content of the fuel decreases. Fuel nitrogen contents vary by oil type, ranging from 0.3 to 0.6% in high sulfur residual #6 oil, to 0.1 to 0.2% for distillate fuels. Unlike the sulfur content of fuels, nitrogen levels are not specified or controlled as part of the refining process, hence, are not the subject of purchase specifications. As such, it is not practical to quantify any reductions in NO_x

emissions. However, using representative values for nitrogen concentrations from empirical data, the economic impact was determined for fuel substitution at Rayonier.

A recent test of the fuel composition at Rayonier shows the typical nitrogen content to be 0.5 percent in their 2.5% sulfur residual oil. If the fuel was switched to 1.0-1.5% sulfur fuel the nitrogen content would be expected to average 0.4 percent nitrogen the NO_x emission rate approximately 7% percent less. The lowest nitrogen content fuels are approximately 0.14 percent nitrogen which would reduce the rate 35% percent.

The boiler vendor has provided different guaranteed NO_x emission rates for different fuel nitrogen content levels. Although the nitrogen content is not a specified variable, empirical data shows that the nitrogen content is lower in the lower sulfur fuels.

Several inherent chemical properties make handling and combustion of different fuel types or quality more complex to implement. Fuel storage and delivery systems are different for #6 and #2 fuel oils, due to the differences in gravity and viscosity. Both the fuel delivery system and the boiler burner would need be altered to accommodate a lighter fuel oil, such as #2. It is unfeasible to deliver two grades of fuel in a single system so a new one would have to be constructed. Different fuel systems must be also installed if different nitrogen content fuels are required for individual combustion units at a facility.

A residual fuel oil system is not sensitive to nitrogen content, which means substituting a lower nitrogen oil is a technically feasible alternative at an existing facility. The viscosity and specific gravity variations among #6 fuels with different characteristics might require some operational adjustments in the delivery system, such as changing the fuel temperature.

The cost differential for Rayonier to purchase lower sulfur fuels is based on information from Bob Bosman of Steuart Petroleum. The cost of 1.5% sulfur fuel would be $0.10 more per gallon than the current 2.5% sulfur fuel and #2 distillate with 0.5% sulfur (per DEP requirements) would be $0.20 more per gallon. Based on the projected potential gallons of fuel, the costs of fuel substitution to control NO_x in the proposed temporary boiler is approximately $48,900 per ton of NO_x controlled using 0.4 percent nitrogen fuel, and $21,800 per ton NO_x controlled using 0.14 percent nitrogen fuel. Based on the cost analysis, fuel substitution is not considered economically feasible. Detailed cost calculations are provided in Appendix A.

3.5 BACT Conclusion for NO_x

Post combustion techniques of SCR and SNCR were not considered economically feasible for the one year operating period and raised additional environmental concerns of ammonia handling. Fuel substitution was not deemed economically feasible. As such,

FGR and low NO_x burners with a vendor guaranteed maximum emission rate of 0.425 lb/mmBtu are considered to be BACT for this high heat release, temporary boiler.

4 SO_2 CONTROL SYSTEMS AND BACT

The following provides a discussion of each SO_2 control option examined for Rayonier and the BACT selection. Supporting calculations are found in Appendix A.

Because SO_2 is generated from the oxidation of sulfur contained in fuel, uncontrolled emissions are almost entirely dependent on the sulfur content of the fuel and are not affected by boiler size, burner design or grade of fuel being fired.

EMCON developed the following list of SO_2 control techniques through review of EPA's Compilation of Emission Factors (AP-42) and the RBLC for fuel oil combustion. The RBLC database contained information on several BACT determinations for oil-fired boilers in Florida, Virginia and others. It contained SO_2 emission rate information on six permits for fuel oil boilers over 100 mmBtu/hr, all based on fuel specifications. None were based on post-combustion controls. None of the BACT determinations were specific to temporary boilers.

A summary chart is provided in Appendix B.

The SO_2 control options are presented in descending order of control efficiency.

Table 4-1
SO_2 Control Options

Control Technique	Control Efficiency
Wet scrubbers	98-80%
Fuel Substitution	98-20%
Venturi Scrubber (caustic solution)	97-80%
Spray Drying	90-70%
Furnace/Duct Injection	50-25%

4.1 Wet Scrubbers

Control of the SO_2 emissions through the use of wet scrubbing techniques involves passing the boiler exhaust through a liquid medium. This either captures the sulfur oxide gas (or the particulate created as it oxidizes), or it reacts and neutralizes the pollutants.

