Title V Air Operation Permit Renewal
Permit No. 0630011-017-AV

APPLICANT

The applicant for this project is Rex Lumber, Graceville, LLC. The applicant's responsible official and mailing address is: Mr. Randy Cummings, General Manager, Rex Lumber, Graceville, LLC; 5299 Alabama Street, Graceville, Florida 32440.

FACILITY DESCRIPTION

The facility produces dimensional lumber from yellow pine logs. The facility consists of log de-barkers; the sawmill; a wood waste handling and storage system; three continuous lumber drying kilns (Kiln Nos. 3 and 4 each have a maximum heat input of 25 Million British Thermal Units per Hour (MMBtu/hr) while Kiln No. 5 has a maximum heat input rating of 40 MMBtu/hr); a planer mill; and an emergency Combustion Ignition Reciprocating Internal Combustion Engine (CI RICE) fire pump engine.

During processing, raw logs are de-barked, cut to lengths, rough-sawn, and then sent to the drying kilns. The dried lumber is finished to dimensional lumber sizes in the planer mill and is then trimmed, graded, and bundled for shipment. Waste products such as bark; green chips and sawdust; and dried chips and sawdust are either shipped off-site or used as fuel for the direct-fired lumber drying kilns. The facility also has a total of three wood waste storage bins and associated cyclones (the Shavings Bin Cyclone, a Fuel Storage Silo Cyclone for Kilns Nos. 3 and 4, and a Fuel Storage Silo Cyclone for Kiln No. 5) to control particulate matter (PM) emissions from equipment used for the handling, transfer, and storage of wood waste. Kiln Nos. 3 and 4 each have a maximum production rating of 61,600,000 Board Feet (BF) of Lumber per year, Kiln No. 5 has a maximum capacity of 110,000,000 BF (110,000MBF) per year. The maximum production rate for the facility is capped at 233,196,000 board feet (BF) of lumber per year.

Each of the lumber drying kilns was constructed after 1974 and is regulated pursuant to Rule 62-296.410(2)(a), F.A.C. (Carbonaceous Fuel Burning Equipment). Emissions from the kilns, the sawmill, the de-barkers, and the planer mill are uncontrolled. Visible emissions from the kilns are limited to 20 percent (%) opacity under normal operation.

The table below shows facility-wide projected potential emissions after completion of construction authorized by permit No. 0630011-016-AC/PSD-FL-431, including the new continuous Kiln No. 5.

Total potential emissions (tons/year) from the facility are as follows:

EU and Pollutant	CO	NO_x	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC[1]	H115[2]	Phenol	H095[2]	H001	Total HAP
Kilns Nos. 3 & 4	115.6	48.2	72.2	63.6	27.4	5.4	213	10.8	0.22	3.64		14.02
Kiln No. 5	92.5	38.56	21.12	26.07	23.66	4.54	228.2	10.56	0.22	3.25		17.34
Cyclones (4) Unregulated			35	21.4	21.4							
Saw Mill (Fugitive)			8.17	4.49	4.49							
De-barking (Fugitive)			8.17	4.49	4.49							
Total	**208.1**	**86.76**	**144.66**	**120.05**	**81.44**	**9.94**	**441.2**	**21.36**	**0.44**	**6.89**	**0**	**31.36**

[1.] VOC includes both the fuel burning and the wood drying components of the direct fired kilns.
[2.] Methanol and formaldehyde are both a VOC and HAP and are included in the VOC total.

EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
Regulated Emissions Units	
041	Direct-Fired Continuous Lumber Drying Kiln Nos. 3 and 4
042	Direct-Fired Continuous Lumber Drying Kiln No. 5

043	Emergency RICE Fire Pump Engine
Unregulated Emissions Units and Activities *(see Appendix U, List of Unregulated Emissions Units and/or Activities)*	
039	Planer Mill Shavings Cyclone, Shavings Bin Cyclone, Fuel Storage Silo Cyclone No.4 (Kiln Nos. 3 & 4), Fuel Storage Silo Cyclone for Kiln No. 5

The facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

APPLICABLE REGULATIONS

Based on the Title V air operation permit renewal application received on April 2, 2018, this facility is a major source of hazardous air pollutants (HAP). The existing facility is also a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table:

Regulation	**EU No(s).**
Federal Rule Citations	
40 CFR 60, Subpart A, - NSPS General Provisions	043
40 CFR 60, Subpart IIII, - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	043
40 CFR 63, Subpart A, - NESHAP General Provisions	041, 042, 043
40 CFR 63, Subpart ZZZZ, - NESHAP for Stationary Reciprocating Internal Combustion Engines	043
40 CFR 63, Subpart DDDD, - Plywood and Composite Wood Products	041 and 042
State Rule Citations	
Rule 62-4.070, F.A.C.	041 and 042
Rule 62-4.160, F.A.C. – Permit Conditions	041 and 042
Rule 62-204.800, F.A.C.	041, 042, 043
Rule 62-210.200(PTE), F.A.C. – Potential to Emit	041 and 42
Rule 62-210.370, F.A.C. – Annual Operating Report	Facility-Wide
Rule 62-210.700, F.A.C. – Excess Emissions	041
Rule 62-212.400, F.A.C. - PSD	041 and 42
Rule 62-213.205, F.A.C. – Annual Emissions Fee	Facility-Wide
Rule 62-213.440, F.A.C. – Permit Content	Facility-Wide
Rule 62-296.320, F.A.C	Facility-Wide
Rule 62-296.410, F.A.C. – Carbonaceous Fuel Burning Equipment	041 and 042
Rule 62-297.310, F.A.C. – General Compliance Test Requirements	041, 042, and 043

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility and incorporate the terms and conditions of air construction permit No. 0630011-016-AC/PSD-FL-431, which authorizes the removal of two batch-operated lumber drying Kilns Nos. 1 and 2, and the construction of one new

continuous lumber Kiln No. 5. The concurrent air construction permit authorizes annual lumber production limits for Kiln Nos. 3, 4, and 5, and an annual lumber production limit for the overall facility. These limits are also being incorporated in this project.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal (EPSAP No. 5296-1 received April 2, 2018
Additional Information Request dated April 26, 2018
Additional Information Response received September 24, 2018
Note: Department Letter was issued on July 23, 2018 to extended RAI response period to October 20, 2018

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 2421 – Sawmills and Planning Mills, General.

North American Industry Classification System (NAICS): 321113 - Sawmills.

HAP: The facility is identified as a major source of hazardous air pollutants (HAP).

Title IV: The facility does not operate units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

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

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

The facility is not identified as a major source of green-house gas (GHG) pollutants.

PROJECT REVIEW

The purpose of this permitting project is to renew the facility's existing Title V permit (Permit 0630011-014-AV) which became effective on December 4, 2013 and to incorporate construction provisions authorized by Permit 0630011-016-AC: (i.e. to remove from permitting Kiln Nos. 1 and 2, to allow construction of Kiln No. 5, and to authorize a production increase in lumber processed at the facility per rolling 12-month period from 170,112,000 to 233,196,000 board feet. This project also revises the emissions unit-specific lumber production limits for Kiln Nos. 3, 4 and 5.

The applicant has also requested to be allowed to update, make minor revisions to Kiln Nos. 3 and 4 and minor construction at the facility's unregulated emissions units authorized under the construction provisions of Permit 063011-016-AC; and to incorporate into the permit an existing CI RICE fire pump engine.

Changes made as part of this renewal also involved use of a new Title V template, reformatting, and streamlining of EU sections by moving common conditions to the new appendices.

CONCLUSION

This project renews Title V air operation permit No. 0630011-014-AV, which was effective on December 4, 2013; and incorporates permit No. 0630011-016-AC/PSD-FL-431, which was issued on July 14, 2016. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.