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MILL RECONFIGURATION PROJECT

Air Construction Permit Application



Submitted By:

Prepared For:

INTERNATIONAL  PAPER

INTERNATIONAL PAPER COMPANY
PENSACOLA MILL
375 Muscogee Road
Cantonment, FL 32533-0087
Escambia County



Florida Department of
Environmental Protection
Division of Air Resource Management
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April, 2006

Version 1.2

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1. INTRODUCTION AND APPLICATION ORGANIZATION

International Paper Company (IP) owns and operates a bleached Kraft pulp and paper Mill in Cantonment, Florida (Pensacola Mill or Mill). The IP Mill is a major source as defined by the Federal operating permit program (40 CFR Part 70) and the Federal new source review (NSR) program (40 CFR Part 52). In addition, the IP Mill is also subject to the Florida Title V Permit Regulations and New Source Review Regulations, Chapter 62-213 and Chapter 62-212, respectively of the Florida Administrative Code (F.A.C.).

The Pensacola Mill is planning to make modifications to their integrated Kraft pulp and paper Mill that will significantly reconfigure operations at the Mill. The modifications will take place during construction outages beginning in 2006 and extending into 2007. The modifications proposed by the Mill and the associated emission changes were reviewed to determine if the permitting requirements of the major New Source Review (NSR) program apply. IP has determined that the modifications will not result in a significant increase in the emissions of any Prevention of Significant Deterioration (PSD) regulated pollutant and thus PSD permitting does not apply. The PSD-regulated pollutants include, particulate matter (PM), particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), sulfuric acid mist (H_2SO_4), total reduced sulfur (TRS), volatile organic compounds (VOC), lead (Pb), fluorides (F), hydrogen sulfide (H_2S) and mercury (Hg). Consequently, IP has prepared the following Construction Permit application in accordance with the Florida Department of Environmental Protection (DEP) Chapter 62-210 requirements.

IP has incorporated the NSR Reform rules as implemented by Florida DEP as part of the demonstration of PSD non-applicability. Specifically, Baseline Actual Emissions and Projected Actual Emissions were calculated for the appropriate emissions units.

The remainder of this application includes the following information and documentation to support this application to obtain a permit to construct:

- Section 2 provides an overview of the Pensacola Mill's current configuration and operations as well as a description of the proposed facility changes.
- Section 3 provides an emissions inventory for all of the Mill emissions units that are determined to be part of the proposed Mill reconfiguration. Included in the emissions inventory are the baseline actual emissions and, as appropriate, the projected actual emission changes for emission units that will be modified or affected by the project. Documentation describing the emissions estimation methods and sample calculations are provided in Appendix B.
- Section 4 is a regulatory review that summarizes Federal and Florida air quality rules potentially applicable to the Mill due to the project. It includes a discussion of the applicability or non-applicability of each rule identified.
- Appendix A contains the applicable Florida DEP air construction permit application forms for existing emissions units that are being modified or that will be affected by the project.
- Appendix B contains supporting documentation tables for the calculation of emission rates from all of the emissions units included in this application.

The Mill has modified the original air construction permit application to incorporate Florida DEP's request for additional application (RAI) comments contained in the April 14, 2006 and March 21, 2006 letters. The current version of the air construction permit application is Version 1.2.

2. FACILITY AND PROJECT OVERVIEW

This section of the construction permit provides a brief overview of the Pensacola Mill's current configuration and operations. The specific changes that will be undertaken to reconfigure the Mill are provided as well.

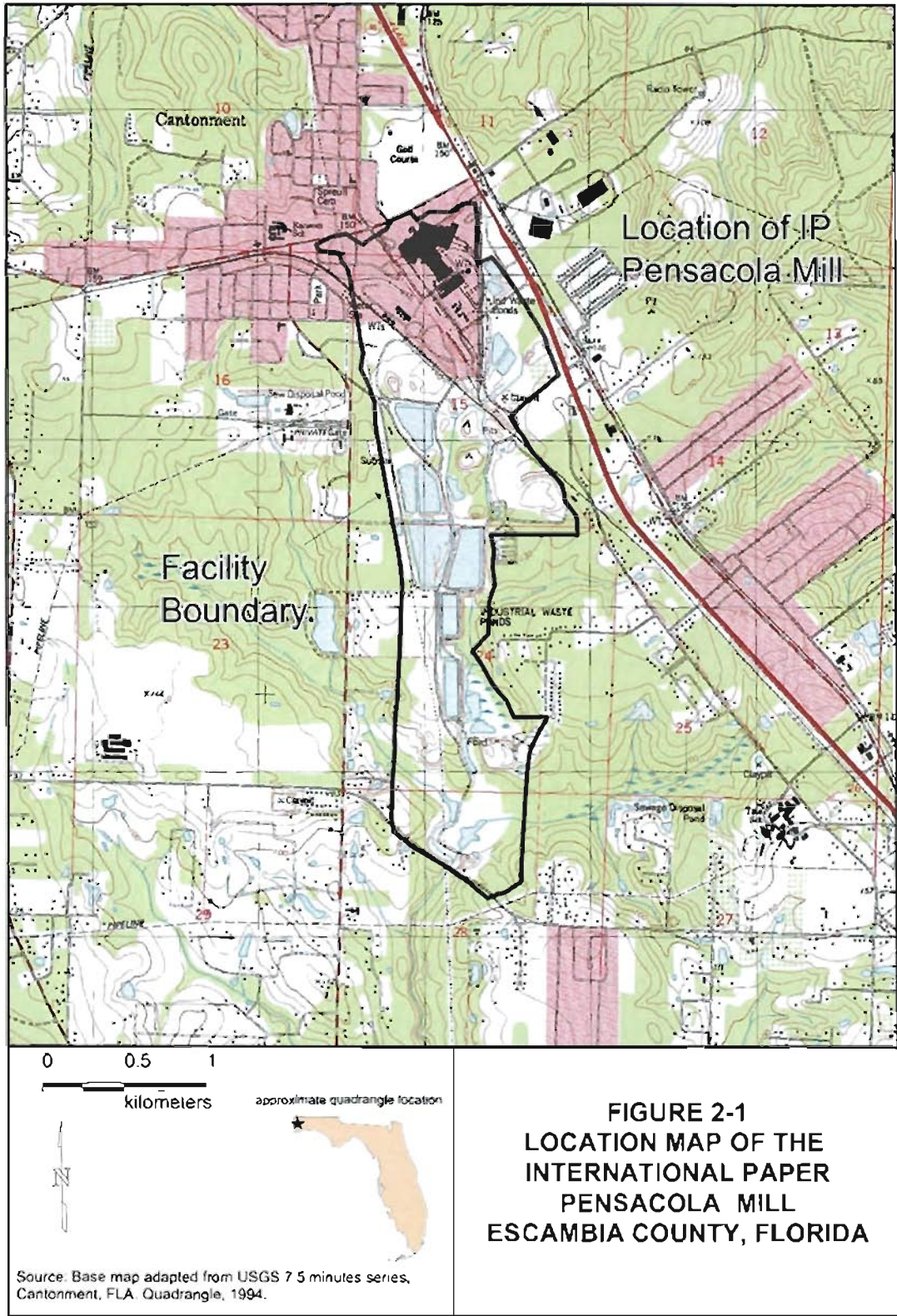
2.1 FACILITY LOCATION

The Pensacola Mill is located in Cantonment which is approximately 20 kilometers (km) north, northwest of Pensacola, Florida. Situated in the central portion of Escambia County, the Mill is about 6.5 km from the Alabama and Florida border. A facility location map is provided in Figure 2-1. The geographical coordinates for the approximate center of the processing area of the Mill are:

- Universal Transverse Mercator (UTM) Easting: 469,000
- Universal Transverse Mercator (UTM) Northing: 3,386,000
- UTM Zone : 16
- North American Datum (NAD): 1927
- Longitude (degrees, minutes, seconds): 87° 19' 24.0"
- Latitude (degrees, minutes, seconds): 30° 36' 28.1"

The Pensacola Mill is in the Mobile, AL; Pensacola-Panama City, FL; Southern MS Interstate Air Quality Control Region (AQCR). Within this AQCR, Escambia County is in attainment or unclassifiable/attainment for all criteria pollutants including ozone and particulate matter of 2.5 microns or less (PM_{2.5}) as designated in the July 2005 Code of Federal Regulations (CFR).

The area surrounding the Pensacola Mill is generally flat with minor changes in elevation. The Mill elevation is 140 ft above mean sea level (amsl). Within a 5 km radius of the Mill the maximum elevation is 203 ft amsl. The elevations for the surrounding topography were obtained from United States Geological Survey (USGS) Digital Elevation Model (DEM) 1:24,000 data files.



2.2 FACILITY BACKGROUND INFORMATION

The Mill is under the jurisdiction of the following State and Federal agencies:

**Florida DEP
Division of Air Resources Management
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400**

**United States EPA - Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303**

**Florida DEP, Northwest District Air Program
160 Governmental Center
Pensacola, Florida 32501-5794**

IP's existing pulp Mill has been in operation since 1941. Major Mill expansion projects were completed in 1981 and 1986. The 1986 expansion resulted in a complete conversion to production of bleached Kraft fine paper and was permitted by the Florida DEP in 1985. In 1991 and 1992, separate PSD permit applications were submitted to the Florida DEP for two new gas-fired boilers. The 1992 permit application included changes to Mill processes required to meet a consent order that the Mill had entered into with the DEP to meet water quality related requirements. Most recently, the Mill submitted a construction permit to increase the Mill's flexibility to produce softwood pulp.

The current configuration of the Mill includes wood preparation and storage, coal/wood fuel handling and storage, batch digesters, a continuous digester, brown stock washing, oxygen delignification, pulp bleaching facilities, recovery furnaces, power boilers, black liquor evaporators, smelt dissolving tanks, a Lime Kiln/Mud Dryer, a recausticizing facility, and tall oil and turpentine byproducts facilities. The Mill uses softwood and hardwood in their operations. A plot plan of the facility identifying the location of major emission points is provided in Figure 2-2.

2.3 CURRENT PROCESS DESCRIPTION

A mix of hardwood and softwood pulp is produced from wood furnished by on-site and offsite chip mills. The wood chips are stored and screened in separate hardwood and softwood storage

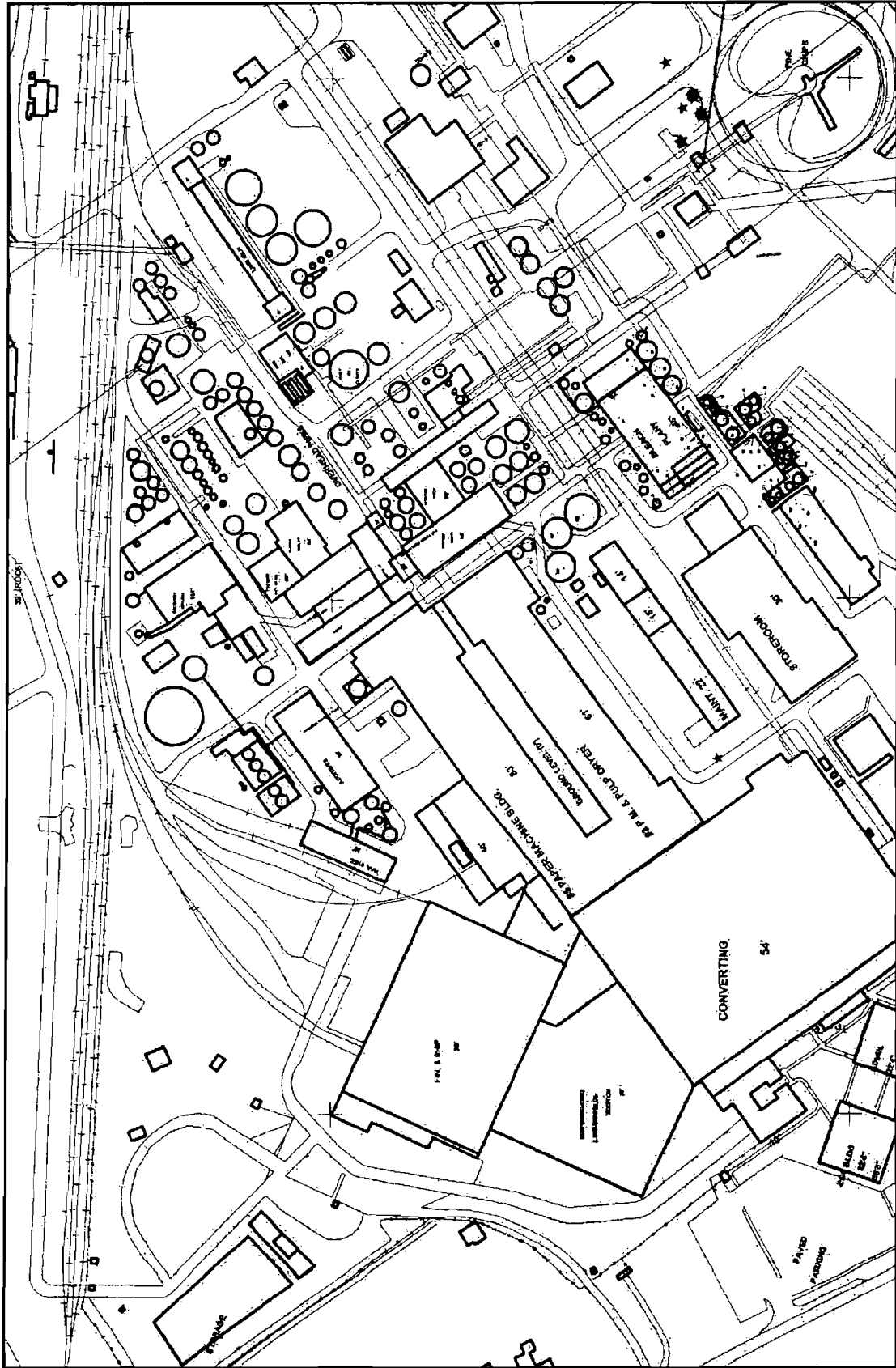


Figure 2-2
Facility Plot Plan
International Paper
Pensacola, Florida



yards (hardwood in Yard 1 and softwood in Yard 2). The Mill incorporates steps to minimize and control fugitive emissions that may be generated as a result of the woodyard activities and throughout the production process. The Kraft cooking process is used to separate the lignin and wood fiber to produce brown pulp from wood chips. Softwood pulp is produced in a continuous digester, washed by a two-stage atmospheric diffusion washer, separated from wood knots by a disc knoter, and screened to separate rejects. Hardwood chips are cooked in twelve conventional direct steam batch digesters, which are arranged in two parallel sets of six. Each digester line has a dedicated blow tank into which the digesters discharge. The hardwood brown pulp is separated from wood knots by vibratory knotters and washed by two parallel lines of drum-type brown stock washers, and then screened to separate rejects. The softwood and hardwood pulps are further delignified in oxygen delignification reactors. After oxygen delignification, the hardwood and softwood pulps are further washed and bleached in a three-stage bleach plant. The hardwood and softwood bleaching sequences are identical and include: a 100% chlorine dioxide stage; an oxidative caustic extraction stage with hydrogen peroxide; and a final, 100% chlorine dioxide bleaching stage. The chlorine dioxide is generated on site.

The organic or lignin-laden filtrates (i.e., black liquor) from the pulping, oxygen delignification and washing processes are concentrated through two sets of evaporators. The No. 1 evaporator set mainly processes black liquor from the softwood pulp Mill, while the No. 2 evaporator set processes hardwood black liquor. The black liquor is concentrated to about 65% solids and burned in two identical Babcock and Wilcox recovery furnaces (No. 1 and No. 2). The recovery furnaces produce steam for energy generation and heat for the pulp and paper making processes. The inorganic ash (smelt) from the recovery furnaces is dissolved in water to make green liquor, which is then reprocessed into reusable cooking chemicals in the Mill's causticizing plant. The causticizing process combines lime with the green liquor in a slaker reactor to produce a sodium hydroxide and sodium sulfide solution (white liquor), which is the principle wood chip cooking chemical. A by-product from the slaking reaction is calcium carbonate or lime mud. The lime mud is washed and then processed in a Lime Kiln/Mud Dryer to produce reusable lime for the slaking reaction.

The Mill utilizes four power boilers to produce steam for energy generation using two steam turbines and provide heat for the pulping and paper making processes. This cogeneration system can produce nearly all of the electricity and steam required to run the Mill operations. Power Boilers No. 5 and 6 are natural gas-fired. Power Boiler No. 3 is coal-fired with natural gas as an alternate fuel. No. 4 Power Boiler is coal and bark-fired with natural gas as an alternate fuel.

Paper product is currently produced from pulp using two paper machines. Paper is produced on the No. 5 Paper Machine and is cut, sized, and packaged for final sale in an onsite converting operation. The paper produced on the No. 3 Paper Machine is shipped in either sheet or roll form to final customers. Market pulp is dried using a pulp-drying machine (No. 4 Pulp Dryer) and is converted to bales or rolls for final sale.

Approximately 23 million gallons per day (MGD) of wastewater from mill operations is treated in the wastewater treatment plant (WWTP). The WWTP consists of twin clarifiers for the removal of primary solids followed by two aerated stabilization basins and two secondary solids settling ponds all operated in series. The treated Mill effluent is released to Elevenmile Creek which feeds Perdido Bay.

2.4 PROPOSED RECONFIGURATION OF THE MILL

The proposed reconfiguration of the Mill will change the species of pulp being produced, alter how the pulp is processed, and increase the amount of product being manufactured. Specifically, the reconfiguration project will convert the Mill to 100% softwood production from its current mix of hardwood and softwood. As part of the conversion to softwood, the Mill will increase pulp and paper production to a peak daily level of approximately 2,500 air dried tons unbleached pulp per day (ADTUPD) and an annual level of 694,373 ADTUP per year. The softwood pulp will be used to produce unbleached linerboard and/or corrugated medium on the No. 5 Paper Machine. In addition a portion of the softwood pulp will be bleached and pulp will continued to be produced on the No. 4 Pulp Dryer.

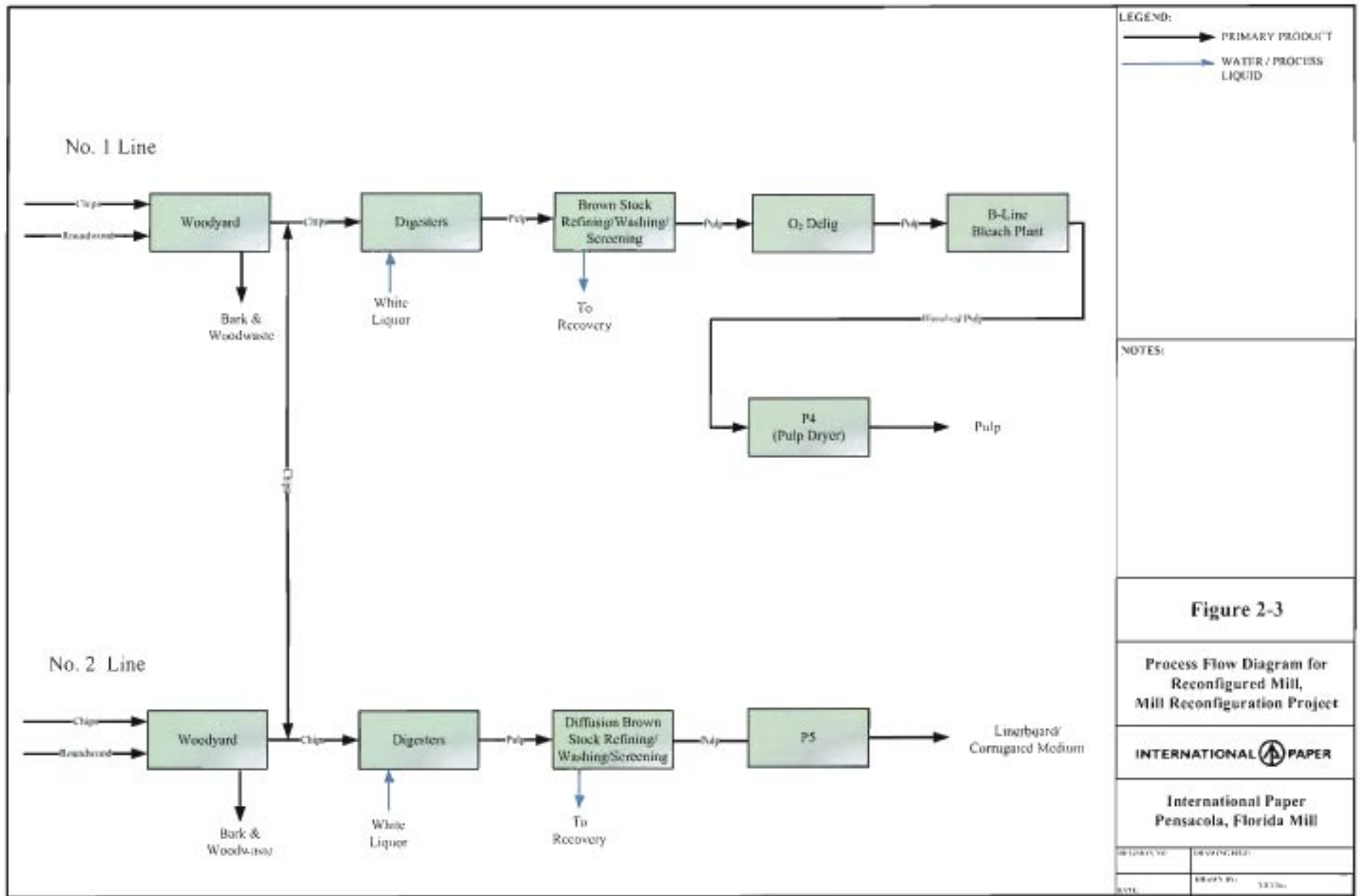
In order to accomplish the Mill reconfiguration, the Mill's Woodyard, the A-Line (Softwood) operations, the B-Line (Hardwood) operations, the Condensate/Non Condensable Gas (NCG) system, and Paper Machine systems will be impacted. Recovery Furnace operations, Causticizing operations, Utility operations, and the Wastewater Treatment operations will be unaffected. A summary of the emissions units at the Mill that will be modified as part of the proposed project, experience an incremental change in operations due to the project ("affected" emissions units) or will experience no changes is provided in Table 2-1. A process flow diagram for the reconfigured Mill is presented in Figure 2-3.

The Mill has conducted a Mill-wide mass balance study and determined that although there will be a significant increase in pulping capacity, the recovery operations and causticizing operations will be unaffected by the proposed project. The Mill's current project to convert the Mill to a linerboard Mill with some bleached pulp involves significant differences in the pulping process and will result in a reduction on cooking liquor (alkali) required for the brown pulp production. The increase in yield on the brown fiber (A-Line) line means that more of the wood that is purchased will be going into the final product and less will be dissolved and burned as black liquor. The Mill's material balances for the proposed project predict the black liquor solids (BLS) generated will decrease from 3,616 lbs of BLS per Oven Dried Unbleached Tons of Pulp (ODUTP) to 2,100 lbs of BLS/ODUTP on the A-Line. This change is supported through actual data from other IP softwood unbleached Mills. The Mill's material balances predict approximately a 300 lbs of BLS/ODUT increase on the B-Line line due changing from hardwood to softwood (3,391 lbs BLS/ODUTP to 3,734 lbs BLS/ODUTP). Although there will be an increase in lbs of BLS per ODUTP there will be an overall decrease in B-line ODUTP production and as a result less BLS produced.

Also, due to less aggressive cooking requirements, the alkali (white liquor) charge to the A-Line digester will decrease from 16.5% effective alkali to 13.5% effective alkali. This alkali decrease is predicted to reduce the total chemical applied on the A-Line from 1,560 lbs/ton to 980 lbs/ton. A 200 lbs/ton increase will occur on the B-Line when it is converted from hardwood to softwood

TABLE 2-1
List of Modified, Affected, and Unchanged Emission Units
Mill Reconfiguration Project
IP Pensacola Mill

Mill Area	Emission Units	Modified Units	Affected Units	Unaffected Units	Comments
WOODYARD	No. 1 Woodyard			X	HW to SW, production decrease
	No. 2 Woodyard	X			SW production increase - no modifications identified, however permit limit on CTS throughput updated
PULPING SYSTEMS	Thermal Oxidizer		X		Throughput increase
	Batch Digesters	X			HW to SW, turpentine system to be added
	Kamyr Continuous Digester	X			Throughput increase; chip feed, digester, and blow heat system modifications
	Digesters - Other Sources		X		Throughput increase
	No. 1 Evaporator Set			X	BLS decrease from baseline
	No. 2 Evaporator Set			X	BLS decrease from baseline
	Evaporator - Other Sources			X	BLS decrease from baseline
	No. 1 Steam Stripper			X	Shut down
	No. 2 Steam Stripper			X	Decrease in throughput from baseline data
BLEACH PLANT	A-Line Bleach Plant			X	No longer in operation
	A Line Bleach Plant - Other Sources			X	No longer in operation
	B-Line Bleach Plant		X		HW to SW
	B Line Bleach Plant - Other Sources		X		HW to SW
	ERCO ClO ₂ Generator			X	Decrease in ClO ₂ from baseline
	Methanol Storage Tank			X	Decrease in ClO ₂ from baseline
RECOVERY	No. 1 Recovery Furnace			X	BLS decrease from baseline
	No. 2 Recovery Furnace			X	BLS decrease from baseline
	Recovery Area - Other Sources			X	BLS decrease from baseline
	No. 1 Smelt Dissolving Tank			X	BLS decrease from baseline
	No. 2 Smelt Dissolving Tank			X	BLS decrease from baseline
LIME KILN	Lime Kiln/Mud Dryer			X	No modification and no throughput increase.
CAUSTICIZING	Lime Slaker			X	No modification and no throughput increase.
	Lime Kiln Area - Other Sources			X	No modification and no throughput increase.
	Causticizing Area - Other Sources			X	No modification and no throughput increase.
WASHING	B Line Brown Stock Washing	X			HW to SW, foam system, soap system, and screening modifications
	B Line Washing - Other Sources	X			HW to SW, foam system, soap system, and screening modifications
	B Line O ₂ Delignification		X		HW to SW
	A Line Brown Stock Washing	X			Modifications identified
	A Line Washing - Other Sources	X			Modifications identified
	A Line O ₂ Delignification	X			Modifications identified
WWTP	Waste Water Treatment			X	Decrease in WWTP flow from baseline
POWER	Nos. 3, 4, 5 and 6 Power Boilers			X	Steam decrease from baseline
	Coal & Ash Handling and Storage			X	Steam decrease from baseline
PAPER MACHINES	P3 Paper Machine			X	Shut down indefinitely
	P4 Pulp Dryer	X			Increase in speed and production
	P5 Paper Machine	X			Modifications identified
	P5 Paper Machine Starch Silos 1&2, Clay Silo Dust Collector		X		No modifications identified
	P5 Paper Machine Make-Down Area Vent		X		Throughput increase
MISC.	Tall Oil Plant			X	Will remain out of operation
	Chemical Additive - other sources		X		Throughput increase
	Turpentine Storage		X		Throughput increase
	Roll Grinder			X	No changes
	Converting Baghouse			X	No changes
	Roadways, Storage Piles, Material Handling Fugitive Emissions		X		Affected by increased woodyard throughput and production



line due to the higher alkali charge required to cook pine. However, overall there will be less liquor used to produce pulp.

2.4.1 Woodyard Operations

There are two existing woodyards at the Mill. The No. 1 Woodyard is used to process hardwood and the No. 2 Woodyard processes softwood. In the future, the No. 2 Woodyard will operate at or near capacity with no planned modifications. The No. 1 Woodyard will be used to process enough softwood chips to support the proposed softwood pulp production of 694,373 air dried tons of unbleached pulp (ADTUP) per year. Additional purchased softwood chips and logs will supplement the current chip and softwood log operations. It is anticipated that the woodyards will process approximately 3,025 cords per day.

2.4.2 A-Line (Softwood) Operations

The A-Line (softwood) operations from pulping through washing and bleaching will be modified as part of the Mill reconfiguration. The Kamyr continuous digester will be physically modified to allow for a greater softwood pulping rate. Modifications will be made to the diffusion washer and refiners will be added to improve the quality of pulp that will be processed by the No. 5 Paper Machine. Portions of the A-Line O₂ Delignification and all of the bleaching operations will be discontinued; however, some of the A-Line O₂ Delignification process units and tanks will be reused as part of the decker system for the A-Line operations.

The A-Line O₂ Delignification process units that will be reused include the No. 1 Brown Stock Decker, the Pine Decker Filtrate Tank, the Screen Dilution Tank, and the Pine O₂ Blow Tank. In the future, The No. 1 Brown Stock Decker will continue to act as a Decker and a No. 2 Brown Stock Decker will be added. The Pine O₂ Blow Tank will be reused as a Rejects Refiner Feed Tank. Also the Screen Dilution Tank will be operated as a Cleaner Dilution Tank in the future. Finally, a new Press Feed Tank Reject Refiner Feed Tank will be installed.

2.4.3 B-Line (Hardwood) Operations

The B-Line (hardwood) operations will be reconfigured from hardwood pulping to softwood pulping. Specifically, the batch digesters will be equipped with a turpentine recovery system for processing softwood. The B-Line O₂ Delignification, Brown Stock Washer systems, and B-Line Bleach plant will be used to process softwood pulp. In addition, the B-Line Bleach Plant will operate at a reduced level since bleached pulp production will decrease.

2.4.4 Condensate/NCG System

The amount of condensate that is produced by the reconfigured operations will be reduced. Consequently the No. 2 Steam Stripper will have reduced flow. The NCG load to the thermal oxidizer will increase from current levels. The Mill will no longer operate the No. 1 Steam Stripper.

2.4.5 Paper Machine Operations

Several changes will be made to the No. 5 Paper Machine in order to produce linerboard and/or corrugated medium. The changes will occur at the wet end of the paper machine, the vacuum section of the machine, the dryers, and the winder section. The modified No. 5 Paper Machine will produce up to approximately 1,843 ADTUPD. The No. 4 Pulp Dryer will be modified to produce up to approximately 634 ADTPD of bleached softwood pulp. Operation of the No. 3 Paper Machine will be indefinitely discontinued. Florida DEP will be notified and the applicable permitting will be conducted prior to re-starting the No. 3 Paper Machine.

2.4.6 Unchanged Operations

As indicated, there are several areas of the Mill that will be unchanged by the Mill reconfiguration. The pine chip fines cyclone will act only as a backup to the Pine Chip No. 1 Cyclone. No modifications will be made to the No. 1 and No. 2 Recovery Furnaces, although it is anticipated that there will be a decrease in BLS generated and fired in the furnaces. The reduction in heat content will mean that steam from the recovery furnaces will decrease. The Evaporator loadings are not expected to change. The proposed Mill configuration will not

require additional steam and thus there is no incremental power boiler utilization planned for the project. Finally it is anticipated that the Mill's physical implementation of the clean condensate alternative (CCA) will not change as a result of the project, although the monitoring/record keeping may change.

In anticipation of the proposed CCA monitoring/record keeping changes, a revision to the CCA monitoring/recordkeeping method was submitted to the Florida DEP Northwest District office for their review/approval on April 10, 2006. The changes mentioned reflect the Pensacola Mill's plan to convert from the original proposal of 13 lbs/ODUTP methanol collection and to set allowances for diversion to the multi-surge basin to a credits/debits tracking system (Onyx Bank). The purpose of the requested change is to make a more seamless transition from a bleached mill to a hybrid (bleached and brown) mill. The Mill is currently in compliance with the original, agreed upon, continuous monitoring system and will continue in this mode until formal approval of the Onyx Bank method is received.

2.5 PROJECT SCHEDULE

IP anticipates making the proposed changes during the August 2006 and February 2007 Mill outage periods. In order to meet these dates, it will be necessary to have a final air construction permit by mid-July 2006. IP has communicated the aggressive project timeline to DEP and appreciates the commitment from DEP to work towards these goals. This project is critical to the future viability of the Mill and IP is prepared to assist DEP with meeting these goals and to ensure successful completion of the Mill reconfiguration project.

3. EMISSIONS INVENTORY

This section of the construction permit application includes an overview of the emissions data developed and relied upon to determine the change in emissions associated with the proposed reconfiguration of the Mill. The procedures used to prepare the emissions inventory are consistent with NSR Reform rules adopted by Florida. A general overview of the approach used to calculate the project-related emissions is provided in Section 3.1. Section 3.2 outlines the baseline actual emission for the changes associated with the project. A detailed discussion of the projected actual emissions is provided in Section 3.3. The difference between the baseline actual emissions and the future projected actual emissions was compared to the PSD significance levels to determine NSR applicability. Supporting tables, emission factors and related emissions inventory documentation are provided in Appendix B and any additional information not provided in this application will be provided upon request by IP.

3.1 EMISSION CALCULATION APPROACH

Under the NSR Reform Rules that have been implemented by Florida DEP, the Baseline Actual-to-Projected Actual applicability test is used to establish PSD/NSR applicability. The Baseline Actual-to-Projected Actual test is used to determine whether a significant emission increase results from the project. A significant emission increase occurs if, on a pollutant by pollutant basis, the sum of the pollutant emissions changes for each emissions unit that is part of the project exceeds the PSD significance level for the specific pollutant. Emissions changes must be determined for all emissions units associated with a project and thus all modified units and affected units for the project must be evaluated. Modified units are defined as those emissions units that will undergo a “physical change”, or a “change in the method of operation” resulting in an emission change. Affected units are those units that are impacted by the proposed changes and will experience an emissions change as a result of a modification to an emissions unit located upstream or downstream (i.e., as a result of debottlenecking).

The emission change for a modified unit was calculated as the difference between the baseline actual emissions and the proposed future actual emissions which could reflect annual “potential to emit” (PTE) or maximum long-term process throughput as appropriate. The baseline actual emissions are defined as the average actual emissions rate from a consecutive 24-month period within 10 years of the permit application submittal. The emissions increases for affected units were calculated in the same fashion as the modified emissions units.

Emission rates associated with the Mill reconfiguration project were calculated based upon a combination of emission factors from Mill specific stack testing, the National Council of Air and Stream Improvement (NCASI) technical bulletins, and existing regulatory limits or operating emission limits. Whenever possible, priority was given to Mill specific factors followed by NCASI factors. Unit-specific emission factors, and their origin, are presented in Appendix B. Where appropriate, emission factors are consistent with those reported by IP in the electronic Annual Operating Report (AOR) that is submitted each year although additional factors have supplemented the AOR factors. Production increases were converted from an ADTBP/day basis to the applicable units of measure associated with the emission factor for a given emission unit. The Mill utilizes the following mill-specific relationships:

$$\begin{aligned} 4.44 \text{ tons softwood chips} &= 1 \text{ ADTBP softwood} \\ 3.63 \text{ tons hardwood chips} &= 1 \text{ ADTBP hardwood} \\ 1 \text{ ADTUP} &= 0.94 \text{ ADTBP (hardwood)} \\ 1 \text{ ADTUP} &= 0.93 \text{ ADTBP (softwood)} \\ 1 \text{ ADTBP} &= 0.9 \text{ ODTBP} \end{aligned}$$

3.2 BASELINE ACTUAL EMISSIONS

Under the NSR Reform regulations incorporated in Chapter 62-210.200, baseline actual emissions may be developed for any consecutive, 24-month period within a 10 year period from the anticipated submittal of a permit application. Different 24-month periods may be used for different pollutants. The baseline actual emissions represent the average annual rate (tons per year) at which an emissions unit(s) actually emitted a pollutant for a consecutive 24 month period prior to the proposed change. It should be noted that any emissions exceeding an existing/current permit limit for a particular emissions unit was not credited to the baseline

emissions. In instances where baseline emissions could have exceeded a permit limit, the permit limit was substituted for the baseline emissions.

For the purposes of the proposed Mill reconfiguration, a review of historic Mill emissions and production data was conducted. IP selected the 2003/2004 two-year period to determine baseline actual emissions for SO₂, CO, NO_x, H₂SO₄, TRS and VOC. The 1998/1999 period was used for the PM/PM₁₀ calculation of baseline actual emissions. A summary of the baseline actual emissions rates for the modified and affected emissions units at the Mill is provided in Table 3-1 and details regarding the emissions data are summarized in the following subsections for the modified and affected emissions units. There are no project-related emissions of Pb, F, or Hg as these pollutants are associated with fossil-fuel combustion units and no fossil-fuel combustion units at the Mill are affected by the project.

3.2.1 Softwood (A-Line) O₂ Delignification System

The Softwood (A-Line) O₂ Delignification system includes multiple process units and tanks that have emissions of VOC and TRS. For each of the process units and tanks, baseline emissions were calculated using emissions test factors and 2003/2004 average annual softwood pulp production (ODTUP - oven dried tons of unbleached pulp). The emission test factors that were used to establish baseline VOC emissions were based on MACT I Phase II emission testing that was conducted in 2003 for several of the high volume low concentration (HVLC) emissions units at the Mill. The emission test factors were reported as methanol, which is the predominate VOC emitted at IP Mill. The TRS emission factors for the process units and tanks were based on data contained in the NCASI Technical Bulletin 849 for mills similar to the Pensacola Mill and the wood type (i.e., softwood).

3.2.2 Softwood (A-Line) Kamyrdigester and Brown Stock Washing Systems

The process units and tanks associated with the A-Line Kamyrdigester and Brown Stock Washers include Kamyrdigester, the Atmospheric Diffusion Washer, the High Density (HD)

Table 3-1
Summary of Baseline Actual Emissions
International Paper Pensacola Mill
Pensacola, FL

Source	Pollutant & Baseline Emissions (TPY)							
	VOC	TRS	NO _x	SO ₂	CO	H ₂ SO ₄	PM	PM ₁₀
A-Line (Softwood) O ₂ Delignification	40.20	9.75	N/A	N/A	16.72	N/A	N/A	N/A
A-Line (Softwood) Kamyrr Digesters & Brown Stock Washing	4.20	1.57	N/A	N/A	N/A	N/A	N/A	N/A
A-Line (Softwood) Bleach Plant	10.39	1.76	N/A	N/A	84.02	N/A	N/A	N/A
B-Line (Hardwood) O ₂ Delignification	34.11	12.33	N/A	N/A	14.90	N/A	N/A	N/A
B-Line (Hardwood) Batch Digesters & Brown Stock Washing	201.81	27.74	N/A	N/A	N/A	N/A	N/A	N/A
B-Line (Hardwood) Bleach Plant	6.93	1.00	N/A	N/A	78.23	N/A	N/A	N/A
LVHC System/Thermal Oxidizer	0.13	0.32	36.28	14.35	0.40	2.39	2.25	2.25
P3 Paper Machine	4.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A
P4 Pulp Dryer	3.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
P5 Paper Machine	12.67	N/A	N/A	N/A	N/A	N/A	0.93	0.93
No. 2 Woodyard	N/A	N/A	N/A	N/A	N/A	N/A	207.80	51.42
Totals	318.69	54.48	36.28	14.35	194.27	2.39	210.98	54.60

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Diffusion Tank, and the 1st and 2nd Stage Filtrate Tank. Baseline VOC emissions from the Kamyr Digester were determined using the Mill's historic AOR emission factor and the 2003/2004 softwood pulp production. For the Atmospheric Diffusion Washer, VOC emissions were determined using NCASI Technical Bulletin 678 methanol emission factors. The HD and 1st and 2nd Stage Filtrate Tank VOC emissions were based on MACT I Phase II emission testing that was conducted in 2003 for several of the high volume low concentration (HVLC) emissions units at the Mill. Baseline TRS emissions were calculated for the Kamyr Digester and the Atmospheric Diffusion Washer. In both cases NCASI Technical Bulletin 849 TRS emission factors, which were reported in units of pounds of TRS per air-dried tons of pulp (ADTP), were the most representative factors available.