Venturi scrubbers or packed bed scrubbers can be used. A venturi throttles the exhaust gas stream to create a low pressure zone which pulls scrubber liquid into the exhaust stream. An additional environmental benefit of the venturi scrubber system is that the waste water from production processes is used in the scrubber rather than going directly to the facility's wastewater treatment system. This saves water while treating the boilers' exhaust to reduce both particulate and SO_2.

Rayonier currently employs this technology to achieve both SO_2 and particulate control, for their permanent boiler and recent tests show it is 92-97 percent effective in reducing SO_2. A recent test of the existing scrubber control system at Rayonier shows the maximum SO_2 emission rate to be 0.2 lb/mmBtu.

The project to utilize a temporary boiler while boiler nos. 1 and 2 are sequentially taken off-line for repair creates no new wastewaters, although the scrubber liquid sulfur content will increase while Boiler no. 2 is not operating. Because this is the existing control system at the facility, there is no incremental cost considered for its use for the temporary boiler exhaust. The venturi scrubber is a feasible control option for Rayonier and will be used for SO_2 control.

A packed bed type scrubber using dual alkali or sodium carbonate scrubbing solution can achieve 96% or 98% removal, respectively, of acid gas. The recent scrubber test at Rayonier indicates that the existing Venturi system achieves 92 to 97 percent removal efficiency when the scrubber solution is maintained at a pH of 7.0 or higher. Packed bed scrubbers using scrubber solutions would not achieve reductions significantly better than the existing system. Installation of a new packed bed type scrubber would not improve the emission rate and is, therefore, not a practical alternative.

4.2 Fuel Substitution

SO_2 emissions decrease as the sulfur content of the fuel decreases. Fuel sulfur contents vary by oil type, ranging from heavy residual #6 oil, which can contain between 2.5-3 % sulfur, and lighter #2 distillate oils, which are normally a maximum of 0.5% sulfur in Florida but can be as clean as 0.05% sulfur for high grade transportation fuels. The lowest sulfur fuel available is natural gas, but it is not a feasible option for Rayonier because the gas distribution system ends 20 miles away.

Fuel storage and delivery systems are different for #6 and #2 fuel oils, due to the differences in gravity and viscosity. Both the fuel storage and delivery system and the boiler burner would need to be altered to accommodate a lighter fuel oil, such as #2. It is unfeasible to deliver two grades of fuel in a single system so a new one would have to be constructed. Different fuel systems must be also installed if different sulfur content fuels are required for individual combustion units at a facility.

A residual fuel oil system is not particularly sensitive to the sulfur content, as such, substituting a lower sulfur #6 oil is a technically feasible alternative at an existing facility. The viscosity and gravity variations among #6 fuels with different characteristics might require some operational adjustments in the delivery system, such as changing the fuel temperature.

Rayonier has a single #6 oil fuel system that supplies its power boilers, which are permitted for 2.5% sulfur oil. Any fuel switching control would be in addition to the control by the venturi scrubber, pushing the reduction efficiency from 97 percent (with the current 2.5% oil) to a little more than 99 percent (with distillate oil). In order to use a different sulfur content fuel for the proposed temporary boiler, an additional fuel system would need to be installed for the fuel or all boilers would have to use a lower sulfur fuel during the year.

A cost impact analysis was conducted to determine the economic feasibility of using lower sulfur oil. The first cost review was based on the SO_2 reduction possible by using 1.5% sulfur #6 oil or #2 fuel oil, for 8760 hours per year and it does not include any cost except the fuel prices. Based on information from Bob Bosman of Steuart Petroleum, the cost of 1.5% sulfur fuel would be $0.10 more per gallon than the current 2.5% sulfur fuel and #2 distillate with 0.5% sulfur would be $0.20 more per gallon. Therefore fuel switching to 1.5% or 0.5% sulfur oil would not be economically feasible at a cost of approximately $11,150 to $14,900 per ton of SO_2 controlled. Detailed cost calculations are provided in Appendix A.

The other techniques, spray drying and furnace and duct injection, have lower control effectiveness (25-50%) compared to the existing scrubber, and no further BACT review was conducted for these techniques.

