Title V Air Operation Permit Renewal
Permit No. 0770010-012-AV

APPLICANT

The applicant for this project is Georgia-Pacific Wood Products LLC. The applicant's responsible official and mailing address are: Mr. Johnnie Temples, Plant Manager, Georgia-Pacific Wood Products LLC, Hosford OSB, Post Office Box 322, Hosford, Florida 32334.

FACILITY DESCRIPTION

The applicant operates the Hosford OSB, which is located at 12995 Northeast State Road 65, Hosford, Florida.

This existing Oriented Strand Board (OSB) facility consists of four principal manufacturing processes: (1) furnish production, which includes debarking, slashing, and flaking; (2) flake drying; (3) forming and pressing; and (4) finishing, which consists of sawing and sanding. The facility has a maximum annual production rate of 600 million board feet based on a 3/8-inch thickness.

Five flake dryers (horizontal, cylindrical rotary drum-type) and a press are controlled by three regenerative thermal oxidizers (RTO). Two of the RTOs (operated in parallel) are dedicated to the dryers and the third RTO controls emissions from the press. The dryer RTOs are fired exclusively from natural gas and heat input to each RTO is limited to 32 MMBtu/hr. The press RTO is also fired exclusively from natural gas and heat input is limited to 16 MMBtu/hr. The owner or operator has, during the term of this permit and without need for modification of this permit, converted the press RTO to a TCO/RCO (thermal/regenerative catalytic oxidizer), in which a portion of the heat retention media is replaced with a precious metal catalyst to facilitate control at lower temperatures and/or with greater thermal efficiency. Therefore, the press RTO has the flexibility to operate as an RTO/RCO/TCO. Multiclones precede the dryer RTOs. An electrostatic precipitator (ESP) controls emissions from the thermal oil system during periods when wood fuel is combusted. During normal operations, the exhaust gases from the thermal oil system burners are routed from the ESP through the dryer system where they, along with the exhaust gases from the dryers, pass through the multiclones and RTOs prior to exiting to the atmosphere. If the TOH (thermal oil heater(s)) has to abort to the atmosphere due to a malfunction or other abnormal condition (i.e., startup or shutdown), it will exhaust through the TOH abort stack or the ESP abort stack using only natural gas (other than the short period of time required to make the transition from wood fuel to gas in the event of a sudden shutdown of the dryer). Particulate matter emissions resulting from material handling are controlled by a series of bag filters.

The dryers are heated by suspension-type burners that combust wood residuals. Each burner has a maximum heat input of 40 MMBtu/hr. Each of the dryers also has a dedicated natural gas burner rated at 40 MMBtu/hr, which can be used to supplement the heat supplied by the wood-fired suspension burner. The thermal oil is heated in a separate system consisting of two, wood fuel, suspension type burners. Each wood fuel suspension burner has a rated capacity of 40 MMBtu/hr. Each thermal oil heater also has a natural gas-fired burner used to supply heat to the thermal oil during periods when the wood fuel suspension burner is not being used. Compliance with heat input limitations is through recordkeeping.

Fugitive sources of Particulate Matter (PM) include bark handling, paved roads, debarkers, bark hog and miscellaneous coating operations (edge seal, nail lines, stencil, grade stamps, etc.). Fugitive Volatile Organic Compound (VOC) and Hazardous Air Pollutants (HAP) occur from the coating operations, overlay process and flake blending.

Because emissions are greater than 250 TPY for at least one criteria pollutant, the facility is a Major Facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). This facility is a major source of HAP, based on potential point source and fugitive emissions of formaldehyde and total HAP. The facility is subject to 40 CFR Part 63, subpart DDDD (National Emission Standards for Hazardous Air Pollutants for Plywood Composite and Wood Products (PCWP). The facility has chosen the compliance option for add-on

control systems, specifically the option to reduce emissions of total HAP, measured as THC (as carbon), by 90 percent per 40 CFR63.2240(b) and Table 1B to subpart DDDD of part 63 option (1).