3.2.3 Softwood (A-Line) Bleach Plant

The A-Line Bleach Plant system consists of the Bleach Plant scrubber stack and several process units and tanks. For determining the baseline actual VOC emissions for the Bleach Plant scrubber stack, process units, and tanks, the Mill's historic stack test data and AOR emission factor (in terms of lbs of VOC per hour) and the average annual hours of Softwood Bleach Plant operation for the 2003/2004 period were used. For the Bleach Plant Scrubber and E_o Washer Hood Vent the Mill had readily available emission test data to verify the emission factors. For the other A-Line Bleach plant sources (E_o Seal Tank and E_o Tower), the Mill compared the AOR emissions factors with emission factors from NCASI Technical Bulletins 679 and 760 and determined that the AOR factors are representative. TRS baseline emission data for the Softwood Bleach Plant were based on a NCASI Technical Bulletin 849 TRS emission factors and the 2003/2004 production data.

3.2.4 Hardwood (B-Line) O₂ Delignification System

The VOC and TRS baseline emissions data for the Hardwood O₂ Delignification system were determined in a fashion similar to the Softwood O₂ Delignification system. Specifically, the emission test factors that were used to establish baseline VOC emissions were based on the MACT I Phase II emission testing that was conducted in 2003 for several hardwood high volume

low concentration (HVLC) emissions units at the Mill. These MACT I Phase II emission factors were multiplied by the 2003/2004 annual hardwood pulping production. The emission test factors were reported as methanol. The TRS baseline emissions were determined using representative emission factors from NCASI Technical Bulletin 849 and the hardwood pulp production.

3.2.5 Hardwood (B-Line) Batch Digester and Brown Stock Washing Systems

The Hardwood Batch Digester and Brown Stock Washing Systems consist of several process units and tanks that emit VOC and TRS. To calculate baseline VOC emissions for the Batch Digesters the emission factors from the AOR were used with the 2003/2004 hardwood pulp production. For the other process units and tanks, the MACT I Phase II emission test results from the 2003 HVLC testing program served as the basis for developing an emission factor. The MACT I Phase II emission factors were multiplied by the 2003/2004 annual hardwood pulping production. The baseline TRS emission from the Batch Digester were based on the AOR emission factor and 2003/2004 pulp production data. The baseline TRS emissions from the Brown Stock Washers were based on NCASI Technical Bulletin 849 and 2003/2004 pulp production data.

3.2.6 Hardwood (B-Line) Bleach Plant

The B-Line Bleach Plant system consists of its own scrubber stack and several process units and tanks. For determining the baseline actual VOC emissions for the Bleach Plant scrubber stack, process units, and tanks, the Mill's historic AOR emission factor (in terms of lbs of VOC per hour) and the average annual hours of Hardwood Bleach Plant operation for the 2003/2004 period were used. The Mill has emission test data to support the B-Line Bleach Plant Scrubber and B-Line E_o Washer Hood Vent emission factors. As with the A-Line, the Mill compared the B-Line (hardwood) E_o Seal Tank and E_o Tower AOR emissions factors with emission factors from NCASI Technical Bulletins 679 and 760 and determined that the AOR factors are representative. The TRS baseline emissions were based on NCASI Technical Bulletin 849 and 2003/2004 pulp production data.

3.2.7 LVHC Thermal Oxidizer

The Thermal Oxidizer has emissions of several PSD pollutants including SO₂, NO_x, CO, VOC, H₂SO₄, PM/PM₁₀, TRS, and VOC. Baseline emissions for each of these PSD pollutants were calculated using the AOR emission factors and the appropriate 24-months of annual average production data (i.e., 1998/1999 for PM/PM₁₀ and 2003/2004 for all other PSD pollutants except NO_x). For NO_x, the emissions from the LVHC were determined to be equivalent to the short-term emission rate of 9.1 lb/hr. Therefore the hourly NO_x emission rate was multiplied by the 2003/2004 average hours of pulping production to determine a baseline tons per year emission rate.

3.2.8 No. 3 Paper Machine, No. 4 Pulp Dryer, and No. 5 Paper Machine

The No. 3 Paper Machine, the No. 4 Pulp Dryer, and the No. 5 Paper Machine have baseline emissions of VOC. In addition the No. 5 Paper Machine also has PM/PM₁₀ baseline emissions associated with processing operations at the end of the paper making cycle. To determine the baseline actual VOC emissions for the two paper machines and the pulp dryer, a VOC emission factor from NCASI Technical Bulletin 884 was multiplied by the individual 2003/2004 paper machine production levels (ADTFBP – air dried tons of finished bleach pulp). The NCASI emission factor was for bleach pulp. The PM/PM₁₀ baseline emissions from the No. 5 Paper Machine were determined using the AOR emission factor and the annual average 1998/1999 ADTBP production.

3.2.9 Woodyard Emission Sources

Baseline PM/PM₁₀ emissions were determined for the woodyard and roadway emission sources. The woodyard sources included general woodyard activities on the hardwood (Line No. 1) and softwood (Line No. 2) lines. The AOR woodyard emission factor was used with the 1998/1999 annual average softwood and hardwood chip production to determine baseline PM/PM₁₀ emission. The Pine Chip No. 1 Cyclone and the Air Density separator baseline PM/PM₁₀ emission were determined using the hourly permitted emission rate multiplied by the 1998/1999 average hours of operation. Finally baseline roadway emissions from paved and unpaved

roadways were calculated using the methods developed by USEPA and published in AP-42, Chapter 13.2.1. Representative truck traffic and truck weights were developed from Mill records and emissions were determined for each segment of roadway at the Mill. A silt loading based on the USEPA default value was used in the roadway calculations and was justified based on observations of the Mill roads.

3.3 PROJECTED ACTUAL EMISSIONS

Projected actual emissions are the emissions that will result from the physical or operational change to modified emissions unit(s) and the affected emissions unit(s). In the case of this construction permit application, the future projected actual emissions are the emissions that will result from the reconfiguration of the Mill and will include both emission increases and emission decreases. The projected actual emissions should reflect the actual planned production or utilization level that the Mill will achieve over the five year period beginning once the project is fully operational. By rule the projected actual emissions can exclude emissions (capable of accommodating) that could have been achieved during the 24-month baseline period and that are independent of any planned part of the proposed project.

Typically the projected actual emissions represent the level of emissions that are actually anticipated to occur based on long-term (i.e., 5-year) business projections including operating plans, stock perspectives, shareholder reports, etc. The period of projection should be ten years if the proposed project includes a change in an emissions unit's capacity or potential to emit and a significant emissions increase will result if the full emissions unit utilization were to occur. If the projected actual emissions reflect 100% utilization and 8,760 hours of operation, the use of business projections does not need to be developed.

For the Mill's reconfiguration project, full utilization (8,760 hours) at maximum annual rates and constant operation were used to determine the projected actual emissions and thus no business documentation has been included with this construction permit application. Additionally, capable of accommodating emissions were not excluded in the projected actual emissions although they could be excluded under the NSR Reform rules. It should be noted that by not

excluding capable of accommodating emissions (i.e., those emissions levels that the Mill could currently achieve regardless of the proposed project), the projected actual emissions will be conservatively overstated. A summary of the projected actual emissions for the modified and affected emissions units at the Mill is presented in Table 3-2. A discussion of the specific information used to calculate the projected actual emissions for the emissions units is provided in the following sub-sections and in Appendix B.

For most of the Mill emissions units that will be part of the reconfiguration project, the emission factors that were used to develop the baseline actual emissions will also be appropriate for projecting future actual emissions. However, for some emission units that were part of the hardwood pulping process and will now process softwood pulp, softwood pulping emission factors were used to project actual emissions.

3.3.1 Softwood (A-Line) O₂ Delignification System

Projected actual VOC and TRS emissions for the Softwood O₂ Delignification system include emission decreases and emission increases for the various process units and tanks. The Mill has determined that in the future, the secondary knotter, the rejects drainer, and the secondary knotter level tank will no longer operate and thus there will be no VOC or TRS emissions from these sources. The screen dilution tank operation will be used as a cleaner feed tank in the future Mill configuration. Based on the process conditions expected in the future case, the Mill believes that the VOC and TRS emission from the new cleaner feed tank will be equivalent to the refined rejects tank. The softwood (pine) O₂ blow tank will operate as a rejects refiner feed tank and will have an emission factor equivalent to the current secondary knotter level tank. Similarly, the No. 1 post oxygen washer (POW) will operate as a decker (the A-Line No. 2 Brown Stock Decker) in

Table 3-2
Summary of Projected Actual Emissions
International Paper Pensacola Mill
Pensacola, FL

Source	Pollutant & Baseline Emissions (TPY)							
	VOC	TRS	NO _x	SO ₂	CO	H ₂ SO ₄	PM	PM ₁₀
A-Line (Softwood) O ₂ Delignification	33.21	16.88	N/A	N/A	0.00	N/A	N/A	N/A
A-Line (Softwood) Kamyr Digesters & Brown Stock Washing	7.77	2.91	N/A	N/A	N/A	N/A	N/A	N/A
A-Line (Softwood) Bleach Plant	0.00	0.00	N/A	N/A	0.00	N/A	N/A	N/A
B-Line (Hardwood) O ₂ Delignification	24.96	6.26	N/A	N/A	10.73	N/A	N/A	N/A
B-Line (Hardwood) Batch Digesters & Brown Stock Washing	146.76	24.55	N/A	N/A	N/A	N/A	N/A	N/A
B-Line (Hardwood) Bleach Plant	6.59	1.13	N/A	N/A	56.33	N/A	N/A	N/A
LVHC System/Thermal Oxidizer	0.17	0.42	68.33	15.77	0.44	6.13	8.76	8.76
P3 Paper Machine	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
P4 Pulp Dryer	5.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A
P5 Paper Machine	129.62	N/A	N/A	N/A	N/A	N/A	1.17	1.17
No. 2 Woodyard	N/A	N/A	N/A	N/A	N/A	N/A	224.95	56.89
Totals	354.76	52.16	68.33	15.77	67.50	6.13	234.88	66.82

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the future configuration of the Mill and the projected VOC emissions will decrease. Although future VOC emissions from the brown stock decker (decker No. 1) and the pine decker filtrate tank are expected to decrease in the future because of the use of clean wash water in the decker process, the Mill has conservatively used the same baseline emissions for these two sources. With respect to future TRS emissions, the decker system will experience an emissions increase related to the proposed maximum annual pulping rate, while the secondary decker system will be shut down.

3.3.2 Softwood (A-Line) Kamyrdigester and Brown Stock Washing Systems

The projected actual emissions of VOC and TRS from the softwood Kamyrdigester and Diffusion Washing systems will increase. The increase is projected on the use of the baseline actual emission factors and the proposed future annual softwood pulping rate of 515,537 ADTUP per year. The use of the baseline actual emission factors for calculating projected actual emissions is appropriate since the pulping type (i.e. softwood pulp) is not going to change as a part of the reconfiguration project.

3.3.3 Softwood (A-Line) Bleach Plant System

The Softwood Bleach Plant system will not operate under the future configuration of the Mill. Therefore, there will be a net decrease in VOC and TRS emissions relative to actual baseline emissions. The decrease was included as part of the project-related emissions determination.

3.3.4 Hardwood (B-Line) O₂ Delignification System

The Hardwood (B-Line) O₂ Delignification System will only process softwood pulp in the future, no hardwood pulp will be generated at the Mill. Also the amount of pulp that will be processed through the B-Line side will be less in the future. It should be noted that the sum of the VOC and TRS emission factors for the B-Line Hardwood O₂ Delignification system are almost equivalent to the respective emission factors from the A-Line O₂ Delignification. Therefore considering the nearly equivalent emission factors and the decrease in the projected

future annual pulping rate to 178,836 ADTUP per year, there should be a slight decrease in future VOC and TRS emissions from the B-Line O₂ Delignification System.

3.3.5 Hardwood (B-Line) Batch Digester and Brown Stock Washing Systems

As with the Hardwood (B-Line) O₂ Delignification system, the Batch Digesters and Brown Stock Washing systems will process softwood in the future. The amount of softwood pulp to be produced by the Batch Digesters and processed by the B-Line Brown Stock Washing System is projected to be 178,836 ADTUP per year. Using the pulping production rate (adjusted to tons of chips for the Batch Digesters) and baseline actual emission factors, a decrease in actual VOC and TRS is projected. Also the Mill has determined that the No. 1 and 2 Combined Knot Tank will continue to operate and thus there will be a decrease in VOC emissions relative to the baseline actual emissions.

3.3.6 Hardwood (B-Line) Bleach Plant System

The Hardwood (B-Line) Bleach Plant will be used to bleach some softwood pulp in the future. As a result, it is projected that there will be an increase in VOC emissions and a decrease in TRS emissions. To project the VOC actual emissions from the Bleach Plant (B-Line) Scrubber and other B-Line Bleach Plant sources, the A-Line Scrubber VOC lb/ODTUP emission factors (softwood) were used with annual projected B-Line production levels. TRS emissions from the Hardwood Bleach Plant are projected to decrease based on using the current TRS baseline emission factor and multiplying by the future maximum annual bleached softwood pulp production (166,141 ADTBP) rate.

3.3.7 LVHC Thermal Oxidizer

As part of the Mill reconfiguration, the LVHC Thermal Oxidizer is projected to emit at levels less than current permit limits for CO, SO₂, VOC, and TRS or at levels slightly greater than existing limits for NO_x, H₂SO₄, and PM/PM₁₀. Therefore, the Mill is proposing new emission limits for NO_x, H₂SO₄, PM, and PM₁₀ as part of the project and as such the new emission limits were used as the projected actual emissions. For the projection of VOC and TRS emissions, the

current (i.e., baseline emission factor) AOR emission factor (based on recent stack test data) was multiplied by the future pulping level of 694,373 ADTUP per year. For determining future SO₂ and CO emissions, the current hourly emission rate (i.e., baseline emission factor and based on recent stack test data) was multiplied by 8,760 hours. A summary of the proposed LVHC Thermal Oxidizer emission limits is provided in Table 3-3.

The proposed NO_x, H₂SO₄, and PM/PM₁₀ permit limits for the Thermal Oxidizer were developed based on recent engineering data for the Thermal Oxidizer and will be representative of future operations after the Mill reconfiguration. The Mill applied a margin of compliance to the engineering data to determine the specific limits. It should be noted that the Mill is using low NO_x burners to reduce NO_x emissions and candle filters and a wet scrubber to control emissions of H₂SO₄ and PM/PM₁₀.

3.3.8 No. 3 Paper Machine, No. 4 Pulp Dryer, and No. 5 Paper Machine

Under the proposed future operating scenario for the Pensacola Mill, the No. 3 Paper Machine will be indefinitely shutdown, the No. 5 Paper Machine will be modified to produce linerboard, and the No. 4 Pulp Dryer will continue to produce bleached, softwood pulp for either internal use or for market. As such it was determined that there would be an increase in the VOC and PM/PM₁₀ emissions from the No. 5 Paper Machine and for VOC from the No. 4 Pulp Dryer. To determine the projected actual VOC emissions, the future production level for the No. 4 Pulp Dryer was multiplied by the baseline actuals emission factor. The future production level for the No. 5 Paper Machine was multiplied by a NCASI emission factor representative of unbleached pulping. For PM/PM₁₀ from the No. 5 Paper Machine, the baseline emission factor was multiplied by the future production level.

3.3.9 Woodyard Emission Sources

In the proposed future configuration of the Mill, hardwood chips or hardwood logs will not be used. However, Line No. 1 (formerly the hardwood line) will be used to process softwood chips

Table 3-3
Proposed LVHC Thermal Oxidizer Emission Limits
Mill Reconfiguration Project
IP Pensacola Mill

PSD Pollutant	Hourly Emission Rate (lb/hr)	Annual Emission Rate (tpy)
NO _x	15.60 ^(a)	68.33 ^(a)
SO ₂	5.70	24.97
H ₂ SO ₄	1.40 ^(a)	6.13 ^(a)
CO	6.8	29.8
PM/PM ₁₀	2.00 ^(a)	8.76 ^(a)
VOC	1.1	4.81
TRS	0.5	2.19

^(a)These represent new permit limits for the LVHC Thermal Oxidizer.

and softwood logs. The AOR emission factors were used to project actual emissions using the future cords of chips and logs required to meet the proposed pulping levels 694,373 ADTUP per year. For the Pine Chip No. 1 Cyclone and the Air Density Separator, the hourly emission factor was multiplied by 8,760 hours of operation. Finally for determining future roadway emissions, expected increases in truck traffic for the key areas of the Mill were calculated using the Mill's projections. The increases varied depending on the type of traffic that would occur over a stretch of the Mill's roadways. The increases were expressed on a percentage basis and then were multiplied by the actual baseline emissions to determine the project-related emissions.

3.4 SUMMARY OF PROJECTED-RELATED EMISSIONS

A summary of the project-related emissions is provided in Table 3-4. As shown in this table, there are no emission changes that are projected to exceed the PSD significance levels.

Table 3-4
Summary of Project Related Emissions
International Paper Pensacola Mill
Pensacola, FL

Pollutant	Baseline Actual	Projected Actual	Net Project Emissions	PSD Significance Level	PSD Significant?
	TPY	TPY	TPY	TPY	
VOC	318.7	354.8	36.1	40.0	NO
TRS	54.5	52.2	-2.3	10.0	NO
NO_x	36.3	68.3	32.0	40.0	NO
SO₂	14.4	15.8	1.4	40.0	NO
CO	194.3	67.5	-126.8	100.0	NO
H₂SO₄	2.4	6.1	3.7	7.0	NO
PM	211.0	234.9	23.9	25.0	NO
PM₁₀	54.6	66.8	12.2	15.0	NO

4. APPLICABLE REQUIREMENTS

The Pensacola Mill has reviewed the Federal and State of Florida air quality regulations to determine which regulations potentially apply to the proposed project.

4.1 FEDERAL AIR QUALITY REGULATIONS

For the purpose of this application, potentially applicable Federal regulations are defined as:

- New Source Performance Standards (NSPS)
- National Emission Standards for Hazardous Air Pollutants (NESHAP)
- New Source Review (NSR)
- Compliance Assurance Monitoring (CAM)
- Accidental Release Prevention Risk Management Program (RMP)

A discussion of each specific Federal requirement is provided in the following subsections.

4.1.1 New Source Performance Standards (NSPS)

The United States Environmental Protection Agency (EPA) has promulgated standards of performance for specific sources of air pollution at 40 CFR Part 60, Subparts A through WWW.

The following Subparts are determined to be potentially applicable to the proposed project:

- Subpart A – General Provisions and
- Subpart BB – Standards of Performance for Kraft Pulp Mills.

4.1.1.1 Subpart A – General Provisions

The provisions of 40 CFR 60 Subpart A apply to the owner or operator of any stationary source subject to a NSPS. Existing emission units at the Pensacola Mill are already subject to the Kraft Pulp Mill NSPS (Subpart BB). The Mill has determined that no provisions of Subpart A will apply as a result of the project.

4.1.1.2 Subpart BB - Standards Of Performance for Kraft Pulp Mills

Subpart BB sets forth PM and TRS emission standards for various pulp mill equipment including digesters, brown stock washers, evaporators, recovery furnaces, smelt dissolving tanks, lime kilns, and condensate strippers for which construction or modification commenced after September 24, 1976. The regulation identifies emission limitations and/or control requirements and monitoring, recordkeeping and reporting requirements. Currently, the Kamyrt Continuous Digester System is subject to Subpart BB. As part of the proposed Mill reconfiguration project, the B-Line Digesters and Brown Stock Washers will be modified thereby requiring an evaluation of Subpart BB applicability. Evaporators, recovery furnaces, smelt dissolving tanks, lime kilns, and condensate strippers at the Mill will not be modified as part of the project.

The 40 CFR §60.14 provisions addressing modifications are especially notable with respect to this project. Under §60.14, a modification is defined as:

*“any physical or operational change to an existing facility which results **in an increase in the emission rate** to the atmosphere of any pollutant to which a standard (i.e., NSPS) applies shall be considered a modification within the meaning of Section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard (NSPS) applies and for which there is an increase in the emission rate to the atmosphere.”*

In determining whether a modification has occurred, IP must compare a unit’s emission rate of an NSPS-regulated pollutant before the change to its emission rate after the change. Pursuant to §60.14(b)(2), if the determination cannot be made using emission factors (e.g., an acceptable emission factor is not available for the unit being modified), the determination must be made using actual emissions. The facility’s actual emissions before and after the change are evaluated (using actual emission test data) according to the procedures identified in Appendix C of the NSPS regulations. If the post change rate is greater than the pre-change rate, the facility is subject to the applicable standard.

Under §60.14(e), the following changes are **not** considered modifications:

- Routine maintenance, repair, and replacement.
- Increases in production rate from a facility if the increase can be achieved without a capital expenditure.
- Increases in hours of operation.
- Use of alternative fuel or raw material if the existing facility was designed to accommodate the alternative use. Conversion to coal for energy considerations is not considered a modification.
- Addition of pollution control device with greater efficiency than an existing control device.
- Relocation or change in ownership.

Under §60.15, a reconstruction is defined as:

“the replacement of components of an existing facility to such extent that: The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable new facility, and it is technically and economically feasible to meet the applicable standards set forth in this part.”

For direct replacement of components of a facility that exceeds 50% of the cost of a comparable new facility, the administrator will determine whether the proposed replacement is considered a reconstruction. A reconstructed facility is an affected facility regardless of any change in emission rate.

IP has applied these definitions in determining NSPS applicability for each of the emissions units included in the proposed project with respect to TRS. The B-Line Digesters and Brown Stock Washers will experience an operational change as the result of the switch from hardwood to softwood. Physical modifications to the B-Line Batch Digesters and Brown Stock Washers may also occur. The B-Line Batch Digesters are controlled and the softwood TRS emission rate will be no different than the hardwood TRS emission rate. However, for the B-Line Brown Stock Washers, IP has determined that the TRS emission factor for softwood will be greater than that for hardwood. The greater emission factor will be offset by a lower process throughput and the maximum hourly throughput for the B-Line Brown Stock Washers will actually decrease.

Therefore the modification will not result in an increase of maximum hourly emissions of TRS and thus Subpart BB will not become applicable.

4.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

NESHAPs promulgated prior to the Clean Air Act Amendments (CAAA) of 1990, found in 40 CFR Part 61, apply to specific compounds emitted from certain listed processes. Pursuant to the CAAA of 1990, process-specific NESHAPs are promulgated in 40 CFR Part 63. NESHAPs promulgated under 40 CFR Part 63, also referred to as Maximum Achievable Control Technology (MACT) standards, apply to certain identified source categories that are considered area sources or major sources of hazardous air pollutants (HAP). A major source of HAP is defined as a source with the facility-wide potential to emit any single HAP of 10 tons per year or more, or with a facility-wide potential to emit total HAP of 25 tons per year or more.

The Pensacola Mill qualifies as a major source of HAPs and various processes at the Mill are already subject to MACT standards under 40 CFR Part 63 Subpart S. As part of the Mill reconfiguration, a turpentine collection system will be installed to recover turpentine from the batch digesters that will now be cooking softwood chips. The new B-Line turpentine system will be subject Subpart S. The Mill reconfiguration will also result in discontinuing operation of the A-Line O₂ Delignification system and the A-Line Bleach Plant. These two emissions systems will no longer be subject to Subpart S. The other emission units that are modified as part of this project will continue to be subject to the requirements of 40 CFR 63, Subpart S with no change in the applicability of the rule.

The activities associated with this project and the permitting exercise will not impact the applicability of any other NESHAP/MACT standards.

4.1.3 New Source Review (NSR)

Escambia County is classified as in attainment or unclassifiable for the NAAQS for all NSR-regulated pollutants; therefore, Nonattainment New Source Review regulations do not apply to

this project. However, the project must be evaluated for PSD-significance since the Pensacola Mill is classified as a major source with respect to the Federal PSD rules.

The only sources subject to the PSD regulations are “major stationary sources” and “major modifications” located in areas designated as attainment or unclassifiable for the NAAQS. The proposed Mill configuration qualifies as a major modification and thus triggers the requirement to assess PSD applicability. As indicated in Section 3 of this construction permit, the Mill configuration will not result in a significant increase in any PSD-regulated pollutants and thus PSD does not apply.

4.1.4 Compliance Assurance Monitoring (CAM)

EPA’s CAM rule is codified at 40 CFR Part 64. CAM applicability has been addressed in the Mill’s Title V permit renewal. There are no new control devices that are part of the proposed Mill reconfiguration. In addition, the operation of the existing control devices will not be altered as part of the proposed project and thus the existing CAM Plans are still applicable.

4.2 STATE OF FLORIDA REQUIREMENTS

The proposed modified emissions units are potentially subject to the following State of Florida air regulations which are codified in Chapter 62 of the Florida Administrative Code (F.A.C.):

- Chapter 62-4 – Permits
- Chapter 62-204 – Air Pollution Control - General Provisions
- Chapter 62-210 – Stationary Sources - General Requirements
- Chapter 62-212 – Stationary Sources - Preconstruction Review
- Chapter 62-213 – Operation Permits for Major Sources for Air Pollution
- Chapter 62-296 – Stationary Sources - Emission Standards

Regulations that the facility has determined are generally applicable such as Chapter 62-296.320(2) regulating opacity and Chapter 62-296.320(4)(b) regulating objectionable odors are

neither identified nor discussed herein since they apply facility-wide. A discussion of each specific state requirement is provided in the following subsections.

4.2.1 Chapter 62- 4 – Air Pollution Control - General Provisions

The provisions of this rule establish the procedures for obtaining a permit from Florida DEP. There are several provisions within this rule that affect air emissions and air construction permits. The applicable provisions are identified below.

Rule	Title	Applicability
62-4.020	Definitions	definitions of permitting terms provided
62-4.030	General Prohibition	describes requirement to obtain a permit
62-4.040	Exemptions	describes actions that are exempt from permitting
62-4.050	Procedures to Obtain Permits	outlines documentation requirements for a permit
62-4.055	Permit Processing	schedule associated with DEP permit approval
62-4.070	Standards for Issuing/Denying a Permit	requires permits to meet DEP rules/standards
62-4.150	Review	timeline for responding to DEP review notice
62-4.160	Permit Conditions	lists general construction permit conditions
62-4.200	Scope of Part II	notice of additional permit requirements
62-4.210	Construction Permits	list of information to be submitted for construction permits

4.2.2 Chapter 62-204 Air Pollution Control – General Provisions

This section of the FAC contains general provisions that relate to air quality standards, attainment status of the regions of the State, definitions, and Federal Rules that are incorporated by reference. The proposed Mill reconfiguration project does not directly impact any of the rules contain in Chapter 62-204.

4.2.3 Chapter 62-210 Stationary Sources – General Requirements

Chapter 62-210 established general requirements for obtaining an air construction permit for a stationary source. A portion of the NSR Reform rules are integrated in this section of the Florida air rules. The provisions that are applicable to the proposed project are identified below.

Rule	Title	Applicability
62-210.200	Definitions	definitions related to construction permits provided
62-210.300	Permits Required	describes requirement to obtain a construction permit
62-210.350	Public Notice and Comment	describes requirements for public notice of construction permits
62-210.370	Emissions Computation and Reporting	outlines procedures for calculating emissions of air pollutants
62-210.900	Forms and Instructions	outlines the use of DEP forms for permit submittal

4.2.4 Chapter 62-212 Stationary Sources – Preconstruction Review

Chapter 62-212 adopts and implements parts of the NSR Reform rules for PSD and NSR permitting. The proposed reconfiguration of the Mill triggers the requirement to assess PSD applicability. The procedures contained in Chapter 62-212 apply to the applicability determination. The applicable provisions are identified below.

Rule	Title	Applicability
62-210.300	General Preconstruction Review	describes the procedures for issuing a construction permit that does not trigger PSD review
62-210.400	Prevention of Significant Deterioration	describes actual to projected actual approach for PSD applicability

4.2.5 Chapter 62-213 Operation Permits for Major Sources of Air Pollution

Chapter 62-213 implements the Title V Operating Permit Program. The IP Mill is a major stationary source with respect to Title V and currently operates pursuant to a Title V Operating Permit (Permit No. 0330042-005-AV). IP will continue to operate pursuant to this permit and

will work with the DEP to update the permit to reflect the proposed configuration of the Mill. The four section of Chapter 62-213 listed below are potentially applicable.

Rule	Title	Applicability
62-213.400	Permits and Permit Revisions Required	outlines the changes that trigger a revision to a Title V permit
62-213.405	Concurrent Processing of Permit Applications	allows for the concurrent review of an air construction permit and Title V revision
62-213.412	Immediate Implementation Pending Revision Process	allows for the implementing construction permits prior to revision of the Title V permit
62-213.430	Permit Issuance, Renewal, and Revision	outlines the process for modifying the Title V permit to reflect a construction permit

4.2.6 Chapter 62-296 – Stationary Sources - Emission Standards

Emission standards for various stationary sources are listed in Chapter 62-296. The two section of Chapter 62-296 listed below are applicable to the Mill.

Rule	Title	Applicability
62-296.320	General Pollutant Emission Limiting Standards	outlines general standards that apply to the entire Mill
62-296.404	Kraft Pulp Mills and Tall Oil Plants	TRS emission limits that apply to the Mill are described

APPENDIX A – DEP APPLICATION FORMS

DEP APPLICATION FORMS

FAC 62-213.420(1) requires Title V facilities to complete DEP permit application forms as part of the Air Construction Permit application package. This section of the application report is comprised of the completed DEP 62-210.900 (1) Title V Permit Application forms. The forms are divided into the following sections.

- **SECTION I – Application Information** – includes facility identification and general information on the scope and purpose of the application.
- **SECTION II – Facility Information** – provides general facility information, facility regulations, facility pollutants and facility supplemental information.
- **SECTION III – Emissions Unit Information** – provides general emission unit information, emissions unit capacity, emissions unit regulations, emission point data, process/fuel data, emissions unit pollutants, emission unit pollutant detail information, visible emission information, continuous monitor information, and emissions unit supplemental information for each of the significant emissions units, as listed below.



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for any air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes to establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial/revise/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: <i>International Paper Company</i>	
2. Site Name: <i>Pensacola Mill</i>	
3. Facility Identification Number: <i>10PEN170042</i>	
4. Facility Location... Street Address or Other Locator: <i>375 Muscogee Road</i> City: <i>Cantonment</i> County: <i>Escambia</i> Zip Code: <i>32533-0087</i>	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: <i>Kyle Moore, Environmental Special Projects Manager</i>	
2. Application Contact Mailing Address... Organization/Firm: <i>International Paper Company Pensacola Mill</i> Street Address: <i>375 Muscogee Road</i> City: <i>Cantonment</i> State: <i>FL</i> Zip Code: <i>32533-0087</i>	
3. Application Contact Telephone Numbers... Telephone: <i>(904) 968 - 4253</i> ext. Fax: <i>(904) 968 - 3068</i>	
4. Application Contact Email Address: <i>Kyle.Moore@ipaper.com</i>	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

International Paper Company is proposing to modify the production operations of the Pensacola Mill. The proposed changes are detailed in the accompanying application narrative. This application includes the technical data required for obtaining an air construction permit for the proposed project.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
052	<i>G0102 No. 1 Cyclone Separator, Part of the Pine Thickness Screening System</i>	AC1F	
052	<i>G0103 – Air Density Separator</i>	AC1F	
052	<i>G0106 - Woodyard (except for G0101 through G0104)</i>	AC1B	
067	<i>Thermal oxidizer with heat recovery, SO₂ scrubber, and candle filters.</i>	AC1C	
069	<i>G0207 - #1 through #12 Batch Digesters</i>	AC1E	
069	<i>G0207A – B-Line #1 Brown Stock Washing Line</i>	AC1C	
069	<i>G0207B – B-Line #2 Brown Stock Washing Line</i>	AC1C	
069	<i>G0208 - Kamyrr Continuous Digester</i>	AC1F	
069	<i>G0208A - Diffusion Washer</i>	AC1F	
069	<i>G0208B – A-Line Diffusion Washer – Other Sources</i>	AC1F	
069	<i>G0410 – A-Line Decker System (Previously A-Line O₂ Delignification)</i>	AC1C	
069	<i>G0411 – B-Line O₂ Delignification</i>	AC1D	
I	<i>G0512 – A-Line Bleach Plant – Other Sources</i>	N/A*	
I	<i>G0513 – A-Line Bleach Plant</i>	N/A*	
066	<i>G0515 – B-Line Bleach Plant – Other Sources</i>	AC1E	
051	<i>G0516 – B-Line Bleach Plant</i>	AC1C	
I	<i>G1247 – P3 Paper Machine</i>	N/A*	
066	<i>G1451 – P5 Paper Machine</i>	AC1B	
066	<i>G1853 – No. 4 Pulp Dryer</i>	AC1E	

Application Processing Fee

Check one: Attached - Amount: \$ _____ Not Applicable

** Sources will no longer operate following completion of proposed project.*

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name: *Christopher Read, Mill Manager*

2. Owner/Authorized Representative Mailing Address...

Organization/Firm: *International Paper Company Pensacola Mill*

Street Address: *375 Muscogee Road*

City: *Cantonment*

State: *FL*

Zip Code: *32533-0087*

3. Owner/Authorized Representative Telephone Numbers...

Telephone: *(904) 968 - 2121*

ext. Fax: *(904) 968 - 3068*

4. Owner/Authorized Representative Email Address: *Chris.Read@ipaper.com*

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

Chris Read
Signature

4/26/2006
Date

APPLICATION INFORMATION

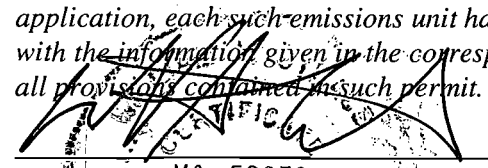
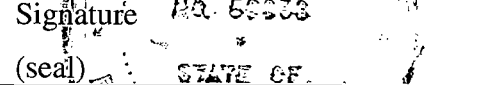
Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: <i>Christopher Read, Mill Manager</i>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: <i>International Paper Company Pensacola Mill</i> Street Address: <i>375 Muscogee Road</i> City: <i>Cantonment</i> State: <i>FL</i> Zip Code: <i>32533-0087</i>
4. Application Responsible Official Telephone Numbers... Telephone: <i>(904) 968 - 2121</i> ext. Fax: <i>(904) 968 - 3068</i>
5. Application Responsible Official Email Address: <i>Chris.Read@ipaper.com</i>
6. Application Responsible Official Certification: <p><i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i></p> <p><i>Chris Read</i> _____ Signature</p> <p><i>4/26/2006</i> _____ Date</p>

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: William V. Straub, PE Registration Number: 59838
2. Professional Engineer Mailing Address... Organization/Firm: ALL4 Inc. Street Address: 2393 Kimberton Road, PO Box 299 City: Kimberton State: PA Zip Code: 19442-0299
3. Professional Engineer Telephone Numbers... Telephone: (610) 933 - 5246 ext. 12 Fax: (610) 933 - 5127
4. Professional Engineer Email Address: wstraub@all4inc.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature  No. 59838 Date 4/25/06 (seal) 

* Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone <i>N/A</i> East (km) <i>N/A</i> North (km)		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) <i>30/30/19</i> Longitude (DD/MM/SS) <i>87/19/13</i>	
3. Governmental Facility Code: <i>0</i>	4. Facility Status Code: <i>A</i>	5. Facility Major Group SIC Code: <i>26</i>	6. Facility SIC(s): <i>2611</i>
7. Facility Comment : <i>N/A</i>			

Facility Contact

1. Facility Contact Name: <i>Kyle Moore, Environmental Special Projects Manager</i>
2. Facility Contact Mailing Address... Organization/Firm: <i>International Paper Company Pensacola Mill</i> Street Address: <i>375 Muscogee Road</i> City: <i>Cantonment</i> State: <i>FL</i> Zip Code: <i>32533-0087</i>
3. Facility Contact Telephone Numbers: Telephone: <i>(908) 968 - 2121</i> ext. <i>3833</i> Fax: <i>(908) 968 - 3068</i>
4. Facility Contact Email Address: <i>Kyle.Moore@ipaper.com</i>

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name: <i>N/A</i>
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
4. Facility Primary Responsible Official Email Address:

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

1.	<input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2.	<input type="checkbox"/> Synthetic Non-Title V Source	
3.	<input checked="" type="checkbox"/> Title V Source	
4.	<input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5.	<input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6.	<input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7.	<input type="checkbox"/> Synthetic Minor Source of HAPs	
8.	<input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9.	<input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10.	<input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11.	<input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12.	Facility Regulatory Classifications Comment: N/A	

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
<i>CO – Carbon Monoxide</i>	<i>A</i>	<i>N</i>
<i>NOX – Nitrogen Oxides</i>	<i>A</i>	<i>N</i>
<i>PM – Particulate Matter</i>	<i>A</i>	<i>N</i>
<i>PM₁₀ – Particulate Matter (10 microns)</i>	<i>A</i>	<i>N</i>
<i>SO₂ – Sulfur Dioxide</i>	<i>A</i>	<i>N</i>
<i>VOC – Volatile Organic Compounds</i>	<i>A</i>	<i>N</i>
<i>H115 – Methanol</i>	<i>A</i>	<i>N</i>
<i>TRS – Total Reduced Sulfur</i>	<i>B</i>	<i>N</i>

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
<i>N/A</i>					
<p>7. Facility-Wide or Multi-Unit Emissions Cap Comment:</p> <p><i>N/A</i></p>					

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date: _____

See Section 2 of the attached application narrative.

2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date: _____

See Section 2 of the attached application narrative.

3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date: _____

See Section 2 of the attached application narrative.

