FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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Secretary

May 22, 2014

Sent by Electronic Mail – Received Receipt Requested
ksparks@rex-lumber.com

PERMITTEE

North Florida Lumber, Inc.
dba Rex Lumber, Bristol, Florida
Post Office Box 610
Bristol, Florida 32321

Authorized Representative:
Mr. Kenny Sparks, General Manager

Air Permit No. 0770007-018-AC
Permit Expires: May 22, 2019

Bristol Lumber Mill
Title V Source Air Construction Permit
Boiler Energy Recovery

This is the final air construction permit, which authorizes the facility to install ductwork between the boilers and continuous kilns to recover thermal energy from the boiler combustion gases. The boilers will exhaust through multiclones to the steam-heated continuous lumber drying kilns to provide additional heat for drying wood. The proposed work will be conducted at the Bristol Lumber Mill, which is a Sawmill and Planing Mill (Standard Industrial Classification No. 2421). The facility is located in Liberty County approximately 6 miles south of State Road 12 in Bristol, Florida. The UTM coordinates are Zone 16, 691.48 km East, and 3358.62 km North. As noted in the Final Determination provided with this final permit, no changes were made to the draft permit.

This final permit is organized by the following sections.

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C., and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C., for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida

Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Pensacola, Florida

___/s/_____
J. Charles Harp
Program Administrator
Waste Management/Air Resources

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on May 22, 2014 to the persons listed below.

Kenny Sparks, Rex Lumber, Bristol, Florida, General Manager, ksparks@rex-lumber.com
Vernon Adams, President, PLE Consulting, vernonadams@hotmail.com
Richard Brinker, P.E., VP Engineering, PLE Consulting, richardbrinker@bell.south.net
Ana Oquendo, EPA Region 4, oquendo.ana@epa.gov

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

____/s/_____ May 22, 2014
Clerk Date

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This facility consists of a log debarker, sawmill, wood waste handling and storage, four lumber drying kilns, planer mill and three boilers that provide heat to the kilns. Pine logs are delivered to the facility via logging trucks and stored in the log storage yard until they are ready to be processed. The logs are debarked and conveyed into the sawmill where they are cut into various sizes of lumber. The lumber is automatically sorted by size and collected in corresponding piles that are transferred to the kilns for drying. After the lumber is dried, it is transferred to the planer mill where the lumber is sized to specifications. The finished lumber is stored in miscellaneous storage sheds until it is shipped off site. The facility also receives debarked and peeled poles from Apalachee Pole Company (adjacent property owner) to be dried in the facility's drying kilns. Once dried, the poles are transported back to Apalachee Pole Company for further processing.

The facility has four steam-heated lumber drying Kilns Nos. 1, 2, 3 and 4. Drying cycles vary, but can be as long as 96 hours. The steam used to heat the four drying kilns is generated by three steam-producing boilers. The facility has three Boilers, Nos. 1, 2 and 3, that have maximum heat input capacities of 29.6, 42.9 and 28.7 MMBtu/hr, and are equipped with wood gasification systems. The boilers are fueled by wood waste which is generated during the processing of lumber at the facility. Combustion gases from the boilers discharge through multiclones to control particulate matter (PM) emissions.

Wood waste handling and storage is an unregulated emission unit, which is not subject to any unit specific emissions limitations or standards except for the general visible emissions standard of less than 20% opacity. The wood waste (bark, sawdust and shavings from the planer mill) is conveyed to one of three fuel storage silos located adjacent to the boilers to be used as fuel or conveyed to the truck loading station for shipment off site. Scrap pieces of wood generated during the processing of lumber are routed to chippers where they are chipped into smaller pieces and conveyed to the truck loading station to be shipped off site. Wood waste handling and storage consists of miscellaneous blowpipe systems, conveyors, storage bins and eight receiving cyclones.

The existing facility consists of the following emissions units.

Facility ID No. 0770007

ID No.	Emission Unit Description
001	Boiler No. 1 (29.6 MMBtu/hr) and Boiler No. 3 (28.7 MMBtu/hr)
002	Boiler No. 2 (42.9 MMBtu/hr)
015	Four Lumber Drying Kilns: Continuous Kilns Nos. 1and 2 and Batch Kilns Nos. 3 and 4
	Unregulated Emissions Units &and Activities
014	Wood Waste Handling and Storage

Proposed Project

Rex Lumber proposes to install ductwork between the boilers and continuous lumber drying kilns to allow the facility to recover thermal energy from the boiler combustion gases, which are currently being vented to the atmosphere, by routing the exhaust gases from Boilers Nos. 1, 2 and 3 through multiclones to the steam-heated continuous lumber drying Kilns Nos. 1 and 2 to provide additional heat for drying wood. Combustion gases from the boilers will continue to be routed through multiclones for PM control prior to entering the ductwork to the kilns. In addition to providing steam heat to the four lumber drying kilns, the boilers will also provide direct heat to the continuous lumber drying Kilns Nos. 1 and 2.

