STATEMENT OF BASIS

Smurfit-Stone Container Enterprises, Inc.
Fernandina Beach Mill

Facility ID No.: 0890003

Nassau County

FINAL Title V Air Operation Permit Revision No.: 0890003-020-AV

The initial Title V Air Operation Permit, No. 0890003-001-AV, was issued/effective on June 15, 1998. The Title V Air Operation Renewal, No. 0890003-009-AV, was issued/effective on January 3, 2007.

This Title V Operation Permit Revision is being issued to incorporate the terms and conditions of previously issued Air Construction Permit No. 0890003-016-AC. This permit authorized the installation of an Orifice Plate, which was tack welded horizontally into the converging section of the existing Venturi Scrubber in the No. 5 Smelt Dissolving Tank, in order to meet the MACT II limits as recommended by the manufacturer.

This permit revision is also being issued to remove the provisions of 40 CFR 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters from the Title V permit as the Court of Appeals for the District of Columbia Circuit issued a mandate in Natural Resources Defense Council v. EPA, vacating and remanding the rule on July 30, 2007.

This existing facility is located at North 8th Street, Fernandina Beach, Nassau County, Florida; UTM Coordinates: Zone 17, 456.2 km East and 3394.1 km North; Latitude: 30° 40′ 53″ North and Longitude: 81° 27′ 26″ West.

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.

Facility Description

This facility is a fully integrated Kraft linerboard mill that consists of major activities areas such as: wood yard, pulp mill, recycle plant, chemical recovery, powerhouse and paper mill. Also, it has a corrugated containers plant.

40 CFR 63 Subpart S Applicability

This facility is subject to the requirements of 40 CFR 63 Subpart S. The facility uses the No. 4 Lime Kiln and the No. 5 Power Boiler as the control devices to meet the requirements of 40 CFR 63.443 for the Low Volume High Concentration sources.

The facility uses the UNOX biological treatment system to control HAP emissions in condensates as required in 63.446 and 63.453. Because the UNOX system is different from "open" and "closed" biological systems as described in Subpart S, EPA approved an alternative method of demonstrating compliance with the Subpart standards. The facility utilizes the Condensate Compliance Plan as amended March 5, 2001.

The secondary fiber pulping operation has a maximum capacity of 500 ODTUP/Day recycle material production. There are no controls required by 40 CFR Subpart S for secondary fiber pulping operations.

The facility complies with the Clean Condensate Alternative standards in 40 CFR 63.447 as an alternative to compliance with the 40 CFR 63.443 standards for the HVLC sources specified within the Subpart. The CCA option requires Kraft mills to reduce HAP emissions from affected sources by an amount greater than or equal to the emission reductions achieved by the collection an treatment of HAP emissions from HVLC sources included in Phase II of the Subpart. Emission reductions are calculated by comparing HAP emissions from affected sources under CCA with HAP emissions under a baseline condition as defined in the Subpart.

40 CFR 63 Subpart KK Applicability

The mill is subject to the usage and recordkeeping requirements of 40 CFR 63 Subpart KK - Printing and Publishing due to the corrugated box plant being co-located with the mill. The box plant operates a wide-web (18 inches or more in width) flexographic printing operation.

40 CFR 63 Subpart MM Applicability

The No.4 Recovery Boiler, No. 5 Recovery Boiler, No. 4 Smelt Dissolving Tank, No. 5 Smelt Dissolving Tank, and the No. 4 Lime Kiln are subject to the requirements of 40 CFR 63 Subpart MM - Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semi chemical Pulp Mills.

Emissions Units Descriptions

No. 5 Power Boiler (Emissions Unit No. 006):

Particulate matter emissions, including the fly ash, are controlled by a multiple cyclone (without fly ash reinjection), followed by an electrostatic precipitator. The multiple cyclone is manufactured by Barron Industries and has a control efficiency of 75%. The electrostatic precipitator is manufactured by Research Cottrell and has a control efficiency of 94%.

The total maximum operational heat input of this emissions unit is 805 MMBtu/hr. This emissions unit may burn carbonaceous fuel and No. 6 fuel oil in any combination or 100% No. 6 fuel oil. The No. 6 fuel oil may contain on-specification used oil. No. 2 fuel oil may also be fired in the boiler during startup only.

Low volume, high concentration (LVHC) Noncondensible gases (NCG) from the batch digester system, continuous digester system, turpentine recovery system, evaporator systems, and foul condensate collection tank are collected and burned in this boiler as the backup control device to the No. 4 Lime Kiln for compliance with 40 CFR 63, Subpart S.