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (existing permitted facility) <i>See Section 2 of the attached application narrative.</i>
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input checked="" type="checkbox"/> Attached, Document ID: _____ <i>See Section 2 of the attached application narrative.</i>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: _____ <i>See Section 4 of the attached application narrative.</i>
4. List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility) <i>Existing exempt emissions units listed in previously submitted Title V Permit Application.</i>
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <i>See Emission Unit Forms.</i>
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for FESOP Applications N/A

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
 Attached, Document ID: _____ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications N/A

1. List of Insignificant Activities (Required for initial/renewal applications only):
 Attached, Document ID: _____ Not Applicable (revision application)
2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):
 Attached, Document ID: _____
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
 Attached, Document ID: _____
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):
 Attached, Document ID: _____
 Equipment/Activities On site but Not Required to be Individually Listed
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :
 Attached, Document ID: _____ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:
 Attached, Document ID: _____ Not Applicable

Additional Requirements Comment

1. *G0102 – No. 1 Cyclone Separator, Part of the Pine Thickness Screening System*
2. *G0103 – Air Density Separator*
3. *G0106 – Woodyard (except for G0101 through G0104)*
4. *Thermal oxidizer with heat recovery, SO₂ scrubber, and candle filters.*
5. *G0207 – #1 through #12 Batch Digesters*
6. *G0208B – A-Line Diffusion Washing – Other Sources*
7. *G0207A – B-Line #1 Brown Stock Washing*
8. *G0207B – B-Line #2 Brown Stock Washing*
9. *G0208 – Kamy Continuous Digester*
10. *G0208A – Diffusion Washer*
11. *G0209 – Digesters and Brown Stock Washers – Other Sources*
12. *G0410 – A-Line O₂ Decker System (Previously A-Line O₂ Delignification)*
13. *G0411 – B Line O₂ Delignification*
14. *G0512 – A Line Bleach Plant – Other Sources*
15. *G0513 – A Line Bleach Plant*
16. *G0515 – B Line Bleach Plant – Other Sources*
17. *G0516 – B Line Bleach Plant*
18. *G1247 – P3 Paper Machine*
19. *G1451 – P5 Paper Machine*
20. *G1853 – No. 4 Pulp Dryer*

EMISSIONS UNIT INFORMATION

Section [1] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0102 No. 1 Cyclone Separator, Part of the Pine Thickness Screening System

3. Emissions Unit Identification Number: *N/A*

4. Emissions Unit Status Code: A	5. Commence Construction Date: N/A	6. Initial Startup Date: 1988	7. Emissions Unit Major Group SIC Code: 26	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: *N/A*
Manufacturer: *N/A* Model Number: *N/A*

10. Generator Nameplate Rating: *N/A* MW

11. Emissions Unit Comment:
This unit does not have an APIS number.

EMISSIONS UNIT INFORMATION

Section [1] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

Section [1] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>237 TPH or 3,944 TPD annual average</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>Proposed increase in process rates to accommodate higher production levels.</i>

EMISSIONS UNIT INFORMATION

Section [1] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: 01-ST-061-001		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: N/A			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: G0102 – No. 1 Cyclone Separator			
5. Discharge Type Code: N/A		6. Stack Height: 45 feet	
		7. Exit Diameter: 3.0 feet	
8. Exit Temperature: 77 °F		9. Actual Volumetric Flow Rate: 1,681 acfm	
		10. Water Vapor: 6 %	
11. Maximum Dry Standard Flow Rate: N/A dscfm		12. Nonstack Emission Point Height: N/A feet	
13. Emission Point UTM Coordinates... Zone: 16 East (km): 468,998 North (km): 3,385,532		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): N/A Longitude (DD/MM/SS)	
15. Emission Point Comment: N/A			

EMISSIONS UNIT INFORMATION

Section [1] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>This emitting unit does not have a specific SCC and therefore, maximum hourly and annual operating data has not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [1] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>PM</i>	<i>None</i>		<i>EL</i>
<i>PM₁₀</i>	<i>None</i>		<i>EL</i>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.006 lb/hour 0.026 tons/year</i>		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.006 lb/hr</i> <i>Future: 0.006 lb/hr</i> Reference: <i>Permit Limit</i>		7. Emissions Method Code: <i>0</i>	
8.a. Baseline Actual Emissions (if required): <i>0.0252 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>0.0264 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.006 lb/hr)*(8,348 hr/yr)/(2,000 lb/ton) = 0.0252 ton/yr</i> <i>Future: (0.006 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 0.0264 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>0.006 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>0.026 tons/year</i>
5. Method of Compliance: <i>Track production.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current Permit Limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM₁₀</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.006 lb/hour 0.0264 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.006 lb/hr</i> <i>Future: 0.006 lb/hr</i> Reference: <i>Permit Limit</i>		7. Emissions Method Code: <i>0</i>	
8.a. Baseline Actual Emissions (if required): <i>0.0252 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>0.0264 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.006 lb/hr)*(8,348 hr/yr)/(2,000 lb/ton) = 0.0252 ton/yr</i> <i>Future: (0.006 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 0.0264 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>0.006 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>0.026 tons/year</i>
5. Method of Compliance: <i>Track production.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current Permit Limit</i>	

EMISSIONS UNIT INFORMATION

Section [1] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE5	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: 5 % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance: Method 9	
5. Visible Emissions Comment: 62-297.401 FAC	

EMISSIONS UNIT INFORMATION

Section [1] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [1] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <i>See Section 2 of attached application narrative.</i></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [1] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [1] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [2] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0103 – Air Density Separator

3. Emissions Unit Identification Number: *N/A*

4. Emissions Unit Status Code: A	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: 1988	7. Emissions Unit Major Group SIC Code: 26	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: *N/A*
Manufacturer: *N/A* Model Number: *N/A*

10. Generator Nameplate Rating: *N/A* MW

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION

Section [2] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

Section [2] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>237 TPH or 3,944 TPD annual average</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>Proposed increase in process rates to accommodate higher production levels.</i>

EMISSIONS UNIT INFORMATION

Section [2] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: 01-ST-062-001		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: N/A			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: G0103 – Air Density Separator			
5. Discharge Type Code: N/A	6. Stack Height: 60 feet	7. Exit Diameter: 2.0 feet	
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: 13,549 acfm	10. Water Vapor: 6 %	
11. Maximum Dry Standard Flow Rate: N/A dscfm		12. Nonstack Emission Point Height: N/A feet	
13. Emission Point UTM Coordinates... Zone: 16 East (km): 468,973 North (km): 3,385,540		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): N/A Longitude (DD/MM/SS)	
15. Emission Point Comment: N/A			

EMISSIONS UNIT INFORMATION

Section [2] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>This emitting unit does not have a specific SCC and therefore, maximum hourly and annual operating data has not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [2] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>PM</i>	<i>None</i>		<i>EL</i>
<i>PM₁₀</i>	<i>None</i>		<i>EL</i>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.21 lb/hour</i> <i>0.92 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.21 lb/hr</i> <i>Future: 0.21 lb/hr</i> Reference: <i>Permit Limit</i>		7. Emissions Method Code: <i>0</i>	
8.a. Baseline Actual Emissions (if required): <i>0.88 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>0.92 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.21 lb/hr)*(8,348 hr/yr)/(2,000 lb/ton) = 0.88 ton/yr</i> <i>Future: (0.21 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 0.92 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>0.21 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>0.92 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current Permit Limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM₁₀</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.21 lb/hour</i> <i>0.92 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.21 lb/hr</i> <i>Future: 0.21 lb/hr</i> Reference: <i>Permit Limit</i>		7. Emissions Method Code: <i>0</i>	
8.a. Baseline Actual Emissions (if required): <i>0.88 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>0.92 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.21 lb/hr)*(8,348 hr/yr)/(2,000 lb/ton) = 0.88 ton/yr</i> <i>Future: (0.21 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 0.92 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>0.21 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>0.92 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current Permit Limit.</i>	

EMISSIONS UNIT INFORMATION

Section [2] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE5	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: 5 % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance: Method 9	
5. Visible Emissions Comment: 62-297.401 FAC	

EMISSIONS UNIT INFORMATION

Section [2] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [2] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [2] of [20]

<p>6. Compliance Demonstration Reports/Records</p> <p><input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p>Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.</p>
<p>7. Other Information Required by Rule or Statute</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [2] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for comment]

EMISSIONS UNIT INFORMATION

Section [3] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

G0106 - Woodyard (except for G0101 through G0104)

3. Emissions Unit Identification Number: *066*

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>Prior to 1970</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--	--	--	--

9. Package Unit: *N/A*

Manufacturer: *N/A*

Model Number: *N/A*

10. Generator Nameplate Rating: *N/A* MW

11. Emissions Unit Comment:

N/A

EMISSIONS UNIT INFORMATION

Section [3] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

Section [3] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>1.058 MMcords/yr, 2,899 cords/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [3] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <i>Various areas</i>		2. Emission Point Type Code: <i>4</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>Fugitive</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0106 – Woodyard (except for G0101 through G0104)</i>			
5. Discharge Type Code: <i>F</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [3] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore, maximum hourly and annual operating data has not been provided.</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>51.14 lb/hour 224.0 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>N/A</i>		7. Emissions Method Code: <i>1</i>	
Reference: <i>See Application Narrative, Appendix B</i>			
8.a. Baseline Actual Emissions (if required): <i>206.90 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>224.0 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>See attached calculations in Appendix B.</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM₁₀</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>12.77 lb/hour 55.94 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>N/A</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>1</i>	
8.a. Baseline Actual Emissions (if required): <i>50.52 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>55.94 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>See attached calculations in Appendix B.</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [3] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour	
4. Method of Compliance: Method 9	
5. Visible Emissions Comment: 62-297.401 FAC	

EMISSIONS UNIT INFORMATION

Section [3] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [3] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [3] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [3] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

EMISSIONS UNIT INFORMATION

Section [4] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

Thermal oxidizer with heat recovery, SO₂ scrubber, and candle filters.

3. Emissions Unit Identification Number: *053*

4. Emissions Unit Status Code: <i>C</i>	5. Commence Construction Date: <i>July 2001</i>	6. Initial Startup Date: <i>11-2001</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>N/A</i>
--	--	--	--	---

9. Package Unit: *N/A*

Manufacturer: *A.H. Lundberg Associates, Inc.* Model Number: *Custom*

10. Generator Nameplate Rating: *N/A* MW

11. Emissions Unit Comment:

N/A

EMISSIONS UNIT INFORMATION

Section [4] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

The thermal oxidizer design will minimize NO_x formation using staged combustion. SO₂ emissions generated in the thermal oxidizer will be controlled by an SO₂ scrubber with mist eliminator alone. Candle filters will follow the SO₂ scrubber to control particulate matter and sulfuric acid mist.

2. Control Device or Method Code(s): *025, 099, 013, 015*

EMISSIONS UNIT INFORMATION

Section [4] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>N/A</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>as methanol: ~1,500 pounds/hr</i> <i>~18.0 tons/day</i>				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Maximum incineration rate is an estimate of the maximum methanol loading of the stripper off-gases. This value is provided for information purposes only and is not intended to be an absolute maximum loading rate to the thermal oxidizer.</i>				

EMISSIONS UNIT INFORMATION

Section [4] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>1</i>			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>Thermal Oxidizer</i>					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>					
5. Discharge Type Code: <i>V</i>		6. Stack Height: <i>100</i> feet		7. Exit Diameter: <i>2.2</i> feet	
8. Exit Temperature: <i>180</i> °F		9. Actual Volumetric Flow Rate: <i>34,000</i> acfm		10. Water Vapor: <i>Saturated</i> %	
11. Maximum Dry Standard Flow Rate: <i>13,000</i> dscfm			12. Nonstack Emission Point Height: <i>N/A</i> feet		
13. Emission Point UTM Coordinates... Zone: <i>16</i> East (km): <i>469,294</i> North (km): <i>3,385,689</i>			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)		
15. Emission Point Comment: <i>N/A</i>					

EMISSIONS UNIT INFORMATION

Section [4] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): <i>MACT – regulated gases controlled by thermal oxidizer</i>		
2. Source Classification Code (SCC): <i>3-07-001-04</i>		3. SCC Units: <i>MMcf process gas burned</i>
4. Maximum Hourly Rate: <i>1,500 lbs/hr as methanol</i>	5. Maximum Annual Rate: <i>1,500 lbs/hr as methanol</i>	6. Estimated Annual Activity Factor: <i>8760 hr/yr</i>
7. Maximum % Sulfur: <i>10% base on LVHC</i>	8. Maximum % Ash: <i>0 %</i>	9. Million Btu per SCC Unit: <i>20 MMBtu/hr</i>
10. Segment Comment: <i>N/A</i>		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): <i>Pipeline quality natural gas (as-needed) for thermal oxidizer</i>		
2. Source Classification Code (SCC): <i>30790013</i>		3. SCC Units: <i>MMcf process gas burned</i>
4. Maximum Hourly Rate: <i>0.002 MMcf/hr</i>	5. Maximum Annual Rate: <i>17.52 MMcf/yr</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>1060 MMBtu/MMcf</i>
10. Segment Comment: <i>N/A</i>		

EMISSIONS UNIT INFORMATION

Section [4] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>CO</i>			<i>EL</i>
<i>NOx</i>	<i>025</i>		<i>EL</i>
<i>PM</i>	<i>099 – candle filters</i>		<i>EL</i>
<i>PM₁₀</i>	<i>099 – candle filters</i>		<i>EL</i>
<i>SO₂</i>	<i>013</i>		<i>EL</i>
<i>TRS</i>	<i>099 – thermal oxidation</i>		<i>EL</i>
<i>VOC</i>	<i>099 – thermal oxidation</i>		<i>EL</i>
<i>SAM (sulfuric acid mist)</i>	<i>099 – candle filters</i>		<i>EL</i>
<i>Methanol</i>			<i>WP</i>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 6.8 lb/hour 29.8 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.10 lb/hr Future: 0.10 lb/hr Reference: Permit Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): 0.40 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 0.44 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.10 lb/hr)*(7,974.5 hr/yr)/(2,000 lb/ton) = 0.40 ton/yr Future: (0.10 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 0.44 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Potential emission rates are based on current Title V Operating Permit limits.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>6.8 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>29.8 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current permit limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>NO_x</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>15.6 lb/hour 68.33 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 9.1 lb/hr</i> <i>Future: 15.6 lb/hr</i> Reference: <i>Permit Limit</i>		7. Emissions Method Code: <i>0</i>	
8.a. Baseline Actual Emissions (if required): <i>36.28 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>68.33 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (9.1 lb/hr)*(7,974.5 hr/yr)/(2,000 lb/ton) = 36.28 ton/yr</i> <i>Future: (15.6 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 68.33 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment: <i>See application narrative for an explanation of emission factor sources.</i>			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>Permit Issuance</i>
3. Allowable Emissions and Units: <i>15.6 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>68.33 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Proposed new permit limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>2.0 lb/hour</i> <i>8.76 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.54 lb/hr</i> <i>Future: 2.0 lb/hr</i> Reference: <i>Permit Limit</i>		7. Emissions Method Code: <i>0</i>	
8.a. Baseline Actual Emissions (if required): <i>2.25 tons/year</i>		8.b. Baseline 24-month Period: <i>N/A</i> From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>8.76 tons/year</i>		9.b. Projected Monitoring Period: <i>N/A</i> <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.54 lb/hr)*(8,327 hr/yr)/(2,000 lb/ton) = 2.25 ton/yr</i> <i>Future: (2.0 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 8.76 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>Permit Issuance</i>
3. Allowable Emissions and Units: <i>2.0 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>8.76 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Proposed new permit limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM₁₀</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>2.0 lb/hour</i> <i>8.76 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.54 lb/hr</i> <i>Future: 2.0 lb/hr</i> Reference: <i>Permit Limit</i>		7. Emissions Method Code: <i>0</i>	
8.a. Baseline Actual Emissions (if required): <i>2.25 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>8.76 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.54 lb/hr)*(8,327 hr/yr)/(2,000 lb/ton) = 2.25 ton/yr</i> <i>Future: (2.0 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 8.76 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>Permit Issuance</i>
3. Allowable Emissions and Units: <i>2.0 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>8.76 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Proposed new permit limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: SO₂		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 3.6 lb/hour 15.77 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 3.6 lb/hr Future: 3.6 lb/hr Reference: Permit Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): 14.35 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 15.77 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (3.6 lb/hr)*(7,974.5 hr/yr)/(2,000 lb/ton) = 14.35 ton/yr Future: (3.6 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 15.77 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>Permit Issuance</i>
3. Allowable Emissions and Units: <i>5.4 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>23.65 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current permit limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: TRS		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 0.5 lb/hour 2.19 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.0012 lb/ADTUP Future: 0.0012 lb/ADTUP Reference: Permit Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): 0.32 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 0.42 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.0012 lb/ADTUP)*(527,034 ADTUP/yr)/(2,000 lb/ton) = 0.32 ton/yr Future: (0.0012 lb/ADTUP)*(694,373 ADTUP/yr)/(2,000 lb/ton) = 0.42 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>0.5 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>2.19</i> tons/year
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current Permit Limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 1.1 lb/hour 4.8 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.0005 lb/ADTUP Future: 0.0005 lb/ADTUP Reference: Permit Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): 0.13 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 0.17 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.0005 lb/ADTUP)*(527,035 ADTUP/yr)/(2,000 lb/ton) = 0.13 ton/yr Future: (0.0005 lb/ADTUP)*(694,373 ADTUP/yr)/(2,000 lb/ton) = 0.17 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>1.1 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>4.8 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Current Permit Limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: SAM		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 1.4 lb/hour 6.13 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.60 lb/hr Future: 1.4 lb/hr Reference: Permit Limit		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): 2.39 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 6.13 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.60 lb/hr)*(7,974.5 hr/yr)/(2,000 lb/ton) = 2.39 ton/yr Future: (1.4 lb/hr)*(8,760 hr/yr)/(2,000 lb/ton) = 6.13 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>OTHER</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>1.4 lb/hr</i>	4. Equivalent Allowable Emissions: lb/hour <i>6.13 tons/year</i>
5. Method of Compliance: <i>Test as required by FDEP.</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>Proposed new permit limit.</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.0521 lb/hour 0.174 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.0005 lb/ADTUP</i> <i>Future: 0.0005 lb/ADTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>5</i>	
8.a. Baseline Actual Emissions (if required): <i>0.132 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>0.174 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.0005 lb/ADTUP)*(527,035 ADTUP/yr)/(2,000 lb/ton) = 0.132 ton/yr</i> <i>Future: (0.0005 lb/ADTUP)*(694,373 ADTUP/yr)/(2,000 lb/ton) = 0.174 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment: <i>Hourly potential emission estimates based on anticipated peak daily production of 2,500 ADTP/day.</i>			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [4] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE 20	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: <i>N/A</i> Normal Conditions: 5 % Exceptional Conditions: 20 % Maximum Period of Excess Opacity Allowed: 3 min/hour	
4. Method of Compliance: USEPA Method 9, Annually	
5. Visible Emissions Comment: 62-296.401(1)(a)	

EMISSIONS UNIT INFORMATION

Section [4] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: TEMP	2. Pollutant(s): N/A
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemount Model Number: 0183P22K2C60N120E5 Serial Number: N/A	
5. Installation Date: July 2001	6. Performance Specification Test Date: N/A
7. Continuous Monitor Comment: Currently there are no promulgated performance specifications for temperature sensors. IP follows manufacturer's recommended procedures for maintenance and internal IP operating practices.	

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: pH	2. Pollutant(s): N/A
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: ABB Model Number: TB82PH Serial Number: TB82PH2110110	
5. Installation Date: July 2001	6. Performance Specification Test Date: N/A
7. Continuous Monitor Comment: Currently there are no promulgated performance specifications for pH sensors. IP follows manufacturer's recommended procedures for maintenance and internal IP operating practices.	

EMISSIONS UNIT INFORMATION

Section [4] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <i>See Section 2 of attached application narrative.</i></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no new control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

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6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

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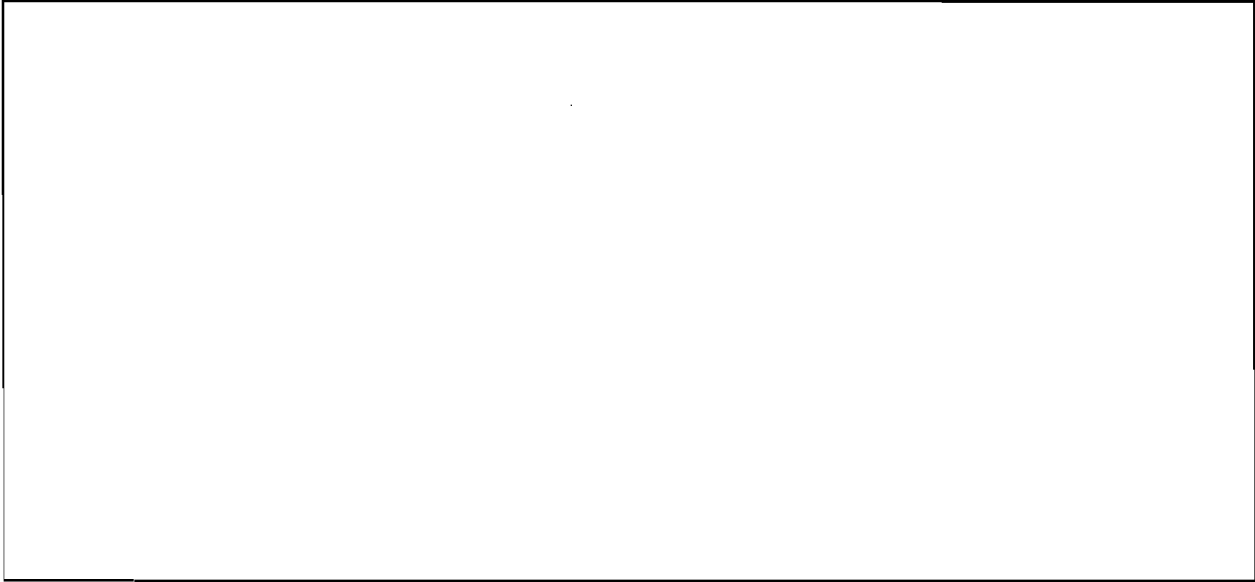
Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment



EMISSIONS UNIT INFORMATION

Section [5] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0207 - #1 through #12 Batch Digesters

3. Emissions Unit Identification Number: ***053***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>Prior to 1970</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---	---	---	--

9. Package Unit: ***N/A***
 Manufacturer: ***Chicago Steel*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [5] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Thermal Oxidizer

2. Control Device or Method Code(s): *131*

EMISSIONS UNIT INFORMATION

Section [5] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>892 ADTP/day, 803 ODTP/day</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>Throughput rates are equivalent to the existing 830 ADTBP/day.</i>

EMISSIONS UNIT INFORMATION

Section [5] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>					
5. Discharge Type Code: <i>N/A</i>		6. Stack Height: <i>N/A</i> feet		7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F		9. Actual Volumetric Flow Rate: <i>N/A</i> acfm		10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm			12. Nonstack Emission Point Height: <i>N/A</i> feet		
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)		
15. Emission Point Comment: <i>N/A</i>					

EMISSIONS UNIT INFORMATION

Section [5] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Digester/Blow Tank</i>		
2. Source Classification Code (SCC): <i>N/A</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>N/A</i>		

EMISSIONS UNIT INFORMATION

Section [5] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>TRS</i>	<i>131</i>		<i>WP</i>
<i>VOC</i>	<i>131</i>		<i>WP</i>
<i>Methanol</i>	<i>131</i>		<i>WP</i>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: TRS		2. Total Percent Efficiency of Control: 98%	
3. Potential Emissions: 0.17 lb/hour 0.41 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.0034 lb/ADTUP Future: 0.0046 lb/ADTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 1	
8.a. Baseline Actual Emissions (if required): 0.42 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 0.41 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.0034 lb/ADTUP)*(248,357 ADTUP/yr)/(2,000 lb/ton) = 0.42 ton/yr Future: (0.0046 lb/ADTUP)*(178,836 ADTUP/yr)/(2,000 lb/ton) = 0.41 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions due to NCG venting.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC	2. Total Percent Efficiency of Control: 99%
3. Potential Emissions: 3.30 lb/hour 7.94 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year	
6. Emission Factor: Baseline: 0.02 lb/ton chip Future: 0.02 lb/ton chip Reference: See Application Narrative, Appendix B	7. Emissions Method Code: 1
8.a. Baseline Actual Emissions (if required): 9.02 tons/year	8.b. Baseline 24-month Period: From: 2003 To: 2004
9.a. Projected Actual Emissions (if required): 7.94 tons/year	9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions: Baseline: (0.02 lb/ton chip)*(248,357 ADTUP/yr)*(3.63 tons HW chips/ADTUP)/(2,000 lb/ton) = 9.02 ton/yr Future: (0.02 lb/ton chip)*(178,836 ADTUP/yr)*(4.44 tons SW chips/ADTUP)/(2,000 lb/ton) = 7.94 ton/yr	
11. Potential, Fugitive, and Actual Emissions Comment: Emissions due to NCG venting.	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>2.70 lb/hour</i> <i>6.49 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.0726 lb/ADTUP</i> <i>Future: 0.0726 lb/ADTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>5</i>	
8.a. Baseline Actual Emissions (if required): <i>9.02 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>6.49 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.0726 lb/ADTUP)*(248,357 ADTUP/yr)/(2,000 lb/ton) = 9.02 ton/yr</i> <i>Future: (0.0726 lb/ADTUP)*(178,836 ADTUP/yr)/(2,000 lb/ton) = 6.49 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

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G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: N/A <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: N/A Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

Section [5] of [20]

H. CONTINUOUS MONITOR INFORMATION**Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [5] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

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<p>6. Compliance Demonstration Reports/Records</p> <p><input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p>Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.</p>
<p>7. Other Information Required by Rule or Statute</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [5] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for comment]

EMISSIONS UNIT INFORMATION

Section [6] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

G0208B – A-Line Diffusion Washing – Other Sources

3. Emissions Unit Identification Number: *070*

4. Emissions Unit Status Code:
A

5. Commence Construction Date:
N/A

6. Initial Startup Date:
Prior to 1970

7. Emissions Unit Major Group SIC Code:
26

8. Acid Rain Unit?
 Yes
 No

9. Package Unit: *N/A*
Manufacturer: *N/A*

Model Number: *N/A*

10. Generator Nameplate Rating: *N/A* MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [6] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

NONE.

2. Control Device or Method Code(s): *099*

EMISSIONS UNIT INFORMATION

Section [6] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>1,868.2 ADTUP/day, 1,681.3 ODTUP/day</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>N/A</i>

EMISSIONS UNIT INFORMATION

Section [6] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>03-ST-001-001 & 03-ST-001-002</i>		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0208B – A-Line Diffusion Washing – Other Sources</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [6] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Digester</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore, maximum hourly and annual operating data has not been provided.</i>		

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.981 lb/hour 3.29 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.014 lb/ODTUP</i> <i>Future: 0.014 lb/ODTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>I</i>	
8.a. Baseline Actual Emissions (if required): <i>1.78 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>3.29 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.014 lb/ODTUP)*(250,810 ODTUP/yr)/(2,000 lb/ton) = 1.78 ton/yr</i> <i>Future: (0.014 lb/ODTUP)*(463,983 ODTUP/yr)/(2,000 lb/ton) = 3.29 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [6] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: N/A <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: N/A Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

Section [6] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [6] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [6] of [20]

<p>6. Compliance Demonstration Reports/Records</p> <p><input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p>Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.</p>
<p>7. Other Information Required by Rule or Statute</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [6] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [7] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

G0207A – B-Line #1 Brown Stock Washing

3. Emissions Unit Identification Number: ***071***

4. Emissions Unit Status Code:
A

5. Commence Construction Date:
N/A

6. Initial Startup Date:
Prior to 1970

7. Emissions Unit Major Group SIC Code:
26

8. Acid Rain Unit?
 Yes
 No

9. Package Unit: ***N/A***
Manufacturer: ***N/A***

Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [7] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

NONE.

2. Control Device or Method Code(s): *099*

EMISSIONS UNIT INFORMATION

Section [7] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>446.2 ADTUP/day, 406.6 ODTUP/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [7] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>	2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>		
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm	12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>		

EMISSIONS UNIT INFORMATION

Section [7] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore, maximum hourly and annual operating data has not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [7] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>VOC</i>	<i>99</i>		<i>WP</i>
<i>TRS</i>	<i>99</i>		<i>WP</i>
<i>Methanol</i>	<i>99</i>		<i>WP</i>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 12.03 lb/hour 56.74 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.71 lb/ODTUP Future: 0.71 lb/ODTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: I	
8.a. Baseline Actual Emissions (if required): 78.79 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 56.74 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.71 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 78.79 ton/yr Future: (0.71 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 56.74 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: N/A	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: N/A	4. Equivalent Allowable Emissions: N/A lb/hour tons/year
5. Method of Compliance: N/A	
6. Allowable Emissions Comment (Description of Operating Method): N/A	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>12.03 lb/hour 56.74 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.71 lb/ODTUP</i> <i>Future: 0.71 lb/ODTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>5</i>	
8.a. Baseline Actual Emissions (if required): <i>78.79 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>56.74 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.71 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 78.79 ton/yr</i> <i>Future: (0.71 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 56.74 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [7] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <i>N/A</i> <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: <i>N/A</i> Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [7] of [20]

H. CONTINUOUS MONITOR INFORMATION**Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor I of I

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [7] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <i>See Section 2 of attached application narrative.</i></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [7] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

Section [7] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [8] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

G0207B – B-Line #2 Brown Stock Washing

3. Emissions Unit Identification Number: ***071***

4. Emissions Unit Status Code:
A

5. Commence Construction Date:
N/A

6. Initial Startup Date:
Prior to 1970

7. Emissions Unit Major Group SIC Code:
26

8. Acid Rain Unit?
 Yes
 No

9. Package Unit: ***N/A***
Manufacturer: ***N/A***

Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [8] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

NONE.

2. Control Device or Method Code(s): *099*

EMISSIONS UNIT INFORMATION

Section [8] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 446.2 ADTUP/day, 406.6 ODTUP/day				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td>24 hours/day</td><td>7 days/week</td></tr><tr><td>52 weeks/year</td><td>8,760 hours/year</td></tr></table>	24 hours/day	7 days/week	52 weeks/year	8,760 hours/year
24 hours/day	7 days/week			
52 weeks/year	8,760 hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

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C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>					
5. Discharge Type Code: <i>N/A</i>		6. Stack Height: <i>N/A</i> feet		7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F		9. Actual Volumetric Flow Rate: <i>N/A</i> acfm		10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm			12. Nonstack Emission Point Height: <i>N/A</i> feet		
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):			14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)		
15. Emission Point Comment: <i>N/A</i>					

EMISSIONS UNIT INFORMATION

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D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore, maximum hourly and annual operating data has not been provided.</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 12.03 lb/hour 56.74 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.71 lb/ODTUP Future: 0.71 lb/ODTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 1	
8.a. Baseline Actual Emissions (if required): 78.79 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 56.74 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.71 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 78.79 ton/yr Future: (0.71 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 56.74 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: Methanol		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 12.03 lb/hour 56.74 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.71 lb/ODTUP Future: 0.71 lb/ODTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 78.79 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 56.74 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.71 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 78.79 ton/yr Future: (0.71 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 56.74 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: N/A	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: N/A lb/hr	4. Equivalent Allowable Emissions: N/A lb/hour tons/year
5. Method of Compliance: N/A	
6. Allowable Emissions Comment (Description of Operating Method): N/A	

EMISSIONS UNIT INFORMATION

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G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: N/A <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: N/A Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

Section [8] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p>N/A</p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p>N/A – no control equipment</p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

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6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

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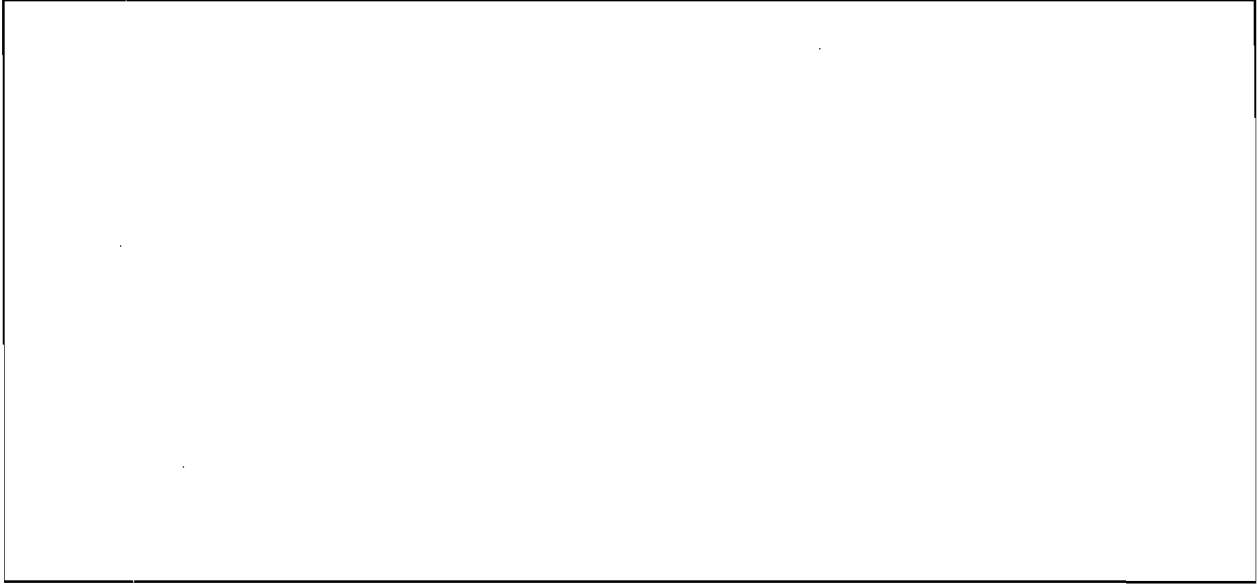
Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment



EMISSIONS UNIT INFORMATION

Section [9] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0208 - Kamyr Continuous Digester

3. Emissions Unit Identification Number: ***054***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>1982</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: ***N/A***
Manufacturer: ***Kamyr*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [9] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Thermal Oxidizer

2. Control Device or Method Code(s): *131*

EMISSIONS UNIT INFORMATION

Section [9] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>1,868.2 ADTUP/day, 1,681.3 ODTUP/day</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>N/A</i>

EMISSIONS UNIT INFORMATION

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C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0208 – Kamy Continuous Digester</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [9] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Digester/Blow Tank</i>		
2. Source Classification Code (SCC): <i>N/A</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>N/A</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: TRS		2. Total Percent Efficiency of Control: 98%	
3. Potential Emissions: 0.16 lb/hour 0.54 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.0021 lb/ADTUP Future: 0.0021 lb/ADTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 0.29 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 0.54 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.0021 lb/ADTUP)*(278,677 ADTUP/yr)/(2,000 lb/ton) = 0.29 ton/yr Future: (0.0021 lb/ADTUP)*(515,537 ADTUP/yr)/(2,000 lb/ton) = 0.54 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions due to NCG venting.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: 99%	
3. Potential Emissions: 1.05 lb/hour 3.48 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.0135 lb/ADTUP Future: 0.0135 lb/ADTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 1	
8.a. Baseline Actual Emissions (if required): 1.88 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 3.48 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.0135 lb/ADTUP)*(278,677 ADTUP/yr)/(2,000 lb/ton) = 1.88 ton/yr Future: (0.0135 lb/ADTUP)*(515,537 ADTUP/yr)/(2,000 lb/ton) = 3.48 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions due to NCG venting.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>1.05 lb/hour</i> <i>3.48 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.0135 lb/ADTUP</i> <i>Future: 0.0135 lb/ADTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>5</i>	
8.a. Baseline Actual Emissions (if required): <i>1.88 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>3.48 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.0135 lb/ADTUP)*(278,677 ADTUP/yr)/(2,000 lb/ton) = 1.88 ton/yr</i> <i>Future: (0.0135 lb/ADTUP)*(515,537 ADTUP/yr)/(2,000 lb/ton) = 3.48 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

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G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: N/A <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: N/A % Exceptional Conditions: N/A % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

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H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [9] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [9] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [9] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

EMISSIONS UNIT INFORMATION

Section [10] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

G0208A - Diffusion Washer

3. Emissions Unit Identification Number: *072*

4. Emissions Unit Status Code:
A

5. Commence Construction Date:
N/A

6. Initial Startup Date:
1982

7. Emissions Unit Major Group SIC Code:
26

8. Acid Rain Unit?
 Yes
 No

9. Package Unit: *N/A*

Manufacturer: *Kamyr*

Model Number: *N/A*

10. Generator Nameplate Rating: *N/A* MW

11. Emissions Unit Comment:

N/A

EMISSIONS UNIT INFORMATION

Section [10] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

2. Control Device or Method Code(s): *131*

EMISSIONS UNIT INFORMATION

Section [10] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>1,868.2 ADTUP/day, 1,681.3 ODTUP/day</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>N/A</i>

EMISSIONS UNIT INFORMATION

Section [10] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0208A – Diffusion Washer</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet		7. Exit Diameter: <i>N/A</i> feet
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [10] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>This emitting unit does not have a specific SCC and therefore maximum hourly and annual operating data have not been provided.</i>		

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.301 lb/hour 0.998 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.0043 lb/ODTUP</i> <i>Future: 0.0043 lb/ODTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>1</i>	
8.a. Baseline Actual Emissions (if required): <i>0.539 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>0.998 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.0043 lb/ODTUP)*(250,810 ODTUP/yr)/(2,000 lb/ton) = 0.539 ton/yr</i> <i>Future: (0.0043 lb/ODTUP)*(463,983 ODTUP/yr)/(2,000 lb/ton) = 0.998 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [10] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation I of I

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: <i>N/A</i> Normal Conditions: <i>N/A</i> % Exceptional Conditions: <i>N/A</i> % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [10] of [20]

H. CONTINUOUS MONITOR INFORMATION**Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [10] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [10] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

Section [10] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

EMISSIONS UNIT INFORMATION

Section [11] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0209 - Digesters and Brown Stock Washers – Other Sources

3. Emissions Unit Identification Number: ***066***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>Prior to 1970</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---	---	---	--

9. Package Unit: ***N/A***
Manufacturer: ***N/A*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [11] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

Section [11] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>892.4 ADTUP/day, 803.2 ODTUP/day</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>

EMISSIONS UNIT INFORMATION

Section [11] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0209 – Digesters and Brown Stock Washers – Other Sources</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [11] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment I of I

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): 3-07-001-99		3. SCC Units: N/A
4. Maximum Hourly Rate: N/A	5. Maximum Annual Rate: N/A	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: N/A	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: N/A
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore maximum hourly and annual operating data have not been provided.</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 10.71 lb/hour 25.4 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.32 lb/ODTUP Future: 0.32 lb/ODTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 1	
8.a. Baseline Actual Emissions (if required): 35.21 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 25.4 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: N/A			
11. Potential, Fugitive, and Actual Emissions Comment: See attached calculations in Appendix B.			

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>10.54 lb/hour</i> <i>25.35 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.315 lb/ODTUP</i> <i>Future: 0.315 lb/ODTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>5</i>	
8.a. Baseline Actual Emissions (if required): <i>35.21 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>25.35 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>N/A</i>			
11. Potential, Fugitive, and Actual Emissions Comment: <i>See attached calculations in Appendix B.</i>			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [11] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <i>N/A</i> <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: <i>N/A</i> Normal Conditions: <i>N/A</i> % Exceptional Conditions: <i>N/A</i> % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [11] of [20]

H. CONTINUOUS MONITOR INFORMATION**Complete if this emissions unit is or would be subject to continuous monitoring.****Continuous Monitoring System:** Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [11] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [11] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

Section [11] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [12] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION**Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

G0410 – A-Line O₂ Decker System (Previously A-Line O₂ Delignification)

3. Emissions Unit Identification Number: ***050***

4. Emissions Unit Status Code:
A

5. Commence Construction Date:
N/A

6. Initial Startup Date:
1985

7. Emissions Unit Major Group SIC Code:
26

8. Acid Rain Unit?
 Yes
 No

9. Package Unit: ***N/A***

Manufacturer: ***SUNDS***

Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:

A-Line O₂ Delignification will no longer occur when A-Line bleaching is discontinued. Some units will remain operational and are included in the inventory. Renamed this unit as A-Line Decker System.

EMISSIONS UNIT INFORMATION

Section [12] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

2. Control Device or Method Code(s): **099**

EMISSIONS UNIT INFORMATION

Section [12] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>1556.8 ADTP/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [12] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION
 (Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0410 – A-Line O₂ Decker System (Previously A-Line O₂ Delignification)</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [12] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate:** Segment I of I

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): 3-07-001-99		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore maximum hourly and annual operating data have not been provided.</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: 99%	
3. Potential Emissions: 9.34 lb/hour 33.21 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.321 lb/ODTUP Future: 0.160 lb/ODTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 1	
8.a. Baseline Actual Emissions (if required): 40.20 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 33.21 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.321 lb/ODTUP)*(250,810 ODTUP/yr)/(2,000 lb/ton) = 40.20 ton/yr Future: (0.160 lb/ODTUP)*(463,983 ODTUP/yr)/(2,000 lb/ton) = 33.21 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: 			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: TRS	2. Total Percent Efficiency of Control: 98%
3. Potential Emissions: 4.28 lb/hour 16.88 tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year	
6. Emission Factor: Baseline: 0.070 lb/ADTUP Future: 0.066 lb/ADTUP Reference: See Application Narrative, Appendix B	7. Emissions Method Code: 5
8.a. Baseline Actual Emissions (if required): 9.75 tons/year	8.b. Baseline 24-month Period: From: 2003 To: 2004
9.a. Projected Actual Emissions (if required): 16.88 tons/year	9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years
10. Calculation of Emissions: Baseline: (0.070 lb/ADTUP)*(278,677 ADTUP/yr)/(2,000 lb/ton) = 9.75 ton/yr Future: (0.066 lb/ADTUP)*(515,537 ADTUP/yr)/(2,000 lb/ton) = 16.88 ton/yr	
11. Potential, Fugitive, and Actual Emissions Comment:	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -

ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**EMISSIONS UNIT INFORMATION
INFORMATION**

Section [12] of [20]

POLLUTANT DETAIL

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**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>8.99 lb/hour</i> <i>31.7 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.321 lb/ODTUP</i> <i>Future: 0.154 lb/ODTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>I</i>	
8.a. Baseline Actual Emissions (if required): <i>40.2 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>31.7 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.321 lb/ODTUP)*(250,810 ODTUP/yr)/(2,000 lb/ton) = 40.2 ton/yr</i> <i>Future: (0.154 lb/ODTUP)*(463,983 ODTUP/yr)/(2,000 lb/ton) = 31.7 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [12] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation I of I

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: N/A <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: N/A Normal Conditions: N/A % Exceptional Conditions: N/A % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

Section [12] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [12] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p>N/A</p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p>N/A – no control equipment</p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [12] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [12] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for comment]

EMISSIONS UNIT INFORMATION

Section [13] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION**Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0411 - B Line O2 Delignification

3. Emissions Unit Identification Number: ***051***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>1985</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: ***N/A***

Manufacturer: ***SUNDS***

Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

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Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
NONE.

