Title V Air Operation Permit Renewal
Permit No. 0290004-015-AV

APPLICANT

The applicant for this project is Suwannee Lumber Company LLC. The applicant's responsible official and mailing address are: Mr. Daniel Dickert, President Suwannee Lumber Company LLC, Cross City Plant, 40 SW 10th Street, Cross City, Florida 32628.

FACILITY DESCRIPTION

Suwannee Lumber Company LLC operates a lumber wood processing facility (SIC code 2421) that converts softwood logs (Southern Yellow Pine), into dried and dimensioned lumber. It consists of three main processes: the Sawmill, three direct-fired drying kilns (Emissions Unit Nos. 002, 003, and 004), and the Planer Mill.

Incoming logs to the facility are stored in the log yard until they are ready to be processed. The whole logs are routed to the debarker area where the bark is stripped from the logs. The removed bark is conveyed to the Bark Storage for trucking off-site as product.

The debarked logs are transferred to the Sawmill where they are cut into rough dimensional lumber using chipping heads and band saws. The chips and sawdust generated are collected and conveyed to the Green Chip Storage for sale as product.

The handling and transfer of green sawdust/chip/bark for use and sale off-site is not subject to any specific regulatory requirement. This activity is included in the Insignificant Activities List of this Permit.

From the Sawmill, the lumber is routed to the stacker where it is sorted and then temporarily stored before being transferred to the drying kilns for drying. Green lumber is stacked on carts inside of the drying kilns. The drying of the lumber is accomplished by wood-fueled burners in each of the kilns. The heated air inside the kiln is circulated by fans during each drying cycle over the green lumber stacked inside. Gases from the drying kilns (products of the combustion from the kiln burner, HAPs, and moisture) are released through multiple roof vents that open and close at random intervals during a drying cycle. The vents are utilized to control the temperature and moisture content of the air within the kiln. Gases also escape as fugitive emissions through kiln doors and other exit points created after the kiln has undergone multiple heating and cooling cycles.

Dried lumber is transferred to the Planer Mill where the lumber is finished by trimming and planning. Shavings from the planer are captured and pneumatically conveyed to a cyclone where they are either transferred to the storage silo to be used as fuel for the kiln burners, or conveyed to a shaving storage silo for sale as product.

The finished lumber is conveyed to a grader where the lumber is separated based on quality. It is then stacked, packaged, and either stored or shipped for sale as product.

EMISSIONS UNIT DESCRIPTIONS.

Direct-Fired Lumber Kiln No. 1 (Emissions Unit No. 002): This kiln was installed in 1994. From the applicant supplied data dated July 2, 2013, the maximum heat input rate for the burner is estimated to be 25.0 MMBtu/hr. There are a total of 16 kiln vents (8 on each side). Four kiln vents (2 on each side) act as safety vents and open to control pressure inside the kiln. The other 12 kiln vents regulate the temperature and humidity in the kiln and open for short periods of time.

Historically, the maximum annual production rate was estimated to be 36,865 Mbf based on the assumption that each drying cycle is 24 hours.

From the applicant supplied data dated July 2, 2013, the dimensions of the kiln are 32' w x 54'l x 15'6" dh. The capacity of the kiln is estimated as 99,533 board feet per charge. This is based on a 96 percent stacking efficiency, that kilns will actually hold their length in wood based on doors being outside their column centers, the assumption that there are 60 layers in a pack, and the packs are eight feet wide and each layer is filled.

In accordance with the terms of Construction Permit No. 0290004-014-AC, the kiln may operate at maximum unrestricted capacity under its current physical configuration and operational methods.

The kiln is subject to the requirements of State Rule 62-296.410(2)(a), F.A.C.– Carbonaceous Fuel Burning Equipment.

This emission unit also includes the pneumatic conveyance system to transfer shavings from the Planer Mill to the Shavings Storage Silo, and the cyclone. The cyclone is classified as an unregulated emissions unit. However, it is subject to the facility-wide visible emissions standard (less than 20% opacity) in accordance with Rule 62-296.320(4)(b)1., F.A.C.

