STATEMENT OF BASIS

Smurfit-Stone Container Enterprises, Inc.
Fernandina Beach Mill

Facility ID No.: 0890003

Nassau County

Proposed Title V Air Operation Permit Revision No.: 0890003-023-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 for the operation of a small package boiler for use by the box plant during annual maintenance outages.

The maximum heat input rate of the boiler is rated at 20.4 MMBtu/hour. The boiler is manufactured prior to June 9, 1989, and there is no reconstruction/modification since then. Therefore, the boiler is not subject to NSPS, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units according to 40 CFR 60.40c (a).

The boiler is also eligible for exemption from the requirement of SIP Air Construction Permit and Rule 62-296.406, F.A.C. – Standards for Fossil Fuel Steam Generators with Less than 250 Million BTU per Hour Heat Input, New and Existing Emissions Units, by meeting the categorical exemption criteria pursuant to Rule 62-210.300 (3)(a) 34, F.A.C.

According to the exemption criteria pursuant to Rule 62-210.300 (3)(a) 34, F.A.C., the annual fuel consumption of the boiler shall be less than 290,000 gallons of No.2 fuel oil per year. The sulfur content of the fuel shall not exceed 0.5 percent, by weight.

Based on the fuel usage and sulfur content exemption criteria as described above, the boiler has the potential to emit more than 5 tons/year of regulated pollutant and will be classified as an unregulated emissions unit in the Title V Air Operation Permit pursuant to Rule 62-213.430 (6)(b), F.A.C.

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. The facility also includes the onsite Boxplant, which prints and converts linerboard into corrugated containers or other finished products.

Woodyard:

The Woodyard supplies wood chips and bark to the mill from logs and purchased chips. Southern Yellow Pine is received as logs and/or chips by rail cars and/or trucks. The logs are debarked and chipped and the chips are classified through screens according to thickness. The chips are conveyed from the chip piles to the Batch and Kamyr digester systems.

Digesting Systems and Brownstock Washing Systems:

The Batch Digester System consists of (8) batch digesters, (2) Blow Tanks, and a Turpentine Recovery System. Wood chips, cooking solution consisting of caustic sodium hydroxide and sodium sulfide (known as white liquor), and Black Liquor (weak wash from 1st stage filtrate tank), are loaded into to the digesters. Each loaded digester is then placed under high temperature and pressure using steam. The cooking solution digests the wood chips and the lignin is chemically separated from the cellulose. During cooking, Noncondensible gases are vented into the Turpentine Recovery System. From the digesters, the cooked pulp and spent cooking solution (now known as black liquor) are blown to atmospheric pressure into either A-Line Blow Tank or B-Line Blow Tank. Digesters 1, 2, and 3, are blown into A-Line Blow Tank, while Digesters 5, 6, 7, and 8 are blown into the B-Line Blow Tank. Digester 3 or 4 can be blown into either blow tank. The pressure reduction helps with separation. Vent gases from the blow tanks are routed to the blow heat recovery system discussed below.

The Kamyr Digester System consists of a chip steaming tank, the Kamyr continuous digester, (2) flash tanks, the Kamyr Blow Tank, and a Turpentine Recovery System (Kamyr Cyclone, 2 Primary Condensers, Secondary Condenser, Tertiary Condenser or NCG Cooler, the Turpentine Decanter, and the East and West Turpentine Storage Tanks).

Wood chips are fed from the chip bin through a low-pressure feeder into a steaming vessel where steam (flashed from the No. 1 Flash Tank – residual liquor) preheats the chips and drives off air and Noncondensibles. The Noncondensible gases are routed to the Turpentine Recovery System. The chips then fall into a chute connected to a high-pressure feeder.

The feeder consists of a single rotating element having a series of staggered pockets. Each pocket picks up chips and white liquor is added to form chip slurry. The chip slurry is then routed to the Kamyr digester inlet. White liquor is added to the Kamyr digester to chemically separate the lignin from the cellulose. The cooked pulp moves downward through the different zones of the digester. The hot residual liquor is extracted through screens on the edges of the Kamyr and into the No. 1 Flash tank, which supplies steam to the steaming vessel. The hot spent cooking solution is displaced from the cooked pulp near the bottom of the digester with upward-flowing filtrate from the Kamyr brown stock washer system (weak wash from the 1st stage Kamyr Filtrate Tank). The cooked pulp is continuously removed by slowly rotating paddles and then blown at a controlled rate into the Kamyr Blow Tank.

From the Kamyr Blow Tank, the pulp is processed through fibrilizers to remove any knots and tailings (uncooked, woody materials). After passing through the fibrilizers, the cooked pulp is refined. Material rejected from the screening operation is returned to the Kamyr Surge Tank. The remaining pulp is screened and refined through a series of screens and refiners. The fibrilizers and screens do not vent to the atmosphere. The pulp is then pumped to the Kamyr washer sets (two identical washer sets consisting of two vacuum drum per washer set) were the pulp is washed with shower water to displace the spent cooking solution (black liquor). The washed pulp is stored in tanks for use on the paper machines. The recovered black liquor is sent to liquor storage before being sent to the multiple effect evaporators.