4.3 BACT Conclusion for SO_2

EMCON has concluded that using the current fuel with the existing wet scrubber system represents BACT. The cost of fuel for the other existing steam generation units at the facility is not increased. The post combustion control technology of a venturi scrubber is economically feasible and will achieve an emission rate of 0.26 lb/mmBtu, which is considered to be BACT for this temporary boiler project.

5 PARTICULATE CONTROL

The following provides a discussion of each particulate control option examined for the proposed Rayonier temporary boiler and the BACT selection. For the purposes of this application, all particulate is assumed to be PM10. Supporting calculations are found in Appendix A.

EMCON has developed a list of particulate control techniques through discussions with vendors and a search of the EPA's RBLC database for fuel oil combustion by boilers over 100 mmBtu/hr. Six determinations referenced particulate rates. However, the fuels ranged from #6 fuel oil to natural gas and most were described as being controlled by boiler or combustion controls, with only two records referencing conventional particulate controls - fuel specifications and a multiclone. None of the BACT determinations were specific to temporary boilers.

The following provides a discussion of control alternatives which could potentially be employed for reducing particulate emissions (assuming all particulate is PM10 for this application) from the temporary boiler. The options are presented in descending order of control efficiency.

Table 5-1
Particulate Control Techniques

Control Technology	Control Efficiency
Fabric Filters/Electrostatic Precipitators	99%
Wet Scrubber	99-95%
Venturi Scrubber	92-87%
Fuel Substitution	91-35%
Cyclone/Multiclone	90-75%

5.1 Fabric Filters/Electrostatic Precipitators

Fabric filters can be applied to various size particles as well as a range of particulate loads. Typically fabric filters are used when high collection efficiencies are required, material is to be collected dry, volumetric flow is reasonably low, and temperatures are

low. Typical control efficiencies for fabric filters are 99% or greater. Particulate emissions from wood fired boilers can be controlled with a fabric filter, but the fabric will clog up quickly when used to extract wood fuel particulate. At Rayonier, the economic impact of fabric filters was calculated to be $14,320 per ton particulate controlled.

Electrostatic precipitation is based on the mutual attraction between particles of one electrical charge and a collecting point of opposite polarity. Electrostatic precipitators (ESPs) are typically used when high efficiencies are required for one or more of the following conditions; removing fine dust, valuable material needs to be recovered, or very large volumes are to be handled. Typical control efficiencies for ESPs are 99% or greater. Since electrostatic precipitators are generally more expensive or equally as expensive as fabric filters, both fabric filters and electrostatic precipitators were eliminated from BACT due to high economic impact per ton controlled.

5.2 Fuel Substitution

Particulate emissions decrease as the sulfur content of the fuel decreases. Fuel sulfur content is a good indicator of combustion particulate produced from combustion. It varies by oil type, ranging from heavy residual #6 oil, which can contain between 2.5-3% sulfur, and lighter #2 distillate oils. As described for SO_2 and NO_x reduction, fuel storage and delivery systems are different for #6 and #2 fuel oils, due to the differences in gravity and viscosity. Both the fuel delivery system and the boiler burner would need be altered to some degree to accommodate a lighter fuel oil, such as #2.

However, a residual fuel oil system is not particularly sensitive to the sulfur content, which means substituting a lower sulfur #6 oil is a technically feasible alternative at an existing facility. Without considering the particulate reduction by the scrubber system, substituting 1.5% sulfur #6 oil would reduce the emission rate approximately 35 percent at a cost of $21,760 per ton particulate controlled, and #2 oil (at 0.5% sulfur) would reduce the particulate emission rate 91 percent, at a cost of $19,600 per ton controlled. Fuel substitution is not considered economically feasible for particulate control in Rayonier's temporary boiler.

5.3 Wet Scrubbers

In a wet scrubber a liquid is used to capture particulate dust and handle it in the liquid stream. Wet scrubbers are typically used when exhaust streams are too hot or corrosive for fabric filtration. Additionally for process operations like Rayonier, scrubbers can utilize process liquid streams as scrubber solution. The Rayonier venturi scrubber system is at least 87% efficient at controlling particulate and will be employed to control particulate from the temporary boiler.

The cost impact of a venturi scrubber for control of particulate emissions from the proposed temporary boiler is negligible with regard to capital and operating costs at Rayonier, given that the system is in place at the facility to control particulate emission from the existing boilers. The ductwork and flue handling equipment would be the only cost to control particulate, therefore 87% of the particulate would be controlled at virtually no cost.