The permitting of this boiler was completed as a part of the C-Line BSW and the No. 8 Batch Digester System (Construction Permit Nos. AC45-190382 and AC45-190383). The No. 5 Power Boiler had not been permitted up to that point in time. It was considered to be an existing source and it was determined that a modification or reconstruction had not occurred, therefore, it was not subject to a NSPS requirement.

This emissions unit is subject to CAM requirements, Rule 296.410, F.A.C. –Carbonaceous Fuel Burning Equipment; Rule 62-296.404, F.A.C. – Kraft Pulp Mills; Rule 62-296.405, F.A.C. – Fossil Fuel Steam Generators with More Than 250 Million Btu Per Hour Heat Input; and 40 CFR 61 Subpart E-National Emission Standard for Mercury.

No. 4 Recovery Boiler (Emissions Unit No. 007):

This recovery boiler is an 852 MMBtu/hr heat input boiler designed to burn a maximum of 137,500 pounds per hour of black liquor solids. Although black liquor is normally used for fuel, No. 6 fuel oil may also be used. An electrostatic precipitator manufactured by Environmental Elements is used to control particulate emissions with a design efficiency of 99 %. TRS emissions are monitored with a CEM system. A COMS is also operated as a requirement of 40 CFR 63 Subpart MM. This emissions unit is regulated under Rule 62-296.404, F.A.C., Kraft Pulp Mills, and 40 CFR 63, Subpart MM.

No. 5 Recovery Boiler (Emissions Unit No. 011):

This recovery boiler is a 972 MMBtu/hr heat input boiler designed to burn a maximum of 156,780 pounds per hour of black liquor solids. Although black liquor is normally used for fuel, No. 6 fuel oil may also be used. An electrostatic precipitator manufactured by Environmental Elements is used to control particulate emissions with a design efficiency of 99 %. TRS emissions are monitored with a CEM system. A COMS is also operated as a requirement of 40 CFR 63 Subpart MM. This emissions unit is regulated under Rule 62-296.404, F.A.C., Kraft Pulp Mills, 40 CFR 52.21(d)(2)(ii), 40 CFR 60, Subpart BB- Standards of Performance for Kraft Pulp Mills, and 40 CFR 63, Subpart MM.

No. 4 Smelt Dissolving Tank (Emissions Unit No. 013):

This emissions unit receives molten smelt from the No. 4 Recovery Boiler. The smelt is dissolved in weak wash to yield green liquor for the slaking process. A Venturi scrubber manufactured by Air Pollution, Inc. controls particulate emissions. Scrubber liquid (weak wash- caustic) flow rate is monitored pursuant to Rule 62-296.404, F.A.C. The scrubber liquid recirculation rate and the pressure drop across the scrubber are required to be monitored pursuant to the requirements of 40 CFR 63 Subpart MM. The maximum operating rate of this unit is 137,500 pounds per hour of black liquor solids being fired on the No. 4 Recovery Boiler. This emissions unit is regulated under Rule 62-296.404, F.A.C., Kraft Pulp Mills, CAM for TRS, and 40 CFR 63, Subpart MM.

No. 5 Smelt Dissolving Tank (Emissions Unit No. 014):

This emissions unit receives molten smelt from the No. 5 Recovery Boiler. The smelt is dissolved in weak wash to yield green liquor for the slaking process. A Venturi scrubber manufactured by Air Pollution, Inc., controls particulate emissions. The scrubber liquid (weak wash – caustic) is monitored pursuant to Rule 62-296.404, F.A.C., while the recirculation rate and the pressure drop across the scrubber are monitored pursuant to the standards of 40 CFR 63 Subpart MM. The pressure drop across the scrubber is required to be monitored pursuant to the standards of 40 CFR 60 Subpart BB as well as the scrubbing liquid supply pressure. The maximum operating rate of this unit is 156,780 pounds per hour of black liquor solids being fired on the No. 5 Recovery Boiler. This emissions unit is regulated under Rule 62-296.404, F.A.C., Kraft Pulp Mills, 40 CFR 60, Subpart BB, 40 CFR 52.21(d)(2)(ii), CAM for TRS, and 40 CFR 63, Subpart MM.

No. 7 Power Boiler (Emissions Unit No. 015):

This is a coal fired power boiler, which is fueled by coal, or No. 2 Fuel Oil or No. 6 Fuel Oil when coal is not available, and during startups, shutdowns, and malfunctions. Rated capacity is 1021 MMBtu/hr heat input. Consumption of fuel oil is limited to no more than 10% of the annual capacity factor. An electrostatic precipitator manufactured by Air Pollution, Inc., is used to control particulate emissions with a design efficiency of 99 %. This emissions unit is regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD) Permit No. PSD-FL-062, Rule 62-296.405, F.A.C., Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated October 11, 1980 and amended in 1984, CAM for particulate matter, and 40 CFR Part 60 Subpart D Fossil Fuel Fired Steam Generators.