From the A-Line and B-Line Blow Tanks, the pulp follows a similar process of refining, screening and washing, however pulp from the A-Line Blow Tank is sent to the A-Line Brownstock Washing System, while pulp from the B-Line Blow Tank is sent to either the B-Line Brownstock Washing System or the C-Line Brownstock Washing System. The A and B-Line Brownstock Washing Systems are identical counter flow, vacuum drum washer sets consisting of four washer drums per set. Segregated evaporator condensate and white water is used as shower water on the last stage of washing. The filtrate from each drum stage flows by gravity to a filtrate tank and is used on the prior drum as shower water. The filtrate from the first stage drum is sent to the multiple effect evaporators. The C-Line Brownstock Washing System is described below.

Blow Heat Recovery:

Gases from the A-Line and B-Line Blow Tanks pass through its own cyclone to remove any entrained black liquor, which is sent back to its respective blow tank. The gases then combine and enter a primary condenser. The condensed gases are routed to the Blow Heat Accumulator where they are further condensed by recirculated mill process water. The collected condensate is routed to the Foul Condensate Collection Tank followed by treatment in the Waste Water Treatment System. The uncondensed gases from the primary condenser are routed to the secondary condenser for Turpentine Recovery. The remaining uncondensed gases are routed to the LVHC collection system and No.4 Lime Kiln or No. 5 Power Boiler for destruction.

Black Liquor and Chemical Recovery:

The recovered black liquor from the Kamyr wash line, and filtrate from the A and B Line washers, is pumped to the multiple effect evaporators (MEE) to remove the excess water and increase the black liquor solids content. During the evaporation process, a soaplike substance is collected from the black liquor by a skimmer and is pumped to the Tall Oil Plant for further processing. The mill operates two, MME systems, the Nos. 5 and 6.

The concentrated black liquor is further concentrated into strong black liquor in one of four concentrators before being burned in the Nos. 4 or 5 Recovery Boilers. The black liquor contains organics extracted from the wood and inorganic chemicals. The organics are burned as fuel in the recovery boilers to produce steam while the inorganics (sodium salts) fall to the floor of the boiler and recovered as smelt (molten ash). The smelt is tapped from the bottom of the recovery boiler and sent to the Smelt Dissolving Tanks (Nos. 4 and 5) where it is dissolved in mill process water and weak wash from the reacusticizing area. The reaction forms a mixture of sodim carbonate and sodium sulfide (green liquor).

Recausticizing and Lime Recovery:

The green liquor is pumped to the green liquor clarifier where the dregs are removed from the green liquor. The inorganics in the clarified green liquor are recovered in the slaker.

In the slaker, lime (purchased or reburned from the lime kiln) is added to the green liquor causing a reaction (causticzing), forming 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. This white liquor is then reused in the pulping process as the cooking liquor in the Batch Digester and Kamyr Digester Systems.

The lime mud is removed from the white liquor clarifiers and is sent to the lime mud washers. The resulting filtrate is used to dissolve the smelt in the smelt dissolving tanks. The washed lime mud is sent to a filter before calcined in the No. 4 Lime Kiln to recover the lime for re-use in the green liquor causticizing stage at the slaker.

Paper Machines:

The washed pulp is sent to storage or onto one of the mill's two paper 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.

Secondary Fiber Pulp Plant (Recycle Plant):

Post consumer cardboard, (Old Corrugated Cardboard) is mixed with water to produce a slurry of paper fiber and water in the Hydropulper. The pulp is diluted prior to being screened and cleaned. The cleaned pulp is thickened and either stored or sent onto one of the mill's two paper machines.

Boilers:

The steam needed for mill operations is produced in the power boilers and the recovery boilers. Steam is also used to produce the mill's electricity needs. The boilers at the mill are described below.

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. All of the pulping process condensates from the 63.446 named sources are collected in a closed condensate collection system and hardpiped directly to the UNOX reactor to prevent the release of HAPs to the atmosphere.

At the UNOX reactor, the collected process condensate is split between the three UNOX reactor trains and mixed with process wastewater after the wastewater enters the UNOX reactor. Biological organisms in the activated sludge in the reactor consume the HAPs in the condensate.

The UNOX oxygen feed flow and UNOX vent gas purity is continuously monitored. These parameters are used as indicators of system upsets and malfunctions that would ultimately cause a reduction in wastewater dissolved oxygen, and therefore treatment efficiency.

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 (CCA) standards in 40 CFR 63.447 as an alternative to compliance with the 40 CFR 63.443 standards for the High Volume Low Concentration (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.

In the EPA CCA guidance document dated April 8, 2004, it was indicated that wastewater treatment plants are "affected" sources under the CCA. The mill's CCA is the replacement of the direct-contact, wastewater treatment cooling tower with a non-contact heat exchanger system. Four sets of plate and frame heat exchangers, designed to handle the mill's wastewater flow, were installed. The existing wastewater cooling tower was modified to recirculate non-contact cooling water through the heat exchangers to provide the necessary cooling of the effluent. The removal of process effluents from the cooling tower results in the elimination of total HAP emissions from this source.