2. Control Device or Method Code(s): *099*

EMISSIONS UNIT INFORMATION

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B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>855.7 ADTP/day, 770.1 ODTP/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

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C. EMISSION POINT (STACK/VENT) INFORMATION
 (Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0411 – B Line O2 Delignification</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [13] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment I of I

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore maximum hourly and annual operating data have not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [13] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>CO</i>			<i>NS</i>
<i>VOC</i>	<i>99</i>		<i>WP</i>
<i>TRS</i>	<i>99</i>		<i>WP</i>
<i>Methanol</i>	<i>99</i>		<i>WP</i>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 4.28 lb/hour 10.73 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.12 lb/ADTUP Future: 0.12 lb/ADTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 14.90 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 10.73 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.12 lb/ADTUP)*(248,357 ADTUP/yr)/(2,000 lb/ton) = 14.90 ton/yr Future: (0.12 lb/ADTUP)*(178,836 ADTUP/yr)/(2,000 lb/ton) = 10.73 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 9.95 lb/hour 24.96 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.305 lb/ODTUP Future: 0.310 lb/ODTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: I	
8.a. Baseline Actual Emissions (if required): 34.11 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 24.96 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.305 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 34.11 ton/yr Future: (0.310 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 24.96 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: TRS		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 2.50 lb/hour 6.26 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.099 lb/ADTUP Future: 0.070 lb/ADTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 12.33 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 6.26 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.099 lb/ADTUP)*(248,357 ADTUP/yr)/(2,000 lb/ton) = 12.33 ton/yr Future: (0.070 lb/ADTUP)*(178,836 ADTUP/yr)/(2,000 lb/ton) = 6.26 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**EMISSIONS UNIT INFORMATION
INFORMATION**

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POLLUTANT DETAIL

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**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>9.95 lb/hour</i> <i>24.96 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.305 lb/ODTUP</i> <i>Future: 0.310 lb/ODTUP</i> Reference: <i>See Application Narrative, Appendix B</i>			7. Emissions Method Code: <i>I</i>
8.a. Baseline Actual Emissions (if required): <i>34.11 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>24.96 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.305 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 34.11 ton/yr</i> <i>Future: (0.310 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 24.96 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment: 			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

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G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation I of I

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: N/A Normal Conditions: N/A % Exceptional Conditions: N/A % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

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H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [13] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

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6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

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Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [14] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0512 - A Line Bleach Plant – Other Sources

3. Emissions Unit Identification Number: ***I***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>1985</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: ***N/A***
Manufacturer: ***SUNDS*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
A-Line Bleach Plant will no longer operate following completion of proposed project.

EMISSIONS UNIT INFORMATION

Section [14] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

Section [14] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>N/A</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [14] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>G0512 – A Line Bleach Plant – Other Sources</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet		7. Exit Diameter: <i>N/A</i> feet
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm		10. Water Vapor: <i>N/A</i> %
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [14] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore maximum hourly and annual operating data have not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [14] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>N/A – Refer to Appendix B</i>			

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>N/A</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>N/A</i> lb/hour		4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>N/A</i> Reference:		7. Emissions Method Code: <i>N/A</i>	
8.a. Baseline Actual Emissions (if required): <i>N/A</i> tons/year		8.b. Baseline 24-month Period: <i>N/A</i> From: To:	
9.a. Projected Actual Emissions (if required): <i>N/A</i> tons/year		9.b. Projected Monitoring Period: <i>N/A</i> <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>N/A</i>			
11. Potential, Fugitive, and Actual Emissions Comment: <i>Refer to Appendix B.</i>			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: N/A	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: N/A	4. Equivalent Allowable Emissions: N/A lb/hour tons/year
5. Method of Compliance: N/A	
6. Allowable Emissions Comment (Description of Operating Method): N/A	

EMISSIONS UNIT INFORMATION

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G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: <i>N/A</i> Normal Conditions: <i>N/A</i> % Exceptional Conditions: <i>N/A</i> % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [14] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [14] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [14] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [14] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for comment]

EMISSIONS UNIT INFORMATION

Section [15] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0513 - A Line Bleach Plant

3. Emissions Unit Identification Number: ***I***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>1985</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---	--	---	--

9. Package Unit: ***N/A***
Manufacturer: ***SUNDS*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
A-Line Bleach Plant will no longer operate following completion of proposed project.

EMISSIONS UNIT INFORMATION

Section [15] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
Scrubber (ClO₂)

2. Control Device or Method Code(s): *070*

EMISSIONS UNIT INFORMATION

Section [15] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>888 ADTBP/day</i>
2. Maximum Production Rate: <i>N/A</i>
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day
5. Requested Maximum Operating Schedule: <i>24</i> hours/day <i>7</i> days/week <i>52</i> weeks/year <i>8,760</i> hours/year
6. Operating Capacity/Schedule Comment: <i>N/A</i>

EMISSIONS UNIT INFORMATION

Section [15] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: 05-ST002-001		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: N/A			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: G0513 – A Line Bleach Plant			
5. Discharge Type Code: N/A	6. Stack Height: N/A feet	7. Exit Diameter: N/A feet	
8. Exit Temperature: N/A °F	9. Actual Volumetric Flow Rate: N/A acfm	10. Water Vapor: N/A %	
11. Maximum Dry Standard Flow Rate: N/A dscfm		12. Nonstack Emission Point Height: N/A feet	
13. Emission Point UTM Coordinates... Zone: 16 East (km): 469,013 North (km): 3,385,695		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): N/A Longitude (DD/MM/SS)	
15. Emission Point Comment: N/A			

EMISSIONS UNIT INFORMATION

Section [15] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate:** Segment I of I

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): 3-07-001-99		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore maximum hourly and annual operating data have not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [15] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>N/A - Refer to Appendix B</i>			

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>N/A</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>N/A</i> lb/hour		tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
7. Emission Factor: <i>N/A</i> Reference:		7. Emissions Method Code: <i>N/A</i>	
8.a. Baseline Actual Emissions (if required): <i>N/A</i> tons/year		8.b. Baseline 24-month Period: <i>N/A</i> From: To:	
9.a. Projected Actual Emissions (if required): <i>N/A</i> tons/year		9.b. Projected Monitoring Period: <i>N/A</i> <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>N/A</i>			
11. Potential, Fugitive, and Actual Emissions Comment: <i>Refer to Appendix B.</i>			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [15] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: <i>N/A</i> Normal Conditions: <i>N/A</i> % Exceptional Conditions: <i>N/A</i> % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [15] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [15] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: See Section 2 of attached application narrative.

Previously Submitted, Date _____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

N/A

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

N/A – no control equipment – equipment shut down

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [15] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

Section [15] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [16] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G0515 – B Line Bleach Plant – Other Sources

3. Emissions Unit Identification Number: ***062***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>1985</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---	--	---	--

9. Package Unit: ***N/A***
Manufacturer: ***SUNDS*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [16] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
NONE.

2. Control Device or Method Code(s): *099*

EMISSIONS UNIT INFORMATION

Section [16] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>830 ADTBP/day, 747 ODTBP/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [16] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: <i>16</i> East (km): <i>469,008</i> North (km): <i>3,385,652</i>		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [16] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate: Segment I of I**

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): 3-07-001-99		3. SCC Units: N/A
4. Maximum Hourly Rate: N/A	5. Maximum Annual Rate: N/A	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: N/A	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: N/A
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore maximum hourly and annual operating data have not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [16] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>VOC</i>	<i>99</i>		<i>WP</i>
<i>CO</i>			<i>NS</i>
<i>Methanol</i>	<i>99</i>		<i>WP</i>

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 2.14 lb/hour 5.33 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Refer to Appendix B. Reference: See Application Narrative, Appendix B		7. Emissions Method Code: I	
8.a. Baseline Actual Emissions (if required): 5.84 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 5.33 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: N/A			
11. Potential, Fugitive, and Actual Emissions Comment: See attached calculations in Appendix B.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 1.34 lb/hour 3.22 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.04 lb/ODTUP Future: 0.04 lb/ODTUP Reference: See Application Narrative, Appendix B			7. Emissions Method Code: 5
8.a. Baseline Actual Emissions (if required): 4.47 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 3.22 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.04 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 4.47 ton/yr Future: (0.04 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 3.22 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>2.14 lb/hour</i> <i>5.33 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Refer to Appendix B.</i>		7. Emissions Method Code: <i>I</i>	
Reference: <i>See Application Narrative, Appendix B</i>			
8.a. Baseline Actual Emissions (if required): <i>5.84 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>5.33 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>N/A</i>			
11. Potential, Fugitive, and Actual Emissions Comment: <i>See attached calculations in Appendix B.</i>			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [16] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation I of I

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: <i>N/A</i> Normal Conditions: <i>N/A</i> % Exceptional Conditions: <i>N/A</i> % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [16] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor I of I

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [16] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [16] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

Section [16] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [17] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION**Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

G0516 – B Line Bleach Plant

3. Emissions Unit Identification Number: ***051***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>1985</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: ***N/A***

Manufacturer: ***SUNDS***

Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:

N/A

EMISSIONS UNIT INFORMATION

Section [17] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
Scrubber (ClO₂)

2. Control Device or Method Code(s): *070*

EMISSIONS UNIT INFORMATION

Section [17] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>830 ADTBP/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>N/A</i>				

EMISSIONS UNIT INFORMATION

Section [17] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: 05-ST-016-001		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: G0516 – B Line Bleach Plant			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: N/A			
5. Discharge Type Code: N/A	6. Stack Height: N/A feet	7. Exit Diameter: N/A feet	
8. Exit Temperature: N/A °F	9. Actual Volumetric Flow Rate: N/A acfm	10. Water Vapor: N/A %	
11. Maximum Dry Standard Flow Rate: N/A dscfm		12. Nonstack Emission Point Height: N/A feet	
13. Emission Point UTM Coordinates... Zone: 16 East (km): 469,008 North (km): 3,385,652		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): N/A Longitude (DD/MM/SS)	
15. Emission Point Comment: N/A			

EMISSIONS UNIT INFORMATION

Section [17] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate: Segment I of I**

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): 3-07-001-99		3. SCC Units: N/A
4. Maximum Hourly Rate: N/A	5. Maximum Annual Rate: N/A	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: N/A	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: N/A
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore maximum hourly and annual operating data has not been provided.</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: CO		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 22.09 lb/hour 53.11 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.66 lb/ODTUP Future: 0.66 lb/ODTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 73.76 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 53.11 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.66 lb/ODTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 73.76 ton/yr Future: (0.66 lb/ODTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 53.11 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 0.52 lb/hour 1.25 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.009 lb/ADTUP Future: 0.014 lb/ADTUP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: I	
8.a. Baseline Actual Emissions (if required): 1.09 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 1.25 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.009 lb/ADTUP)*(223,522 ODTUP/yr)/(2,000 lb/ton) = 1.09 ton/yr Future: (0.014 lb/ADTUP)*(160,952 ODTUP/yr)/(2,000 lb/ton) = 1.25 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: N/A	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: N/A	4. Equivalent Allowable Emissions: N/A lb/hour tons/year
5. Method of Compliance: N/A	
6. Allowable Emissions Comment (Description of Operating Method): N/A	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: TRS		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 0.47 lb/hour 1.13 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.0086 lb/ADTBP Future: 0.0136 lb/ADTBP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 1.00 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 1.13 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.0086 lb/ADTBP)*(233,456 ADTBP/yr)/(2,000 lb/ton) = 1.00 ton/yr Future: (0.0136 lb/ADTBP)*(166,141 ADTBP/yr)/(2,000 lb/ton) = 1.13 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -

ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.52 lb/hour</i> <i>1.25 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.009 lb/ADTUP</i> <i>Future: 0.014 lb/ADTUP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>I</i>	
8.a. Baseline Actual Emissions (if required): <i>1.09 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>1.25 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.009 lb/ADTUP)*(248,357 ADTUP/yr)/(2,000 lb/ton) = 1.09 ton/yr</i> <i>Future: (0.014 lb/ADTUP)*(178,836 ADTUP/yr)/(2,000 lb/ton) = 1.25 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [17] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: N/A % Exceptional Conditions: N/A % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

Section [17] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 5

1. Parameter Code: <i>pH (Surrogate) Scrubber Effluent Line</i>	2. Pollutant(s): <i>Chlorine dioxide</i>
3. CMS Requirement: <i>40 CFR 63.453</i>	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <i>Bailey TBI</i> Model Number: <i>Model TB557J1E00F06</i> Serial Number: <i>N/A</i>	
5. Installation Date: <i>2001</i>	6. Performance Specification Test Date: <i>2002</i>
7. Continuous Monitor Comment: <i>See Appendix P.</i>	

Continuous Monitoring System: Continuous Monitor 2 of 5

1. Parameter Code: <i>Pump Amps First Stage Scrubber Pump</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>40 CFR 63.453</i>	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <i>Bailey TBI</i> Model Number: <i>Model TB557J1E00F06</i> Serial Number: <i>N/A</i>	
5. Installation Date: <i>2001</i>	6. Performance Specification Test Date: <i>2002</i>
7. Continuous Monitor Comment: <i>See Appendix P.</i>	

EMISSIONS UNIT INFORMATION

Section [17] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 3 of 5

1. Parameter Code: <i>Pump Amps Second Stage Scrubber Pump</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>40 CFR 63.453</i>	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <i>Bailey TBI</i> Model Number: <i>Model 420-15</i> Serial Number: <i>N/A</i>	
5. Installation Date: <i>2001</i>	6. Performance Specification Test Date: <i>2002</i>
7. Continuous Monitor Comment: <i>See Appendix P.</i>	

Continuous Monitoring System: Continuous Monitor 4 of 5

1. Parameter Code: <i>Fan Amps Scrubber Fan</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>40 CFR 63.453</i>	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <i>Bailey TBI</i> Model Number: <i>Model 420-10</i> Serial Number: <i>N/A</i>	
5. Installation Date: <i>2001</i>	6. Performance Specification Test Date: <i>2002</i>
7. Continuous Monitor Comment: <i>See Appendix P.</i>	

EMISSIONS UNIT INFORMATION

Section [17] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 5 of 5

1. Parameter Code: <i>Fan Amps Small Scrubber Fan</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>40 CFR 63.453</i>	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: <i>Riley Corp</i> Model Number: <i>Model 420-20</i> Serial Number: <i>N/A</i>	
5. Installation Date: <i>2001</i>	6. Performance Specification Test Date: <i>2002</i>
7. Continuous Monitor Comment: <i>See Appendix P.</i>	

EMISSIONS UNIT INFORMATION

Section [17] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: **See Section 2 of attached application narrative.**

Previously Submitted, Date _____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

N/A

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

N/A – no new control equipment

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)

Attached, Document ID: _____ Previously Submitted, Date _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [17] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [17] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for comment]

EMISSIONS UNIT INFORMATION

Section [18] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G1247 - P3 Paper Machine

3. Emissions Unit Identification Number: ***I***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>Prior to 1970</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---	---	---	--

9. Package Unit: ***N/A***
Manufacturer: ***N/A*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:
P3 Paper Machine will discontinue operation following completion of proposed project.

EMISSIONS UNIT INFORMATION

Section [18] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

Section [18] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>N/A</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td>24 hours/day</td><td>7 days/week</td></tr><tr><td>52 weeks/year</td><td>8,760 hours/year</td></tr></table>	24 hours/day	7 days/week	52 weeks/year	8,760 hours/year
24 hours/day	7 days/week			
52 weeks/year	8,760 hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [18] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: <i>16</i> East (km): <i>469,008</i> North (km): <i>3,385,652</i>		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [18] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore, maximum hourly and annual operating data has not been provided.</i>		

EMISSIONS UNIT INFORMATION

Section [18] of [20]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<i>N/A - Refer to Appendix B</i>			

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>N/A</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: lb/hour		tons/year	4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>N/A</i> Reference: <i>N/A</i>		7. Emissions Method Code: <i>N/A</i>	
8.a. Baseline Actual Emissions (if required): <i>N/A</i> tons/year		8.b. Baseline 24-month Period: <i>N/A</i> From: To:	
9.a. Projected Actual Emissions (if required): <i>N/A</i> tons/year		9.b. Projected Monitoring Period: <i>N/A</i> <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>N/A</i>			
11. Potential, Fugitive, and Actual Emissions Comment: <i>Refer to Appendix B.</i>			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [18] of [20]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <i>N/A</i> % Exceptional Conditions: <i>N/A</i> % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [18] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [18] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [18] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____

Not Applicable

EMISSIONS UNIT INFORMATION

Section [18] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [19] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G1451 – P5 Paper Machine

3. Emissions Unit Identification Number: *066*

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>1985</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--	---	--	--

9. Package Unit: *N/A*
Manufacturer: *Beloit* Model Number: *N/A*

10. Generator Nameplate Rating: *N/A* MW

11. Emissions Unit Comment:
N/A

EMISSIONS UNIT INFORMATION

Section [19] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

Section [19] of [20]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>1,842.1 ADTP/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [19] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION**(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: <i>N/A</i> East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

Section [19] of [20]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): <i>3-07-001-99</i>		3. SCC Units: <i>N/A</i>
4. Maximum Hourly Rate: <i>N/A</i>	5. Maximum Annual Rate: <i>N/A</i>	6. Estimated Annual Activity Factor: <i>N/A</i>
7. Maximum % Sulfur: <i>N/A</i>	8. Maximum % Ash: <i>N/A</i>	9. Million Btu per SCC Unit: <i>N/A</i>
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore, maximum hourly and annual operating data has not been provided.</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 39.14 lb/hour 129.62 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.069 lb/ADTFBP Future: 0.510 lb/ADTFP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 12.67 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 129.62 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.069 lb/ADTFBP)*(367,196 ADTFBP/yr)/(2,000 lb/ton) = 12.67 ton/yr Future: (0.510 lb/ADTFP)*(508,333 ADTFP/yr)/(2,000 lb/ton) = 129.62 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment: VOC based on Method 25A reported as propane.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.35 lb/hour</i> <i>1.17 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.0046 lb/ADTFP</i> <i>Future: 0.0046 lb/ADTFP</i> Reference: <i>See Application Narrative, Appendix B</i>			7. Emissions Method Code: <i>1</i>
8.a. Baseline Actual Emissions (if required): <i>0.93 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>1.17 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.0046 lb/ADTFP)*(404,469 ADTFP/yr)/(2,000 lb/ton) = 0.93 ton/yr</i> <i>Future: (0.0046 lb/ADTFP)*(508,333 ADTFP/yr)/(2,000 lb/ton) = 1.17 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>PM₁₀</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>0.35 lb/hour</i> <i>1.17 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.0046 lb/ADTFP</i> <i>Future: 0.0046 lb/ADTFP</i> Reference: <i>See Application Narrative, Appendix B</i>			7. Emissions Method Code: <i>I</i>
8.a. Baseline Actual Emissions (if required): <i>0.93 tons/year</i>		8.b. Baseline 24-month Period: From: <i>1998</i> To: <i>1999</i>	
9.a. Projected Actual Emissions (if required): <i>1.17 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.0046 lb/ADTFP)*(404,469 ADTFP/yr)/(2,000 lb/ton) = 0.93 ton/yr</i> <i>Future: (0.0046 lb/ADTFP)*(508,333 ADTFP/yr)/(2,000 lb/ton) = 1.17 ton/yr</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i>	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: <i>Methanol</i>		2. Total Percent Efficiency of Control: <i>N/A</i>	
3. Potential Emissions: <i>39.14 lb/hour 129.62 tons/year</i>		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): <i>N/A</i> to tons/year			
6. Emission Factor: <i>Baseline: 0.069 lb/ADTFBP</i> <i>Future: 0.510 lb/ADTFP</i> Reference: <i>See Application Narrative, Appendix B</i>		7. Emissions Method Code: <i>I</i>	
8.a. Baseline Actual Emissions (if required): <i>12.67 tons/year</i>		8.b. Baseline 24-month Period: From: <i>2003</i> To: <i>2004</i>	
9.a. Projected Actual Emissions (if required): <i>129.62 tons/year</i>		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: <i>Baseline: (0.069 lb/ADTFBP)*(367,196 ADTFBP/yr)/(2,000 lb/ton) =12.67 ton/yr</i> <i>Future: (0.510 lb/ADTFP)*(508,333 ADTFP/yr)/(2,000 lb/ton) = 129.62</i>			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

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G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation I of I

1. Visible Emissions Subtype: <i>N/A</i>	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <i>N/A</i> % Exceptional Conditions: <i>N/A</i> % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <i>N/A</i>	
5. Visible Emissions Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [19] of [20]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [19] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

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6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

Section [19] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

[Empty rectangular box for additional requirements comment]

EMISSIONS UNIT INFORMATION

Section [20] of [20]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
G1853 – No. 4 Pulp Dryer

3. Emissions Unit Identification Number: ***066***

4. Emissions Unit Status Code: <i>A</i>	5. Commence Construction Date: <i>N/A</i>	6. Initial Startup Date: <i>Prior to 1970</i>	7. Emissions Unit Major Group SIC Code: <i>26</i>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: ***N/A***
Manufacturer: ***N/A*** Model Number: ***N/A***

10. Generator Nameplate Rating: ***N/A*** MW

11. Emissions Unit Comment:

EMISSIONS UNIT INFORMATION

Section [20] of [20]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
NONE.

2. Control Device or Method Code(s): *NONE.*

EMISSIONS UNIT INFORMATION

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B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: <i>633.7 ADTP/day</i>				
2. Maximum Production Rate: <i>N/A</i>				
3. Maximum Heat Input Rate: <i>N/A</i> million Btu/hr				
4. Maximum Incineration Rate: <i>N/A</i> pounds/hr <i>N/A</i> tons/day				
5. Requested Maximum Operating Schedule: <table><tr><td><i>24</i> hours/day</td><td><i>7</i> days/week</td></tr><tr><td><i>52</i> weeks/year</td><td><i>8,760</i> hours/year</td></tr></table>	<i>24</i> hours/day	<i>7</i> days/week	<i>52</i> weeks/year	<i>8,760</i> hours/year
<i>24</i> hours/day	<i>7</i> days/week			
<i>52</i> weeks/year	<i>8,760</i> hours/year			
6. Operating Capacity/Schedule Comment: <i>Variable or multiple units of a grouped emitting unit, data such as process throughput cannot be applied to this unit.</i>				

EMISSIONS UNIT INFORMATION

Section [20] of [20]

C. EMISSION POINT (STACK/VENT) INFORMATION**(Optional for unregulated emissions units.)****Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <i>N/A</i>		2. Emission Point Type Code: <i>N/A</i>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: <i>N/A</i>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <i>N/A</i>			
5. Discharge Type Code: <i>N/A</i>	6. Stack Height: <i>N/A</i> feet	7. Exit Diameter: <i>N/A</i> feet	
8. Exit Temperature: <i>N/A</i> °F	9. Actual Volumetric Flow Rate: <i>N/A</i> acfm	10. Water Vapor: <i>N/A</i> %	
11. Maximum Dry Standard Flow Rate: <i>N/A</i> dscfm		12. Nonstack Emission Point Height: <i>N/A</i> feet	
13. Emission Point UTM Coordinates... Zone: <i>N/A</i> East (km): <i>N/A</i> North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS): <i>N/A</i> Longitude (DD/MM/SS)	
15. Emission Point Comment: <i>N/A</i>			

EMISSIONS UNIT INFORMATION

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D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type): <i>Not classified.</i>		
2. Source Classification Code (SCC): 3-07-001-99		3. SCC Units: N/A
4. Maximum Hourly Rate: N/A	5. Maximum Annual Rate: N/A	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: N/A	8. Maximum % Ash: N/A	9. Million Btu per SCC Unit: N/A
10. Segment Comment: <i>These emitting units do not have specific SCCs and therefore, maximum hourly and annual operating data has not been provided.</i>		

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 1.82 lb/hour 5.68 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.069 lb/ADTFBP Future: 0.069 lb/ADTFP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): 3.30 tons/year		8.b. Baseline 24-month Period: From: 2003 To: 2004	
9.a. Projected Actual Emissions (if required): 5.68 tons/year		9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Baseline: (0.069 lb/ADTFBP)*(95,528 ADTFBP/yr)/(2,000 lb/ton) = 3.30 ton/yr Future: (0.069 lb/ADTFP)*(164,496 ADTFP/yr)/(2,000 lb/ton) = 5.68 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**EMISSIONS UNIT INFORMATION
INFORMATION**

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POLLUTANT DETAIL

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**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: Methanol		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 1.82 lb/hour 5.68 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year			
6. Emission Factor: Baseline: 0.069 lb/ADTFBP Future: 0.069 lb/ADTFP Reference: See Application Narrative, Appendix B		7. Emissions Method Code: I	
8.a. Baseline Actual Emissions (if required): 3.30 tons/year	8.b. Baseline 24-month Period: From: 2003 To: 2004		
9.a. Projected Actual Emissions (if required): 5.68 tons/year	9.b. Projected Monitoring Period: <input checked="" type="checkbox"/> 5 years <input type="checkbox"/> 10 years		
10. Calculation of Emissions: Baseline: (0.069 lb/ADTFBP)*(95,528 ADTFBP/yr)/(2,000 lb/ton) = 3.30 ton/yr Future: (0.069 lb/ADTFP)*(164,496 ADTFP/yr)/(2,000 lb/ton) = 5.68 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions I of I

1. Basis for Allowable Emissions Code: <i>N/A</i>	2. Future Effective Date of Allowable Emissions: <i>N/A</i>
3. Allowable Emissions and Units: <i>N/A</i> lb/hr	4. Equivalent Allowable Emissions: <i>N/A</i> lb/hour tons/year
5. Method of Compliance: <i>N/A</i>	
6. Allowable Emissions Comment (Description of Operating Method): <i>N/A</i>	

EMISSIONS UNIT INFORMATION

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G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation I of I

1. Visible Emissions Subtype: N/A	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: N/A Normal Conditions: % Exceptional Conditions: N/A % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: N/A	
5. Visible Emissions Comment: N/A	

EMISSIONS UNIT INFORMATION

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H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: <i>N/A</i>	2. Pollutant(s): <i>N/A</i>
3. CMS Requirement: <i>N/A</i>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... <i>N/A</i> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <i>N/A</i>	6. Performance Specification Test Date: <i>N/A</i>
7. Continuous Monitor Comment: <i>N/A</i>	

EMISSIONS UNIT INFORMATION

Section [20] of [20]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

<p>1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>See Section 2 of attached application narrative.</u></p> <p><input type="checkbox"/> Previously Submitted, Date _____</p>
<p>2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A</i></p>
<p>3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><i>N/A – no control equipment</i></p>
<p>4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable (construction application)</p>
<p>5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

EMISSIONS UNIT INFORMATION

Section [20] of [20]

6. Compliance Demonstration Reports/Records

Attached, Document ID: _____

Test Date(s)/Pollutant(s) Tested: _____

Previously Submitted, Date: _____

Test Date(s)/Pollutant(s) Tested: _____

To be Submitted, Date (if known): _____

Test Date(s)/Pollutant(s) Tested: _____

Not Applicable

Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute

Attached, Document ID: _____ Not Applicable

EMISSIONS UNIT INFORMATION

Section [20] of [20]

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications N/A

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment

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APPENDIX B – SUPPORTING EMISSION RATE CALCULATIONS

Table 1
Project Related VOC Emissions
2003/2004 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates		Operating hr/yr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year	Paper Machine Production (p)		
B-Line Baseline (2003/2004) Actual Production		7951.5	233,456	248,357	223,522	Paper Machine	Baseline Production (ADTFBP/yr)	Future Production
B-Line Future Production Scenario (8760 hr/yr)		8760	166,141	178,836	160,952		P3	143,738
A-Line Baseline (2003/2004) Actual Production		7997.5	259,170	278,677	250,810	P4	95,528	164,496
A-Line Future Production Scenario (8760 hr/yr)		8760	N/A	515,537	463,983	P5	367,196	\$08.333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions TPY	Future Emissions TPY
A-Line (Softwood) O₂ Delignification								
Secondary Knotter	04-PU-003	b, c	0.0049	LB/ODTUP	N/A	N/A	0.62	0.00
Rejects Drainer	04-PU-005	b, c	0.0035	LB/ODTUP	N/A	N/A	0.44	0.00
Brown Stock Decker	04-PU-008	h, c, oo	0.0171	LB/ODTUP	N/A	N/A	2.14	0.00
Brown Stock Decker #1 (future)	04-PU-008	oo	N/A	N/A	0.0171	LB/ODTUP	0.00	1.98
#1 POW	04-PU-012	b, c, y, oc	0.0799	LB/ODTUP	N/A	N/A	10.02	0.00
Brown Stock Decker #2 (future)	04-PU-008	oo	N/A	N/A	0.0171	LB/ODTUP	0.00	1.98
Secondary Knotter Level Tank	04-TK-002	b, c	0.0055	LB/ODTUP	N/A	N/A	0.68	0.00
Screen Dilution Tank	04-TK-004	b, c	0.0082	LB/ODTUP	N/A	N/A	1.03	0.00
Cleaner Dilution Tank (future)	04-TK-004	b, c, nn	N/A	N/A	0.0065	LB/ODTUP	0.00	1.51
Refined Reject Tank	04-TK-006	b, c, g	0.0021	LB/ODTUP	N/A	N/A	0.26	0.00
Press Feed Tank	N/A	b, c, g, aa	N/A	N/A	0.0021	LB/ODTUP	0.00	0.48
Pine O ₂ Blow Tank	04-TK-011	b, c	0.0874	LB/ODTUP	N/A	N/A	10.96	0.00
Reject Refine Feed Tank (future)	04-TK-011	b, c, z	N/A	N/A	0.0055	LB/ODTUP	0.00	1.26
Pine Decker Filtrate Tank (includes #1POW Filtrate Tank)	04-TK-009	b, c	0.1120	LB/ODTUP	0.1120	LB/ODTUP	14.05	25.98
Total Emissions							40.20	33.21
A-Line (Softwood) Kamvr Digesters & Brown Stock Washing								
Digester	02-PU-028	d, i	0.0135	LB/ADTUP	0.0135	LB/ADTUP	1.88	3.48
Atmospheric Diffusion Washer	03-PU-016	f, j	0.0043	LB/ODTUP	0.0043	LB/ODTUP	0.54	1.00
High Density Diffusion Tank	03-TK-017	b, c	0.0074	LB/ODTUP	0.0074	LB/ODTUP	0.93	1.72
1st and 2nd Stage Filtrate Tank	03-TK-018	b, c	0.0068	LB/ODTUP	0.0068	LB/ODTUP	0.85	1.57
Total Emissions							4.20	7.77
A-Line (Softwood) Bleach Plant								
Scrubber	05-CD-002-001	pp	0.0140	LB/ADTUP	N/A	N/A	1.95	0.00
E/O Tower	05-PU-003	pp	0.0008	LB/ODTUP	N/A	N/A	0.10	0.00
#6 High Density Tank	05-TK-001	bb	0.1070	LB/IR	N/A	N/A	0.43	0.00
#4 High Density Tank	05-TK-035	bb	0.1070	LB/IR	N/A	N/A	0.43	0.00
E/O Washer Hood Vent	05-PU-005	pp	0.0150	LB/ADTUP	N/A	N/A	2.09	0.00
E/O Seal Tank	05-PU-006	pp	0.0430	LB/ODTUP	N/A	N/A	5.39	0.00
Total Emissions							10.39	0.00
B-Line (Hardwood) O₂ Delignification								
Rejects Drainers Vibratory Hood	04-PU-021	b, c, rr	0.0027	LB/ODTUP	0.0035	LB/ODTUP	0.31	0.28
HW Decker Washer	04-PU-025	b, c, rr	0.1800	LB/ODTUP	0.0171	LB/ODTUP	20.12	1.38
#1 POW Washer	04-PU-029	b, c, rr	0.0622	LB/ODTUP	0.0799	LB/ODTUP	6.95	6.43
Screen Dilution Tanks	04-TK-020	b, c, rr	0.0047	LB/ODTUP	0.0082	LB/ODTUP	0.53	0.66
Refined Rejects Tank	04-TK-022	b, c, rr	0.0021	LB/ODTUP	0.0021	LB/ODTUP	0.23	0.17
HW O ₂ Blow Tank	04-TK-028	b, c, rr	0.0044	LB/ODTUP	0.0874	LB/ODTUP	0.49	7.03
HW No. 1 POW Seal Tank	04-TK-030	b, c, rr	0.0076	LB/ODTUP	0.0560	LB/ODTUP	0.84	4.51
Brown Stock Decker Seal Tank	04-TK-026	b, c, rr	0.0415	LB/ODTUP	0.0560	LB/ODTUP	4.64	4.51
Total Emissions							34.11	24.96
B-Line (Hardwood) Batch Digesters & Brown Stock Washing								
No. 1 & 2 Combined Knot Tank	02-TK-034	b, c	0.0050	LB/ODTUP	0.0050	LB/ODTUP	0.56	0.41
Batch Digesters	N/A	d, n	0.0200	LB/T CHIP	0.0200	LB/T CHIP	9.02	7.94
No. 1 BSW No. 1 Drum	03-PU-001	b, c	0.4750	LB/ODTUP	0.4750	LB/ODTUP	53.09	38.23
No. 1 BSW No. 2 Drum	03-PU-001	b, c	0.2300	LB/ODTUP	0.2300	LB/ODTUP	25.70	18.51
No. 2 BSW No. 1 Drum	03-PU-003	b, c	0.4750	LB/ODTUP	0.4750	LB/ODTUP	53.09	38.23
No. 2 BSW No. 2 Drum	03-PU-003	b, c	0.2300	LB/ODTUP	0.2300	LB/ODTUP	25.70	18.51
No. 1 BSW Foam Tank	03-TK-011	b, c	0.1550	LB/ODTUP	0.1550	LB/ODTUP	17.32	12.47
No. 2 BSW Foam Tank	03-TK-012	b, c	0.1550	LB/ODTUP	0.1550	LB/ODTUP	17.32	12.47
Total Emissions							201.81	146.76
B-Line (Hardwood) Bleach Plant								
Scrubber	05-CD-016-001	pp	0.0088	LB/ADTUP	0.0140	LB/ADTUP	1.09	1.25
E/O Tower	05-PU-017	pp	0.0001	LB/ODTUP	0.0008	LB/ODTUP	0.01	0.06
#5 High Density Tank	05-TK-015	d, h	0.1070	LB/IR	0.1070	LB/IR	0.43	0.47
E/O Washer Hood Vent	05-PU-018	pp	0.0120	LB/ADTUP	0.0150	LB/ADTUP	1.49	1.34
E/O Seal Tank	05-TK-019	pp	0.0350	LB/ODTUP	0.0430	LB/ODTUP	3.91	3.46
Total Emissions							6.93	6.59
LVHC System/Thermal Oxidizer								
	N/A	d	0.0005	LB/ADTUP	0.0005	LB/ADTUP	0.13	0.17
Total Emissions							0.13	0.17
P3 Paper Machine								
P3 Paper Machine	N/A	v, mm	0.0690	LB/ADTFBP	N/A	N/A	4.96	0.00
Total Emissions							4.96	0.00
P4 Pulp Dryer								
P4 Pulp Dryer	N/A	v, mm	0.0690	LB/ADTFBP	0.0690	LB/ADTFP	3.30	5.68
Total Emissions							3.30	5.68
P5 Paper Machine								
P5 Paper Machine	N/A	v, mm	0.0690	LB/ADTFBP	0.5100	LB/ADTFP	12.67	129.62
Total Emissions							12.67	129.62
TOTAL VOC EMISSIONS (TPY)							318.69	354.76
TOTAL PROJECT VOC EMISSIONS (TPY)							318.69	36.07

Table 2
Project Related TRS Emissions
2003/2004 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates	Operating hr/yr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year
B-Line Baseline (2003/2004) Actual Production	7951.5	233,456	248,357	223,522
B-Line Future Production Scenario (8760 hr/yr)	8760	166,141	178,836	160,952
A-Line Baseline (2003/2004) Actual Production	7997.5	259,170	278,677	250,810
A-Line Future Production Scenario (8760 hr/yr)	8760	N/A	515,537	463,983

Paper Machine Production (p)		
Paper Machine	Baseline Production	Future Production
	(ADTFBP/yr)	
P3	143,738	0
P4	95,528	164,496
P5	367,196	508,333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions TPY	Future Emissions TPY
A-Line (Softwood) O₂ Delignification								
A-Line O ₂ Delignification	N/A	k	0.0045	LB/ADTUP	N/A	N/A	0.63	0.00
Decker System	N/A	k	0.0634	LB/ADTUP	0.0634	LB/ADTUP	8.83	16.34
Deknotter System	N/A	k	0.0021	LB/ADTUP	0.0021	LB/ADTUP	0.29	0.54
Total Emissions							9.75	16.88
A-Line (Softwood) Kamyr Digesters & Brown Stock Washing								
Digester Blow Gases (Uncontrolled)	02-PU-028	k, i	0.0021	LB/ADTUP	0.0021	LB/ADTUP	0.29	0.54
Atmospheric Diffusion Washer	03-PU-016	k, m	0.0092	LB/ADTUP	0.0092	LB/ADTUP	1.28	2.37
Total Emissions							1.57	2.91
A-Line (Softwood) Bleach Plant								
A-Line Bleach Plant	N/A	k	0.0136	LB/ADTBP	N/A	N/A	1.76	0.00
Total Emissions							1.76	0.00
B-Line (Hardwood) O₂ Delignification								
B-Line O ₂ Delignification	N/A	k	0.0523	LB/ADTUP	0.0045	LB/ADTUP	6.49	0.40
Decker System	N/A	k	0.0378	LB/ADTUP	0.0634	LB/ADTUP	4.69	5.67
Deknotter System	N/A	k	0.0092	LB/ADTUP	0.0021	LB/ADTUP	1.14	0.19
Total Emissions							12.33	6.26
B-Line (Hardwood) Batch Digesters & Brown Stock Washing								
Batch Digesters	N/A	k	0.0034	LB/ADTUP	0.0046	LB/ADTUP	0.42	0.41
Brown Stock Washers	N/A	k	0.2200	LB/ADTUP	0.2700	LB/ADTUP	27.32	24.14
Total Emissions							27.74	24.55
B-Line (Hardwood) Bleach Plant								
B-Line Bleach Plant	N/A	k	0.0086	LB/ADTBP	0.0136	lb/ADTBP	1.00	1.13
Total Emissions							1.00	1.13
LVHC System/Thermal Oxidizer (o)								
	N/A	k	0.0012	LB/ADTUP	0.0012	LB/ADTUP	0.32	0.42
Total Emissions							0.32	0.42
TOTAL TRS EMISSIONS (TPY)							54.48	52.16
TOTAL PROJECT TRS EMISSIONS (TPY)								-2.33

Table 3
Project Related NO_x Emissions
2003/2004 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates	Operating hr/vr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year
B-Line Baseline (2003/2004) Actual Production	7951.5	233,456	248,357	223,522
B-Line Future Production Scenario (8760 hr/vr)	8760	166,141	178,836	160,952
A-Line Baseline (2003/2004) Actual Production	7997.5	259,170	278,677	250,810
A-Line Future Production Scenario (8760 hr/vr)	8760	N/A	515,537	463,983