5.4 BACT Conclusion for Particulate

EMCON has concluded that using the current fuel with the existing venturi scrubber system as a post-combustion control represents BACT, with an emission rate of 0.03 lb/mmBtu.

APPENDIX A

BACT ANALYSIS CALCULATIONS

RAYONIER - FERNANDINA BEACH
Temporary Boiler

BACT Analysis for Selective Catalytic Reduction

Estimating Total Capital Investment

Direct Costs

Purchased equipment costs		
Catalyst equipment + auxilliary equipment	Vendor quote, A_1	$950,000.00
Instrumentation	(0.10)*A	$95,000.00
Sales taxes	(0.03)*A	$28,500.00
Freight	(0.05)*A	$47,500.00
Purchased Equipment Cost, PEC	B = (1.18)*A	$1,121,000.00
Direct installation costs		
Foundations & supports	(0.08)*B	$89,680.00
Handling & erection	(0.14)*B	$156,940.00
Electrical	(0.04)*B	$44,840.00
Piping	(0.02)*B	$22,420.00
Insulation for ductwork	(0.01)*B	$11,210.00
Painting	(0.01)*B	$11,210.00
Direct Installation Costs	(0.30)*B	$336,300.00
Building (assume no additional work)		$0.00
Site Preparation (assume no cost)		$0.00
Total Direct Costs, DC	(1.30)*B + SP + Bldg.	$1,457,300.00

Indirect Costs (installation)

Engineering	(0.10)*B	$112,100.00
Construction and field expenses	(0.05)*B	$56,050.00
Contractor fees	(0.10)*B	$112,100.00
Start-up	(0.02)*B	$22,420.00
Performance test	(0.01)*B	$11,210.00
Contingencies	(0.03)*B	$33,630.00
Total Indirect Costs, IC	(0.31)*B	$347,510.00
Total Capital Investment = DC + IC	(1.61)*B + SP + Bldg.	$1,804,810.00

A_1 Sample vendor cost for 150 MMBtu boiler increased by approximately 25%

RAYONIER - FERNANDINA BEACH
Temporary Boiler

BACT Analysis for Selective Catalytic Reduction

Estimating Annual Costs

Direct Costs

Operating labor		
Operator	(1.5 hr/day)*(365 day/yr)*($25/hr)	$13,687.50
Supervisor	15% of Operator	$2,053.13
Operating materials	Ammonia $250 per ton	$98,659.50
Maintenance		
Labor	(1.5 hr/day)*(365 day/yr)*($25/hr)	$13,687.50
Material	100% of maintenance labor	$13,687.50
Catalyst Replacement	100% of Catalyst for year only 75 Ft^3 of catalyst @ $650.00 per Ft^3	$48,750.00
Utilities		
Electricity - fan	fan power requirement(kWh/yr)*0.08/kWh	$91,632.68
Auxiliary Fuel	$0.65/ccf	$15,288.83
	Total Direct Annual Costs	$297,446.63

Indirect Costs

Overhead	60%*(labor$_{(oper.+supv.+maint.)}$+(maint mat.))	$25,869.38
Administrative charges	2% of Total Capital Investment	$36,096.20
Property taxes	1% of Total Capital Investment	$18,048.10
Insurance	1% of Total Capital Investment	$18,048.10
Capital recovery	CRF*(Total Capital Investment) assume a 1 year life	$1,804,810.00
	Total Indirect Annual Costs	$1,902,871.78
	Total Annual Costs	$2,200,318.41
	Amount of NOx Controlled (TPY) 395 TPY * 80% efficiency	315.71
	Total Annual Cost per Ton of NOx Controlled	$6,969.42

RAYONIER - FERNANDINA BEACH
Temporary Boiler

BACT Analysis for Selective Non Catalytic Reduction

Estimating Total Capital Investment

Direct Costs

Purchased equipment costs		
Catalyst equipment + auxilliary equipment	Vendor quote, A_1	$400,000.00
Instrumentation	(0.10)*A	$40,000.00
Sales taxes	(0.03)*A	$12,000.00
Freight	(0.05)*A	$20,000.00
Purchased Equipment Cost, PEC	B = (1.18)*A	$472,000.00
Direct installation costs		
Foundations & supports	(0.08)*B	$37,760.00
Handling & erection	(0.14)*B	$66,080.00
Electrical	(0.04)*B	$18,880.00
Piping	(0.02)*B	$9,440.00
Insulation for ductwork	(0.01)*B	$4,720.00
Painting	(0.01)*B	$4,720.00
Direct Installation Costs	(0.30)*B	$141,600.00
Total Direct Costs, DC	(1.30)*B + SP + Bldg.	$613,600.00