COMPARISON OF METHANOL EMISSIONS AND EMISSION REDUCTIONS OF HVLC AND CCA

	Methanol Emissions (lb/ODTP)			**Reductions (lb/ODTP)**	
	Baseline	HVLC Control	CCA Project	HVLC Control	CCA Project
BSW Systems [a]	0.28	0.006[b]	0.28	0.274[b]	---
Cooling Tower	0.76	0.76	0	---	0.76
UNOX Reactor Vents	0.000014	0.000014	0.0000012	---	0[c]
Secondary Clarifiers	0.0027	0.0027	0.0004	---	0[c]
Total	1.043	0.769	0.28	**0.274**	**0.76**

[a] The mill's HVLC sources are the Kamyr Line Brownstock Washers (two identical vacuum drum BSWs), Batch A & B line BSWs (two identical drum BSWs), C-Line BSW (two stage combination drum/diffusion BSW). Methanol emissions from testing conducted October 4-5, 2005.

[b] 98% control required under 40 CFR 63.443. Emissions =0.02 x 0.28 = 0.006 lb/ODTP. Emission reductions =0.28 – 0.006= 0.274 lb/ODTP

[c] The 15 day Initial Performance Test (IPT) on the CCA system on conducted on December 5, 2006 demonstrated that the methanol emissions did not increase as could have been expected from the increased methanol loading caused by removing the WWT cooling tower. Therefore the reductions in methanol emissions for the CCA project are conservatively assumed to be 0 lb/ODTP.

40 CFR 63.453 requires that a CMS be installed and operated to ensure compliance with the CCA. The mill maintains the manual wastewater bypass valve in the closed position. It is secured with a lock-tie device and tag. Documentation of valve movement is used to establish that process wastewater does not pass through the wastewater cooling tower. The mill also uses the UNOX reactor operating parameters of oxygen feed rate and average vent gas purity (same as 63.466 continuous compliance parameters).

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, contains 64 tubes in the assembly, and has an estimated control efficiency of 75%.

The electrostatic precipitator is a single chamber, 3-field, ESP manufactured by Research Cottrell. The estimated control efficiency is 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. Wastewater wood fiber residuals collected from the wastewater treatment system (primary and secondary clarifiers), via the sludge press are also burned in this boiler as a fuel source.

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. The control efficiency is estimated at 93%. 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. The control efficiency is estimated at 93%. 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 during startups, shutdowns, and malfunctions. Rated capacity is 1021 MMBtu/hr heat input. A two-chamber, 6-field each chamber, electrostatic precipitator manufactured by Hamon Research-Cottrell, is used to control particulate emissions. The design efficiency is 98%.

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):

A Packed-Gas Adsorption Column manufactured by Air Pollution, Inc. controls Total Reduced Sulfur (TRS) emissions from the acidulator, the lignin tank and the saltcake tank at the Tall Oil Plant. 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. The estimated control efficiency is 99%. 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.

No. 1 Lime Bin receives lime from the No. 4 Lime Kiln and the slaker systems (re-burned lime). No. 2 Lime Bin receives purchased lime by railcar or truck. Particulate matter emissions are controlled with a baghouse manufactured by Jet Air. The baghouse was originally installed in 2002 and consists of 49 bags with a collecting area of 524 sq-ft. The baghouse operates with a 2-6 inches of H_2O pressure differential across the unit. Air Pressure Pulse Jet is used for bag cleaning.

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

The C-Line BSWS is a two-stage, combination rotary drum vacuum/diffusion washer. It consists of the C-Line 1st and 2nd Stage Filtrate Tanks, 2nd Stage Pressure Diffusion Washer, and C-Line 1st Stage Vacuum Washer. The filtrate from the diffusion washer is used as washwater for the rotary drum vacuum washer. The filtrate from the drum washer is sent to the multiple effect evaporators. The diffusion washer uses condensate and whitewater for washing. 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 estimated to be 90%. This emissions unit is a part of the total Brownstock Washing System (Batch A-Line and B-Line; and Kamyr Line) at the facility.

The C-Line washer processes less than 10% of the batch pulp and less than 3% of the total pulp produced at the mill on an annual basis. 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.

The scrubber is manufactured by Tristate Contractors, and uses a sodium hypochlorite solution as the scrubbing medium. The average pH of the solution is 10 s.u. The inlet gas flow rate is approximately 7,200 acfm, inlet gas temperature of 100°F, inlet loading of 50 ppmvd of TRS, and a 0.03 inches H2O pressure differential across the scrubber.

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.

Pulping process condensates from the batch digester system, the continuous digester system (Kamyr), Nos. 5 and 6 Evaporator systems, the turpentine recovery system, and the LVHC collection system, are collected in a closed condensate collection system and hardpiped directly to the UNOX reactor to prevent the release of HAPs to the atmosphere followed by secondary treatment. Biological organisms in the activated sludge in the reactor consume the HAPs in the condensate.

High Volume, Low Concentration (HVLC) NCGs from Kamyr Line BSWs (two identical vacuum drum BSWs), Batch A & B Line BSW (two identical 4-stage drum BSWs), and C-Line BSW (2-stage combination drum/diffusion BSW), 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).