Paper Machine Production (p)		
Paper Machine	Baseline Production	Future Production
	(ADTFBP/yr)	
P3	143,738	0
P4	95,528	164,496
P5	367,196	508,333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions	Future Emissions
							TPY	TPY
LVHC System/Thermal Oxidizer								
	NA	jj, ff	9.1000	LB/HR	15.6000	LB/HR	36.28	68.33
Total Emissions							36.28	68.33
TOTAL NO_x EMISSIONS (TPY)							36.28	68.33
TOTAL PROJECT NO_x EMISSIONS (TPY)								32.04

Table 4
Project Related SO₂ Emissions
2003/2004 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates	Operating hr/yr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year
B-Line Baseline (2003/2004) Actual Production	7951.5	233,456	248,357	223,322
B-Line Future Production Scenario (8760 hr/yr)	8760	166,141	178,836	160,952
A-Line Baseline (2003/2004) Actual Production	7997.5	259,170	278,677	250,810
A-Line Future Production Scenario (8760 hr/yr)	8760	N/A	515,537	463,983

Paper Machine Production (p)		
Paper Machine	Baseline Production	Future Production
	(ADTFBP/yr)	
P3	143,738	0
P4	95,528	164,496
P5	367,196	508,333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions	Future Emissions
							TPY	TPY
LVHC System/Thermal Oxidizer								
	NA	ii	3.6000	LB/HR	3.6000	LB/HR	14.35	15.77
Total Emissions							14.35	15.77
TOTAL SO₂ EMISSIONS (TPY)							14.35	15.77
TOTAL PROJECT SO₂ EMISSIONS (TPY)								1.41

**Table 5
Project Related CO Emissions
2003/2004 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL**

Production Rates	Operating hr/yr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year
B-Line Baseline (2003/2004) Actual Production	7951.5	233,456	248,357	223,522
B-Line Future Production Scenario (8760 hr/yr)	8760	166,141	178,836	160,952
A-Line Baseline (2003/2004) Actual Production	7997.5	259,170	278,677	250,810
A-Line Future Production Scenario (8760 hr/yr)	8760	N/A	515,537	463,983

Paper Machine Production (p)		
Paper Machine	Baseline Production (ADTFBP/yr)	Future Production
P3	143,738	0
P4	95,528	164,496
P5	367,196	508,333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions TPY	Future Emissions TPY
A-Line (Softwood) O₂ Delignification								
	NA	w	0.1200	LB/ADTUP	N/A	N/A	16.72	0.00
Total Emissions							16.72	0.00
A-Line (Softwood) Bleach Plant								
Scrubber	05-CD-002-001	w	0.6300	LB/ODTUP	N/A	N/A	79.01	0.00
E/O Tower	05-PU-003	w	0.0400	LB/ODTUP	N/A	N/A	5.02	0.00
Total Emissions							84.02	0.00
B-Line (Hardwood) O₂ Delignification								
	NA	w	0.1200	LB/ADTUP	0.1200	LB/ADTUP	14.90	10.73
Total Emissions							14.90	10.73
B-Line (Hardwood) Bleach Plant								
Scrubber	05-CD-016-001	w	0.6600	LB/ODTUP	0.6600	LB/ODTUP	73.76	53.11
E/O Tower	05-PU-017	w	0.0400	LB/ODTUP	0.0400	LB/ODTUP	4.47	3.22
Total Emissions							78.23	56.33
LVHC System/Thermal Oxidizer								
	NA	kk	0.1000	LB/HR	0.1000	LB/HR	0.40	0.44
Total Emissions							0.40	0.44
TOTAL CO EMISSIONS (TPY)							194.27	67.50
TOTAL PROJECT CO EMISSIONS (TPY)							-126.77	

Table 6
Project Related H₂SO₄ Emissions
2003/2004 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates	Operating hr/yr	ADTFB tons/year	ADTUP tons/year	ODTUP tons/year
B-Line Baseline (2003/2004) Actual Production	7951.5	233,456	248,357	223,522
B-Line Future Production Scenario (8760 hr/yr)	8760	166,141	178,836	160,952
A-Line Baseline (2003/2004) Actual Production	7997.5	259,170	278,677	250,810
A-Line Future Production Scenario (8760 hr/yr)	8760	N/A	515,537	463,983

Paper Machine Production (p)		
Paper Machine	Baseline Production	Future Production
	(ADTFBP/yr)	
P3	143,738	0
P4	95,528	164,496
P5	367,196	508,333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions TPY	Future Emissions TPY
LVHC System/Thermal Oxidizer (o)	N/A	hh, gg	0.6000	LB/HR	1.4000	LB/HR	2.39	6.13
Total Emissions							2.39	6.13
TOTAL H₂SO₄ EMISSIONS (TPY)							2.39	6.13
TOTAL PROJECT H₂SO₄ EMISSIONS (TPY)							3.74	

Table 7
Project Related PM Emissions
1998/1999 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates	Operating hr/vr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year
B-Line Baseline (1998/1999) Actual Production	8,348	266,042	284,665	256,198
B-Line Future Production Scenario (8760 hr/vr)	8760	166,141	178,836	160,952
A-Line Baseline (1998/1999) Actual Production	8,307	271,985	293,744	264,369
A-Line Future Production Scenario (8760 hr/vr)	8760	N/A	515,537	463,983

Paper Machine Production (p. II)		
Paper Machine	Baseline Production (ADTFBP/vr)	Future Production (ADTFP/vr)
P3	158,328	0
P4	105,225	164,496
P5	404,469	508,333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions TPY	Future Emissions TPY
P5 Paper Machine Particulate Sources								
	N/A	d	0.0046	LB/ADTFBP	0.0046	LB/ADTFP	0.93	1.17
Total Emissions							0.93	1.17
LVHC System/Thermal Oxidizer								
	N/A	hh, ff	0.5400	LB/HR	2.0000	LB/HR	2.25	8.76
Total Emissions							2.25	8.76
No. 2 Woodyard								
Woodyard Activity (HW Chips)	N/A	t	0.0125	TON/1000 Ch	0.0125	TON/1000 Ch	3.89	N/A
Woodyard Activity (SW Chips)	N/A	t	0.0125	TON/1000 Ch	0.0125	TON/1000 Ch	0.26	4.50
Woodyard Activity (HW Roundwood)	N/A	t	0.0324	TON/1000 Ch	0.0324	TON/1000 Ch	2.41	N/A
Woodyard Activity (SW Roundwood)	N/A	t	0.0324	TON/1000 Ch	0.0324	TON/1000 Ch	15.07	22.62
Pine Chip No. 1 Cyclone	N/A	x	0.0060	LB/HR	0.0060	LB/HR	0.03	0.03
Air Density Separator	N/A	x	0.2100	LB/HR	0.2100	LB/HR	0.88	0.92
Roadways	N/A	dd	N/A	N/A	N/A	N/A	185.27	196.88
Total Emissions							207.80	224.95
TOTAL PM EMISSIONS (TPY)							210.98	234.88
TOTAL PROJECT PM EMISSIONS (TPY)								23.89

Throughput for Woodyard Activities and Roadways					
Type of Wood	Baseline Production		Future Production	Conversion Factor	
	1998	1999		lbs/cord	cords/ton
Hardwood OCS Chips (TPY)	307,678	336,764	0	5,000	0.40
Hardwood Rail Chips (TPY)	465,274	445,976	0		
Total Hardwood Chips (cords/year)	311,138		0		
Softwood OCS Chips (TPY)	56,275	47,567		5,000	0.40
Softwood Rail Chips (TPY)	908	263			
Line No. 1 Softwood Chips (TPY)			273,782		
Line No. 2 Softwood Chips (TPY)			626,213		
Total Softwood Chips (cords/year)	21,003		359,998		
Hardwood Long Log (TPY)	206,871	209,015	0	5,600	0.36
Total Hardwood Roundwood (cords/year)	74,265		0		
Softwood Long Log (TPY)	1,242,852	1,268,838		5,400	0.37
Line No. 1 Softwood Roundwood (TPY)			578,194		
Line No. 2 Softwood Roundwood (TPY)			1,306,704		
Total Softwood Roundwood (cords/year)	465,128		698,110		
1,058,108					

PM/PM10 Emission Rate
1.8 lb/hr
Production Rate
63.8 ADTUP/hr

EAOR Data (G:\Client Files\International Paper\Pensacola Mill\Project Bob\Emissions Inventory\EAOR\Annp99 and Annp99.xls)			
PM/PM10 ONLY			
	1998	1999	Average
Batch/Hardwood/B-Line/Line No. 1 (ADTBP)	261,824	270,259	266,042
Batch/Hardwood/B-Line/Line No. 1 (ADTUP)	280,152	289,177	284,665
Operating Hours	8,368	8,327	8,348
Kamyr/Softwood/A-Line/Line No. 2 (ADTBP)	271,770	272,199	271,985
Kamyr/Softwood/A-Line/Line No. 2 (ADTUP)	293,512	293,975	293,744
Operating Hours	8,378	8,236	8,307

Paper Machine Production						
G:\Client Files\International Paper\Pensacola Mill\Pulping Increase\Production Data.xlsannual						
DOES NOT APPLY TO PM/PM10						
	PM/PM10 ONLY			PM/PM10 ONLY		
	2003	2004 ⁽¹⁾	Average	1998	1999	Average
Hardwood Pulp Production (ADTBP)	235,787	231,125	233,456	261,815	270,449	266,132
Softwood Pulp Production (ADTBP)	253,445	264,895	259,170	271,779	281,219	276,499
Total Pulp Production (ADTBP)	489,232	496,020	492,626	533,594	551,668	542,631
P3 Production (ADTBP)	142,747	144,728	143,738	155,691	160,965	158,328
P4 Production (ADTBP)	94,870	96,186	95,528	103,472	106,977	105,225
P5 Production (ADTBP)	364,666	369,726	367,196	397,733	411,205	404,469

⁽¹⁾ 2004 production data for the paper machines (P3, P4, and P5) was communicated verbally. The P3/P4/P5 split for 2003, 1998, and 1999 was estimated by using the ratio of bleached pulp production in 2004 and the years for which the paper machine production split is missing.

Table 8
Project Related PM₁₀ Emissions
1998/1999 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates	Operating hr/vr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year
B-Line Baseline (1998/1999) Actual Production	8,348	266,042	284,665	256,198
B-Line Future Production Scenario (8760 hr/vr)	8760	166,141	178,836	160,952
A-Line Baseline (1998/1999) Actual Production	8,307	271,985	293,744	264,369
A-Line Future Production Scenario (8760 hr/vr)	8760	N/A	515,537	463,983

Paper Machine Production (p. II)		
Paper Machine	Baseline Production	Future Production
	(ADTFBP/vr)	(ADTFP/vr)
P3	158,328	0
P4	105,225	164,496
P5	404,469	508,333

Mill Area	Source ID	Emission Factr Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions TPY	Future Emissions TPY
P5 Paper Machine Particulate Sources								
	N/A	d	0.0046	LB/ADTFBP	0.0046	LB/ADTFP	0.93	1.17
Total Emissions							0.93	1.17
LVHC System/Thermal Oxidizer								
	N/A	hh, ff	0.5400	LB/HR	2.0000	LB/HR	2.25	8.76
Total Emissions							2.25	8.76
No. 2 Woodyard								
Woodyard Activity (HW Chips)	N/A	t	0.0069	TON/1000 Ch	0.0069	TON/1000 Ch	2.14	N/A
Woodyard Activity (SW Chips)	N/A	t	0.0069	TON/1000 Ch	0.0069	TON/1000 Ch	0.14	2.47
Woodyard Activity (HW Roundwood)	N/A	t	0.0178	TON/1000 Ch	0.0178	TON/1000 Ch	1.32	N/A
Woodyard Activity (SW Roundwood)	N/A	t	0.0178	TON/1000 Ch	0.0178	TON/1000 Ch	8.28	12.43
Pine Chip No. 1 Cyclone	N/A	x	0.0060	LB/HR	0.0060	LB/HR	0.03	0.03
Air Density Separator	N/A	x	0.2100	LB/HR	0.2100	LB/HR	0.88	0.92
Roadways	N/A	dd	N/A	N/A	N/A	N/A	38.63	41.04
Total Emissions							51.42	56.89
TOTAL PM₁₀ EMISSIONS (TPY)							54.60	66.82
TOTAL PROJECT PM₁₀ EMISSIONS (TPY)							12.22	

Throughput for Woodyard Activities and Roadways					
Type of Wood	Baseline Production		Future Production ¹⁾	Conversion Factor	
	1998	1999		lbs/cord	cords/ton
Hardwood OCS Chips (TPY)	307,678	336,764	0	5.000	0.40
Hardwood Rail Chips (TPY)	465,274	445,976	0		
Total Hardwood Chips (cords/year)	311,138		0		
Softwood OCS Chips (TPY)	56,275	47,567		5.000	0.40
Softwood Rail Chips (TPY)	908	263			
Line No. 1 Softwood Chips (TPY)			273,782		
Line No. 2 Softwood Chips (TPY)			626,213		
Total Softwood Chips (cords/year)	21,003		359,998		
Hardwood Long Log (TPY)	206,871	209,015	0	5.600	0.36
Total Hardwood Roundwood (cords/year)	74,265		0		
Softwood Long Log (TPY)	1,242,852	1,268,838		5.400	0.37
Line No. 1 Softwood Roundwood (TPY)			578,194		
Line No. 2 Softwood Roundwood (TPY)			1,306,704		
Total Softwood Roundwood (cords/year)	465,128		698,110		
1,058,108					

PM/PM ₁₀ Emission Rate
1.8 lb/hr
Production Rate
63.8 ADTUP/hr

EAOR Data (G:\Client Files\International Paper\Pensacola Mill\Project Bob\Emissions Inventory\EAOR\Anrpt9 and Anrpt99.xls)			
PM/PM10 ONLY			
	1998	1999	Average
Batch/Hardwood/B-Line/Line No. 1 (ADTBP)	261,824	270,259	266,042
Batch/Hardwood/B-Line/Line No. 1 (ADTUP)	280,152	289,177	284,665
Operating Hours	8,368	8,327	8,348
Kamyr/Softwood/A-Line/Line No. 2 (ADTBP)	271,770	272,199	271,985
Kamyr/Softwood/A-Line/Line No. 2 (ADTUP)	293,512	293,975	293,744
Operating Hours	8,378	8,236	8,307

Paper Machine Production						
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	DOES NOT APPLY TO PM/PM10			PM/PM10 ONLY		
	2003	2004	Average	1998	1999	Average
Hardwood Pulp Production (ADTBP)	235,787	231,125	233,456	261,815	270,449	266,132
Softwood Pulp Production (ADTBP)	253,445	264,895	259,170	271,779	281,219	276,499
Total Pulp Production (ADTBP)	489,232	496,020	492,626	533,594	551,668	542,631
P3 Production (ADTBP)	142,747	144,728	143,738	155,691	160,965	158,328
P4 Production (ADTBP)	94,870	96,186	95,528	103,472	106,977	105,225
P5 Production (ADTBP)	364,666	369,726	367,196	397,733	411,205	404,469

¹⁾ 2004 production data for the paper machines (P3, P4, and P5) was communicated verbally. The P3/P4/P5 split for 2003, 1998, and 1999 was estimated by using the ratio of bleached pulp production in 2004 and the years for which the paper machine production split is missing.

Table 9
Project Related Methanol Emissions
2003/2004 Baseline and TAPS Case 04a
International Paper Pensacola Mill
Pensacola, FL

Production Rates		Operating hr/yr	ADTBP tons/year	ADTUP tons/year	ODTUP tons/year	Paper Machine Production (p)		
B-Line Baseline (2003/2004) Actual Production		7951.5	233,456	248,357	223,522	Paper Machine	Baseline Production	Future Production
B-Line Future Production Scenario (8760 hr/yr)		8760	166,141	178,836	160,952		(ADTFBP/yr)	
A-Line Baseline (2003/2004) Actual Production		7997.5	259,170	278,677	250,810	P3	143,738	0
A-Line Future Production Scenario (8760 hr/yr)		8760	N/A	515,537	463,983	P4	95,528	164,496
						P5	367,196	508,333

Mill Area	Source ID	Emission Factor Reference	Baseline Emission Factor	Baseline EF Units	Future Emission Factor	Future EF Units	Baseline Emissions TPY	Future Emissions TPY
A-Line (Softwood) O₂ Delignification								
Secondary Knitter	04-PU-003	b, c	0.0049	LB/ODTUP	N/A	N/A	0.62	0.00
Rejects Drainer	04-PU-005	h, c	0.0035	LB/ODTUP	N/A	N/A	0.44	0.00
Brown Stock Decker	04-PU-008	b, c, oo	0.0171	LB/ODTUP	N/A	N/A	2.14	0.00
Brown Stock Decker #1 (future)	04-PU-008	oo	N/A	N/A	0.0171	LB/ODTUP	0.00	1.98
#1 POW	04-PU-012	b, c, y, oo	0.0799	LB/ODTUP	N/A	N/A	10.02	0.00
Brown Stock Decker #2 (future)	04-PU-008	oo	N/A	N/A	0.0171	LB/ODTUP	0.00	1.98
Secondary Knitter Level Tank	04-TK-002	b, c	0.0055	LB/ODTUP	N/A	N/A	0.68	0.00
Screen Dilution Tank	04-TK-004	b, c	0.0082	LB/ODTUP	N/A	N/A	1.03	0.00
Cleaner Dilution Tank (future)	04-TK-004	b, c, nn	N/A	N/A	0.0065	LB/ODTUP	0.00	1.51
Refined Reject Tank	04-TK-006	b, c, g, aa	0.0021	LB/ODTUP	N/A	N/A	0.26	0.00
Press Feed Tank	N/A	b, c, g, aa	N/A	N/A	0.0021	LB/ODTUP	0.00	0.48
Pine O ₂ Blow Tank	04-TK-011	b, c, z	0.0874	LB/ODTUP	N/A	N/A	10.96	0.00
Reject Refine Feed Tank (future)	04-TK-011	b, c, z	N/A	N/A	0.0055	LB/ODTUP	0.00	1.26
Pine Decker Filtrate Tank (includes #1POW Filtrate Tank)	04-TK-009	h, c	0.1120	LB/ODTUP	0.1120	LB/ODTUP	14.05	25.98
Total Emissions							40.20	33.21
A-Line (Softwood) Kamyr Digesters & Brown Stock Washing								
Digester	02-PU-028	d, i	0.0135	LB/ADTUP	0.0135	LB/ADTUP	1.88	3.48
Atmospheric Diffusion Washer	03-PU-016	f, j	0.0043	LB/ODTUP	0.0043	LB/ODTUP	0.54	1.00
High Density Diffusion Tank	03-TK-017	b, c	0.0074	LB/ODTUP	0.0074	LB/ODTUP	0.93	1.72
1st and 2nd Stage Filtrate Tank	03-TK-018	b, c	0.0068	LB/ODTUP	0.0068	LB/ODTUP	0.85	1.57
Total Emissions							4.20	7.77
A-Line (Softwood) Bleach Plant								
Scrubber	05-CD-002-001	pp	0.0140	LB/ADTUP	N/A	N/A	1.95	0.00
E/O Tower	05-PU-003	pp	0.0008	LB/ODTUP	N/A	N/A	0.10	0.00
#6 High Density Tank	05-TK-001	bb	0.0034	LB/ODTUP	N/A	N/A	0.43	0.00
#4 High Density Tank	05-TK-035	bb	0.0034	LB/ODTUP	N/A	N/A	0.43	0.00
E/O Washer Hood Vent	05-PU-005	pp	0.0150	LB/ADTUP	N/A	N/A	2.09	0.00
E/O Seal Tank	05-TK-006	pp	0.0430	LB/ODTUP	N/A	N/A	5.39	0.00
Total Emissions							10.39	0.00
B-Line (Hardwood) O₂ Delignification								
Rejects Drainers Vibratory Hood	04-PU-021	b, c	0.0027	LB/ODTUP	0.0035	LB/ODTUP	0.31	0.28
HW Decker Washer	04-PU-025	h, c	0.1800	LB/ODTUP	0.0171	LB/ODTUP	20.12	1.38
#1 POW Washer	04-PU-029	h, c	0.0622	LB/ODTUP	0.0799	LB/ODTUP	6.95	6.43
Screen Dilution Tanks	04-TK-020	b, c	0.0047	LB/ODTUP	0.0082	LB/ODTUP	0.53	0.66
Refined Rejects Tank	04-TK-022	b, c	0.0021	LB/ODTUP	0.0021	LB/ODTUP	0.23	0.17
HW O ₂ Blow Tank	04-TK-028	b, c	0.0044	LB/ODTUP	0.0874	LB/ODTUP	0.49	7.03
HW No. 1 POW Seal Tank	04-TK-030	b, c	0.0076	LB/ODTUP	0.0560	LB/ODTUP	0.84	4.51
Brown Stock Decker Seal Tank	04-TK-026	b, c	0.0415	LB/ODTUP	0.0560	LB/ODTUP	4.64	4.51
Total Emissions							34.11	24.96
B-Line (Hardwood) Batch Digesters & Brown Stock Washing								
No. 1 & 2 Combined Knot Tank	02-TK-034	b, c	0.0050	LB/ODTUP	0.0050	LB/ODTUP	0.56	0.41
Batch Digesters	02-PU-002-013	d, n	0.0726	LB/ADTUP	0.0726	LB/ADTUP	9.02	6.49
No. 1 BSW No. 1 Drum	03-PU-001	h, c	0.4750	LB/ODTUP	0.4750	LB/ODTUP	53.09	38.23
No. 1 BSW No. 2 Drum	03-PU-001	h, c	0.2300	LB/ODTUP	0.2300	LB/ODTUP	25.70	18.51
No. 2 BSW No. 1 Drum	03-PU-003	h, c	0.4750	LB/ODTUP	0.4750	LB/ODTUP	53.09	38.23
No. 2 BSW No. 2 Drum	03-PU-003	h, c	0.2300	LB/ODTUP	0.2300	LB/ODTUP	25.70	18.51
No. 1 BSW Foam Tank	03-TK-011	b, c	0.1550	LB/ODTUP	0.1550	LB/ODTUP	17.32	12.47
No. 2 BSW Foam Tank	03-TK-012	b, c	0.1550	LB/ODTUP	0.1550	LB/ODTUP	17.32	12.47
Total Emissions							201.81	145.32
B-Line (Hardwood) Bleach Plant								
Scrubber	05-CD-016-001	pp	0.0088	LB/ADTUP	0.0140	LB/ADTUP	1.09	1.25
E/O Tower	05-PU-017	pp	0.0001	LB/ODTUP	0.0008	LB/ODTUP	0.01	0.06
#5 High Density Tank	05-TK-015	d, h	0.0038	LB/ODTUP	0.0058	LB/ODTUP	0.43	0.47
E/O Washer Hood Vent	05-PU-018	pp	0.0120	LB/ADTUP	0.0150	LB/ADTUP	1.49	1.34
E/O Seal Tank	05-TK-019	pp	0.0350	LB/ODTUP	0.0430	LB/ODTUP	3.91	3.46
Total Emissions							6.93	6.59
LVHC System/Thermal Oxidizer								
	N/A	d, ss	0.0005	LB/ADTUP	0.0005	LB/ADTUP	0.13	0.17
Total Emissions							0.13	0.17
P3 Paper Machine								
P3 Paper Machine	N/A	v, mm, ss	0.0690	LB/ADTFBP	N/A	N/A	4.96	0.00
Total Emissions							4.96	0.00
P4 Pulp Dryer								
P4 Pulp Dryer	N/A	v, mm, ss	0.0690	LB/ADTFBP	0.0690	LB/ADTFBP	3.30	5.68
Total Emissions							3.30	5.68
P5 Paper Machine								
P5 Paper Machine	N/A	v, mm, ss	0.0690	LB/ADTFBP	0.5100	LB/ADTFBP	12.67	129.62
Total Emissions							12.67	129.62
TOTAL Methanol EMISSIONS (TPY)							318.69	353.31
TOTAL PROJECT Methanol EMISSIONS (TPY)							318.69	34.62

References

- (a) 1 ADTBP = 0.9 ODTBP, 1 ADTUP (hardwood) = 0.94 ADTBP, 1 ADTUP (softwood) = 0.93 ADTBP
- (b) Methanol emission factors were obtained from Mill test data developed by Weston Solutions in August, 2003.
- (c) Footnote no longer used.
- (d) Emission factors were obtained from the Mill's annual EAOR data.
- (e) Footnote no longer used.
- (f) During the Weston Solutions August, 2003 test program a vacuum was detected on the Atmospheric Diffusion Washer and no emissions were quantified. To be conservative, IP applied a Mill G emission factor from NCASI Technical Bulletin 678 for Methanol.
- (g) The emission factor for the Refined Rejects Tank represents combined hardwood and softwood pulp.
- (h) The lb/hr emission rate is multiplied by the annual average hours of operation.
- (i) Emission factor is multiplied by 0.01 or 1% to account for the allowable uncontrolled venting permitted by 40 CFR Part 63, Subpart S.
- (j) Since no flow was detected during testing, the NCASI Technical Bulletin 678 emission factor was adjusted by reducing it by 90% (multiplying by 0.1).
- (k) Emission factors were obtained from NCASI Technical Bulletin No. 849.
- (l) Footnote no longer used.
- (m) Since no flow was detected during testing, an emission factor of 0.0092 LB/ADTUP was used. This emission factor is the average of four of the five SWD diffuser systems referenced in NCASI TB 849.
- (n) Batch digester emissions are based on the emission factor shown and the mill specific relationship of 3.63 tons of hardwood chips producing 1 hardwood ADTUP, and 4.44 tons of softwood chips producing 1 softwood ADTUP.
- (o) Assume 99% TRS removal efficiency at the Thermal Oxidizer: NCASI Technical Bulletin 849 August, 2002.
- (p) The 1998, 1999, and 2003 production rates for the paper machines (P3, P4, and P5) were not available in order to create the 1998/1999 and 2003/2004 baselines, so the missing rates were estimated using the ratio of bleached pulp production for the missing years and 2004 (i.e., to estimate the 2003 P3 Paper Machine production, multiply the known 2004 P3 Paper Machine production rate by the ratio of bleached pulp production for 2003/2004).
- (q) Footnote no longer used.
- (r) Footnote no longer used.
- (s) Emission factors were obtained from the NCASI Technical Bulletin No. 849, sum of EF for all knoter sources except outlier from Mill W.
- (t) Emission factors for woodyard activity are taken directly from the Mill's EAOR report.
- (u) Baseline emission factor for the Thermal Oxidizer was obtained from a January, 2005 Weston Solutions Test Report.
- (v) Emission factors were obtained from the NCASI Technical Bulletin No. 884.
- (w) CO emission factors were obtained from the NCASI Technical Bulletin No. 884, Table 4.8 and 4.9.
- (x) Emission factors are a function of current production and permitted emission rates.
- (y) The #1 POW vent includes Press, Press Feed Tank and #1 POW. For the future scenario, the #1 POW will operate as a brown stock decker and utilize its baseline emission factor.
- (z) For the future scenario, the Pine O₂ Blow Tank will act as a Reject Refine Feed tank - it will not have pressure drop, additional VOC generation across O₂ stage, or O₂ liberation to assist VOC volatilization, so the emission factor for the Secondary Knotted Level Tank is used.
- (aa) The Press Feed Tank will be used in the future scenario as part of the screening system. Since there is not an individual emission factor for this tank, the future emissions for the Refined Rejects Tank are calculated with its baseline emission factor, and included in this analysis to account for the future use of the Press Feed Tank, even though the Refined Rejects Tank will not be used in the future scenario.
- (bb) Data was not available for the A-Line Bleach Plant, so the B-Line data was applied.
- (cc) Footnote no longer used.
- (dd) Baseline and future emissions were calculated based on truck traffic along various routes at the mill.
- (ee) H₂SO₄ emission factor for the Thermal Oxidizer was obtained from a February, 2004 ENSR Test Report.
- (ff) Future emission factor for the Thermal Oxidizer was obtained by taking 1.5 times the average tested mill emissions.
- (gg) Future emission factor for the Thermal Oxidizer was obtained by taking 1.25 times the average tested mill emissions.
- (hh) Baseline emission factor for the Thermal Oxidizer was obtained by using the current mill emissions.
- (ii) Baseline and future emission factor for the Thermal Oxidizer was obtained by using the average tested mill emissions.
- (jj) Baseline emission factor for the Thermal Oxidizer was obtained by using the mill's permit limit.
- (kk) Baseline and future CO emission factors for the Thermal Oxidizer were obtained from a January, 2005 Weston Solutions Test Report.
- (ll) Future production from the P5 Paper Machine will be unbleached.
- (mm) Footnote no longer used.
- (nn) In the future, the Screen Dilution Tank will be used and referred to as the Cleaner Dilution Tank, so future emissions are calculated using an emission factor for the currently Non-Operational Cleaner Dilution Tank, which was obtained from the Mill's annual EAOR data.
- (oo) In the future, the #1 POW will discontinue use and be converted to the Brown Stock Decker #2. In its place, two new Brown Stock Deckers (#1 and #2) will begin operating with the same emission factor as the original (and still operational) Brown Stock Decker. However, the total pulping throughput is split between the two decker sources.
- (pp) Emission factors are from 1996 Mill-specific emission test data for the Bleach Plant Systems.
- (qq) Footnote no longer used.
- (rr) For the future scenario, baseline A-Line (softwood) O₂ Delignification System emission factors were applied to the equivalent sources in the B-Line O₂ Delignification System. The emission factor for the A-Line's Pine Decker Filtrate Tank was split between the B-Line's HW No. 1 POW Seal Tank and Brown Stock Decker Seal Tank.
- (ss) Emission factors are assumed to be as methanol.

VOC Emission Factor Justification

IP Pensacola Mill Reconfiguration Project VOC Emission Factor Justification

Mill Area: A-Line (Softwood) O₂ Delignification

Baseline Emission Factors

The VOC actual baseline emissions for the A-Line (Softwood) O₂ Delignification are based on Mill-specific and unit specific emission test data from the July 2003 Maximum Achievable Control Technology (MACT) High Volume Low Concentration (HVLC) testing program using heated summa canisters. The emission testing measured methanol, which is the predominate volatile organic compound (VOC) at most of the process sources at the IP Mill. Therefore the methanol emissions from the A-Line (Softwood) O₂ Delignification system were used to represent VOC.

Projected Actual Emission Factors

In the future, the A-Line (Softwood) O₂ Delignification system will be reconfigured by eliminating many process sources and reusing some process sources in a new capacity. However, since this line will now produce unbleached pulp, there will be no O₂ delignification process and as a result, VOC emissions will be reduced. The A-Line (Softwood) O₂ Delignification sources that will continue to operate include the Brown Stock Decker (two of these), the Screen Dilution Tank, the Pine O₂ Blow Tank (renamed), and the Pine Decker Filtrate Tank. In addition a new Press Feed Tank will be installed. Of the four existing sources, each source will act to process softwood pulp; therefore, the Mill-specific MACT HVLC emission factors will continue to be applicable except for two instances. First, the Pine O₂ Blow Tank will not receive a pressurized process stream as it currently does, rather it will operate as a Rejects Refiner Feed Tank which will receive a constant process flow at non-pressurized conditions. By operating with a constant flow at non-pressurized conditions and considering the volume of process stream, the Mill believes that the baseline emission factor for the Screen Dilution Tank will be representative of future emissions for the A-Line Reject Refiner Feed Tank. Secondly, the Screen Dilution Tank will act as a Cleaner Dilution Tank in the future. The Mill does not have a Mill-specific emission factor for the Cleaner Dilution Tank; however previous air permitting projects at the Mill have utilized a factor of 0.0065 lbs VOC per oven dried ton of pulp (ODTP). The Cleaner Dilution Tank will be in the same general process loop as the existing Refined Reject Tank. The 0.0065 lbs VOC per ODTP emission factor assigned to the Cleaner Dilution Tank is higher than, but still comparable to, the Refined Reject Tank baseline emission factor (0.0032 lbs VOC/ODTP) for softwood and thus should be a conservative representation of future emissions. The process stream for the new Press Feed Tank will be similar to the process stream for the existing Refined Rejects Tank, which will be eliminated, and thus the Refined Rejects Tank baseline VOC emission factor was used for the new Press Feed Tank.

Projected actual emissions reflect the maximum A-Line softwood annual production rates multiplied by the respective emission factors.

VOC Emission Factor Justification

Mill Area: A-Line (Softwood) Kamyrdigester and Brown Stock Washing

Baseline Emission Factors

The VOC actual baseline emissions for the A-Line (Softwood) Kamyrdigester System and Brown Stock Washing System are based on Mill-specific emission test data (as the first priority), historic Mill reporting data (as the second priority), and NCASI data (as the third priority). Mill-specific methanol emission test data from the July 2003 MACT HVLC testing program were used for the High Density Diffusion Tank and 1st and 2nd Stage Filtrate Tank, which are part of the Brown Stock Washing System. A NCASI VOC emission factor was used for the Atmospheric Diffusion Washer, which is also part of the Brown Stock Washing System, and a Mill-specific VOC emission factor that is used in annual reporting of emissions was used for the Kamyrdigester System. Since methanol is the predominate volatile organic compound (VOC) at most of the process sources at the IP Mill, the methanol emission factors were used to represent VOC.

The emission factor for the Atmospheric Diffusion Washer is based on information contained in NCASI Technical Bulletin 678. Specifically methanol data for Mill G were used. Mill G is a hardwood/softwood mill located in the southeast. The softwood line at Mill G uses a continuous digester, as does the Pensacola Mill, and then splits the flow through three, two-stage diffusion washers. Due to the species being pulped, the Mill location (the southeast), and the use of similar equipment, the Mill G diffusion washer data represent a reasonable surrogate for the Pensacola Mill. Although Mill G is a surrogate for the Pensacola Mill, there is a notable difference between the two Mills. Mill G uses shower water with higher methanol concentrations (higher methanol concentrations in the shower water result in higher methanol air emissions) than the Pensacola Mill. Thus the Mill G methanol emission factor (0.043 lbs/ODTP) will overstate methanol emissions. Also, the Pensacola Atmospheric Diffusion Washer operates at atmospheric pressure or at a slight vacuum. Therefore, there is little or no exhaust flow from the Atmospheric Diffusion Washer. As a result, the Mill G emission factor was multiplied by 0.10 to account for the fact that the Pensacola Diffusion Washer operates at atmospheric pressure

The Mill uses an emission factor of 1.35 lbs of VOC per ton of air dried unbleached pulp (ADTUP) to calculate annual uncontrolled Kamyrdigester VOC emissions for reporting purposes. Since the emission factor is for uncontrolled emissions and, under MACT, uncontrolled emissions may occur for up to 1% of the year, the VOC emission factor was multiplied by 0.01. Baseline emissions were then determined by multiplying the VOC/ADTUP emission factor, 0.0135 lbs/ADTUP, by the actual baseline annual unbleached softwood pulp production. It should be noted that 99% of the time digester emissions are collected and controlled by the Thermal Oxidizer to meet MACT requirements. Uncontrolled venting from the digester is uncommon and restricted to no more than 1% of the annual hours of operation.

Projected Actual Emission Factors

In the future, the A-Line (Softwood) Kamyrdigester System and Brown Stock Washing System will operate in a similar manner to the way in which they are currently operating. Therefore, it is reasonable to use the same emission factors for the projected actual emissions as were used for the baseline actual emissions. To determine projected actual

emissions, the maximum annual A-Line softwood production rates were multiplied by these baseline/future emission factors.

VOC Emission Factor Justification

Mill Area: A-Line (Softwood) Bleach Plant

Baseline Emission Factors

The VOC actual baseline emissions for the A-Line (Softwood) Bleach Plant System are based on historic Mill-specific emission test data and site-specific Method 25A testing data that were collected in 1996 for the Bleach Plant Scrubber and the E_o Washer Hood Vent.

The Pensacola Mill compared the Mill-specific test data to emission factors contained in NCASI Technical Bulletin 679 and determined that the sets of data were comparable. VOC baseline actual emissions for the No. 4 and No. 6 High Density Storage Tank (softwood pulp) were determined using a pound per hour (lb/hr) VOC emission factor from the No. 5 High Density Storage Tank (hardwood pulp). The emission factor for the No. 5 High Density Storage Tank has been used historically for other air permitting projects at the Mill and is a reasonable surrogate for softwood pulp high density storage tanks. There are no NCASI data for bleached high density storage tanks.

For the E_o Tower and E_o Seal Tank the Pensacola Mill has reported VOC emissions based on historic emission factors. The A-Line (softwood) and B-Line (hardwood) VOC emission factors for the E_o Tower are 0.001 and 0.0001 lb per oven dried ton unbleached pulp (ODTUP) respectively. The A-Line (softwood) E_o Seal Tank and B-Line (hardwood) E_o Seal Tank VOC emission factors are 0.0525 and 0.0427 lb per ODTUP respectively. The Mill has not been able to find the emission testing documentation for either the E_o Towers or the E_o Seal Tanks emission factors; however, a review of National Council for Air and Stream Improvement (NCASI) Technical Bulletins 679 and 760 provides VOC data for an E_o Tower/Washer for a 100% chlorine dioxide (ClO₂) softwood Mill. The NCASI data for the E_o Washer Tower/Washer include two tests with emission factors ranging from 0.00011 lb C/ADTBP to 0.002 lb C/ADTBP. These factors are comparable to the Pensacola Mill's A-Line (softwood) factor. Therefore, although direct documentation is not available for the E_o Tower and the E_o Seal Tank emission factors, the Mill does believe that the historical factors are supportable. A copy of the appropriate sections of NCASI Technical Bulletins 679 and 760 are included with the revised air construction permit application.

Projected Actual Emission Factors

In the future, the A-Line will only produce unbleached pulp; therefore, operations associated with the A-Line (Softwood) Bleach Plant System will be indefinitely suspended. As a result, there are no projected actual emissions.

VOC Emission Factor Justification

Mill Area: **B-Line (Hardwood) O₂ Delignification**

Baseline Emission Factors

The VOC actual baseline emissions for the B-Line (Hardwood) O₂ Delignification are based on Mill-specific emission test data from the July 2003 Maximum Achievable Control Technology (MACT) High Volume Low Concentration (HVLC) testing program. The emission testing measured methanol, which is the predominate volatile organic compound (VOC) at most of the process sources at the IP Mill and thus is appropriate for determining VOC emissions.

Projected Actual Emission Factors

In the future the B-Line O₂ Delignification system will be used to process softwood pulp; however, the rate at which softwood pulp is processed will be lower than current production levels. All of the existing B-Line O₂ Delignification process units will continue to operate in the same fashion. The Mill reviewed the baseline A-Line O₂ Delignification (softwood) emission factors and applied them to the B-Line as follows:

B-Line Emission Source	Equivalent A-Line Source	Future B-Line EF (lb/ODTUP)
Rejects Drainers Vibratory Hood	Reject Drainer	0.0048
B-Line Decker Washer	Brown Stock Decker	0.0235
No. 1 Post O ₂ Washer	A-Line No. 1 Post O ₂ Washer	0.110
Screen Dilution Tank	A-Line Screen Dilution Tank	0.0113
Refined Reject Tank	A-Line Refined Reject Tank	0.0029
B-Line O ₂ Blow Tank	A-Line O ₂ Blow Tank	0.1203
B-Line No. 1 Post O ₂ Seal Tank ^(a)	Pine Decker Filtrate Tank	0.0771
Brown Stock Decker Seal Tank ^(a)	Pine Decker Filtrate Tank	0.0771

^(a) The Pine (A-Line) Decker Filtrate Tank includes emissions from the A-Line Brown Stock Decker Seal Tank and the A-Line No. 1 Post O₂ Seal Tank; therefore the emission factor for the Pine Decker Filtrate Tank was divided by two since the B-Line system will have separate vents for the B-Line No. 1 Post O₂ Seal Tank and Brown Stock Decker Seal Tank.