Indirect Costs (installation)

Engineering	(0.10)*B	$47,200.00
Construction and field expenses	(0.05)*B	$23,600.00
Contractor fees	(0.10)*B	$47,200.00
Start-up	(0.02)*B	$9,440.00
Performance test	(0.01)*B	$4,720.00
Contingencies	(0.03)*B	$14,160.00
Total Indirect Costs, IC	(0.31)*B	$146,320.00
Total Capital Investment = DC + IC	(1.61)*B + SP + Bldg.	$759,920.00

RAYONIER - FERNANDINA BEACH
Temporary Boiler

BACT Analysis for Selective Non Catalytic Reduction

Estimating Annual Costs

Direct Costs

Operating labor		
Operator	(1.5 hr/day)*(365 day/yr)*($25/hr)	$13,687.50
Supervisor	15% of Operator	$2,053.13
Operating materials	Ammonia/Urea Injection	$20,000.00
Maintenance		
Labor	(1.5 hr/day)*(365 day/yr)*($25/hr)	$13,687.50
Material	100% of maintenance labor	$13,687.50
Catalyst Replacement	100% of Catalyst for year only 75 Ft^3 of catalyst @ $650.00 per Ft^3	$48,750.00
Utilities		
Electricity - fan	fan power requirement(kWh/yr)*0.08/kWh	$91,632.68
Auxiliary Fuel	$0.65/ccf	$15,288.83
	Total Direct Annual Costs	$218,787.13

Indirect Costs

Overhead	60%*(labor$_{(oper.+supv.+maint.)}$+(maint mat.))	$25,869.38
Administrative charges	2% of Total Capital Investment	$15,198.40
Property taxes	1% of Total Capital Investment	$7,599.20
Insurance	1% of Total Capital Investment	$7,599.20
Capital recovery	CRF*(Total Capital Investment) assume a 1 year life	$759,920.00
	Total Indirect Annual Costs	$816,186.18
	Total Annual Costs	$1,034,973.31
	Amount of NOx Controlled (TPY) 395 TPY * 30% efficiency	118.39
	Total Annual Cost per Ton of NOx Controlled	$8,741.96

RAYONIER - FERNANDINA BEACH
Temporary Boiler

NOX Emission Rates

Uncontrolled Emission Rates

$$\frac{73.778 \text{ lb NOx}^{(1)}}{1000 \text{ gal}} \times \frac{12{,}408 \text{ 1000 gal}}{\text{yr}} \times \frac{\text{ton}}{2000 \text{ lb}} = 458 \frac{\text{ton}}{\text{yr}}$$

Low NOx Bumer Emission Rates

$$\frac{0.425 \text{ lb NOx}^{(2)}}{\text{mmbtu}} \times \frac{212 \text{ mmbtu}}{\text{hr}} \times \frac{8760 \text{ hr}}{} = 789276 \frac{\text{lb}}{\text{yr}}$$

$$\frac{789276 \text{ lb}}{\text{yr}} \times \frac{\text{ton}}{2000 \text{ lb}} = 395 \frac{\text{ton}}{\text{yr}}$$

(1) Based on EPA AP-42 Emission Factors
(2) Vendor provided NOx Emission Rate

Assumptions for NOx Cost Calculations

Variables used in calculation of Annual Costs

specific gravity s.g. =	1
fan-motor efficiency =	0.65
system flowrate (acfm), Q =	120,000
System Pressure Drop DP =	8
fan power requirement (kWh/yr) =	1,522,138
FP = .000181Q*DP*f assuming s.g.=1, & fan-motor eff.=65%	
annual operating hours for fan, f	8,760
Desired outlet temperature °F	800