Rex Lumber anticipates that this project will result in a reduction in facility-wide emissions due to decreased steam demand at the kilns and thus a reduced fuel requirement at the boilers; however, they are not taking credit for the reduced emissions at this time.

No changes are proposed for Wood Waste Handling and Storage (EU-014) or batch Kilns Nos. 3 and 4 in emission unit EU-015.

This project will modify or affect the following emissions units.

Facility ID No. 0770007	
ID No.	**Emission Unit Description**
001	Boiler No. 1 (29.6 MMBtu/hr) and Boiler No. 3 (28.7 MMBtu/hr)
002	Boiler No. 2 (42.9 MMBtu/hr)
015	Four Lumber Drying Kilns: Continuous Kilns Nos. 1and 2 and Batch Kilns Nos. 3 and 4

Facility Regulatory Classification

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- The project includes emissions units subject to 40 CFR 63 Subpart DDDD - National Emission Standards for Hazardous Air Pollutants (NESHAP): Plywood and Composite Wood Products.

1. Permitting Authority: The permitting authority for this project is the Northwest District Waste Management/Air Resources Program, Florida Department of Environmental Protection (Department). The District's mailing address is 160 W. Government Street, Suite 308, Pensacola, Florida 32502-5740. All documents related to applications for permits to operate an emissions unit shall be submitted to the District Office at the above address.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the District Office at the above address or nwdair@dep.state.fl.us.

3. Appendices: The Appendices in Section 4 are attached as part of this permit:

   Appendix A. Citation Formats and Glossary of Common Terms

   Appendix B. General Conditions

   Appendix C. Common Conditions

   Appendix D. Common Testing Requirements

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. Asbestos: This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source. [40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

7. Modifications: The permittee shall notify the Permitting and Compliance Authority upon commencement of construction. Notification may be submitted by electronic mail to nwdair@dep.state.fl.us and copied to the permitting authority at epost_nwdwasteair@dep.state.fl.us. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

8. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4)

through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

9. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. You can obtain a permit application form or apply for permit renewal electronically at the following web address: http://www.dep.state.fl.us/air/emission/permitting.htm.
[Rules 62-4.030, 62-4.050 and Chapter 62-213, F.A.C.]

A. Boilers Nos. 1 & 3

This section of the permit addresses the following emissions unit

ID No.	Emissions Unit Description
001	Boiler No. 1 (29.6 MMBtu/hr) and Boiler No. 3 (28.7 MMBtu/hr)

These boilers are equipped with a wood gasification system and are fueled by wood waste generated during the processing of lumber at the facility. The fuel is conveyed using a variable speed screw conveyor into the gasifier prior to going into the boiler. Steam production is continuously measured and recorded on a recording chart.

Boiler No. 1 was manufactured before June 1989 by Industrial Boiler, and has a maximum heat input capacity of 29.6 MMBtu/hour. Particulate emissions are controlled by two (in series) multiple tube dry collectors manufactured by Zurn, Model No. MTSA-30-9-CYT-A. Ash collected by the multiclones is emptied into containers located under the multiclones.

Boiler No. 3 was manufactured after June 1989 by Hurst Boiler & Welding Company, Model HYB-3900, and has a maximum heat input capacity of 28.7 MMBtu/hour. Particulate emissions are controlled by two (in series) multiple tube dry collectors manufactured by Hurst Boiler & Welding Company, Model Nos. K12-16t and K9-44T. Ash is conveyed by screw conveyor to an enclosed bin for removal by front-end loader.

This project changes the emissions point for these boilers. Combustion gases from the boilers will vent through multiclones to the continuous lumber drying Kilns Nos. 1 and 2. Compliance tests for visible emissions will no longer be required for the boilers in this emission unit after startup, following completion of the project.

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

A.1. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for the change noted below, the unit remains subject to the conditions of all other legally binding air construction and operating permits. [Rules 62-4.070(3) and 62-210.300(1), F.A.C.]

A.2. New Equipment: Except for the change noted below, the new equipment authorized by this permit shall be subject to the same requirements, such as, but not limited to; emissions standards, recordkeeping, compliance testing and fuels limitations previously established for this emissions unit in all other legally binding air construction and operating permits. [Rules 62-4.070(3) and 62-210.300(1), F.A.C.]