Currently, the B-Line O₂ Delignification combined methanol emission factor is 0.420 lbs per ODTP. The future B-Line O₂ Delignification combined methanol emission factor will be 0.427 lbs per ODTP.

VOC Emission Factor Justification

Mill Area: B-Line (Hardwood) Batch Digesters and Brown Stock Washing

Baseline Emission Factors

The VOC actual baseline emissions for the B-Line (Hardwood) Batch Digesters and Brown Stock Washing System are based on Mill-specific emission test data. Mill-specific and emissions unit-specific emission test data from the July 2003 MACT HVLC testing program were used for the No. 1 and No. 2 Combined Knot Tank and the No. 1 and No. 2 Brown Stock Washing Lines. A Mill-specific emission factor that is used in annual reporting of emissions was used for the Batch Digester System. The MACT HVLC emission testing measured methanol, which is the predominate volatile organic compound (VOC) at most of the process sources at the IP Mill and thus is appropriate for determining VOC emissions.

Projected Actual Emission Factors

In the future, the B-Line Batch Digester System and Brown Stock Washing System will process softwood only. It is anticipated that softwood pulping in the B-Line Batch Digester System will not result in greater VOC emissions relative to hardwood pulping. VOC data listed in Table 4.2 of NCASI Technical Bulletin 884 for softwood batch digesters indicate a VOC emission factor of 0.012 lbs C/ton of chips, which is less than the emission factor used to establish the baseline VOC emissions for the B-Line Batch Digesters. Therefore the use of the hardwood emission factor 0.02 lbs C/ton chips will be conservative estimate of future actual emissions.

For the B-Line Brown Stock Washing System, the existing methanol emission factors were maintained for determining future emissions. The Mill reviewed Table 4.6 of NCASI Technical Bulletin 884 and determined that the mean emission factors for hardwood and softwood vacuum drum washers are very similar. The average softwood VOC emission factor is 0.28 lbs C/ADUBP and the average hardwood emission factor is 0.29 lbs C/ADTUBP. Since the softwood and hardwood average factors are so similar, it is reasonable to continue to use the site-specific data for the B-Line system.

VOC Emission Factor Justification

Mill Area: B-Line (Hardwood) Bleach Plant System

Baseline Emission Factors

The VOC actual baseline emissions for the B-Line (Hardwood) Bleach Plant System are based on Mill-specific emission test data that were collected in 1996 for the hardwood system including the Bleach Plant Scrubber, the E_o Washer Hood Vent, the E_o Seal Tank, and the E_o Tower Vent. VOC baseline actual emissions for the No. 5 High Density Storage Tank were based on an emission factor that has been used for other air permitting projects at the Mill. There are no NCASI data for bleached high density storage tanks.

Projected Actual Emission Factors

The VOC actual baseline emissions for the B-Line Bleach Plant System were adjusted to reflect bleaching of softwood pulp. Emission factors from the 1996 mill-specific test data for the A-Line Bleach Plant System were used for the corresponding B-Line emissions units. No adjustment was made to No. 5 High Density Storage Tank VOC emission factor. There are no NCASI data for bleached high density storage tanks.

VOC Emission Factor Justification

Mill Area: Thermal Oxidizer

Baseline Emission Factors

The VOC actual baseline emissions for the Thermal Oxidizer are based on 2005 Mill-specific stack test data. The 2005 stack test data indicated non-detect values for all three test runs. The Mill conservatively used 100% of the detection limit and the concurrent pulping production rate to develop an emission factor. The resulting VOC emission factor from the stack test data was 0.0006 lbs of carbon per ADUBP. The emission factor was then multiplied by the baseline pulp production rate to determine baseline actual emissions.

Projected Actual Emission Factors

The VOC projected actual emissions were calculated using the baseline emission factor and the maximum projected softwood annual production rate (i.e., 8,760 hours of operation). Since the Thermal Oxidizer is highly efficient at destroying VOCs (99% removal efficiency), it is reasonable to assume that the VOC emission factor will be unchanged.

VOC Emission Factor Justification

Mill Area: No. 3 Paper Machine, No. 4 Pulp Dryer, and No. 5 Paper Machine

Baseline Emission Factors

The Mill does not have Mill-specific VOC data for either the No. 3 Paper Machine, the No. 4 Pulp Dryer, or the No. 5 Paper Machine. Consequently, a review was conducted of NCASI data. VOC data listed in Table A-18 of NACSI Technical Bulletin 858 were reviewed and were determined to be representative for the Pensacola Mill. The VOC data are based on two mills, Mill K and Mill N. Mill K is a bleached hardwood mill while Mill N is a bleached softwood Mill. Since the No. 3 Paper Machine, No. 4 Pulp Dryer, and No. 5 Paper Machine could use either softwood or hardwood, it is appropriate to use the average VOC emission factor from the two mills, 0.069 lbs C per air dried ton of finish product (ADTFP), to represent VOC emissions from the No. 3 Paper Machine, No. 4 Pulp Dryer, and No. 5 Paper Machine.

Projected Actual Emission Factors

In the future, the No. 3 Paper Machine will be decommissioned while the No. 4 Pulp Dryer will process bleached fluff pulp and the No. 5 Paper Machine will produce linerboard from unbleached softwood pulp. The Mill relied on NCASI data to calculate future actual emissions for the No. 4 Pulp Dryer and No. 5 Paper Machine. Specifically, VOC data listed in Table A-18 of NACSI Technical Bulletin 858 were reviewed and were determined to be applicable for representing the future operating configuration of the Mill. The data in Table A-18 include emission factors for one unbleached softwood/hardwood mix mill located in the southeast (Mill G) and one unbleached softwood mill located in the northwest (Mill H). Since neither Mill exactly represented the Pensacola Mill, the Mill averaged the two emission factors. The resulting average emission factor is 0.51 lbs C/ADTFP. The VOC emission factor was multiplied by the future maximum annual production to determine future actual VOC emissions.

**TABLE VI.A.9 SUMMARY OF EMISSION TEST RESULTS
MILL G SOFTWOOD BROWN STOCK WASHING**

ANALYTE	SOFTWOOD DIFFUSION	SOFTWOOD DIFFUSION	SYSTEM TOTAL
	WASHER VENT (GV14)	WASHER FILTRATE TANK VENT (GV15)	
	AVG (lb/T)	AVG (lb/T)	(lb/T)
HEATED CANISTER			
acetaldehyde (H)	1.8E-3	8.0E-5	1.8E-3
methanol (H)	4.1E-2	2.4E-3	4.3E-2
methyl mercaptan	3.4E-4	1.8E-5	3.6E-4
acetone	3.6E-3	2.0E-4	3.8E-3
dimethyl sulfide	1.4E-2	2.2E-3	1.6E-2
methylene chloride (H)	< 2.5E-5	< 4.8E-6	< 3.0E-5
1,2-dichloroethylene	< 1.0E-5	< 1.9E-6	< 1.2E-5
methyl ethyl ketone (H)	1.5E-3	1.5E-4	1.7E-3
n-hexane (H)	1.1E-4	1.6E-5	1.2E-4
chloroform (H)	< 5.0E-5	< 9.5E-6	< 6.0E-5
1,2-dichloroethane (H)	< 1.4E-5	< 2.6E-6	< 1.6E-5
1,1,1-trichloroethane (H)	< 1.4E-5	< 2.6E-6	< 1.7E-5
benzene (H)	1.1E-5	3.5E-7	1.1E-5
carbon tetrachloride (H)	< 6.5E-5	< 1.2E-5	< 7.7E-5
trichloroethylene (H)	U 1.8E-5	U 3.8E-6	U 2.2E-5
methyl isobutyl ketone (H)	3.7E-5	3.3E-6	4.0E-5
dimethyl disulfide	1.7E-2	6.0E-4	1.8E-2
1,1,2-trichloroethane (H)	< 1.4E-5	< 2.6E-6	< 1.7E-5
toluene (H)	2.0E-4	1.3E-5	2.2E-4
tetrachloroethylene (H)	< 1.7E-5	< 3.3E-6	< 2.1E-5
chlorobenzene (H)	U 3.2E-6	< 7.4E-7	U 3.6E-6
m,p-xylene (H)	6.2E-5	4.1E-6	6.6E-5
o-xylene (H)	< 3.7E-6	< 7.0E-7	< 4.4E-6
xylenes (H)			
styrene (H)	3.8E-4	2.2E-5	4.0E-4
alpha-pinene			
beta-pinene			
terpenes	SAT	1.3E-3	> 1.3E-3
1,2,4-trichlorobenzene (H)	< 6.4E-6	< 1.2E-6	< 7.6E-6
acrolein (H)	5.2E-5	< 1.1E-6	5.2E-5
IMPINGER			
methanol (H)			
acetone			
methyl ethyl ketone (H)			
acetaldehyde (H)			
acrolein (H)			
formaldehyde (H)	< 4.2E-5	< 7.6E-6	< 5.0E-5
Total HAPs	4.5E-2	2.7E-3	4.8E-2
THC (Method 25A)	2.9E-1	1.3E-2	3.0E-1
Flow (DSCFM)	358	66	424
PROD RATE, ODTP/D	569	569	569

U = UNEXPECTED AND UNCONFIRMED BY GC/MSD
 ODTP/D = OVEN DRIED TONS OF PULP PER DAY
 H = CAA HAP
 SAT = SATURATED (ABOVE DETECTOR QUANTITATION RANGE)

O. Mill N Softwood Bleach Plant Emissions

As shown in Figure IV.I.2, all vent gases at the softwood bleach plant in Mill N are collected and scrubbed with the exception of the (E,O+P) tower/washer vent (NBP3). The combined vent (NBP1) includes vent gases from the D100, D₁ and D₂ stage tower/washer and seal tank vents. The combined vent is routed a caustic scrubber for ClO₂ control. All these vents were tested. The results of the HAP emission testing on these vents are summarized in Table V.O.1. The detailed results of these tests are included in Appendix B. The results of liquid stream analyses are summarized in Table V.O.2. The detailed results of liquid streams analyses are included in Appendix C. The vent gas parameters for sources tested are included in Appendix D.

The data in Table V.O.1 show that the total organic HAPs in the combined vent before the scrubber (NBP1) averaged 0.053 lb/ODTP. Five HAPs were identified in these gases. Methanol was the major HAP, accounting for 64 percent of the total organic HAP content of the vent gas. Acetaldehyde and chloroform accounted for 29 percent and 3 percent, respectively, of the total. Acetone and terpenes, which are not HAPs, were present in the combined vent gas. The EPA Method 25A total VOC content of the vent gas averaged 0.013 lb C/ODTP.

The combined vent gases are scrubbed with an alkaline solution to remove Cl₂ and ClO₂. The data in Table V.O.1, show that the total organic HAP emissions from the scrubber (NBP2) averaged 0.17 lb/ODTP. Five HAPs were identified in these emissions. Methanol accounted for over 94 percent of the total organic HAP emission. Acetone and terpenes, which are not HAPs, were present in the emissions from the scrubber. The EPA Method 25A total VOC emissions from this source averaged 0.023 lb C/ODTP.

The emissions data for the (E,O+P) tower/washer vent (NBP3), presented in Table V.O.1, show that the total organic HAP emissions averaged 0.012 lb/ODTP. Seven HAPs were identified in these emissions. Methanol accounted for 93 percent of the total organic HAP emissions. Acetaldehyde and chloroform accounted for 4 percent and 2 percent, respectively, of the total organic HAP emissions. Acetone and terpenes, which are not HAPs, were present in the emissions from this vent. The EPA Method 25A total VOC emission from this source averaged 0.0017 lb C/ODTP.

As shown in Figure IV.I.2, the total emissions from the bleach plant are the sum of the emissions from sources NBP2 and NBP3. As shown in Table V.O.1, the total organic HAP emissions from the Mill N softwood bleach plant averaged 0.18 lb/ODTP. Methanol accounted for over 96 percent of the total organic HAP emissions. Acetaldehyde and chloroform accounted for 2 percent and 1 percent, respectively, of the total organic HAP emissions. The EPA Method 25A total VOC emissions from the bleach plant averaged 0.025 lb C/ODTP.

The results of analyses of various process streams are summarized in Table V.O.2. The data show that methanol was the major analyte in four out of five streams. The D₂ stage shower water contained methanol below the detection limit. Low levels of methyl ethyl ketone, acetaldehyde and chloroform were also measured in several streams.

**TABLE V.O.1 SUMMARY OF EMISSION TEST RESULTS
MILL N SOFTWOOD BLEACH PLANT**

ANALYTE	* BLEACH PLANT SCRUBBER INLET (NBP1)	BLEACH PLANT SCRUBBER OUTLET (NBP2)	(E,O+P) TOWER (NBP3)	TOTAL EMISSIONS
	AVG (lb/T)	AVG (lb/T)	AVG (lb/T)	(lb/T)
HEATED CANISTER				
acetaldehyde (H)	1.6E-2	3.2E-03	4.7E-04	3.6E-03
methanol (H)	3.4E-2	1.6E-1	1.1E-2	1.7E-1
methyl mercaptan	U 3.4E-2	U 1.3E-2	< 8.3E-5	U 1.3E-2
acetone	4.3E-3	2.4E-3	1.8E-4	2.6E-3
dimethyl sulfide	< 1.7E-3	< 1.9E-3	< 1.1E-4	< 2.0E-3
methylene chloride (H)	< 4.6E-4	< 5.2E-4	< 2.9E-5	< 5.5E-4
1,2-dichloroethylene	< 1.6E-4	1.8E-4	7.4E-6	1.9E-4
methyl ethyl ketone (H)	< 1.8E-4	< 2.0E-4	< 1.1E-5	< 2.1E-4
n-hexane (H)	< 4.7E-5	< 5.3E-5	4.3E-6	3.1E-5
chloroform (H)	1.7E-3	1.7E-3	2.8E-4	2.0E-3
1,2-dichloroethane (H)	< 2.1E-4	< 2.4E-4	< 1.4E-5	< 2.5E-4
1,1,1-trichloroethane (H)	< 2.2E-4	< 2.4E-4	< 1.4E-5	< 2.6E-4
benzene (H)	3.4E-5	7.5E-5	4.2E-6	7.9E-5
carbon tetrachloride (H)	< 1.0E-3	< 1.1E-3	< 6.3E-5	< 1.2E-3
trichloroethylene (H)	< 2.1E-4	< 2.4E-4	< 1.4E-5	< 2.5E-4
methyl isobutyl ketone (H)	< 6.1E-5	< 6.9E-5	< 3.9E-6	< 7.3E-5
dimethyl disulfide	< 2.5E-3	< 2.9E-3	< 1.6E-4	< 3.0E-3
1,1,2-trichloroethane (H)	< 2.2E-4	< 2.4E-4	< 1.4E-5	< 2.6E-4
toluene (H)	< 5.0E-5	< 5.6E-5	< 3.2E-6	< 5.9E-5
tetrachloroethylene (H)	< 2.7E-4	< 3.0E-4	< 1.7E-5	< 3.2E-4
chlorobenzene (H)	< 6.1E-5	< 6.9E-5	< 3.9E-6	< 7.3E-5
m,p-xylene (H)	< 5.7E-5	< 6.5E-5	< 3.6E-6	< 6.8E-5
o-xylene (H)	7.3E-5	< 6.5E-5	< 3.6E-6	< 6.8E-5
xylene (H)				
styrene (H)	< 5.6E-5	< 6.4E-5	4.0E-6	3.6E-5
alpha-pinene				
beta-pinene				
terpenes	1.9E-3	2.6E-3	2.2E-4	2.8E-3
1,2,4-trichlorobenzene (H)	< 9.8E-5	< 1.1E-4	< 6.2E-6	< 1.2E-4
acrolein (H)	< 9.1E-5	U 1.6E-4	U 1.2E-5	U 1.7E-4
IMPINGER				
methanol (H)				
acetone				
methyl ethyl ketone (H)				
acetaldehyde (H)				
acrolein (H)				
formaldehyde (H)	< 3.8E-4	< 3.9E-4	< 2.9E-5	< 4.2E-4
Total HAPs	5.3E-2	1.7E-1	1.2E-2	1.8E-1
THC (Method 25A)	1.3E-2	2.3E-2	1.7E-3	2.5E-2
Flow (DSCFM)	7500	7693	631	8324
PROD RATE, ODTP/D	1307	1307	1307	1307

U = UNEXPECTED AND UNCONFIRMED BY GC/MSD
 ODTP/D = OVEN DRIED TONS OF PULP PER DAY
 H = CAA HAP

* NOT INCLUDED IN TOTAL
 EMISSIONS

3.2 Mill SB

At this southeastern U.S. kraft pulp mill only softwoods are pulped. Both oxygen delignification system vents and bleach plant vents were tested for CO emissions in August 1995. The pulp is subject to medium consistency oxygen delignification prior to bleaching. During the tests the oxygen addition rate was about 20 lb/ODTP or 1.0% on pulp and the pulp production rate was about 1250 air dry machine tons (ADMT)/day. Pulp from the O₂ reactor flows to a blow tank followed by two stages of post-oxygen washing via dilution/displacement wash presses. Between the two presses is an inter-stage high density storage tank. This system was also tested for HAPs during the NCASI/Industry MACT sampling effort. More detailed descriptions are provided in NCASI Technical Bulletin No. 675 under the mill code N (NCASI 1994a). Three tests were conducted for CO and VOCs on the oxygen reactor blow tank vent and the combined No. 1 and No. 2 post-oxygen press and filtrate tank vent. All vents except the inter-stage stock chest vent were tested on this system. The stock chest vent gas flow rate was very small and erratic. Table 14 summarizes the data obtained during these tests.

The softwood bleach plant uses a four stage D(EOP)DD sequence. This bleach plant was also extensively tested for HAPs during the NCASI/Industry MACT sampling effort and more detailed descriptions are provided in NCASI Technical Bulletin No. 679 under the mill code N (NCASI 1994b). All four stages used diffusion washers which were integral to the towers. All of the D100, D₁, and D₂ stage vents, along with the (EOP) filtrate tank vent, were ducted to a scrubber. The (EOP) tower/washer was vented directly to the atmosphere. Three tests were run on this vent and the vent from the scrubber for CO and VOC concentrations. During the tests the mill applied about 68 lb ClO₂/ODTP or 3.4% ClO₂ on pulp and the production rate was about 1200 ADMT/day. Table 15 summarizes the data obtained during these tests.

3.3 Mill SD

Hardwoods and softwoods are pulped on separate lines at this southeastern U.S. kraft pulp mill. However, only the softwood oxygen delignification system vents and softwood bleach plant vents were tested for CO emissions in December 1994. The pulp is subject to medium consistency oxygen delignification prior to bleaching. During the tests the oxygen addition rate was about 20.9 lb/ODTP or 1.05% on pulp and the pulp production rate was about 657 ODTP/day. Pulp from the O₂ reactor flows to a blow tank followed by the No. 1 post-oxygen washer (POW) feed tank. Post oxygen washing is accomplished in two stages via a vacuum drum washer followed by a dilution/displacement wash press. This system was also tested for HAPs during the NCASI/Industry MACT sampling effort. More detailed descriptions are provided in NCASI Technical Bulletin No. 675 under the mill code C (NCASI 1994a). All vents on this system except the No. 2 POW filtrate tank vent were tested for CO concentrations. The No. 2 POW filtrate tank vent flow rates were determined to be quite small (443 dscfm) during the NCASI tests (NCASI 1994a). The No. 1 POW filtrate tank vent was routed through the decker seal tank whose vent was tested. Three tests were conducted on the oxygen reactor blow tank vent, the vents on the decker seal tank, and the POW washer vent. Table 16 summarizes the data obtained during these tests.

Table 14. CO and VOC Emission Data for Oxygen Delignification System Vents at Mill SB

Run No.	O ₂ Delignification Blow Tank					Post O ₂ Washer System Vent					Total CO, lb/ODTP
	dscfm	CO		VOC		dscfm	CO		VOC		
		ppm	lb/hr	ppm	lb C/hr		ppm	lb/hr	ppm	lb C/hr	
1	422 ^a	17.1	0.03	25.4	0.02	8681	2.75	0.10	7.6	0.37	0.003
2	422 ^a	15.3	0.03	29.4	0.02	8681	16.4	0.62	6.2	0.30	0.012
3	422 ^a	26.3	0.05	15.4	0.01	8681	19.6	0.74	14.4	0.70	0.015
										Avg.	0.010

^aFlow rates were erratic during the tests. Flow rate measured during NCASI MACT testing for HAPs (16) is assumed.

Table 15. CO and VOC Emission Data for Bleach Plant Vents at Mill SB

Run No.	Bleach Plant Scrubber					Bleach Plant (EOP) Tower					Total CO, lb/ODTP
	dscfm	CO		VOC		dscfm	CO		VOC		
		ppm	lb/hr	ppm	lb C/hr		ppm	lb/hr	ppm	lb C/hr	
1	4422	2313	44.6	5.87	0.15	839	221.7	0.81	0.76	0.004	0.91
2	4422	2282	44.0	22.2	0.55	839	224.0	0.82	1.13	0.005	0.90
3	4422	2316	44.7	20.0	0.50	839	383.9	1.40	1.69	0.008	0.92

Table 4.2 VOC^a Content of Uncontrolled Non-Condensable Gases

NCG Stream Description & Wood Type	No. ^b	Units	Range	Median	Mean
Pulping & Evaporator NCGs (SW/HW)	1	lb C/ADTUBP		0.71	0.71
Batch Digester Fill Exhaust (SW)	1	lb C/ton chips		0.012	0.012
Cont. Digester Chip Bin Exhaust ^c (SW)	3	lb C/ton chips	0.022 – 1.20	0.46	0.43

^a as measured by EPA Method 25A

^b number of sources tested

^c live steam

4.3 Uncontrolled Liquor and Unbleached Pulp Storage Tank Vents

Black liquor and unbleached pulp storage tank vents also contain small amounts of VOCs. Table 4.3 summarizes the VOC content of vent gases from four weak liquor tanks, four strong liquor tanks, and three high density unbleached pulp tanks. Detailed data including tank descriptions are provided in Appendix A, Table A3.

Table 4.3 VOC^a Content of Uncontrolled Liquor and Unbleached Pulp Storage Tanks

Storage Tank Vent	No. ^b	Range	Median	Mean
		lb C/hr/tank		
Weak Black Liquor	4	0.02 – 1.6	0.54	0.67
Strong Liquor	4	0.018 – 0.18	0.11	0.11
High Density Unbleached Pulp	3	0.86 – 5.66	4.84	3.72

^a as measured by EPA Method 25A

^b number of sources tested

4.4 Thermal Oxidizers

Kraft pulp mills burn their high volume low concentration (HVLC) and low volume high concentration (LVHC) NCGs and stripper off-gases (SOGs) in various incineration devices including lime kilns, boilers, stand-alone thermal oxidizers, and recovery furnaces. Because of their low TRS and VOC content, the burning of HVLC NCGs in boilers and recovery furnaces is not expected to affect emissions of VOCs from these combustion devices. However, the LVHC NCGs and SOGs can be rich in reduced sulfur compounds and organics such as terpenes and methanol; the SOGs can also contain significant amounts of ammonia. The sulfur in the reduced sulfur compounds will oxidize to SO₂, yielding two pounds of SO₂ for every pound of S in the NCG stream. Some of the ammonia will oxidize to NO_x, although this conversion is highly dependent on the relationship between temperature, residence time, NH₃, NO, and O₂ in the specific incineration device.

Thermal oxidizers that burn LVHC NCGs and SOGs are generally quite efficient in oxidizing the organics and reduced sulfur compounds contained in these gas streams to CO₂ and SO₂, respectively. Because of the high levels of SO₂ resulting from oxidation of the reduced sulfur compounds, most thermal oxidizers are equipped with a wet scrubber for SO₂ removal.

When ammonia-containing SOGs are burned in a thermal oxidizer, the ammonia partly converts to NO_x. Theoretical considerations suggest the extent of this conversion depends on several factors including temperature and the availability of oxygen for oxidation of the NH₃. Typically, only a

Table 4.5 VOC^a Emissions from Knotters and Pre-Washer Screens

Source	No. ^b	Range	Median	Mean
		lb C/ODTUBP		
Pulp Knotters	3	0.0018 – 0.042	0.005	0.016
Pulp Screens	3	0.0031 – 0.085	0.004	0.031

^a as measured by EPA Method 25A

^b number of sources tested

4.6 Brownstock Washers

Brownstock washing systems emit gases containing reduced sulfur compounds and VOCs, including HAPs such as methanol, acetaldehyde and MEK. The emissions from different types of washers vary depending on the vent gas flow rate, quality of shower water and liquor properties. Vacuum drum washer systems have the highest flow rates and highest emissions. Emissions from other types of washer systems are generally much lower, mainly due to the low gas flow rates. Pressurized washing systems emit gases from their filtrate tanks.

Table 4.6 provides estimates of VOC emissions from vacuum drum and other types of washers. Detailed data including descriptions for each washer are provided in Appendix A, Table A6. The VOC emission data in Table 4.6 are also segregated by the type of wood pulped (i.e., hardwood vs softwood). It can be seen that such segregation has little effect on the VOC emissions from vacuum drum washers. However, mean VOC emissions from softwood “low flow washers” appear to be about 80% larger than mean VOC emissions from hardwood “low flow washers.”

Table 4.6 VOC^a Emissions from Brownstock Washers

Type of Washer	No. ^b	Wood Type	Range	Median	Mean
			lb C/ADTUBP		
Vacuum Drum Washer	5	HW	0.018 to 0.61	0.16	0.29
Vacuum Drum Washer	7	SW	0.002 to 1.04	0.21	0.28
Vacuum Drum Washer	12	all	0.002 to 1.04	0.18	0.29
Low Flow Washer ^c	4	HW	1.8E-04 to 0.20	0.14	0.12
Low Flow Washer ^c	5	SW	0.05 to 0.56	0.13	0.22
Low Flow Washer ^c	9	all	1.8E-04 to 0.56	0.13	0.18

^a as measured by EPA Method 25A; ^b number of sources tested; ^c including pressure, diffusion, compaction baffle or belt washer

4.7 Pulp Deckers

By the time the pulp slurry reaches the decker, it has been well washed. Thus, in most cases, deckers are not significant emission sources unless additional washing is also performed. If wash water used on a decker is hot and contains high concentrations of volatile organics, it can be a significant source of VOCs and HAPs. Data on VOC emissions from deckers are summarized in Table 4.7. Detailed data including descriptions for each decker are provided in Appendix A, Table A7.

Table A6 VOC Emissions from Brownstock Washers

Mill Code	Test Date	Wood Type	Washer Type	ADTP/ Day	Gas Flow DSCFM	Vents Tested	No. ¹	Ref.
BSWA1	1991	SW	VDWs	252	38,300	3 washers w/ 2 hood vents	1	1
BSWA2	1991	HW	VDWs	NK	NK	3 washers w/ 2 hood vents	1	1
BSWB1	1992	SW(85%)	VDWs	623	15,633	3 hood vents	3	1
BSWB2	1992	HW(85%)	VDWs	788	26,250	2 hood vents	2	1
BSWC	1992	SW	VDWs	799	25,700	1 hood and 1 filtrate tank	2	1
BSWIC1	1993	HW	Diffusion	429	3,802	1 foam breaker vent	1	2
BSWIC2	1993	SW	Diffusion	1253	2,378	1 wash stock tank and 1 filtrate tank	2	2
BSWMA1	1994	HW	VDW +Twin Roll Press	858	3,742	VDW vent, stock chest, filtrate tank	3	3
BSWMF	1994	HW	Horizontal Belt	815	799	All BSW Vents	1	3
BSWMG1	1994	HW	Diffusion	270	542	All BSW Vents	1	3
BSWMG2	1994	SW	Diffusion	618	424	All BSW Vents	2	3
BSWMH1	1994	SW	Diffusion + 2 VDWs	880	16,808	foam tower, 2 drum washer vents, 1 diff.washer vent	4	3
BSWMH2	1994	SW	4 VDWs In Series	533	13,968	foam tower, 4 drum washer vents, 2 filtrate tanks, 1 vac. pump	7	3
BSWML1	1994	HW	3 VDWs In Series	803	7,675	1 filtrate tank, 2 drum washer vents	3	3
BSWML2	1994	HW	Diffusion + 1 VDW	796	6,050	1 filtrate tank, 1 diff. washer, 1 drum washer	3	3
BSWMM	1994	SW	2 Compaction Baffles	282	759	1 Vent	1	3
BSWMO1	1994	SW	2 Pressure Washers	217	6,050	2 pressure washers, 1 vent	1	3
BSWMO2	1994	HW	2 Pressure In Series	233	6,050	2 pressure washers, 1 vent	3	3
BSWCC1	1999	SW	VDWs	476	45,758	2 Hood Vents, 1 Foam Breaker, 1 Foam Tank	4	2
BSWCC2	1999	SW	VDWs	476	17,758	1 Hood Vent, 1 Foam Breaker	2	2
BSWCC3	1999	SW	Diffusion (GL, kraft)	358	NK	1 Hood Vent	1	2
BSWTT1	1999	SW (85%)	Diffusion	680	5,999	1 Hood Vent	1	2
BSWTT2	1999	SW (85%)	VDWs	1010	40,617	2 Hood Vents	2	2

Notes

VDW - Vacuum Drum Washers; NK - not known; GL - green liquor; ¹No. = number of vents tested

References

1. *Texas emissions speciation study, emission test results*, Roy F. Weston, Inc., January 1993.
2. Individual Mill Testing - NCASI Mill File Information.
3. *Volatile organic emissions from pulp and paper mill sources - Part IV - Kraft brownstock washing, screening and rejects refining sources*, NCASI Technical Bulletin No. 678, October 1994.

Table A6 (Cont'd) VOC Emissions from Brownstock Washers

Mill Code	Wood Type	Emissions, lb C/ADTUBP		Test Method
		Range	Avg.	
<i>Vacuum Drum Washers</i>				
BSWA2	HW	0.06 to 0.15	0.16	M25A
BSWB2	HW(85%)	0.018 to 0.055	0.04	M25A
BSWMA1	HW		0.61	M25A
BSWML1	HW		0.52	M25A
BSWML2	HW		0.12	M25A
BSWA1	SW	0.11 to 0.17	0.14	M25A
BSWB1	SW(85%)	0.002 to 0.061	0.04	M25A
BSWC	SW	0.90 to 1.04	0.97	M25A
BSWCC1	SW	16.8 ppm as C	0.22	M25A
BSWCC2	SW	14.8 ppm as C	0.11	M25A
BSWMH1	SW		2.00 ¹	M25A
BSWMH2	SW		0.21	M25A
BSWTT2	SW (85%)	75.5 ppm as C	0.31	M25A
# of Units		Range	Median	Mean
5	HW	0.018 to 0.61	0.16	0.29
7	SW	0.002 to 1.04	0.21	0.28
12	all	0.002 to 1.04	0.18	0.29
<i>Diffusion, Pressure, Belt & Compaction Baffle Washers</i>				
BSWIC1	HW	278.2 ppm	0.11	M25A
BSWMF	HW		1.8E-04	M25A
BSWMG1	HW		0.17	M25A
BSWMO2	HW		0.20	M25A
BSWCC3	SW	174.3 ppm	0.05	M25A
BSWIC2	SW	6,604 ppm	0.56	M25A
BSWMG2	SW		0.27	M25A
BSWMM	SW		5.09 ²	M25A
BSWMO1	SW		0.13	M25A
BSWTT1	SW (85%)	280.0 ppm	0.11	M25A
# of Units		Range	Median	Mean
4	HW	1.8E-04 to 0.20	0.14	0.12
5	SW	0.05 to 0.56	0.13	0.22
9	all	1.8E-04 to 0.56	0.13	0.18

¹2.00 for BSWMH1 rejected as a "statistical outlier" - test statistic 0.740 is > critical value @ 99% confidence level 0.615 (n < 25; Dixon's Test)

²5.09 for BSWMM rejected as a "statistical outlier" - test statistic 0.900 is > critical value @ 99% confidence level 0.597 (n < 25; Dixon's Test)

Table A-18 (Cont'd). Summary of 'Air Toxic' Emissions from Virgin Chemical Paper Machines

Volatile Organic Compound	Mill Code	Emissions		Test Method	Comments
		Range lb/ADTFP	Avg. lb/ADTFP		
<i>1. Unbleached Linerboard Paper Machine Dryers (Contd.)</i>					
1,2,4-Trichlorobenzene	PMMG		1.1E-02	Heated Canister	FID, U
1,2,4-Trichlorobenzene	PMMH	ND[5.4E-03]	2.7E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
2	1	ND to 0.011	6.9E-03	6.9E-03	5.5E-03
1,1,1-Trichloroethane	PMMG		1.8E-03	Heated Canister	FID
1,1,1-Trichloroethane**	PMMH	ND[1.2E-02]		Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
1	1		1.8E-03	1.8E-03	9.0E-04
** data rejected based upon 1/2 DL being > highest detected observation (1.8E-03)					
1,1,2-Trichloroethane	PMMG		2.1E-03	Heated Canister	FID, U
1,1,2-Trichloroethane**	PMMH	ND[1.2E-02]		Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
1	1		2.1E-03	2.1E-03	1.1E-03
** data rejected based upon 1/2 DL being > highest detected observation (2.1E-03)					
Trichloroethylene	PMMG	ND[3.3E-03]	1.7E-03	Heated Canister	FID
Trichloroethylene	PMMH		6.0E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
2	1	ND to 0.006	3.8E-03	3.8E-03	3.0E-03
m,p-Xylene	PMMG		7.2E-04	Heated Canister	FID
m,p-Xylene	PMMH		2.7E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	
2	2	7.2E-04 to 0.0027	1.7E-03	1.7E-03	
o-Xylene	PMMG		5.2E-04	Heated Canister	FID
o-Xylene	PMMH		2.4E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	
2	2	5.2E-04 to 0.0024	1.5E-03	1.5E-03	
Total Hydrocarbons	PMMG		6.0E-01	M25A	
Total Hydrocarbons	PMMH		4.2E-01	M25A	
No. of Units	Detects	Range	Median	Mean	
2	2	0.42 to 0.60	5.1E-01	5.1E-01	

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-18 (Cont'd). Summary of 'Air Toxic' Emissions from Virgin Chemical Paper Machines

Volatile Organic Compound	Mill Code	Emissions		Test Method	Comments
		Range lb/ADTFP	Avg. lb/ADTFP		
<i>II. Bleached Paper Machine And Pulp Dryer, Contd.</i>					
Total Hydrocarbons	PMMK		3.8E-02	M25A	
Total Hydrocarbons	PDMN		1.0E-01	M25A	
No. of Units	Detects	Range	Median	Mean	
2	2	0.038 to 0.10	6.9E-02	6.9E-02	

Notes

- (a) U - unidentified and unconfirmed by GC/MSD
- (b) For all FID analyses the heated canister gases were concentrated before analysis

Note: All italicized entries correspond to non-detect values at one-half the detection limit

6.0 PREDICTION OF METHANOL EMISSIONS

Methanol is the dominant organic 'air toxic' compound emitted from most unit processes at both chemical and non-chemical pulp mills, accounting in most cases for nearly 90% of the total 'air toxic' HAP emissions. In the NCASI MACT I study for chemical pulp mills (NCASI 1994 c to k), correlations for methanol emissions from various sources in pulp and paper mills were developed. These correlations were based on the levels of methanol concentration in the water used in each unit process. Although the number of sources tested was limited, these correlations were found to be quite good, with correlation coefficients (r^2) ranging from 0.86 to 0.99. These correlations can be used to obtain a first order estimate of methanol emissions from various unit processes in pulp and paper mills when combined with measurements for methanol concentrations in the appropriate mill process liquid. Also, in the NCASI MACT III study for non-chemical pulp mills, correlations for methanol emissions from paper machines were developed (NCASI 1997d). The correlations for virgin kraft pulp and paper mills and for non-chemical pulp mill paper machines are presented below.

6.1 Oxygen Delignification

The controlling factor for total methanol emissions from O_2 delignification systems (blow tank vent, washers and interstage storage tank vents) appears to be the level of methanol in the post-oxygen delignification washer shower water. Mills use different water sources for this shower water, and methanol concentrations in this water can vary widely. This relationship of methanol emission from O_2 delignification as a function of the concentration of methanol in the shower water was expressed as:

$$Y = 0.000625 \cdot X + 0.322$$

where, Y = vent gas methanol emission rate, lb/ODTP (oven dry ton of pulp)

X = methanol concentration of last post-oxygen shower water, mg/L

and the correlation coefficient (r^2) was 0.99 (NCASI 1994c). According to this correlation, if the last post-oxygen washer shower water contains no methanol, methanol emissions from the O_2 delignification system are predicted to be 0.32 lb/ODTP. Besides the methanol carried into the O_2 delignification reactor with the washed unbleached pulp, methanol may also be generated as a byproduct in O_2 delignification. Based on the average emission rate for ten O_2 delignification systems of 0.98 lb methanol/ADTUBP reported in Table 3, this implies that these two sources of methanol, viz., generation and carryover with washed pulp, contribute, on average, up to one-third of the total methanol emissions from O_2 delignification system vents, with the rest attributable to shower water methanol content.

6.2 Smelt Dissolving Tank Vents

On average, more NH_3 is emitted from smelt dissolving tank vents than methanol. However, the dominant hazardous air pollutant (HAP) emitted from smelt dissolving tank vents is methanol. The concentration of methanol in weak wash or fresh water used both to dissolve the smelt and scrub the particulate emissions from the vent gas contributes to methanol emissions from smelt dissolving tank scrubber vents. The quality of the scrubber solution in mills varies considerably, and so does its methanol content. In the NCASI MACT study (NCASI 1994d) methanol emissions from smelt dissolving tank vents correlated quite well with the concentration of methanol in four weak washes used in four smelt dissolving tanks. The following relationship was developed (NCASI 1994d):

$$Y = 0.00578 \cdot X + 0.00064$$

where, Y = smelt dissolving tank methanol emissions, lb/TBLS

X = methanol concentration in weak wash, mg/L

The correlation coefficient (r^2) was 0.98 (NCASI 1994d). If the above correlation were to be extrapolated to include smelt dissolving tanks using fresh mill water and stripped condensates, then for the mean methanol emission rate of 0.023 lb/TBLS in Table 17 for 26 smelt dissolving tanks, the solution used to dissolve the smelt and scrub the particulate matter emissions would contain on average about 3.9 mg/L of methanol. Alternately, a scrubbing solution with say 100 mg/L methanol would result in methanol emissions of about 0.58 lb/TBLS.

6.3 Brownstock Washers

Methanol is the predominant HAP emitted from brownstock washers, making up nearly 90% of the total HAP emissions. For a given type of washer, the controlling factor for methanol emissions from the brownstock washer system is the concentration of methanol in the final shower water used in brownstock washing. Mills use various sources for this shower water, and the methanol content can vary widely. Methanol emissions from vacuum drum brownstock washer systems correlated quite well with the level of methanol in the last stage shower water (NCASI 1994f), the relationship being expressed as:

$$Y = 0.0011 \cdot X + 0.375$$

where, Y = brownstock washer system methanol emissions, lb/ODTP

X = final stage shower water methanol concentration, mg/L

The correlation coefficient (r^2) was 0.86 (NCASI 1994f). Mean methanol emissions from 32 vacuum drum units were given in Table 6 as 0.85 lb/ADTP. Thus, based on the above correlation, well over half the methanol emissions can be attributed to the final stage shower water methanol content.

