STATEMENT OF BASIS

Buckeye Florida Limited Partnership

Facility ID No.: 1230001
Taylor County

Title V Air Operation Permit Revision
DRAFT/Proposed Permit Project No.: 1230001-044-AV
Revision to Title V Air Operation Permit No.: 1230001-039-AV

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The purpose of this permit is to revise the Title V air operation permit to incorporate the terms and conditions of Air Construction Permit No. 1230001-037-AC for the above referenced facility.

In order to provide better customer service and enhance the permitting experience, only those emission unit(s) (EUs) and activities identified within the scope of the permit application for Title V Operation Permit Revision are being addressed and appear within Section III. EMISSIONS UNITS AND SPECIFIC CONDITIONS of this Draft/Proposed Title V Operation Permit. {*Permitting Note: blue, strikethroughs indicate items deleted and blue, double underlined font indicates items added.*}

The transformer process (EU 051): Bleached pulp is chemically treated, dried and baled. Bleached pulp from the No. 2 Purification Plant will be diverted to the new process upstream of the No. 2 Mill Paper Machine. The pulp then undergoes a chemical fiber modification using a proprietary chemical, followed by a chemical recovery process. The enhanced clean fibers are bulk-dried in a tunnel dryer using ambient air. The dried fibers are baled in a conventional baler, then wrapped and bound for shipment to customers.

This process includes three air emission points (EPs). Pneumatic systems are used to transport the fibers from the chemical recovery to the dryer and from the dryer to the baler. In each of these transitions, a cyclone is used that will exhaust to the atmosphere (EPs 01 and 03). The tunnel dryer also has an atmospheric exhaust (EP 02).

EU 049 (Drying/Converting/Warehouse**)** an Unregulated Emissions Unit includes the No. 2 Paper machine. As a part of Project 044-AC, four dryer drums at the No. 2 Paper machine were replaced, two additional dryer drums and a steam flash tank were installed to address the issue of slower speeds on the No. 2 Paper Machine and increased moisture content of the pulp.

Potential air emissions are such that the emission unit remains classified as an Unregulated Emissions Unit/Activity and has been added to the Unregulated Emissions Unit List.

Project 044-AV is subject to the attach Compliance Plan Appendix CP for the No. 2 Paper Machine. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Revision application received July 25, 2013, this facility is a major source of hazardous air pollutants (HAPs).

Facility Description

Buckeye Florida Limited Partnership Foley Mill is a softwood, Kraft pulp mill that manufactures bleached market pulps and dissolving cellulose pulps. The dissolving cellulose pulp produced at this plant is used in products such as food casings, rayon industrial cord, acetate fibers and plastics, as well as thickeners for personal care products, food and pharmaceuticals The bleached market pulps is used in products such as disposable diapers, feminine hygiene products and incontinence products.

The Kraft process utilizes a cooking solution of caustic sodium hydroxide and sodium sulfide (known as white liquor) to chemically separate the lignin from the cellulose.

The mill operates two (2) separate pulp mill lines: the No. 1 Mill produces dissolving-grade cellulose pulp and the No. 2 Mill, market-grade pulp/diaper-fluff pulp.

Nineteen (19) batch digesters are divided between the two mills (11 in the No. 1 Mill and 8 in the No. 2 Mill).

White liquor is added to softwood chips in the batch digesters where the wood chips are cooked under pressure. The contents of the digesters are blown into a separate main blow tank for each mill, where the softened wood chips disintegrate into fibers (pulp). The pulp and spent cooking solution are pumped to the brownstock washers were the pulp and spent cooking solution are separated through a washing process. The pulp is sent into the screening area to remove any knots and tailings (uncooked, woody materials), while the spent cooking solution (known as weak black liquor due to dilution with the wash water) is pumped to the Chemical Recovery Area. The collected knots and tailings are pressed for use as fuel in the mill's two bark boilers.

Weak black liquor, the separated spent cooking solution, is a dilute solution (approximately 16 percent solids) of organic materials, oxidized inorganic compounds (sodium sulfate and sodium carbonate), and white liquor. There is a heat value in black liquor can be recovered by burning it in a boiler called a Recovery Boiler. However, at 16 percent solids, the content is not enough to sustain combustion.