The emissions units and fugitive sources are subject to limits determined as BACT for PM and visible emissions (VE), NOx, CO and VOC. The Thermal Oil system is also subject to regulation under New Source Performance Standards: 40 CFR 60 subpart A, General Provisions, and Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. However, this regulation only applies to the thermal oil system when it exhausts through the bypass stacks and this NSPS only imposes record keeping and reporting requirements. The thermal oil system is not subject to regulation under Rule 62-296.406, F.A.C., for fossil fuel steam generators less than 250 MMBtu/hr, but is subject to the requirements of Rule 62-296.410(2), F.A.C., for carbonaceous fuel burning equipment, which limits VE and PM while firing wood fuel. Emissions from the thermal oil system are routed to the dryer system to assist in heating while wood fuel is fired. The PM/PM_{10} emission limit for the dryer system, based on potential wood fuel input to the dryers and thermal oil system, is equivalent to 0.15 pounds PM/PM_{10} per million Btu, which is more stringent than the limit of Rule 62-296.410(2)(b)2, F.A.C. The VE limit for the dryer system is also more stringent than the limit of Rule 62-296.410(2)(b)1, F.A.C. Compliance with the dryer system limits will ensure compliance with the requirements for carbonaceous fuel burning equipment (Rule 62-296.410(2), F.A.C.) applicable to the thermal oil system. No separate compliance tests are required for the thermal oil system to demonstrate compliance with limits of Rule 62-296.410(2), F.A.C.

Due to the fact that the thermal oil heaters exhaust primarily through the dryers, and according to the Federal Register response to comments on the proposed amendments and clarifications for subpart DDDD dated February 16, 2006, any instances of exhaust that is aborted from the TOH abort stack or through the ESP abort stack will be covered under the Startup, Shutdown, Malfunction (SSM) plan for the dryers covered under PCWP MACT, instead of the subpart DDDDD - Boiler MACT. However, if the indirect heat exhaust stream does not routinely pass through the direct-fired dryers, then this exhaust stream would be subject to the Boiler MACT.

This facility is subject to CAM for EU 001, 002 and 011 (when the exhaust from the thermal oil heaters is routed to the dryer system). Each RTO is tested once during the federal fiscal year for PM, NO_x, CO, VOC and VE. The baghouses are tested for VE once during each federal fiscal year in lieu of PM testing. The thermal oil heaters (EU 011) are tested every permit renewal. The overlay line is subject to 40 CFR 63 subpart QQQQ –NESHAP: Surface Coating of Wood Building Products and complies via the *compliant material option* specified in 40 CFR 63.4691(a). The facility is also subject to numerous operational monitoring and recordkeeping requirements, which includes daily VE observations and recordkeeping on EU 003 through 009.

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

Initial Title V Air Operation Permit issued December 9, 2006
Title V Air Operation Permit Revision issued November 23, 2010
Title V Air Operation Permit Administrative Correction issued January 19, 2007
Application for a Title V Air Operation Permit Renewal received April 22, 2011
Notice of Intent to Issue Air Permit issued July 21, 2011
Public Notice Published August 10, 2011

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 source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does 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.

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) applies to EU 001, EU 002, and EU 011 (when the exhaust from the thermal oil heaters is routed to the dryer system). EU 001 and EU 002 are subject to CAM for PM/PM_{10}, VOC and CO and are controlled by the RTOs. EU 011 is subject to CAM for PM and is controlled by an ESP.

PROJECT REVIEW

Applicant requested that the testing frequency for all pollutants be reduced to once per permit term for the EU 001 and EU 002 but these frequencies were established in Permit No. 0770010-002-AC/PSD-Fl-282A. However, this change would have required a PSD revision and the facility declined the revision at this time.

CONCLUSION

This project renews Title V air operation permit No. 0770010-003-AV, which was issued on December 9, 2006. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.