6.4 Paper Machines

Methanol is the major HAP emitted from paper machines at integrated mills, usually accounting for over 90% of the total HAP emissions. The methanol content of the water in the pulp coming from the pulp mill varies considerably from mill to mill. Because bleached pulps are washed more thoroughly than unbleached pulps, unbleached mills have higher methanol content in the water associated with the pulp than bleached mills. Methanol emissions from 4 virgin kraft and 1 semi-chemical mill paper machine vents were found to be intimately related to the concentration of methanol in the paper mill white water (NCASI 1994i). This was expressed as:

$$Y = 0.00477 \cdot X + 0.0953$$

where, Y = paper machine/pulp dryer methanol emissions, lb/ADT of finished product

X = methanol concentration in white water, mg/L

with the correlation coefficient (r^2) = 0.97 (NCASI 1994i). Based on the average methanol emission rates in Table 19 of 1.2 lb/ADTFP for unbleached paper machines and 0.071 lb/ADTFB for bleached paper machines, the above correlation suggests that the white water methanol concentration is the overriding factor for unbleached paper machines and not so important a factor for bleached paper machines.

Methanol is also the major HAP emitted from paper machines at non-chemical and non-integrated pulp mills, accounting for the majority of the total HAP emissions. Methanol emissions from 12 non-chemical pulp mill Fourdrinier type paper machines were found to correlate fairly well with the white water methanol content (NCASI 1997d). This was expressed as:

$$Y = 0.010 \cdot X + 0.0013$$

where, Y = paper machine methanol emissions, lb/ADT of finished product

X = methanol concentration in white water, mg/L

with the correlation coefficient (r^2) = 0.86 (NCASI 1997d).

6.5 Summary

The above equations can be used to predict methanol emissions from these unit processes with only knowledge of the methanol concentration in the appropriate process liquid stream. When using these predictive equations, it should not be inferred that methanol in the water system is the only source of methanol emitted from the unit process. These equations merely represent a very simple approach for obtaining a rough estimate of methanol emissions. Additional data from other mills are needed to confirm the validity of these simple predictive equations.

7.0 CAUTION IN THE USE OF EMISSION DATA

Before using the emission data in this report to estimate 'air toxic' emissions from pulp and paper mill sources, several precautions bear mentioning.

- (1) For some 'air toxics,' emissions were measured from only one or perhaps two unit processes. In such cases, these data should be used with extreme caution. Limited data such as these need verification, and a single or two data points are unlikely to represent all similar unit operations.
- (2) For many unit operations, emissions of certain 'air toxics' were always non-detect. The average for such data sets is denoted in this report as a non-detect at the lowest detection limit. One may be tempted to use one-half of the lowest detection limit for estimation purposes. However, this should be weighed against the available understanding of whether the emission of such an 'air toxic' is feasible.
- (3) Sophisticated statistical methods for estimating sample averages of emission data comprising varying degrees of censoring (i.e., non-detects) were applied in this report as described in Section 3.0. For data with $\leq 50\%$ NDs, either the median or the mean could be used to represent the population average. The median can be estimated by assigning zeroes to all NDs (as in NCASI Technical Bulletin No. 701) or by assigning $\frac{1}{2}$ the detection limit (DL) to each ND. The latter approach can be combined with steps to reject all NDs where $\frac{1}{2}$ the DL exceeded the highest detected observation and techniques to identify statistical outliers. For

TRS Emission Factor Justification

IP Pensacola Mill Reconfiguration Project TRS Emission Factor Justification

Mill Area: A-Line (Softwood) O₂ Delignification

Baseline Emission Factors

The A-Line (Softwood) O₂ Delignification System includes A-Line O₂ Delignification, the A-Line Decker, and the A-Line Deknotter. The Mill does not have any available TRS emissions data for any of the emissions units that comprise the A-Line (Softwood) O₂ Delignification System. Therefore, NCASI data were used as a surrogate to calculate baseline emissions.

Specifically, the Mill determined that a TRS emission factor from Mill N, a southeast, softwood, bleached mill, would be representative of TRS emissions for the A-Line (Softwood) O₂ Delignification. The Mill N TRS emission factor, which is listed in Table A-2 of NCASI Technical Bulletin 849, was used to calculate baseline actual emissions.

For the A-Line Decker, the Mill reviewed the emission factors for softwood sources listed in Table A-3 of NCASI Technical Bulletin 849. The Mill then averaged all of the TRS emission factors for the softwood sources (Mill E, Mill M, Mill E2, Mill H, Mill I, and Mill J2).

For the Deknotter System, there were no softwood-only data available, although there were emission factors for two softwood/hardwood mix mills, Mill IG and Mill W12. The Pensacola Mill reviewed the data from both Mills and noted that the data from Mill W12 were dramatically different from Mill IG and dramatically different from the hardwood only Mills as well. Therefore, the Mill relied upon the TRS emission factor for Mill IG listed in Table A-3.

Projected Actual Emission Factors

In the future, the A-Line O₂ Delignification system will be reconfigured by eliminating many process sources and reusing some process sources in a new capacity. However, since the A-Line will now produce unbleached pulp, there will be no O₂ delignification process. The A-Line O₂ Delignification sources that will continue to operate include the Decker System and the Deknotter System. Both of these sources will continue to process softwood pulp; therefore, the NCASI Technical Bulletin 849 emission factors will continue to be applicable.

TRS Emission Factor Justification

Mill Area: A-Line (Softwood) Kamyrr Digester and Brown Stock Washing

Baseline Emission Factors

The A-Line (Softwood) Kamyrr Digester System and A-Line (Softwood) Brown Stock Washing System include emissions from digester blow gases and the Atmospheric Diffusion Washer respectively. The Mill does not have any available TRS emissions data for any of the emissions units. Therefore, the TRS actual baseline emissions for the A-Line (Softwood) Kamyrr Digester System and Brown Stock Washing System are based on the average emissions from similar softwood sources in NCASI Technical Bulletin 849.

Specifically, the mean TRS emission factor, averaged from five softwood systems listed in Table A-4, was selected for the Kamyrr Digester. To calculate annual digester TRS emissions, the MACT provision that allows the digester to vent uncontrolled for 1% of the year was used. Therefore the uncontrolled NCASI TRS factor, 0.21 lbs TRS per ADTP, was multiplied by 0.01 and then multiplied by the baseline production rate to determine baseline Kamyrr TRS emissions. . It should that 99% of the time digester emissions are collected and controlled by the Thermal Oxidizer to meet MACT requirements. Uncontrolled venting from the digester is uncommon and restricted to no more than 1% of the annual hours of operation.

For the A-Line (Softwood) Brown Stock Washing System (i.e., the Atmospheric Diffusion Washer), the NCASI TRS data for Mill A, Mill B, Mill H, and Mill T, shown in Part II of Table A-3, were averaged together. Of these four mills, three mills (Mills A, B, and T) are northwest mills while Mill H is located in the southeast. Although the greatest TRS emission factor was associated with one of the northwest mills, it was decided to conservatively average all four TRS emission factors rather than exclude an emission factor based solely on geographic location of the mill.

Projected Actual Emission Factors

In the future, the A-Line (Softwood) Kamyrr Digester System and Brown Stock Washing System will operate in a similar manner to the way in which they are currently operating. Therefore, it is reasonable to use the same emission factors for the projected actual emissions as were used for the baseline actual emissions.

TRS Emission Factor Justification

Mill Area: A-Line (Softwood) Bleach Plant

Baseline Emission Factors

The Mill does not have any available TRS emissions data for the A-Line (Softwood) Bleach Plant. Consequently, TRS emission factors from NCASI Technical Bulletin 849 were reviewed. It was determined that TRS emission factors listed in Table A-1 from 10 different mills could be reasonable surrogates for the A-Line (Softwood) Bleach Plant System at the Mill. Each of the mill emission factors (Mills IA1, C234, C11, H1, E1, E2, F2, J, M2, and N) were for softwood bleaching operation. Therefore, the Mill averaged the 10 TRS emission factors (0.0136 lbs/ADTBP) and applied the average emission factor to the baseline production for the A-Line (Softwood) pulping rate.

Projected Actual Emission Factors

In the future, the A-Line will only produce unbleached pulp; therefore, operations associated with the A-Line (Softwood) Bleach Plant System will be indefinitely suspended. As a result, there are no TRS projected actual emissions.

TRS Emission Factor Justification

Mill Area: B-Line (Hardwood) O₂ Delignification

Baseline Emission Factors

The B-Line (Hardwood) O₂ Delignification System includes B-Line O₂ Delignification, a Decker system, and a Deknotter system. Since the Mill does not have any available TRS emissions data for the B-Line (Hardwood) O₂ Delignification System, it was necessary to rely upon data from NCASI to calculate baseline emissions.

The Mill used TRS emission factors listed in Table A-2 of NCASI Technical Bulletin 849 for the B-Line O₂ Delignification. Specifically, the average of the TRS hardwood emission factors, 0.0523 lbs/ADTP, from Mill K and Mill W was used to calculate baseline emissions. Although Mills K and W are located in the Midwest, these two mills were the only hardwood mills with TRS O₂ delignification emission factors listed by NCASI and thus they were used to represent the Pensacola Mill.

For the Decker system, the Mill averaged the TRS emission factors listed in Part IV of Table A-4. The Mills in Table A-4 included Mills MF, IE1, J1, and W and represent two southeastern and two Midwestern hardwood mills. The average TRS emission factor from these four mills is 0.0378 lb/ADTP.

Finally for the Deknotter, TRS emission factors from Part III of Table A-3 were used to calculate baseline emission factors for the Pensacola Mill. The TRS emission factors from Mills MF and ML, both of which are hardwood mills located in the southeast, were averaged together to produce a TRS emission factor of 0.0092 lbs/ADTP.

Projected Actual Emission Factors

In the future the B-Line O₂ Delignification system will be used to process softwood pulp; however the rate at which softwood pulp is processed through the B-Line will be lower than current production levels through the B-Line. All of the existing B-Line O₂ Delignification System process units will operate in the same fashion as the A-Line O₂ Delignification process units; therefore, it is reasonable to use the same emission factors for the projected actual emissions as were used for the A-Line O₂ Delignification System process units.

TRS Emission Factor Justification

Mill Area: B-Line (Hardwood) Batch Digesters and Brown Stock Washing

Baseline Emission Factors

The B-Line (Hardwood) Batch Digester System and B-Line Brown Stock Washing System include 12 batch digesters and two lines of vacuum drum washers and foam tanks. The Mill does not have any available TRS emissions data for either of these two systems and thus it was necessary to rely upon data from NCASI to calculate baseline emissions.

The Mill used TRS emission factors from Section III of Table A-4 of NCASI Technical Bulletin 849 for the batch digesters. The TRS emission factors in Section III of Table A-4 are for uncontrolled emissions associated with hardwood batch digester blow gases. There are three mills for which batch digester TRS emission factors are available, the Mills are all in the southeast and are designated as Mills M1, IE2, and IH2. The TRS emission factors from the three mills were averaged together for a 0.34 lb/ADTP value. For batch digesters, a 1% allowance of uncontrolled emissions is permitted under the MACT provisions and thus the 0.34 lb/ADTP was scaled to 0.0034 lb/ADTP and multiplied by the baseline production to determine the baseline actual emissions.

For the B-Line (Hardwood) Brown Stock Washing System, TRS emission factors from Section I of Table A-4 of NCASI Technical Bulletin 849 were reviewed. The Mill determined that there were nine different mills for which TRS emission factors were potentially representative of the Pensacola based on the type of pulp (hardwood) and the type of Brown Stock Washing equipment (high flow vacuum drum washers). The nine mills are designated as G1, MO2, ID2, IE2, IG2, IH1, II1, R2, and Y1 and are geographically located in the southeast (6), the southwest (2), and the midwest (1). The average TRS emission factor based on the nine mills is 0.2184 lbs/ADTP.

Projected Actual Emission Factors

In the future, the B-Line Batch Digester System and Brown Stock Washing System will only process softwood. Therefore NCASI Technical Bulletin 849 was reviewed for softwood TRS emission factors that could be used to represent the future operation of the Pensacola Mill.

Future projected TRS emissions from the B-Line Batch Digesters were based on emission factors from four mills. The four mills included Mill M2 (southeastern mill), Mill IE1 (southeastern mill), Mill IH1 (southeastern mill), and Mill II1 (southwestern mill). The uncontrolled softwood emission factors from the four mills were averaged together for a 0.46 lb/ADTP emission factor. For batch digesters, a 1% allowance of uncontrolled emissions is permitted under the MACT provisions and thus the 0.46 lb/ADTP was scaled to 0.0046 lb/ADTP and multiplied by the future B-Line proposed production rate to project the future actual TRS emissions.

The B-Line Brown Stock Washing System will be used to process softwood in the future, thus appropriate NCASI TRS emission factors were reviewed. The Mill determined that there are 14 different TRS emission factors that could be used to estimate TRS emissions due to softwood pulp being processed through the B-Line Brown Stock Washers. The Mill calculated a TRS emission factor, 0.2706 lbs/ADTP, based on the average of the 14 mills. The Mills included Mills G2, MH1, MH2, MO1, IA1, ID1, IE1, IF, IG1, IH2, II2, P, R1, and Y2.

TRS Emission Factor Justification

Mill Area: B-Line (Hardwood) Bleach Plant System

Baseline Emission Factors

The Mill does not have any available TRS emissions data for the B-Line (Hardwood) Bleach Plant System. Thus it was necessary to rely upon data from NCASI to calculate baseline emissions.

The TRS actual baseline emissions for the B-Line (Hardwood) Bleach Plant System are based on the TRS emission factors listed in Table A-1 of NCASI Technical Bulletin 849. The Mill determined that Mills A2, B, C12, IF1, IH2, II, ME3, MF1, MK, ML, and MM1 are hardwood mills and that TRS emission factors from these mills could be used to calculate a representative TRS emission factor for the Pensacola Mill. The TRS emission factors from the 11 mills were averaged together and resulted in a 0.0086 lb/ADTBP TRS emission factor. Baseline actual emissions were determined by multiplying the TRS emission factor by the baseline hardwood pulping rate for the B-Line (Hardwood) Bleach Plant.

Projected Actual Emission Factors

The B-Line Bleach Plant System will only process softwood in the future. Therefore, it is reasonable to use the same emission factors for the projected actual emissions as were used for the determination of baseline actual emissions for the A-Line Bleach Plant System. Additionally it should be noted that the future bleaching rate for the B-Line Bleach Plant will be reduced from current levels.

As mentioned, the future TRS emission factors for the B-Line Bleach Plant should be equivalent to the current TRS emission factors for the A-Line Bleach Plant. Therefore, the TRS emission factors listed in Table A-1 of NCASI Technical Bulletin 849 were used to represent future operation of the B-Line Bleach Plant. Data from 10 different mills (Mills IA1, C234, C11, H1, E1, E2, F2, J, M2, and N) were averaged. The resulting TRS emission factor, 0.0136 lbs/ADTBP, was then multiplied by the projected future B-Line Bleaching rate to determine future TRS emissions.

TRS Emission Factor Justification

Mill Area: Thermal Oxidizer

Baseline Emission Factors

Emissions from the Mill's Thermal Oxidizer are well controlled and extremely low. No emission testing has been performed on the Thermal Oxidizer. Therefore, in order to calculate TRS emissions from the Thermal Oxidizer, a review of NCASI data was performed. Specifically, the Mill reviewed information contained in Table A-5 of NCASI Technical Bulletin 849. The Mill used the average TRS emission factors from the eight Mills, 0.0012 lbs/ADTP.

Projected Actual Emission Factors

The Mill used the baseline emission factor for the Thermal Oxidizer to represent future operations. The efficient destruction rate of TRS and other reduced sulfur compounds should not change as a result of the Mill's conversion to softwood. Therefore the use of the baseline TRS emission factor is valid to calculate future projected actual emissions.

Table 9. TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases - Uncontrolled Batch Digester Blow Gases

Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/ day	dscfm/ ADTPD	Reduced Sulfur Compounds					TRS ¹ as S
	acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	MM	DMS	DMDS	
mean ^a	1,150 ²	692	131.3	32.6	20.8	712.8	1.00	ppmd	3,702	54,100	35,971	632	95,036
median	392 ²	326	114.0	9.8	20.8	570.7	0.57	ppmd	19	994	2,323	25	3,386
minimum		20	88.0	4.5	20.8	384.6	0.04	ppmd	ND	1	177	ND	64
maximum		2,558	210.0	97.0	20.8	1,500.0	3.91	ppmd	29,152	401,260	245,263	3,455	682,585
mean ^a								lb/ADTP	0.04	0.85	0.98	0.08	1.16
median								lb/ADTP	0.001	0.09	0.28	0.01	0.21
minimum								lb/ADTP	ND	0.001	0.01	ND	0.01
maximum								lb/ADTP	0.29	5.66	4.47	0.44	6.42
number of sources tested	7	8	7	7	2	8	8		4	8	8	8	8
number of sources with detects									2	8	8	7	8
% of TRS, S basis ^b									7.6%	53.4%	37.4%	1.6%	100.0%
mean for 3 hardwood systems								lb/ADTP	0.001	0.13	0.45	0.02	0.34
mean for 4 softwood systems								lb/ADTP	0.001	0.18	0.50	0.11	0.46

^acomputed treating ND as ½ DL; ^bbased upon mean of 4 data sets with all 4 reduced sulfur compounds tested

¹Note: For total reduced sulfur or TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources.

²estimated from dscfm, T and % H₂O

Table A-1. TRS Data Summary – Kraft Pulp Mill Bleach Plants

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTBP/day	dscfm/ADTBP	Reduced Sulfur Compounds					TRS ^a as S
				acfm	dscfm	Temp ° F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS	
I. Bleach Plant Vent Gas Emissions – Speciated & TRS Emissions																
BPIA1	07/93	3	A - Side Bleach Plant Scrubber Outlet (Softwood) ¹	21,314	15,672	136.0	17.0	20.9	510	30.7	ppmd		<i>0.68</i>	11.35	<i>0.68</i>	13.38
											lb/hr		<i>0.079</i>	1.717	<i>0.155</i>	1.045
											lb/ADTBP		<i>3.7E-03</i>	8.1E-02	<i>7.3E-03</i>	4.9E-02
BPIA2	07/93	3	B – Side Bleach Plant (Hardwood) 2 vents – scrubber outlet + 20B tower ¹ * average ppmd for 2 vents	23,885	20,576	110.0	7.0	20.9	276	74.4	ppmd*		<i>0.32</i>	1.16	<i>0.33</i>	2.14
											lb/hr		<i>0.050</i>	0.231	<i>0.098</i>	0.219
											lb/ADTBP		<i>4.3E-03</i>	2.0E-02	<i>8.5E-03</i>	1.9E-02
BPIB	08/93	3	Bleach Plant Vents (Hardwood) 2 vents – Cl ₂ & ClO ₂ scrubber outlets ¹ *average ppmd for 2 vents	29,276	23,802	118.0	11.0	20.9	675	35.3	ppmd*		<i>0.33</i>	1.12	<i>0.33</i>	2.11
											lb/hr		<i>0.059</i>	0.257	<i>0.115</i>	0.250
											lb/ADTBP		<i>2.1E-03</i>	9.2E-03	<i>4.1E-03</i>	8.9E-03
BPIC234	12/92	5	C-Line Scrubber Outlet Condition A	20,900	16,440	126.0	12.7	20.8	1,199		ppmd		<i><0.57</i>	<i><0.57</i>	<i><0.57</i>	<i><2.28</i>
											lb/hr		<i><0.070</i>	<i><0.090</i>	<i><0.137</i>	<i><0.187</i>
BPIC234	12/92	5	C-Line Scrubber Outlet Condition B	20,000	14,597	139.0	17.2	20.8	1,095		ppmd		<i><0.60</i>	<i><0.60</i>	<i><0.60</i>	<i><2.40</i>
											lb/hr		<i><0.065</i>	<i><0.085</i>	<i><0.128</i>	<i><0.175</i>
BPIC234	12/92	5	C-Line Scrubber Outlet Condition C	21,200	16,449	130.0	13.3	20.8	1,093		ppmd		<i><0.58</i>	<i><0.58</i>	<i><0.58</i>	<i><2.32</i>
											lb/hr		<i><0.071</i>	<i><0.092</i>	<i><0.140</i>	<i><0.190</i>
BPIC234	12/92	5	C-Line Scrubber Outlet (avg of 3 product conditions) (softwood) - uses weak wash for scrubbing medium - 1 vent – scrubber outlet only ¹	20,700	15,829	131.7	14.4	20.8	1,129	14.0	ppmd		<i>0.289</i>	<i>0.289</i>	<i>0.289</i>	<i>1.16</i>
											lb/hr		<i>0.034</i>	<i>0.044</i>	<i>0.067</i>	<i>0.091</i>
											lb/ADTBP		<i>7.3E-04</i>	<i>9.4E-04</i>	<i>1.4E-03</i>	<i>1.9E-03</i>
BPIC11	12/92	5	A & B-Line Scrubber Outlet (Pinewood) – uses weak wash for scrubbing medium - 1 vent – scrubber outlet only ¹	38,233	31,553	111.3	10.7	20.8	698	45.2	ppmd		<i>0.28</i>	<i>0.28</i>	<i>0.28</i>	<i>1.12</i>
											lb/hr		<i>0.066</i>	<i>0.085</i>	<i>0.129</i>	<i>0.176</i>
											lb/ADTBP		<i>2.3E-03</i>	<i>2.9E-03</i>	<i>4.4E-03</i>	<i>6.1E-03</i>
BPIC12	12/92	5	A & B-Line Scrubber Outlet (Hardwood) – uses weak wash for scrubbing medium - 1 vent – scrubber outlet only ¹	35,467	31,294	102.7	6.0	20.8	557	56.2	ppmd		<i>0.27</i>	<i>0.27</i>	<i>0.27</i>	<i>1.06</i>
											lb/hr		<i>0.062</i>	<i>0.080</i>	<i>0.121</i>	<i>0.165</i>
											lb/ADTBP		<i>2.7E-03</i>	<i>3.4E-03</i>	<i>5.2E-03</i>	<i>7.1E-03</i>
BPID	05/93	3	Bleach Plant (hardwood/softwood) 1 vent – scrubber outlet only ¹	21,233	17,277	124.0	10.0	20.8	1,048	16.5	ppmd		9.34	<i>0.48</i>	<i>0.48</i>	10.78
											lb/hr		1.206	<i>0.080</i>	<i>0.121</i>	0.928
											lb/ADTBP		<i>2.8E-02</i>	<i>1.8E-03</i>	<i>2.8E-03</i>	<i>2.1E-02</i>

^aTRS – total reduced sulfur, not including H₂S; ¹see NCASI Tech. Bull. No. 701, Table 3, for other details

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-1. (Cont'd) TRS Data Summary – Kraft Pulp Mill Bleach Plants

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTBP/day	dscfm/ADTBP	Reduced Sulfur Compounds					TRS ^a as S
				acfm	Dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS	
BPII	08/93	3	A-Line ClO ₂ Scrubber Outlet (hardwood) – uses weak wash for scrubbing medium - 1 vent – scrubber outlet only ¹	20,152	13,085	158.0	24.0	20.8	719	18.2	ppmd	0.61	<i>0.425</i>	<i>0.425</i>	1.89	
												lb/hr	0.060	<i>0.054</i>	<i>0.081</i>	0.123
												lb/ADTBP	2.0E-03	<i>1.8E-03</i>	<i>2.7E-03</i>	4.1E-03
BPIJ12	10/92	6	Bleach Plant Scrubber (normal hardwood)	33,600	27,455	118.8	10.4	20.8	585		ppmd	0.57	0.3975	0.71	2.4	
												lb/hr	0.117	0.105	0.285	0.327
BPIJ12	10/92	10	Bleach Plant Scrubber (swing sftwd-hdwd)	31,817	25,815	118.8	11.1	20.8	499		ppmd	0.96	<i>0.28</i>	<i>0.28</i>	1.8	
												lb/hr	0.185	<i>0.070</i>	<i>0.106</i>	0.232
BPIJ12	10/92	5	Bleach Plant Scrubber (swing hdwd-sftwd)	35,650	28,828	119.5	11.3	20.8	388		ppmd	0.85	<i>0.28</i>	<i>0.28</i>	1.7	
												lb/hr	0.183	<i>0.078</i>	<i>0.118</i>	0.243
BPIJ12	10/92	5	Bleach Plant Scrubber (normal softwood)	38,300	30,734	121.0	11.7	20.8	388		ppmd	<i>0.56</i>	<i>0.43</i>	0.95	2.9	
												lb/hr	<i>0.129</i>	<i>0.128</i>	<i>0.427</i>	0.443
BPIJ12	10/92	26	Bleach Plant Scrubber – tests include 6 w/hdwd, 10 w/sftwd, & 10 with swing ¹	34,842	28,218	119.5	11.1	20.8	465	60.7	ppmd	0.74	0.35	0.56	2.19	
												lb/hr	0.154	0.095	0.234	0.311
												lb/ADTBP	7.9E-03	4.9E-03	1.2E-02	1.6E-02
BPME1	4/93	3	Mill E, "C Line" Bleach Plant Emissions (Softwood) – includes, 2 scrubber vents, 2 E-stage & 2 D stage washer vents, 1 E-tower vent ²	28,827	24,431	108.5	8.8		721	33.9	ppmd	2.80	<i>0.49</i>	0.77	4.83	
												lb/hr	0.511	<i>0.116</i>	0.276	0.588
												lb/ADTBP	1.7E-02	<i>3.9E-03</i>	<i>9.2E-03</i>	2.0E-02
BPME2	4/93	3	Mill E, "B Line" Bleach Plant Emissions (Softwood) – includes 1 scrubber vent, 2 E-tower vents ²	16,866	14,869	100.0	6.5		448	33.2	ppmd	<i>0.50</i>	<i>0.50</i>	<i>0.51</i>	2.03	
												lb/hr	<i>0.056</i>	<i>0.072</i>	<i>0.112</i>	<i>0.151</i>
												lb/ADTBP	<i>3.0E-03</i>	<i>3.9E-03</i>	<i>6.0E-03</i>	<i>8.1E-03</i>
BPME3	4/93	3	Mill E, "B Line" Bleach Plant Emissions (Hardwood) – includes 1 scrubber vent, 2 E-tower vents ²	15,886	13,588	107.0	8.2		436	31.2	ppmd	<i>0.47</i>	<i>0.47</i>	<i>0.46</i>	1.86	
												lb/hr	<i>0.048</i>	<i>0.062</i>	<i>0.091</i>	<i>0.126</i>
												lb/ADTBP	<i>2.7E-03</i>	<i>3.4E-03</i>	<i>5.0E-03</i>	<i>6.9E-03</i>
BPMF1	4/93	3	Mill F, Bleach Plant Emissions (Hardwood) – includes 1 scrubber vent, 1 (E,O+P) tower & 1 (E,O+P) washer & seal tank vent ²	17,634	13,828	124.0	13.3		749	18.5	ppmd	0.85	0.70	<i>0.44</i>	2.43	
												lb/hr	0.087	0.094	<i>0.089</i>	0.167
												lb/ADTBP	2.8E-03	3.0E-03	<i>2.9E-03</i>	5.4E-03

^aTRS – total reduced sulfur, not including H₂S; ¹see NCASI Tech. Bull. No. 701, Table 3, for other details; ²see NCASI Tech. Bull. No. 679 for other details

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-1. (Cont'd) TRS Data Summary – Kraft Pulp Mill Bleach Plants

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTBP/day	dscfm/ADTBPD	Reduced Sulfur Compounds					TRS ^{1,2} as S	
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS		
BPMN	4/93	3	Mill N, Bleach Plant Emissions (Softwood) – includes 1 scrubber vent & 1 (E,O+P) tower vent ³	13,837	8,324	157.0	29.7		1,307	6.4	ppmd		11.38	0.68	0.67	13.40	
												lb/hr	0.708	0.054	0.082	0.556	
												lb/ADTBP	1.3E-02	1.0E-03	1.5E-03	1.0E-02	
				mean ^a	24,566 ^d	19,691	120.9	11.8	20.8	698.2	32.9	ppmd	1.70	1.59	0.86	5.01	
				median	22,986 ^d	18,927	114.9	10.4	20.8	662.9	32.2	ppmd	0.50	0.50	0.47	1.94	
				minimum		1,646	98.0	6.0	20.8	276.5	4.0	ppmd	0.24	0.24	0.24	0.95	
				maximum		38,723	158.0	29.7	20.9	1,345.7	100.1	ppmd	11.38	13.94	9.70	35.82	
				mean ^a								lb/ADTBP	6.6E-03	1.1E-02	8.9E-03	1.6E-02	
				median								lb/ADTBP	3.3E-03	3.6E-03	5.1E-03	7.6E-03	
				minimum								lb/ADTBP	1.8E-04	2.4E-04	3.6E-04	4.8E-04	
				maximum								lb/ADTBP	3.4E-02	8.1E-02	8.6E-02	1.1E-01	
				no. of sources tested	26	26	26	26	15	26	26			26	26	26	26
				no. of sources with detects										9	11	6	16
			% of TRS ¹ , S basis ^b										27.0%	35.6%	37.4%	100.0%	
II. Other Miscellaneous Bleach Plant Vent Gases																	
BPIC	12/92	4	2A Extraction Tower (bleach plant)	134	124	88.0	4.0	20.8	379	0.3	ppmd		0.26	0.26	0.26	1.04	
											lb/hr	0.000	0.000	0.000	0.001		
											lb/ADTBP	1.5E-05	2.0E-05	3.0E-05	4.1E-05		
BPIC	02/93	4	R8 Tail Gas Scrubber Outlet	1,387	1,182	110.0	8.0	20.8	1,702	0.7	ppmd		0.27	0.27	0.27	1.08	
											lb/hr	0.002	0.003	0.005	0.006		
											lb/ADTBP	3.4E-05	4.3E-05	6.6E-05	9.0E-05		
BPBB	07/98	1	Chlorination Tower Scrubber	215	183	110.0	8.1		689		ppmd					4.2	
											lb/hr					0.004	
BPBB	02/98	1	Chlorination Tower Scrubber	203	196	68.0	2.0		656		ppmd					2.1	
											lb/hr					0.002	

¹TRS – total reduced sulfur, not including H₂S; ²for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ³see NCASI Tech. Bull. No. 679 for other details; ⁴estimated from dscfm, T and % H₂O; ^acomputed treating ND as 0.5 DL; ^bbased upon mean of data sets with all three reduced sulfur compounds tested

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-2. TRS Data Summary – Oxygen Delignification System Vents

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
ODMK	04/94	3	O ₂ Delig. System (Hardwood) -	9,496	7,568	122.0	12.2		1394.6	5.4	ppmd	3.92 ^a	0.35	2.05	0.36	7.04	
			includes reactor blow tank, 2 post O ₂								lb/hr	0.157 ^a	0.020	0.150	0.040	0.266	
			washers, stock chest, 2 filtrate tanks ¹								lb/ADTP	2.7E-03 ^b	3.5E-04	2.6E-03	6.9E-04	4.6E-03	
ODMN	04/94	3	O ₂ Delig. System (Softwood) -	12,513	8,952	139.3	18.8		1159.8	7.7	ppmd	2.75 ^a	0.53	0.51	0.53	4.85	
			includes O ₂ blow tank, presses &								lb/hr	0.130 ^a	0.036	0.044	0.069	0.216	
			filtrate tanks & stock chest ¹								lb/ADTP	2.7E-03 ^b	7.4E-04	9.2E-04	1.4E-03	4.5E-03	
ODII	7/93	1	Pre-O ₂ Surge Tank Vent	3,907	31	213.0	99.0	20.8	1,262		ppmd		42.5	42.5	367	819	
											lb/hr		0.010	0.013	0.165	0.125	
ODII	7/93	2	Oxygen Blow Tank Vent	2,422	496	210.0	74.0	20.8	1,267		ppmd		4.0	4.0	4.0	16.0	
											lb/hr		0.015	0.019	0.029	0.040	
ODII	7/93	3	Oxygen Roll Press Vent	1,521	602	180.0	52.0	20.8	1,082		ppmd		2.6	2.6	2.6	10.4	
											lb/hr		0.012	0.015	0.023	0.031	
ODII	7/93	3	Oxygen Press Level Tank Vent	338	99	190.0	64.0	20.8	917		ppmd		4.2	4.2	10.9	30.19	
											lb/hr		0.003	0.004	0.016	0.015	
ODII	7/93	3	Oxygen Press Filtrate Tank Vent	367	192	166.0	38.0	20.8	1,262		ppmd		1.4	1.4	1.4	5.6	
											lb/hr		0.002	0.003	0.004	0.005	
ODII	07/93	3	O ₂ Delig. System (mixed, 65% sftwd)	8,555	1,420	190.0	59.6	20.8	1262.0	1.1	ppmd*	18.88 ^a	9.66	9.66	28.18	94.55	
			- surge, blow, roll press, press level &									lb/hr	0.142 ^a	0.041	0.053	0.236	0.350
			press filtrate tank vents ²									lb/ADTP	2.7E-03 ^b	7.9E-04	1.0E-03	4.5E-03	6.6E-03

¹see NCASI Tech. Bull. No. 675 for other details; ²see NCASI Tech. Bull. No. 701, Table 4, for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds					TRS as S
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS	
I. "High-Flow" Brownstock Washers¹ - Speciated & TRS Emissions																
BSWG1	05/99	1	Line 1, Stage 2 Filtrate Foam Breaker	727	629	107.0	7.9		586		ppmd	0.5	0.5	88.0	27.0	143.0
											lb/hr	0.002	0.002	0.530	0.250	0.447
BSWG1	05/99	1	Line 1, Stage 3 Filtrate Tank	392	295	133.0	16.2		586		ppmd	0.5	57.0	1830.0	410.0	2707.5
											lb/hr	0.001	0.130	5.220	1.770	3.987
BSWG1	05/99	1	Line 1, Stage 2 Floor Drain	10	10	90.0	4.7		586		ppmd	0.5	4.0	660.0	40.0	744.5
											lb/hr	0.000	0.000	0.060	0.010	0.038
BSWG1	05/99	1	Line 1, Hood Fan 1	14,600	13,700	87.0	4.3		586		ppmd	0.5	0.5	9.0	1.0	12.0
											lb/hr	0.036	0.051	1.190	0.200	0.819
BSWG1	05/99	1	Line 1, Hood Fan 2	4,480	4,190	86.0	4.1		586		ppmd	0.5	0.5	6.0	1.0	9.0
											lb/hr	0.011	0.016	0.240	0.060	0.186
BSWG1	05/99	1	Line 1, Hood Fan 3	27,200	25,500	86.0	4.1		586		ppmd	0.5	0.5	3.0	1.0	6.0
											lb/hr	0.068	0.095	0.740	0.370	0.761
BSWG1	05/99	1	Line 1, Hood Fan 4	9,830	9,320	82.0	3.6		586		ppmd	0.5	0.5	0.5	0.5	2.5
											lb/hr	0.025	0.035	0.045	0.068	0.116
BSWG1	05/99	1	Line 1, Brownstock Washing System (hardwood) - includes 4 hoods, foam breaker, filtrate tank & floor drain	57,239	53,644	86.1 ^a	4.2 ^a		586	91.5	ppmd ^a	0.5	0.8	15.5	3.5	23.8
											lb/hr	0.142	0.329	8.025	2.728	6.353
											lb/ADTP	5.8E-03	1.3E-02	3.3E-01	1.1E-01	2.6E-01
BSWG2	05/99	1	Line 2, Hood Fan 6	20,100	18,700	87.0	4.3		470		ppmd	1.0	22.0	13.0	5.0	46.0
											lb/hr	0.10	3.070	2.340	1.370	4.281
BSWG2	05/99	1	Line 2, Hood Fan 5	23,500	21,500	92.0	5.0		470		ppmd	1.0	22.0	13.0	5.0	46.0
											lb/hr	0.11	3.530	2.700	1.570	4.919
BSWG2	05/99	1	Line 2, Hood Fan 4	15,300	13,900	93.0	5.2		470		ppmd	0.5	1.0	4.0	2.0	9.5
											lb/hr	0.037	0.100	0.540	0.410	0.659
BSWG2	05/99	1	Line 2, Hood Fan 3	4,270	3,730	104.0	7.2		470		ppmd	0.5	0.5	6.0	2.0	11.0
											lb/hr	0.010	0.014	0.220	0.110	0.207
BSWG2	05/99	1	Line 2, Hood Fan 2	5,940	5,370	95.0	5.5		470		ppmd	0.5	0.5	2.0	1.0	5.0
											lb/hr	0.014	0.020	0.100	0.080	0.133

^appmd, temp., & % H₂O are averages of all vents; ¹"high-flow" is arbitrarily assigned to washers with normalized flow rates (dscfm/ADTPD) >10

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds					TRS as S	
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS		
BSW1A1	07/93	3	A – Side Brown Stock Washer (softwood) ²	53,597	46,254	109.0	7.0	20.9	677	68.3	ppmd	<i>0.98</i>	<i>0.60</i>	14.62	3.74	23.68	
												lb/hr	<i>0.240</i>	<i>0.206</i>	6.529	2.532	5.457
													lb/ADTP	<i>8.5E-03</i>	<i>7.3E-03</i>	2.3E-01	9.0E-02
BSW1D1	05/93	3	Softwood Brown Stock Washer, 1B Vent, B Line	25,278	23,254	91.0	4.0	20.8	243		ppmd		<i>0.415</i>	24.56	0.64	26.3	
												lb/hr		<i>0.072</i>	5.514	0.218	3.042
BSW1D1	05/93	3	Softwood Brown Stock Washer, 3B Vent, B Line	33,892	30,521	97.0	5.0	20.8	243		ppmd		<i>0.475</i>	5.96	<i>0.475</i>	7.4	
												lb/hr		<i>0.108</i>	1.756	<i>0.212</i>	1.123
BSW1D1	05/93	2	Softwood Foam Tank, B Line (tested one of two)	673	497	134.0	17.0	20.8	285		ppmd		1.45	1095.34	40.63	1,178.1	
												lb/hr		0.005	5.251	0.295	2.915
BSW1D1	05/93	3	Softwood Brown Stock Washer Vents – BSW system has A & B lines; B line emissions multiplied by 2 ²	119,686	108,543	94.8 ^c	4.7 ^c	20.8	497	218.4	ppmd ^c	0.21 ^a	0.46	23.90	0.91	26.39	
												lb/hr	0.120 ^a	0.372	25.042	1.451	14.274
													lb/ADTP	5.8E-03 ^b	1.8E-02	1.2E+00	7.0E-02
BSW1D2	05/93	3	Hardwood Brown Stock Washer, 1D Vent, D Line	37,349	34,673	86.0	4.0	20.8	399		ppmd		<i>0.485</i>	7.9	<i>0.485</i>	9.4	
												lb/hr		<i>0.126</i>	2.645	<i>0.246</i>	1.616
BSW1D2	05/93	3	Hardwood Brown Stock Washer, 3D Vent, D Line	37,494	34,744	87.0	4.0	20.8	399		ppmd		<i>0.45</i>	4.09	<i>0.45</i>	5.4	
												lb/hr		<i>0.117</i>	1.372	<i>0.229</i>	0.942
BSW1D2	05/93	3	Hardwood Foam Tank, D Line (tested one of two)	151	110	137.0	18.0	20.8	404		ppmd		24.08	1805.62	65.48	1,984.7	
												lb/hr		<i>0.020</i>	1.909	0.105	1.070
BSW1D2	05/93	3	Hdwood Brown Stock Washer Vents – BSW system has C & D lines; D line emissions multiplied by 2 ²	149,988	139,053	86.6 ^c	4.0 ^c	20.8	399	348.5	ppmd ^c	0.13 ^a	<i>0.50</i>	8.83	0.57	10.60	
												lb/hr	0.096 ^a	<i>0.525</i>	11.851	1.160	7.347
													lb/ADTP	5.8E-03 ^b	<i>3.2E-02</i>	7.1E-01	7.0E-02
BSW1E2	05/93	3	#1B BSW Vent (hardwood)*	8,724	7,210	115.0	10.0	20.9	508	14.2	ppmd		<i>0.795</i>	2.58	1.56	6.50	
												lb/hr*		<i>0.043</i>	0.180	0.165	0.233
BSW1E2	05/93	3	#4B BSW Vent (hardwood)*	16,945	14,805	102.0	7.0	20.9	508	29.1	ppmd		<i>0.89</i>	12.73	4.68	22.98	
												lb/hr*		<i>0.098</i>	1.820	1.014	1.695
BSW1E2	05/93	3	A & B Line Foam Tank Vent	1,046	536	168.0	39.0	20.9	905	0.6	ppmd		<i>1.46</i>	323.52	65.58	456.14	
												lb/hr		<i>0.006</i>	1.676	0.515	1.219