EQUIPMENT

A.3. Boilers Nos. 1 and 3 Ductwork and Ancillary Equipment: The permittee is authorized to install ductwork and ancillary equipment to route the combustion gases from Boilers Nos. 1 and 3 through multiclones into continuous Kilns Nos. 1 and 2. [Application No. 0770007-018-AC]

PERFORMANCE RESTRICTIONS

A.4. Methods of Operation: Combustion gases from the boilers in this emissions unit shall vent through the multiclones for PM control. During normal operation, all the exhaust gases from the multiclones will exhaust to continuous Kilns Nos. 1 and 2. [Rule 62-4.070(3), F.A.C., and Application No. 0770007-018-AC]

TESTING REQUIREMENTS

A.5. Visible Emissions Tests. Compliance tests for VE will not be required for this emissions unit after startup, following completion of the project. [Rule 62-4.070(3), F.A.C., and Application 0770007-018-AC]

MONITORING REQUIREMENTS

A.6. Startup, Shutdown and Malfunction (SSM) Plan: Permittee shall operate the boilers in accordance with the approved SSM Plan to minimize heat stress on the kilns. Permittee may change the SSM Plan by submitting a request in accordance with Rule 62-213.410(2), F.A.C., at least seven days prior to implementing the change. (See attached Operation, Maintenance, Startup, Shutdown and Malfunction Plan).
[Rule 62-4.070(3), F.A.C., and Application 0770007-018-AC]

B. Boiler No. 2

This section of the permit addresses the following emissions unit

ID No.	Emissions Unit Description
002	Boiler No. 2 (42.9 MMBtu/hr)

This boiler is equipped with a wood gasification system and is fueled by the wood waste that is generated during the processing of lumber at the facility. The fuel is conveyed using a variable speed screw conveyor into the gasifier prior to going into the boiler. Steam production is continuously measured and recorded on a recording chart.

Boiler No. 2 was manufactured before June 1989 by Industrial Boiler, and has a maximum heat input capacity of 42.9 MMBtu/hour. Particulate emissions are controlled by two (in series) multiple tube dry collectors, manufactured by Zurn, Model No. MTSA-30-9-CYT-A. Ash collected by multiclones is emptied into containers located under the multiclones.

This project changes the emission point for this boiler. Combustion gases from the boiler will vent through multiclones to the continuous lumber drying Kilns Nos. 1 and 2. Compliance tests for visible emissions will not be required for this emission unit after startup, following completion of the project. Compliance testing for particulate matter emissions will still be required pursuant to Rule 62-296.410(2)(b)2., F.A.C.

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

B.1. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for the change noted below, the unit remains subject to the conditions of all other legally binding air construction and operating permits. [Rules 62-4.070(3) and 62-210.300(1), F.A.C.]

B.2. New Equipment: Except for the change noted below, the new equipment authorized by this permit shall be subject to the same requirements, such as, but not limited to; emissions standards, recordkeeping, compliance testing and fuels limitations previously established for this emissions unit in all other legally binding air construction and operating permits. [Rules 62-4.070(3) and 62-210.300(1), F.A.C.]

EQUIPMENT

B.3. Boiler No. 2 Ductwork and Ancillary Equipment: The permittee is authorized to install ductwork and ancillary equipment to route the combustion gases from the Boiler No. 2 through multiclones into continuous Kilns Nos. 1 and 2. [Application No. 0770007-018-AC]

PERFORMANCE RESTRICTIONS

B.4. Methods of Operation: Combustion gases from the boiler in this emission unit shall vent through the multiclones for PM control. During normal operation, all the exhaust gases from the multiclones will exhaust to continuous Kilns Nos. 1 and 2. [Rule 62-4.070(3), F.A.C., and Application No. 0770007-018-AC]

EMISSIONS STANDARDS

B.5. Particulate Matter. Particulate Matter (PM) emissions shall not exceed 0.2 lbs/MMBtu of heat input of carbonaceous fuel. [Rule 62-296.410(2)(b)2, F.A.C.]

TESTING REQUIREMENTS

B.6. Visible Emissions Testing. Compliance tests for VE will not be required for this emission unit after startup, following completion of the project. [Rule 62-4.070(3), F.A.C., and Application 0770007-018-AC

B.7. Initial Compliance Tests. Compliance tests for PM are required to show compliance with the standards of the Department. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us .
[Rules 62-4.070(3), 62-296.410(2)(b)2. and 62-297.310(7)(a)1, F.A.C.]