The following emissions points are permitted under this emissions unit:

The Coal Handling System (EP 01) is regulated under Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit No. PSD-FL-062 and 40 CFR 60 Subpart Y – Standards of Performance for Coal Preparation Plants.

The Ash Handling System (EP02) is regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit(s) No(s). PSD-FL-062.

Tall Oil Plant (Emissions Unit No. 020):

Tall Oil Plant with a Packed-Gas Adsorption Column, manufactured by Air Pollution, Inc., to control Total Reduced Sulfur (TRS) emissions from the acidulator, the lignin tank and the saltcake tank. The scrubber system uses a solution of caustic soda, at an average pH of 12 pH units, as the absorbing medium. The efficiency of the scrubber is 90%. This emissions unit is regulated under Rule 62-296.404, F.A.C. – Kraft Pulp Mills.

No. 4 Lime Kiln (Emissions Unit No. 021):

This unit is fired primarily with No. 6 fuel oil (maximum of 2.5% sulfur by weight), which may contain on-spec used oil at a firing rate of 170.63 MMBtu per hour heat input. Liquefied Petroleum Gas (LPG) is fired during startups only.

The maximum lime production rate is 26.25 tons per hour. An electrostatic precipitator, manufactured by Research Cottrell, controls particulate matter emissions. Sulfur dioxide emissions are also controlled by the sulfur content of the fuel oil (maximum of 2.5% by weight). The kiln also serves as the primary control device for the non-condensable gas (NCG) system. TRS emissions compliance is maintained by proper combustion and is monitored with a CEM system. This emissions unit is regulated under Rule 62-296.404, F.A.C., Kraft Pulp Mills, 40 CFR 60, Subpart BB, and 40 CFR 63, Subpart MM.

C-Line Brownstock Washing System (Emissions Unit No. 024):

The C-Line BSWS consists of the C-Line 1st and 2nd Stage Filtrate Tanks, 2nd Stage Pressure Diffusion Washer, and C-Line 1st Stage Vacuum Washer. Gases from these sources are vented to the C-Line Turpentine extraction tower then to the C-Line packed gas adsorption wet scrubber to control TRS (Total Reduced Sulfur) emissions. The gas adsorption column is manufactured by Tristate Contractors and utilizes a sodium hypochlorite solution as the scrubbing media. Control efficiency is 90%. This emissions unit is a part of the total Brownstock Washing System (A-Line and B-Line) at the facility. This emissions unit is regulated under 40 CFR 60, Subpart BB, Standards of Performance for Kraft Pulp Mills, and Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit No. PSD-FL-165.

Package Boiler with low NOx (Nitrogen Oxides) burners (Emissions Unit No. 034):

This a No. 2 fuel oil fired standby unit that only operates when the No. 5 Power Boiler, the No. 7 Power Boiler, the No. 4 Recovery Boiler or the No. 5 Recovery Boiler is not in operation or is being operated at a reduced rate. Rated capacity is 190 MMBtu/hr heat input. Consumption of fuel oil is limited to no more than 10% of the annual capacity factor. In lieu of a Continuous Opacity Monitor as required by Rule 40 CFR 60.48b(a), this mill was approved to use an Alternate Monitoring Plan for infrequently operated facilities. This emissions unit is subject to regulation under 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 Million Btu per hour Heat Input, New and Existing Sources, and a BACT Determination dated October 31, 2006.

Pulping System – MACT I (Emissions Unit No. 033):

Noncondensible gases (NCG) from the batch digester system, continuous digester system (Kamyr), Nos. 5 and 6 Evaporator systems are collected and combusted in the No. 4 Lime Kiln. Low volume, high concentration (LVHC) non-condensable gas from the turpentine decanter, weir box, and turpentine storage tank, Kamyr blow tank, and the foul condensate collection tank are also collected and combusted in the No. 4 Lime Kiln. The No. 5 Power Boiler is the back up device for compliance with 40 CFR 63 Subpart S.

High Volume, Low Concentration NCGs from the named systems in 40 CFR 63.441 and 40 CFR 63.443(a)(ii)-(v) are also included in this emissions unit.

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 June 14, 2007, this facility is a major source of hazardous air pollutants (HAPs).