Direct-Fired Lumber Kiln No. 2 (Emissions Unit No. 003): From the applicant supplied data dated July 2, 2013, the maximum heat input rate for the burner is estimated to be 25.0 MMBtu/hr. There are a total of 16 kiln vents (8 on each side). Four kiln vents (2 on each side) act as safety vents and open to control pressure inside the kiln. The other 12 kiln vents regulate the temperature and humidity in the kiln and open for short periods of time.

Historically, the maximum annual production rate of the kiln was estimated to be 46,720 Mbf based on the assumption that each drying cycle is 24 hours.

From the applicant supplied data dated July 2, 2013, the dimensions of the kiln are '32' w x 68'l x 15'6" dh. The capacity of the kiln is estimated as 125,338 board feet per charge. This is based on a 96 percent stacking efficiency, that kilns will actually hold their length in wood based on doors being outside their column centers, the assumption that there are 60 layers in a pack, and the packs are eight feet wide and each layer is filled.

In accordance with the terms of Construction Permit No. 0290004-014-AC, the kiln may operate at maximum unrestricted capacity under its current physical configuration and operational methods.

The kiln is subject to the requirements of State Rule 62-296.410(2)(a), F.A.C.– Carbonaceous Fuel Burning Equipment.

Direct-Fired Lumber Kiln No. 3 (Emissions Unit No. 004): This kiln is manufactured by USNR, Model DT.HT.DF.DK84. From the applicant supplied data dated July 2, 2013, the maximum heat input rate for the burner is estimated to be 29.5 MMBtu/hr, and the kiln dimensions are 32' w x 84'l x 15'6" dh, (with two equalizing chambers on either side of the kiln described below).

Under the terms of Construction Permit No. 0290004-014-AC, the applicant conducted a capital project involving the No. 3 Lumber Drying Kiln (EU No. 004). The project included the addition of an equalizing chamber on each end of the existing No. 3 Lumber Drying Kiln to allow for the continuous raw lumber feed from both sides of the kiln. This project converted the kiln from a batch to a continuous process and increased the functional operational time of the drying process.

Each equalizing chamber is approximately 61 feet in length and the use of the chambers resulted in a reduction of downtime at the kiln from approximately 3 to 4 hours per day to less than one hour per day. This physical and operational change has allowed an increase in the production rate of dried lumber to a maximum of 80 million board feet per a 12 month rolling total period. This production rate limitation was put in place by the applicant to avoid the requirements of Rules 62-212.400(4) through (12), F.A.C. for several pollutants.

The kiln is subject to the requirements of State Rule 62-296.410(2)(a), F.A.C.– Carbonaceous Fuel Burning Equipment.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility. This project also incorporates the terms and conditions of Construction Permit No. 0290004-014-AC.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received May 30, 2013
Additional Information Response received June 18, 2013
Additional Information Response received July 2, 2013
Notice of Intent to Issue Air Permit issued August 22, 2013
Public Notice Published August 29, 2013

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a major source of hazardous air pollutants (HAP). Potential emissions of methanol (H115) exceed 10 tons per year.

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. Potential emissions of Volatile Organic Compounds (VOCs) exceed 250 tons per year.

NSPS: The facility does not operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

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

Each of the kilns are an affected source of 40 CFR 63, Subpart DDDD - National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products in accordance with criteria established in 40 CFR 63.2231. However, the kilns are not required to comply with any compliance/operating requirement, and the work practice standards, except for the initial notification as required in 40 CFR 63.9(b).

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.

GHG: On July 20, 2011, EPA promulgated the Deferral for CO_2 emissions from Bioenergy and Other biogenic Sources under the Prevention of Significant Deterioration (PSD) and Title V Programs. This action defers for a period of three (3) years the application of the PSD and Title V Permit requirements to biogenic carbon dioxide emissions from bioenergy and other biogenic stationary sources.

Pursuant to 40 CFR 71.2(2), prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material).

PROJECT REVIEW

Changes that were made as part of this renewal (015-AV) include reformatting: Title V Permit format effective 10/28/2010, replacement of TV-6 with Appendix TV – Title V General Conditions dated 11/01/2010, Appendix TR – Facility-Wide Testing Requirements dated 9/12/2008, and Appendix RR – Facility-Wide Reporting Requirements dated 9/17/2009.

CONCLUSION

This project renews Title V air operation permit No. 0290004-011-AV. 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.