Florida Department of

Environmental Protection

Memorandum

TO: Rick Bradburn
THROUGH: Armando I. Sarasua, P.E.
FROM: Howard Ard
DATE: December 28, 2012
SUBJECT: Evaluation Summary for Rex Lumber Bristol Mill Title V Air Operation Permit Revision 0770007-016-AV, Liberty County

We recommend issuing a Title V renewal air operation permit to Rex Lumber to operate their Bristol Lumber Mill. This is a renewal of Title V air operation permit No. 0770007-012-AV, effective June 10, 2008. A subsequent construction permit, 0770007-014-AC (PSD-FL-407), to elongate lumber kiln 2 and increase the maximum total kiln production capacity from 143,000,000 to 176,000,000 board-feet per year, was incorporated into the initial Title V Air Operation Permit by revision No. 0770007-015-AV, effective October 30, 2010.

Process Description: This facility consists of a log debarker, sawmill, wood waste handling and storage system, four steam heated drying kilns, planer mill and three boilers. Pine logs are delivered to the facility via logging trucks and stored in the log storage yard. The logs are debarked, cut into various sizes of lumber, sorted by size and dried in kilns. After the lumber is dried, it is transferred to the planer mill and 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 to be kiln dried and transported back to Apalachee Pole Company for further processing.

The facility has four lumber drying kilns. The steam used to heat the kilns is generated by three steam-producing boilers equipped with a wood gasification system. The boilers are fueled by wood waste that is generated during the processing of lumber at the facility.

The wood waste handling system consists of miscellaneous blowpipe systems, conveyors, eight receiving cyclones, chippers and storage bins. 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.

Pollution Control Equipment: The kilns have no emission controls. Particulate emissions (ash) from the Boilers is controlled by two multiple tube dry collectors, multicyclones, in series. Particulate emissions from wood waste handling and storage are collected by eight receiving cyclones.

Environmental Impact: Total potential emissions (tons per year) from the facility are as follows:

Pollutant	Boilers 1, 2 and 3	Drying Kilns	Wood Handling	Total
PM	127.4	N/A	248.85	376.25
PM10	119.7	N/A	N/A	119.7
PM2.5	84.2	N/A	N/A	84.2
NOx	97.2	N/A	N/A	97.2
SO2	11.5	N/A	N/A	11.5
CO	265.7	N/A	N/A	265.7
VOC*	17.3	417.1	N/A	434.4
Total HAPs	7.5	30.95	N/A	38.45
Methanol	N/A	21.1	N/A	21.1

Pollutant	Boilers 1, 2 and 3	Drying Kilns	Wood Handling	Total
Formaldehyde	N/A	0.88	N/A	0.88
Pb	0.02	N/A	N/A	0.02
CO_2e	86,435	N/A	N/A	86,435

** VOC emission factor for the kilns is 4.74 lb VOC/1000 board-feet, based on National Council for Air and Stream Improvement (NCASI) Bulletin 845 and emission factors for Formaldehyde and Methanol from the NCASI 2008 SARA Handbook.*

Applicable Rules & Regulations: This source is regulated in accordance with Rule 62-296.320(2) F.A.C., Objectionable Odors. Boilers #1 is subject to visible emissions limitation by Rule 62-296.410(2)(a), F.A.C. Boiler #2 is subject to visible emissions and to particulate matter limitations by Rule 62-296.410(2)(b), F.A.C. Boiler #3 is subject to visible emissions limitation by Rule 62-296.410(2)(b), F.A.C., and the fuel record keeping requirements of 40 CFR 60.48c, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

Compliance Monitoring: VE testing is required on Boilers #1 and #3 once each federal fiscal year. VE and PM tests are required on Boiler #2 once each federal fiscal year. Boiler steam production is continuously measured and recorded on a recording chart.

Compliance History: A review of the Department's annual inspection reports for the last five years denotes that the facility has been in compliance with the exception of two stack tests on Boiler #2. Warning Letter NWAP 077-1754 was issued on 02/25/2008 for failure to show compliance with the permit limit for particulate matter. A civil penalty was assessed and paid, and the case was closed. Warning Letter NWAP 077-1896 was issued on 10/26/2011 for failure to show compliance with the permit the limit for particulate matter. Further investigation uncovered an error in the boiler heat input data used to calculate particulate emissions. Corrected data showed the results of the stack test to be within permitted limits. The case was closed without further action and the violation was removed from the database.

Fee Summary: This is a Title V facility and is exempt from permitting fees.

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