Title V Air Operation Permit Renewal
Permit No. 0770007-016-AV

APPLICANT

The applicant for this project is Rex Lumber, Bristol, Florida. The applicant's responsible official and mailing address are: Mr. Kenny Sparks, General Manager, Rex Lumber Bristol, Florida, Post Office Box 610, Bristol, Florida 32321.

FACILITY DESCRIPTION

The applicant operates the Bristol Lumber Mill which is located on Highway 12 South in Bristol, Liberty County.

This facility consists of a log debarker, sawmill, wood waste handling and storage system, four steam heated 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. The logs are debarked and conveyed into the sawmill to be cut into various sizes of dimensional lumber. The lumber is automatically sorted by size and collected in corresponding piles that are transferred to 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 a current maximum production rate of 176,000,000 board-feet per year of lumber including 18,000,000 equivalent board-feet (1,500,000 cubic feet) per year of poles.

The facility has a total 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. 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, which are fueled by wood waste that is generated during the processing of lumber at the facility.

Boiler No. 1 has a maximum heat input capacity of 29.6 MMBtu/hr and is equipped with a wood gasification system. The fuel is conveyed using a variable speed screw conveyor into the gasifier prior to going into the boiler, which is manufactured by Industrial Boiler. Particulate emissions are controlled by two (in series) multiple tube dry collectors, manufactured by Zurn, model MTSA-30-9-CYT-A. Ash collected by multiclones is emptied into containers located under the multiclones. Steam production is continuously measured and recorded on a recording chart. Due to the age and size of this boiler (built before June 1989 and less than 30 MMBtu/hr), it is subject only to the visible emissions limitation in accordance with Rule 62-296.410(2)(a), F.A.C., Carbonaceous Fuel Burning Equipment.

Boiler No. 2 has a maximum heat input capacity of 42.9 MMBtu/hr and is equipped with a wood gasification system. The fuel is conveyed using a variable speed screw conveyor into the gasifier prior to going into the boiler. This boiler is manufactured by Industrial Boiler. Particulate emissions are controlled by two (in series) multiple tube dry collectors, manufactured by Zurn, model MTSA-30-9-CYT-A. Ash collected by multiclones is emptied into containers located under the multiclones. Steam production is continuously measured and recorded on a recording chart. Due to the age and size of this boiler (built before June 1989 and greater than 30 MMBtu/hr), it is subject to visible emissions and particulate matter limitations in accordance with Rule 62-296.410(2)(b), F.A.C., Carbonaceous Fuel Burning Equipment.

Boiler No. 3 has a maximum heat input capacity of 28.7 MMBtu/hr and is equipped with a wood gasification system. The fuel is conveyed using a variable speed screw conveyor into the gasifier prior to going into the boiler. This boiler is manufactured by Hurst Boiler & Welding Company model HYB-3900. Particulate emissions are controlled by two (in series) multiple tube dry collectors manufactured by Hurst Boiler & Welding Company model

K12-16t and K9-44T, respectively. Ash is conveyed by screw conveyor to an enclosed bin for removal by front-end loader. Steam production is continuously measured and recorded on a recording chart. Due to the age and size of this boiler (built after June 1989 and less than 30 MMBtu/hr), it is subject to the visible emissions limitation in accordance with Rule 62-296.410(2)(a), F.A.C., Carbonaceous Fuel Burning Equipment, and the fuel record keeping requirements of 40 CFR 60.48c, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

The wood waste handling and storage system is an unregulated emission unit and is not subject to any specific emission-limiting standard except for the general visible emissions standard of less than 20% opacity [Rules 62-296.320(4)(b)1 and 4, F.A.C.]. The wood waste (bark, sawdust and shavings from 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 from the lumber process are forwarded to chippers where they are chipped into smaller pieces and conveyed to the truck loading station to be shipped off site. The wood waste handling system consists of miscellaneous blowpipe systems, conveyors, eight receiving cyclones and storage bins.

The Department has determined that Rex Lumber Bristol is not subject to a Compliance Assurance Monitoring Plan with the applicability of 40 CFR 63 subpart DDDD – Plywood and Composite Wood Products.

Based on the Title V Operation Permit application received October 26, 2012 this facility is a major source of hazardous air pollutants (HAP).

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received October 26, 2012
Notice of Intent to Issue Air Permit issued December 28, 2012
Public Notice Published January 9, 2013

PRIMARY REGULATORY REQUIREMENTS

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

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 stationary 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 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units).

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63, Subpart DDDD (Plywood and Composite Wood Products).

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.

PROJECT REVIEW

This project renews Title V air operation permit No. 0770007-012-AV, which was issued on June 10, 2008 and revised on October 30, 2010 (permit revision No. 0770007-015-AV) to incorporate permit No. 0770007-014-AC

(PSD-FL-407), which authorized the elongation of lumber kiln 2 and increased the maximum production capacity of all kilns from 143,000,000 to 176,000,000 board-feet per year.

Permit changes made as part of this renewal also involved use of the new Title V permit template, use of combined appendices, reformatting, replacement of TV-6 with a new Appendix TV and streamlining of EU sections by moving common conditions to the new appendices.

CONCLUSION

This project renews the existing Title V air operation permit No. 0770007-012-AV, which was issued on June 10, 2008, and revised on October 30, 2010 by permit 0770007-015-AV to incorporate changes made under permit 0770007-014-AC. 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.