B.8. Annual Compliance Tests: During each federal fiscal year (October 1 to September 30), the boiler in this emission unit shall be tested to demonstrate compliance with the emissions standards for PM. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us .
[Rule 62-297.310(7)(a)4, F.A.C.]

MONITORING REQUIREMENTS

B.9. Startup, Shutdown and Malfunction (SSM) Plan: Permittee shall operate the boilers in accordance with the approved SSM Plan to minimize heat stress on the kilns. Permittee may change the SSM Plan by submitting a request in accordance with Rule 62-213.410(2), F.A.C., at least seven days prior to implementing the change. (See attached Operation, Maintenance, Startup, Shutdown and Malfunction Plan).
[Rule 62-4.070(3), F.A.C., and Application 0770007-018-AC]

ADDITIONAL CONDITIONS

B.10. Stack Sampling. Permittee shall install and maintain permanent stack sampling facilities including sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support as required to sample emissions of particulate matter from this source. [Rule 62-297.310(6), F.A.C.]

C. Four Lumber Drying Kilns Nos. 1, 2, 3 & 4

This section of the permit addresses the following emissions unit

ID No.	Emissions Unit Description
015	Four Lumber Drying Kilns: Continuous Kilns Nos. 1 and 2 and Batch Kilns Nos. 3 and 4

This emissions unit consists of four lumber drying kilns. The temperature and humidity inside the kilns are controlled by thermostats and/or humidifiers, which control the amount of steam going to heating coils and/or humidifiers. These units also control the opening and closing of roof vents and cycle internal axial fans so that air is either being circulated internally or supplied/exhausted through air vents.

Emissions from the kilns are emitted uncontrolled directly to atmosphere from multiple points of the kilns. The facility utilizes good operating practices to control emissions from the kilns. Emissions are limited by limiting the board feet of production (facility-wide).

This project changes the continuous Kilns Nos. 1 and 2 from steam-heated kilns to hybrid combination direct fired/steam-heated kilns. Because combustion gases from the boilers will vent to the continuous kilns, this emissions unit will be subject to the visible emissions standard of 20% opacity required by Rule 62-296.410, F.A.C.

No changes are proposed for the steam-heated batch lumber drying Kilns Nos. 3 and 4.

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

C.1. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for the change noted below, the unit remains subject to the conditions of all other legally binding air construction and operating permits. [Rules 62-4.070(3) and 62-210.300(1), F.A.C.]

C.2. New Equipment: Except for the change noted below, the new equipment authorized by this permit shall be subject to the same requirements, such as, but not limited to; emissions standards, recordkeeping, compliance testing and fuels limitations previously established for this emissions unit in all other legally binding air construction and operating permits. [Rules 62-4.070(3) and 62-210.300(1), F.A.C.]

EQUIPMENT

C.3. Continuous Lumber Kilns Nos. 1 and 2 Ductwork & Ancillary Equipment: The permittee is authorized to install ductwork and ancillary equipment to vent combustion gases from the boilers through multiclones into continuous Kilns Nos. 1 and 2. [Application No. 0770007-018-AC]

EMISSIONS STANDARDS

C.4. Visible Emissions: Visible emissions from Kilns Nos. 1 and 2 shall not exceed 20% opacity under normal operation except for up to two minutes in any one hour at not more than 40% opacity. [Rule 62-296.410(2)(a), F.A.C.]

TESTING REQUIREMENTS

C.5. Initial Compliance Tests: Initial compliance tests for VE are required to show compliance with the emissions standards of the Department. Testing shall be conducted on one of the continuous kilns from the group, either Kiln No. 1 or Kiln No. 2. The kiln being tested shall be the one with the highest visible emissions. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us . [Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]

C.6. Annual Compliance Tests: During each federal fiscal year (October 1 to September 30), the continuous kilns shall be tested for visible emissions to demonstrate compliance with the emissions standards of the Department. Testing shall be conducted on one of the continuous kilns from the group, either Kiln No. 1 or Kiln No. 2. The kiln being tested shall be the one with the highest visible emissions. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. [Rule 62-297.310(7)(a)4, F.A.C.]

MONITORING REQUIREMENTS

C.7. Operation and Maintenance (O&M) Plan: Permittee shall operate the kilns in accordance with the approved O&M Plan to minimize over-drying the lumber, maintain consistent moisture content for the processed lumber charge, and dry at the minimum temperature for the given lumber charge. Permittee may change the O&M Plan by submitting a request in accordance with Rule 62-213.410(2), F.A.C., at least seven days prior to implementing the change. (See attached Operation, Maintenance, Startup, Shutdown and Malfunction Plan). [Rule 62-4.070(3), F.A.C., and Application No. 0770007-018-AC]