The weak black liquor is first sent through a series of multiple effect evaporators (MEEs), which concentrates the solids content through the evaporation of the water. Each set of MEEs consist of a series of evaporators operated at different pressures so that the vapor from one evaporator body becomes the steam supply to the next evaporator. There are 4 sets of MEEs at this mill.

At this mill, prior to being burned in one of the three Recovery Boilers, the concentrated black liquor from the MEEs (now known as strong black liquor that is approximately 50 - 55 percent solids), is routed directly to a non direct contact evaporator known as a concentrator.

The Nos. 2, 3, and 4 Recovery Boilers use a non direct contact evaporator. This type of evaporator is an indirect, steam-heated black liquor concentrator. Because the black liquor does not come in direct contact with the hot flue gases from the recovery boiler, a BLOX system is not required. This type of evaporator is also said to be a "low-odor" design because it's TRS emissions are typically lower than those from a direct contact evaporator. The solids content of the strong black liquor following the direct contact evaporator is approximately 72% for Recovery Boiler Nos. 2 and 3 and approximately 68 percent for Recovery Boiler No. 4.

Following the concentrators, the concentrated strong black liquor is burned in the Recovery Boilers as fuel. The strong black liquor contains organics extracted from the wood during the pulping process and residual inorganic pulping chemicals. The organics are burned to produce steam that is used in other processes around the mill, while the inorganic chemicals collect in the char bed at the bottom of the boiler in the form of molten smelt. The smelt is tapped off and dissolved in water or weak wash (mud washer filtrate mentioned below), in a dedicated tank called a Smelt Dissolving Tank. As this mill has three Recovery Boilers, it has three Smelt Dissolving Tanks. The smelt and water or weak wash forms a solution of sodium carbonate and sodium sulfide called green liquor. The green liquor also contains insoluble, unburned carbon and inorganic impurities called dregs. The dregs are removed from the green liquor in a series of clarification tanks.

The clarified green liquor is sent to the Causticizing Area where lime (calcium oxide- purchased or reburned from the Lime Kiln) is added in the Slaker. The sodium carbonate in the green liquor reacts with the calcium oxide in a series of agitated tanks called Cauticizers to form a sodium hydroxide and calcium carbonate mixture. The mixture is sent to the white liquor clarifiers where the calcium carbonate (lime mud) precipitates. The causticized liquor that is separated from the lime mud is now known as white liquor. The white liquor is then reused in the pulping process as the cooking liquor in the digesters.

The lime mud, along with the dregs from the green liquor clarification tanks, is washed in the mud washer to remove the last traces of inorganic sodium. The washed lime mud is filtered and burned in the Lime Kiln (calcined); recover the lime for re-use in the green liquor causticizing stage at the Slaker. Purchased lime is also delivered by both rail and truck to make up for process losses.

The filtrate from the mud washer, known as weak wash, is used in the Smelt Dissolving Tanks to dissolve the smelt from the recovery boilers.

During the evaporation process in the MEEs, a soap like substance is skimmed and collected from the black liquor. This soap is sent through a process that separates the residual lignin in the black liquor and also forms a by-product called Tall Oil. The lignin solution is recycled back to the mill, and the Tall Oil is either sold or used as a fuel at the mill.

The pulp exiting the screening operation is a slurry that is routed to either the No. 1 or No. 2 Purification Plant to remove additional lignin and brighten the pulp, i.e. make it whiter in color. This occurs in multiple stages using a combination of chlorine dioxide and oxygen-based chemicals. The chlorine dioxide used at this mill is generated onsite.

Following the purification stages, the pulp is sent to the pulp machines where sheets are formed by draining water from the pulp slurry over a moving wire. Additional water is removed by passing the pulp sheet over pressing and drying cylinders heated internally with steam. The pulp sheet is then transported to the finishing room where the pulp sheet is cut into smaller rolls or sheets based on customer specifications.

The steam needed for mill operations is produced by the recovery boilers, as well as the power boilers and the bark boilers. Steam is also used to produce a portion of the mill's electricity needs (~85%).