RAYONIER - FERNANDINA BEACH
Temporary Boiler

Fuel Costs - NOx

		#6 Oil @ 2.5% S @ 0.5% N	#6 Oil @ 1.5% S @ 0.4% N	#2 Oil @ 0.5% S @ 0.14% N
Fuel Unit Cost		$ 0.29	$ 0.40	$ 0.50
Gal/8760 hrs		12408000	12408000	13294286
Annual Fuel Cost		$ 3,598,320	$ 4,963,200	$ 6,647,143
Incremental Fuel Cost		-	$ 1,364,880	$ 3,048,823
Uncontrolled NOx	(tons/yr)	395.5	368	228.0
	(lb/MMBtu) [A]	*0.425*	*0.395*	*0.245*
NOx reduction (tons/yr)		-	28	139.6
Removal %			7%	35%
Cost/ton NOx removed		-	$ 48,888	$ 21,841

Conversion Factors & Assumptions:

212.47 MMBtu/hr Boiler
150,000 Btu/gallon #6 Residual Fuel Oil (2.5% Sulfur)
140,000 #2 Fuel Oil, 0.5% sulfur
2,000 lb/ton

A - NOx emission rates (lb/MMBtu) for #6 and #2 oil from boiler vendor

Fuel Price Quotes

conversation with Bob Bosman (Steuart Oil, Jacksonville, FL) 9/23/98.

$12.60	/bbl of 2.5% Sulfur, #6 Fuel Oil	$ 0.30	per gallon
$16.80	/bbl of 1.5% Sulfur, #6 Fuel Oil	$ 0.40	
$21.00	/bbl of 0.5% Sulfur, #2 Fuel Oil	$ 0.50	per gallon
42	gal/bbl		

RAYONIER - FERNANDINA BEACH
Temporary Boiler

Fuel Costs - SO2

		#6 Oil @2.5%	#6 Oil @1.5%	#2 Oil @ 0.5%
Fuel Unit Cost		$ 0.30	$ 0.40	$ 0.50
Gal/8760 hrs		12408000	12408000	13294286
Annual Fuel Cost		$ 3,722,400	$ 4,963,200	$ 6,647,143
Incremental Fuel Cost		-	$ 1,240,800	$ 2,924,743
Uncontrolled SO_2	(tons/yr)	2435	1321	473.6
	(lb/mmBtu) [A]	*2.62*	*1.42*	*0.51*
Scrubber reduction	90%			
controlled	(tons/yr)	243.5	132	47.4
	(lb/mmBtu)	*0.26*	*0.14*	*0.05*
SO_2 reduction (tons/yr)		-	111	196.1
Cost/ton SO_2 removed		-	$ 11,143	$ 14,911

Conversion Factors & Assumptions:

212.47 MMbtu/hr Boiler
150,000 Btu/gallon #6 Residual Fuel Oil (2.5% Sulfur)
140,000 #2 Fuel Oil, 0.5% sulfur
2,000 lb/ton

Emission Factors

0.51 lb(SO_2)/gal of #2 Fuel Oil (0.5% Sulfur). (AP-42; Table 1.3-2)
[142(S)] lb/1000gal where S is the sulfur content of the fuel.
A - emissions from application divided by boiler heat input capacity

Fuel Price Quotes

conversation with Bob Bosman (Steuart Oil, Jacksonville, FL) 9/23/98.

$12.60	/bbl of 2.5% Sulfur, #6 Fuel Oil	$ 0.30	per gallon
$16.80	/bbl of 1.5% Sulfur, #6 Fuel Oil	$ 0.40	
$21.00	/bbl of 0.5% Sulfur, #2 Fuel Oil	$ 0.50	per gallon
42	gal/bbl		

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

Is your RETURN ADDRESS completed on the reverse side?

3. Article Addressed to:
Mr. Jack Kriesel, GM
Rayonier Inc
PO Box 2002
Fernandina Bch, Fl
32035-1309

4a. Article Number
Z 333 612 495

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
11-12-98

5. Received By: *(Print Name)*
C L MITCHELL

6. Signature: *(Addressee or Agent)*
X

8. Addressee's Address *(Only if requested and fee is paid)*

Thank you for using Return Receipt Service.

PS Form 3811, December [illegible] Dom[illegible]pt

Z 333 612 495

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Kriesel	
Street & Number Rayonier, Inc	
Post Office, State, & ZIP Code Fernandina Bch, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Jack Kriesel
Rayonier, Inc.
PO Box 2002
Fernandina Beach, Fl
32035-1309

4a. Article Number
Z 333 612 569

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
12-22-98

5. Received By: *(Print Name)*
C L MITCHELL

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 333 612 569

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Kriesel	
Street & Number Rayonier	
Post Office, State, & ZIP Code & Fernandina Bch, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 12-17-98	
0890004-006-AC PSD-Fl-256	

PS Form **3800**, April 1995

Fold at line over top of envelope to

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Jack M. Kriesel, Gen. Mgr
Rayonier, Inc
Foot of Gum St.
Fernandina Bch, Fl
32035-1309

4a. Article Number
Z 031 392 018

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
10-13-99

5. Received By: *(Print Name)*
C L MITCHELL

6. Signature: *(Addressee or Agent)*
X C L Mitchell

8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 031 392 018

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Jack Kriesel	
Street & Number Rayonier, Inc	
Post Office, State, & ZIP Code Fernandina Bch	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0890004-006-AC PSD-FI-956	10-8-99

PS Form **3800**, April 1995

Rayonier, Inc.
0890004-006-AC
PSD-FL-256

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0890004-006-AC
(PSD-FL-256)
Fernandina Mill
Rayonier, Incorporated
Nassau County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Rayonier, Inc. to install a temporary boiler at its sulfite pulp mill. The plant is located at Foot of Gum Street, Fernandina Beach, Nassau County. A Best Available Control Technology (BACT) determination was required for nitrogen oxides, pursuant to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). The applicant's name and address are: Rayonier, Inc., Post Office Box 2002, Fernandina Beach, Florida 32035.

The temporary boiler has a heat input rate of 212 Million British Thermal Units per hour and will be in operation for a period of only one year. The temporary boiler will be used in lieu of Power Boilers 1 and 2 while they undergo foundation repairs. The existing control equipments of venturi scrubbers will be used to control particulate matter and sulfur dioxide emissions from the temporary boiler. Nitrogen oxides (NO_x) emission will be minimized from the temporary boiler by utilizing low NO_x burners and flue gas recirculation. An air quality impact analysis was not required because of the temporary nature of the project.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. 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 will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department'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 how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

A petition that does not dispute the material facts upon which the Department'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.

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

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Department of Environmental Protection
Northeast District
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/448-4300
Fax: 904/448-4363

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

1t 11-11-98
8468

IN THE CIRC

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location)

1. Al Linero
2. MS-5505
3.
4.

Events Coordinator

Remarks:

Patty:

Per our Phone Conversation I am forward the Check and application to your office for Al Linero attention.

From: Ollie Henderson

Date 10/7/98

Phone

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

October 19, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David E. Tudor, Manager
Environmental Affairs - Air
Rayonier, Inc.
Post Office Box 2002
Fernandina Beach, Florida 32035-1309

Re: DEP File No. 0890004-006-AC (PSD-FL-256)
Specialty Pulp Products, Temporary Replacement Boiler

Dear Mr. Tudor:

The Department has received the additional information and the BACT determination on October 1, 1998 for the installation of a temporary boiler to replace either power boiler No. 1 or No. 2 while foundations under those boilers are repaired. Based on our review of the proposed project, we have determined that additional information is needed in order to continue processing this application package.

Please provide a letter sealed by a Professional Engineer (P.E.) registered in the State of Florida and knowledgeable in the field of combustion and/or air pollution control certifying that the foundation repairs for power boiler No. 1 and No.2 will not increase the annual capacity factor for the two boilers. Also, provide information on the average annual capacity factors for the boilers for the last two years. If the foundation repair work will increase the capacity factor for either boiler, then an additional PSD review may be required. This will entail comparing the past actuals to future potentials of pollutants and undergoing PSD review for any pollutant that is over the significant emission rates as outlined in 62-212, Table 212.400-2.

We have not yet received comments from the U.S. Fish and Wildlife Service or from the EPA. Their comments will be forwarded to you as soon as we receive them.

The Department in the meantime will be writing the Technical Evaluation and Preliminary Determination for this project and will issue the same after receipt of the requested information. If you have any questions regarding this matter, please call Syed Arif, P.E. at (850) 921-9528.

Sincerely,

10/19

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/sa

cc: Doug Neely, EPA
John Bunyak, NPS
C. Kirts, DEP-NED
R. Smith, DEP-NED
M. Ryan, P.E., EMCON

Z 333 612 483

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to David Tudor	
Street & Number Poinciana	
Post Office, State, & ZIP Code Fernandina Bch, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 0890004-006-AC 10-19-98 PSO-FI-256	

PS Form **3800**, April 1995