²see NCASI Tech. Bull. No. 701, Table 5, for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values; ^cppmd, temp., & % H₂O are averages of all vents

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S	
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS
BSWIF	03/93	3	#1 side, Nash Pump #1AB	1,621	1,019	153.0	27.0	20.8	701	1.5	ppmd		0.80	21.46	9.39	41.04
											lb/hr	0.006	0.211	0.140	0.208	
BSWIF	03/93	3	#1 side, Nash Pump #1CD	1,703	1,382	119.0	11.0	20.8	701	2.0	ppmd	0.64	0.64	0.64	2.54	
											lb/hr	0.007	0.008	0.013	0.017	
BSWIF	03/93	3	BSW Vent B-Line (softwood) - BSW side 1 emissions = ((IA + 3A + 3C)/3) * 8 + 2 nash pumps ²	84,069	77,855	88.7 ^c	5.4 ^c	20.8	700.8	111.1	ppmd ^c	0.41 ^a	0.54	1.20	1.07	4.29
											lb/hr	0.169 ^a	0.317	0.613	1.064	1.412
											lb/ADTP	5.8E-03 ^b	1.1E-02	2.1E-02	3.6E-02	4.8E-02
BSWIG1	03/93	3	BSW Vent B-Line 1 st stage	33,667	32,242	89.7	0.3	20.8	850		ppmd	0.12	0.44	0.44	0.44	1.88
											lb/hr	0.020	0.106	0.137	0.208	0.301
BSWIG1	03/93	3	BSW Vent B-Line 3 rd stage	44,333	42,509	83.3	1.3	20.8	850		ppmd	0.42	0.42	0.42	1.68	
											lb/hr	0.133	0.172	0.261	0.356	
BSWIG1	03/93	3	BSW Vent B-Line 4 th stage	19,364	17,837	90.7	3.9	20.8	886		ppmd	0.49	2.64	3.00	9.13	
											lb/hr	0.065	0.455	0.783	0.811	
BSWIG1	03/93	3	BSW Vent B-Line (softwood) - 3 hood vents ²	97,364	92,589	87.0 ^c	1.5 ^c	20.8	862	107.5	ppmd ^c	0.04	0.44	0.85	0.92	3.18
											lb/hr	0.052	0.811	2.037	1.026	2.340
											lb/ADTP	1.5E-03	2.3E-02	5.7E-02	2.9E-02	6.5E-02
BSWIG2	03/93	3	BSW Vent C-Line 1 st stage	30,767	27,923	98.3	4.0	20.8	744		ppmd	0.24	0.425	0.425	0.425	1.94
											lb/hr	0.035	0.089	0.115	0.174	0.270
BSWIG2	03/93	3	BSW Vent C-Line 3 rd stage	27,933	25,637	89.0	4.6	20.8	744		ppmd	0.46	0.46	0.46	1.84	
											lb/hr	0.088	0.114	0.173	0.235	
BSWIG2	03/93	2	BSW Vent C-Line 4 th stage	43,299	40,447	88.7	2.9	20.8	749		ppmd	0.46	2.75	4.44	12.09	
											lb/hr	0.139	1.074	2.629	2.437	
BSWIG2	03/93	3	BSW Vent C-Line (hardwood) - 3 hood vents ²	101,999	94,007	91.6 ^c	3.7 ^c	20.8	746	126.1	ppmd ^c	0.07	0.45	1.43	2.16	6.28
											lb/hr	0.095	0.842	3.473	4.477	5.491
											lb/ADTP	3.0E-03	2.7E-02	1.1E-01	1.4E-01	1.8E-01

²see NCASI Tech. Bull. No. 701, Table 5, for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values; ^cppmd, temp., & % H₂O are averages of all vents

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S	
				acfm	dscfm	Temp ° F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS
BSWIII	08/93	3	3A BSW Vent	22,267	19,110	106.0	8.0	20.8	814		ppmd	4.2	2.12	0.43	5.28	17.3
											lb/hr	0.425	0.303	0.079	1.477	1.648
BSWIII	08/93	2	A-Line Foam Breaker Vent	5,621	3,303	169.0	30.0	20.8	773		ppmd		33.1	95.42	42.82	214.2
											lb/hr		0.817	3.043	2.070	3.525
BSWIII	08/93	2 to 3	A-line Brown Stock Washing System (hardwood) - 3 hood vents & 1 one foam breaker vent - 2A BSW vent - emissions assumed = (1A + 3A)/2 ²	68,062	54,433	120.0 ^c	12.3 ^c	20.8	814	66.9	ppmd ^c	2.26	4.23	9.32	7.40	30.61
											lb/hr	0.673	1.363	3.526	5.039	6.792
											lb/ADTP	2.0E-02	4.0E-02	1.0E-01	1.5E-01	2.0E-01
BSWII2	08/93	3	1B BSW Vent	25,439	19,351	130.0	15.0	20.8	1,219		ppmd	0.37	0.65	1.76	1.23	5.2
											lb/hr	0.038	0.094	0.329	0.348	0.505
BSWII2	08/93	2	3B BSW Vent	19,474	14,147	136.0	18.0	20.8	1,219		ppmd	0.38	0.48	0.48	0.48	2.3
											lb/hr	0.028	0.051	0.066	0.099	0.162
BSWII2	08/93	1	B-Line Foam Breaker Vent	14,134	9,024	152.0	26.0	20.8	958		ppmd		14.22	161.43	16.75	209.2
											lb/hr		0.959	14.064	2.212	9.405
BSWII2	08/93	1	B-Line Brown Sewer Vent	71	59	132.0	7.0	20.8	1,337		ppmd	0.37	0.435	0.435	0.435	2.1
											lb/hr	0.000	0.000	0.000	0.000	0.001
BSWII2	08/93	1 to 3	B-line Brown Stock Washing System (65% softwood) - 3 hood, 1 foam breaker & 1 sewer vents - No. 2 vent emissions assumed = (1B + 3B)/2 ²	81,575	59,329	136.7 ^c	18.3 ^c	20.8	1,132	52.4	ppmd ^c	0.29	3.47	35.17	4.27	47.47
											lb/hr	0.470	1.611	15.091	3.319	11.565
											lb/ADTP	1.0E-02	3.4E-02	3.2E-01	7.0E-02	2.5E-01
BSWI	04/92	6	Brown Stock Washer Vents - (softwood) - 3 washers with a total of two vents ²	43,823	38,300	102.0	7.0	20.8	252	152.0	ppmd	2.10	2.65	4.00	2.15	13.05
											lb/hr	0.426	0.759	1.479	1.205	2.491
											lb/ADTP	4.1E-02	7.2E-02	1.4E-01	1.1E-01	2.4E-01
BSWP	07/92	6	"B" Brown Stock Washer Hood Vent	30,255	25,400	112.0	9.1	20.8	799		ppmd	0.25	1.4	1.25	0.625	4.2
											lb/hr	0.034	0.266	0.307	0.232	0.525
BSWP	07/92	6	"B" Brown Stock Washer Filtrate Vent	330	300	92.0	5.0	20.0	799		ppmd	2.5	74.7	101.1	10.9	200.1
											lb/hr	0.004	0.168	0.293	0.048	0.299
BSWP	07/92	6	"B" Brown Stock Washer - (softwood) - one 1-stage vacuum drum washer & 1 filtrate vent ²	30,585	25,700	111.8 ^c	9.0 ^c	20.8	799	32.2	ppmd ^c	0.28	2.26	2.42	0.74	6.44
											lb/hr	0.038	0.433	0.599	0.280	0.824
											lb/ADTP	1.1E-03	1.3E-02	1.8E-02	8.4E-03	2.5E-02

²see NCASI Tech. Bull. No. 701, Table 5, for other details; ^cppmd, temp., & % H₂O are averages of all vents

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/ day	dscfm/ ADTPD	Reduced Sulfur Compounds					TRS ¹ as S
				acfm	dscfm	Temp ° F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS	
I. "High-Flow" Brownstock Washers - Speciated & TRS Emissions – Summary																
			mean ^a	61,909 ²	53,758	101.2	7.7	20.8	588	94.6	ppmd	0.85	1.71	12.19	2.65	20.95
			median	57,168 ²	49,949	102.1	7.0	20.8	605	79.9	ppmd	0.48	0.89	8.37	1.35	12.42
			minimum		6,050	66.3	1.5	20.8	100	19.1	ppmd	0.04	0.04	0.25	0.19	1.80
			maximum		139,053	136.7	18.3	20.9	1,132	348.5	ppmd	2.39	11.80	60.48	10.25	84.33
			mean ^a								lb/ADTP	8.7E-03	3.6E-02	3.0E-01	9.2E-02	2.5E-01
			median								lb/ADTP	5.8E-03	1.9E-02	1.1E-01	7.0E-02	1.2E-01
			minimum								lb/ADTP	1.1E-03	2.0E-04	1.5E-03	1.7E-03	5.4E-03
			maximum								lb/ADTP	4.1E-02	3.6E-01	1.7E+00	4.0E-01	1.2E+00
			number of sources tested	24	24	24	24	16	24	24		13	24	24	24	24
			number of sources with detects									6	14	23	22	24
			% of TRS, S basis ^b									5.6%	18.6%	44.8%	31.0%	100.0%
			mean of 9 "high-flow" hdwd lines	73,096 ²	64,046	98.5	7.3	20.8	589.3	110.4	lb/ADTP	6.6E-03	2.1E-02	2.5E-01	1.0E-01	2.2E-01
			mean of 14 "high-flow" sftwd lines	53,463 ²	46,746	100.3	7.2	20.8	547.9	87.5	lb/ADTP	9.9E-03	4.5E-02	3.3E-01	8.8E-02	2.7E-01
												TRS as S				
			Additional data for seven "high-flow" washers tested only for TRS emissions										ppmd	lb/ADTP		
			mean of 7 "high-flow" lines	39,981 ²	34,274	104.9	8.3	20.4	697	54.2		5.63	2.8E-02			
			median	32,503 ²	27,233	112.2	9.2	20.4	689	39.5		3.74	3.8E-02			
			minimum		17,758	84.0	4.4	20.4	476	30.0		0.45	5.2E-03			
			maximum		57,096	121.7	12.3	20.4	1,010	105.2		10.72	5.1E-02			
			Averages for all 31 "high-flow" washers (24 tested for reduced sulfur compounds and 7 for TRS only) – TRS and vent gas properties													
			mean of 31 "high-flow" lines	57,008 ²	49,358	102.0	7.8	20.7	613	85.5			16.8	2.0E-01		
			median	51,784 ²	44,819	104.4	7.5	20.7	624	70.8			10.5	1.0E-01		
			minimum		6,050	66.3	1.5	20.4	100	19.1			0.5	5.2E-03		
			maximum		139,053	136.7	18.3	20.9	1,132	348.5			84.3	5.1E-02		
			number of sources tested	30	31	30	30	17	31	31			31	31		

¹for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ²estimated from dscfm, T and % H₂O; ³computed treating ND as ½ DL; ⁴based on mean of 13 data sets with all four reduced sulfur compounds tested

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
BSWGM2	04/94	3	Mill G Softwood Brown Stock Washer – diffusion washer & filtrate tank ¹	593	424	139.0	18.9		618	0.7	ppmd	0.61 ^a	2.7	92.7	68.8	233.5	
												lb/hr	0.001 ^a	0.009	0.379	0.427	0.493
													lb/ADTP	5.3E-05 ^b	3.3E-04	1.5E-02	1.7E-02
BSWML1	04/94	3	Mill L Hardwood Brown Stock Washer – 1 filtrate tank, 2 drum washer vents ¹	14,853	7,675	140.8	41.2		803	9.6	ppmd	0.04 ^a	3.6	299.2	13.2	329.1	
												lb/hr	0.002 ^a	0.206	22.170	1.478	12.588
													lb/ADTP	5.3E-05 ^b	6.2E-03	6.6E-01	4.4E-02
BSWML2	04/94	3	Mill L Hardwood Brown Stock Washer – 1 filtrate tank, 1 diff. Washer + 1 drum washer vent ¹	9,588	6,050	128.0	29.7		796	7.6	ppmd	0.05 ^a	1.0	57.4	2.0	62.5	
												lb/hr	0.002 ^a	0.046	3.355	0.177	1.884
													lb/ADTP	5.3E-05 ^b	1.4E-03	1.0E-01	5.3E-03
BSWMM	04/94	3	Mill M Softwood Brown Stock Washer – 2 compaction baffle washers - 1 vent ¹	1,588	759	173.3	42.7		282	2.7	ppmd	0.15 ^a	34.2	1767.2	75.8	1,953.1	
												lb/hr	0.001 ^a	0.194	12.950	0.842	7.387
													lb/ADTP	5.3E-05 ^b	1.7E-02	1.1E+00	7.2E-02
BSWA ³	1982	1	Washer A (sftwd:hdwd::90:10) ³ – Diffusion Washer	491	418	160.0			1,125	0.4	ppmd	0.8	0.4	8.5	0.8	11.3	
												lb/hr	0.002	0.001	0.034	0.005	0.024
													lb/ADTP	5.3E-05	2.7E-05	7.3E-04	1.0E-04
BSWB ³	1982	1	Washer B (sftwd) ³ – Diffusion Washer	101	88	145.0			760	0.1	ppmd	0.1	3.2	0.1	0.1	3.4	
												lb/hr	0.000	0.002	0.000	0.000	0.001
													lb/ADTP	1.0E-06	6.6E-05	1.3E-06	2.0E-06
BSWD ³	1982	1	Washer D (hdwd) ³ – Diffusion Washer	107	88	180.0			590	0.1	ppmd	9.2	15.0	6.5	3.6	37.9	
												lb/hr	0.006	0.010	0.006	0.005	0.018
													lb/ADTP	2.5E-04	4.0E-04	2.2E-04	1.9E-04
BSWH ³	1982	1	Washer H (sftwd) ³ – Diffusion	99	88	135.0			1,300	0.1	ppmd	1.5	1.1	2.0	0.5	5.6	
												lb/hr	0.001	0.001	0.002	0.001	0.003
													lb/ADTP	1.8E-05	1.3E-05	3.1E-05	1.2E-05

¹see NCASI Tech. Bull. No. 678 for other details; ³see NCASI Tech. Bull. No. 406 for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
III. Pulp Deknotters – Speciated and TRS Emissions																	
PKMF	04/94	3	Knot Tank (Hardwood) ¹	165	128	126.7	14.0		938	0.14	ppmd	ND ^a	<i>0.49</i>	5.82	0.77	7.84	
												lb/hr	ND ^a	<i>0.000</i>	0.007	0.001	0.005
												lb/ADTP	ND ^b	<i>1.2E-05</i>	1.8E-04	3.7E-05	1.3E-04
PKML1	04/94	3	No. 1 Digester Knot Drainer Hood (Hardwood) ¹	534	449	111.3	9.1		757	0.59	ppmd	ND ^a	4.5	367.9	2.5	377.4	
												lb/hr	ND ^a	0.015	1.595	0.016	0.844
												lb/ADTP	ND ^b	<i>4.8E-04</i>	<i>5.1E-02</i>	<i>5.2E-04</i>	<i>2.7E-02</i>
PKML2	04/94	3	No. 2 Digester Knot Drainer Hood (Hardwood) ¹	985	834	109.7	8.6		474	1.76	ppmd	ND ^a	<i>0.70</i>	<i>0.70</i>	<i>0.70</i>	2.80	
												lb/hr	ND ^a	<i>0.004</i>	<i>0.006</i>	<i>0.009</i>	<i>0.012</i>
												lb/ADTP	ND ^b	<i>2.2E-04</i>	<i>2.9E-04</i>	<i>4.3E-04</i>	<i>5.9E-04</i>
PKIG	03/93	3	2 nd Knotter Hood Vent (softwood & hardwood)	3,190	2,949	110.0	0.2	20.8	1,595	1.85	ppmd	ND ^a	<i>0.45</i>	4.08	2.56	9.65	
												lb/hr	ND ^a	<i>0.010</i>	0.116	0.111	0.142
												lb/ADTP	ND ^b	<i>1.5E-04</i>	1.7E-03	1.7E-03	2.1E-03
PKSW1	02/92	1	Johnson Reject Screen (softwood & hardwood) - knot dewatering screen		7,186				868	8.28	ppmd	ND	ND	4.63	2.79	10.21	
												lb/hr	ND	ND	0.321	0.293	0.366
PKSW2	02/92	1	Johnson Screen Hood (softwood & hardwood) - knot dewatering screen		11,002				1,193	9.22	ppmd	ND	ND	175.00	54.70	284.40	
												lb/hr	ND	ND	18.589	8.809	15.592
PKSW12	02/92	1	Johnson Reject Screen & Screen Hood (softwood & hardwood) - knot dewatering screen		18,188				1,031	17.50	ppmd	ND ^d	ND	107.7	34.2	176.1	
												lb/hr	ND ^d	ND	18.910	9.103	15.958
												lb/ADTP	ND ^d	ND	4.4E-01	2.1E-01	3.7E-01

¹see NCASI Tech. Bull. No. 678 for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
IV. Pulp Deckers – Speciated & TRS Emissions																	
DEME	04/94	3	C Pulp Line Rewasher (Softwood Decker) - rewasher hood + rewasher filtrate tank ⁴	4,336	3,865	96.4	6.1		910	4.2	ppmd	ND ^a	0.48	59.81	8.01	76.32	
												lb/hr	ND ^a	0.014	2.232	0.453	1.470
												lb/ADTP	ND ^b	3.7E-04	5.9E-02	1.2E-02	3.9E-02
DEMF	04/94	3	Hardwood Decker Hood Vent ⁴	34,137	31,392	88.3	4.5		779	40.3	ppmd	ND ^a	0.47	0.47	0.49	1.92	
												lb/hr	ND ^a	0.111	0.143	0.224	0.300
												lb/ADTP	ND ^b	3.4E-03	4.4E-03	6.9E-03	9.2E-03
DEMM	04/94	3	Softwood Decker Hood Vent ⁴	8,455	7,530	97.7	5.9		441	17.1	ppmd	ND ^a	0.24	3.96	0.23	4.66	
												lb/hr	ND ^a	0.014	0.288	0.025	0.175
												lb/ADTP	ND ^b	7.4E-04	1.6E-02	1.4E-03	9.5E-03
DEIE1	05/93	3	#4B, Decker Vent (hardwood) ²	16,945	14,805	102.0	7.0	20.9	508	29.1	ppmd	ND ^a	0.89	12.73	4.68	22.98	
												lb/hr	ND ^a	0.098	1.820	1.014	1.695
												lb/ADTP	ND ^b	4.7E-03	8.6E-02	4.8E-02	8.0E-02
DEIE2	05/93	3	#4A, Decker Vent (softwood) ²	16,692	14,847	98.0	6.0	20.9	322	46.1	ppmd	ND ^a	0.91	6.93	2.06	11.96	
												lb/hr	ND ^a	0.101	0.993	0.448	0.885
												lb/ADTP	ND ^b	7.5E-03	7.4E-02	3.3E-02	6.6E-02
DEIH	09/93	1	No. 2 Side, Decker Washer Vent		27,160				653	41.6	ppmd		0.5	9.0	0.5	10.5	
												lb/hr		0.102	2.360	0.199	1.421
DEIH	09/93	1	No. 2 Side, Decker Filtrate Vent		196				1,260	0.2	ppmd		4.5	1454.0	437.0	2332.5	
												lb/hr		0.007	2.751	1.254	2.278
DEIH	09/93	1	Softwood Decker - includes one washer vent & 1 filtrate tank vent – tested w/summa canister -** decker washer vent concns.		27,356				653	41.9	ppmd**	ND ^a	0.50	9.00	0.50	10.50	
												lb/hr	ND ^a	0.108	5.111	1.453	3.699
												lb/ADTP	ND ^b	4.0E-03	1.9E-01	5.3E-02	1.4E-01

²see NCASI Tech. Bull. No. 701, Table 5, for other details; ⁴see NCASI Tech. Bull. No. 677 for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-3. (Cont'd) TRS Data Summary – Brownstock Washers, Pulp Deknotters, Screens & Deckers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds					TRS ¹ as S
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS	
IV. Pulp Deckers – Speciated & TRS Emissions - Summary																
			mean ^a	15,125 ²	13,059	105.7	7.5	20.8	654.7	22.0	ppmd	ND	12.1	25.9	13.7	65.4
			median	10,633 ²	9,306	101.8	6.9	20.8	625.1	17.1	ppmd	ND	0.5	6.9	4.0	15.5
			minimum		436	88.3	4.5	20.8	322.1	0.7	ppmd	ND	0.2	0.5	0.2	1.9
			maximum		31,392	136.0	14.0	20.9	1,296	46.1	ppmd	ND	97.2	173.0	115.0	500.2
			mean ^a								lb/ADTP	ND	9.9E-03	4.8E-02	2.8E-02	5.1E-02
			median								lb/ADTP	ND	3.4E-03	2.7E-02	2.8E-02	3.5E-02
			minimum								lb/ADTP	ND	3.7E-04	4.1E-03	1.4E-03	9.2E-03
			maximum								lb/ADTP	ND	7.4E-02	1.9E-01	5.8E-02	1.4E-01
			number of sources tested	10	11	10	10	7	11	11		1	11	11	11	11
			number of sources with detects									0	2	10	8	10
			% of TRS, S basis ^b									0.0%	10.4%	34.6%	46.0%	100.0%

¹for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ²estimated from dscfm, T and % H₂O; ^acomputed treating ND as ½ DL; ^bbased on sole data set with all four reduced sulfur compounds tested

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. t wet chips/hr	dscfm/tchp/h	Reduced Sulfur Compounds					TRS as S	
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS		
I. Uncontrolled Batch Digester Fill Exhaust - Speciated and TRS Emissions																	
NCGM3	05/97	3	Digester Air Evaporative Header (batch digesters, softwood)	3,816	2,488	149.2	24.8		175 ^c	14.2	ppmd	ND	ND	5.33	ND	5.33	
												lb/hr	ND	ND	0.128	ND	0.07
												lb/t chips ^c	ND	ND	7.3E-04	ND	3.8E-04
NCGMM	1994	3	Mill M Hardwood Batch Digester Evacuation Vent – see NCASI Tech. Bull. No. 677	6,334	6,273	63.0	1.9		59.0	106.3	ppmd	ND ^a	0.26	21.44	0.26	22.21	
												lb/hr	ND ^a	0.012	1.299	0.024	0.694
												lb/t chips	ND ^b	2.1E-04	2.2E-02	4.0E-04	1.2E-02
NCGMO1	1994	3	Mill O Hardwood Batch Digester Chip Fill Exhaust – see NCASI Tech. Bull. No. 677	549	503	90.0	4.5		48.1	10.5	ppmd	ND ^a	0.72	61.37	1.11	64.31	
												lb/hr	ND ^a	0.003	0.298	0.008	0.161
												lb/t chips	ND ^b	5.6E-05	6.2E-03	1.7E-04	3.4E-03
NCGMO2	1994	3	Mill O Softwood Batch Digester Chip Fill Exhaust – see NCASI Tech. Bull. No. 677	415	386	84.3	4.1		51.6	7.5	ppmd	ND ^a	0.71	16.62	0.69	18.69	
												lb/hr	ND ^a	0.002	0.062	0.004	0.036
												lb/t chips	ND ^b	4.0E-05	1.2E-03	7.5E-05	7.0E-04

^aestimated from assumed lb/t chips; ^bH₂S not measured – lb H₂S/ADTP assumed equal to median of measured values; ^cassumed 4 ton chips = 1 adtp

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod.		Reduced Sulfur Compounds					TRS as S
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂	t wet chps/hr	dscfm/tchp/h	Units	H ₂ S	CH ₃ SH	DMS	DMDS	
IIa. Uncontrolled Continuous Digester Chip Bin Exhaust - Speciated and TRS Emissions - Live Steam																
NCGW3	02/92	1	Softwood Chip Bin (cont. digester)	1,276	1,118	143.0			92 ^b	12.1	ppmd	ND	214.0	1,890.0	193.0	2,490
											lb/hr	ND	1.788	20.392	3.157	13.866
											lb/t chips ^b	ND	1.9E-02	2.2E-01	3.4E-02	1.5E-01
NCGZC11	06/98	1	Kamyr Digester Chip Bin Vent - Low pressure feeder on steaming vessel vented to chip bin - normal operation	1,769	1,315	140.0	15.5	20.8	150 ^b	8.8	ppmd					1,313
											lbs/hr					8.604
											lb/t chips ^b					5.7E-02
NCGZC21	06/98	1	M&D Sawdust Digester Cyclone Exit - M&D Digester (RIV) Vented to Pre-steamer - presteamer vents to sawdust bin which vents to cyclone	17,365	16,451	80.0	3.1	20.3	50 ^b	329.0	ppmd					6.80
											lbs/hr					0.557
											lb/t chips ^b					1.1E-02
NCGZC3	06/98	1	Pins Kamyr Cyclone Vent - Low pressure feeder on steaming vessel vented to cyclone - normal operation	1,448	683	170.0	43.7	20.2	25 ^b	27.3	ppmd					46.5
											lbs/hr					0.158
											lb/t chips ^b					6.3E-03
Averages for 4 continuous digester chip bin exhaust vents (1 tested for reduced sulfur compounds and 3 for TRS only) - TRS and vent gas properties											TRS as S					
			mean	6,939²	4,892	133.3	20.8	20.4	79.3	94.3	ppm	964.1	5.6E-02			
			minimum		683	80.0	3.1	20.2	25.0	8.8		6.8	6.3E-03			
			maximum		16,451	170.0	43.7	20.8	150.0	329.0		2,490.0	1.5E-01			
			number of sources tested	4	4	4	3	3	4	4		4	4			
IIb. Uncontrolled Continuous Digester Chip Bin Vent Gases - Speciated and TRS Emissions (fresh steam)																
NCGL5	01/98	3	Kraft Mill Chip Bin (softwood - continuous digester)	1,090	1,067	67.3	2.3	20.9	192 ^b	5.6	ppmd	<i>0.1</i>	<i>0.2</i>	<i>7.3</i>	<i>1.1</i>	<i>9.8</i>
											lb/hr	<i>0.001</i>	<i>0.001</i>	<i>0.077</i>	<i>0.020</i>	<i>0.055</i>
											lb/t chips ^b	<i>2.9E-06</i>	<i>6.2E-06</i>	<i>4.0E-04</i>	<i>1.0E-04</i>	<i>2.8E-04</i>
NCGD2	1996	1	Kamyr B Chip Bin & presteaming vent (softwood)		12,638				142 ^b	89.3	ppmd					0.06
											lb/hr					0.004
											lb/t chips ^b					2.7E-05

²estimated from dscfm, T and % H₂O; ^bassumed 4 ton chips = 1 adtp

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds					TRS ¹ as S
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS	
III. Uncontrolled Batch Digester Blow Gases - Speciated and TRS Concentrations – Summary																
			mean ^a	1,150 ²	692	131.3	32.6	20.8	712.8	1.00	ppmd	3,702	54,100	35,971	632	95,036
			median	392 ²	326	114.0	9.8	20.8	570.7	0.57	ppmd	19	994	2,323	25	3,386
			minimum		20	88.0	4.5	20.8	384.6	0.04	ppmd	ND	1	177	ND	64
			maximum		2,558	210.0	97.0	20.8	1,500.0	3.91	ppmd	29,152	401,260	245,263	3,455	682,585
			mean ^a								lb/ADTP	0.04	0.85	0.98	0.08	1.16
			median								lb/ADTP	0.001	0.09	0.28	0.01	0.21
			minimum								lb/ADTP	ND	0.001	0.01	ND	0.01
			maximum								lb/ADTP	0.29	5.66	4.47	0.44	6.42
			number of sources tested	7	8	7	7	2	8	8		4	8	8	8	8
			number of sources with detects									2	8	8	7	8
			% of TRS, S basis ^b									7.6%	53.4%	37.4%	1.6%	100.0%
			mean for 4 hardwood systems								lb/ADTP	0.001	0.13	0.45	0.02	0.34
			mean for 5 softwood systems								lb/ADTP	0.001	0.18	0.50	0.11	0.46

¹for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ²estimated from dscfm, T and % H₂O; ^acomputed treating ND as ½ DL; ^bbased on mean of four data sets with measurement for all four reduced sulfur compounds

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS ¹ as S	
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS
NCGW1	01/92	1	Blow Tank (hardwood) - Kamyrr		1,472	72.0			433	3.4	ppmd	1.21	1.9	4,870.0	217.0	5,307.1
											lb/hr	0.01	0.02	69.21	4.68	38.9
											lb/ADTP	5.2E-04	1.2E-03	3.8E+00	2.6E-01	2.2E+00
NCGW2	01/92	1	Blow Tank (softwood) - Kamyrr		690	95.5			527	1.3	ppmd	ND	ND	1,402.0	120.3	1,642.6
											lb/hr	0.0	0.0	9.34	1.22	5.65
											lb/ADTP	0.0E+00	0.0E+00	4.2E-01	5.5E-02	2.6E-01
IV. Uncontrolled Continuous Digester Blow Gases - Speciated and TRS Concentrations - Summary																
			mean ^a	480 ²	411	105.9	8.2	19.5	736.4	0.74	ppmd	122.4	4,128	2,072	935	8,193
			median	385 ²	288	97.9	6.3	20.8	616.0	0.37	ppmd	4.1	2.3	643.5	43.4	736.7
			minimum		34	39.0	0.8	13.3	432.8	0.06	ppmd	ND	ND	5.0	0.44	25.8
			maximum		1,472	212.0	25.5	20.9	1,572.0	3.40	ppmd	975	32,575	8,737	7,590	33,731
			mean ^a								lb/ADTP	0.001	0.12	0.51	0.10	0.41
			median								lb/ADTP	3.2E-04	1.4E-04	0.031	0.003	0.02
			minimum								lb/ADTP	ND	ND	2.2E-04	8.4E-05	0.001
			maximum								lb/ADTP	0.01	1.12	3.84	0.52	2.16
			number of sources tested	7	10	10	8	8	10	10		8	10	10	10	10
			number of sources with detects									4	3	9	8	10
			% of TRS, S basis ^b									0.3%	19.4%	63.8%	16.5%	100.0%
			mean for 4 hardwood systems								lb/ADTP	0.003	0.02	1.14	0.10	0.67
			mean for 5 softwood systems								lb/ADTP	2.9E-04	0.22	0.10	0.01	0.21

¹for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ²estimated from dscfm, T and % H₂O; ^acomputed treating ND as 1/2 DL; ^bbased on mean of eight data sets with all four reduced sulfur compounds tested

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
VI. Uncontrolled Evaporator NCGs - Speciated and TRS Concentrations																	
NCGS6	02/00	3	NCG Vent from Evaporator Seal Pit to the Header – after modifications were made to condenser to reduce gas flow rates (swing sftwd-hdwd)	29	27	81.0	3.2	18.0	701	0.0	ppmd	51,897	55,360	17,613	6,065	137,000	
												lb/hr	7.419	11.173	4.591	2.397	18.433
												lb/ADTP	2.5E-01	3.8E-01	1.6E-01	8.2E-02	6.3E-01
NCGG3	12/98	6	Evaporator Hotwells (sftwd) - sum of D & B Sets	33	31	81.5	3.7	20.8	707	0.044	ppmd	6.50	264.3	147.7	2,078.8	4,576.2	
												lbs/hr	0.001	0.058	0.038	0.877	0.657
												lb/ADTP	3.7E-05	2.0E-03	1.3E-03	3.0E-02	2.2E-02
NCGZA2	05/96		Continuous Header - (sftwd/hdwd: 905:595) – includes NCGs from evaporator & turpentine condenser	139	115	88.0	4.5		1,500	0.1	ppmd	272,251	293,194	146,597	3,455	718,953	
												lb/hr	165.8	252.0	162.8	5.8	412.0
												lb/ADTP	2.7E+00	4.0E+00	2.6E+00	9.3E-02	6.6E+00
NCGP1	05/93	6	Multi-Effect Evap. Hotwell Vent (softwood) ¹	343	300	104.5	6.5	21.0	1,570	0.2	ppmd	0.70	10.65	4.50	0.68	17.2	
												lb/hr	0.001	0.024	0.013	0.003	0.026
												lb/ADTP	1.7E-05	3.7E-04	2.0E-04	4.5E-05	3.9E-04
NCGIE3	05/93	3	Evaporator NCGs (Mixed hdwd/sftwd) ¹	292	267	90.0	5.0		600	0.4	ppmd	46,923 ^a	1.85	9.13	2.81	46,940	
												lb/hr	66.25 ^a	0.005	0.024	0.011	62.38
												lb/ADTP	2.65 ^b	1.9E-04	9.4E-04	4.4E-04	2.5E+00

¹see NCASI Tech. Bull. No. 701, Table 6, for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS ¹ as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
VII. Uncontrolled Stripper Off-Gases - Speciated and TRS Concentrations																	
NCGM6	05/97	3	Stripper Off Gases to Incinerator (swing - sftwd/hdwd)	362	166	86.3	52.6		1,049	0.2	ppmd	10,539	135,696	56,962	ND	203,198	
												lb/hr	9.3	168.2	91.2	ND	167.9
												lb/ADTP	2.1E-01	3.8E+00	2.1E+00	ND	3.8E+00
NCGI3	12/92	3	Stripper NCG Vent (softwood) ³ *gas moisture content assumed	222	100	126.0	50.0*		500	0.2	ppmd	9,633	30,235	13,672	ND	53,540	
												lb/hr	5.1	22.6	13.2	ND	26.7
												lb/ADTP	2.2E-01	9.9E-01	5.8E-01	ND	1.2E+00
NCGZ31	09/95		Stripper Gas (Hardwood Condition)	226	68	184.0	63.3	0.7	1,176	0.1	ppmd	220,816	189,114	79,308	15,548	520,334	
												lb/hr	79.4	96.0	52.0	15.5	176.1
												lb/ADTP	1.6E+00	2.0E+00	1.1E+00	3.2E-01	3.6E+00
NCGZ32	09/95		Stripper Gas (Softwood Condition)	296	85	193.0	64.7	1.1	1,035	0.1	ppmd	170,753	178,926	73,525	21,715	466,634	
												lb/hr	76.4	113.0	60.0	26.9	196.5
												lb/ADTP	1.8E+00	2.6E+00	1.4E+00	6.2E-01	4.6E+00
			mean^a	289²	105	147.3	57.7	0.9	953	0.12	ppmd	102,935	133,493	55,867	9,316	310,926	
			median	256²	92	155.0	58.0	0.9	1,042	0.12	ppmd	90,646	157,311	65,244	7,774	328,749	
			minimum		68	86.3	50.0	0.7	550	0.06	ppmd	9,633	30,235	13,672	ND	53,540	
			maximum		166	193.0	64.7	1.1	1,176	0.18	ppmd	220,816	189,114	79,308	21,715	520,334	
			mean^a								lb/ADTP	0.96	2.35	1.28	0.23	3.29	
			median								lb/ADTP	0.92	2.29	1.23	0.16	3.13	
			minimum								lb/ADTP	0.21	0.99	0.58	ND	1.16	
			maximum								lb/ADTP	1.77	3.85	2.09	0.62	4.55	
			% of TRS, S basis^b									26.1%	45.5%	19.1%	9.3%	100.0%	
			number of sources tested	4	4	4	4	2	4	4		4	4	4	4	4	
			number of sources with detects									4	4	4	2	4	

¹for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ²estimated from dscfm, T and % H₂O; ³see NCASI Tcch. Bull. No. 701, Table 6, for other details; ^acomputed treating ND as ½ DL; ^bbased on mean of four data sets with all four reduced sulfur compounds tested

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
NCGMM	9/94	3	Mill M NCG Thermal Oxidizer Inlet (design - hdwd:sftwd::850:550) ²	865	247	191.0	64.8		1,048	0.2	ppmd	12,352 ^a	32,634	26,949	12,220	93,376	
												lb/hr	16.15 ^a	60.3	64.3	44.2	118.6
													lb/ADTP	3.7E-01 ^b	1.4E+00	1.5E+00	1.0E+00
NCGIE1 & 2 + NCGIE3	05/93	1	Batch Blow + Evap. NCGs (hdwd/sftwd)	877	800	90.0	5.0		557.4	1.4	ppmd	2,029 ^a	1,815.7	3,686.4	506.8	8,545	
												lb/hr	8.59 ^a	10.9	28.5	5.9	91.4
													lb/ADTP	3.7E-01 ^b	4.8E-01	1.3E+00	2.5E-01
NCGID	05/93	2	NCG Scrubber Inlet - (design - sftwd:hdwd::528:720) - Scrubber treats turpentine condenser & evap. NCGs	2,100	1,770	110.0	9.0	17.1	1,293	1.4	ppmd	2,127 ^a	7,555.4	4,758.0	190.6	14,822	
												lb/hr	19.94 ^a	100.0	81.3	4.9	130.7
													lb/ADTP	3.7E-01 ^b	1.9E+00	1.5E+00	9.2E-02
NCGP	07/92	6	NCG Vent (pulp. & evap.) at Lime Kiln (softwood) ¹	435	400	87.0	4.8	20.9	1,572	0.3	ppmd	3.4	12,653.9	468.5	67.2	13,260.0	
												lb/hr	0.01	37.8	1.8	0.4	26.430
													lb/ADTP	1.1E-04	5.8E-01	2.8E-02	6.0E-03
NCGQ	06/92	6	NCG Bypass Scrubber Vent (pulp. & evap.) (design - sftwd:hdwd::550:325) ¹	467	400	107.0	8.0	20.8	875	0.5	ppmd	6,370 ^a	188.0	18,248.5	863.5	26,533	
												lb/hr	13.49 ^a	0.56	70.47	5.06	52.89
													lb/ADTP	3.7E-01 ^b	1.5E-02	1.9E+00	1.4E-01

¹see NCASI Tech. Bull. No. 701, Table 6, for other details; ²see NCASI Tech. Bull. No. 677 for other details; ^aestimated from assumed lb/ADTP; ^bH₂S not measured; values assumed equal to medians of measured values

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds					TRS ¹ as S
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS	
Uncontrolled LVHC NCGs (Digester + Evaporator) + SOGs (obtained by summing averages for 13 LVHC NCGs shown in section VIII and 4 SOGs shown in section VII)																
			mean^a	1,951²	1,413	119.2	20.5	16.0	1,198	1.2	ppmd	23,949	49,030	22,924	2,072	100,047
			median	709²	616	93.9	8.9	17.0	1,142	0.5	ppmd	8,676	14,466	7,843	752	32,488
			minimum		155	57.7	5.1	9.4	557	0.3	ppmd	716	2,386	1,036	5	4,148
			maximum		5,547	246.1	64.8	19.4	2,622	2.1	ppmd	154,440	336,173	187,890	12,923	704,348
			mean^a								lb/ADTP	1.53	4.18	2.47	0.39	5.77
			median								lb/ADTP	1.29	2.88	1.76	0.24	4.21
			minimum								lb/ADTP	0.21	1.00	0.58	ND	1.17
			maximum								lb/ADTP	4.71	13.54	9.16	1.63	19.31
			% of TRS, S basis^b									24.9%	48.4%	21.0%	5.8%	100.0%

¹for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ²estimated from dscfm, T and % H₂O; ^acomputed treating ND as ½ DL; ^bbased on mean of 4 sets of data with all four reduced sulfur compounds tested for SOGs and 8 sets of data with all four reduced sulfur compounds tested for LVHC NCGs

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod.	Reduced Sulfur Compounds					TRS ¹ as S	
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂	ADTP/day	dscfm/ADTPD	Units	H ₂ S	CH ₃ SH	DMS		DMDS
IX. Uncontrolled HVLC NCGs – Speciated and TRS Concentrations – Summary																
			mean^a	9,478²	5,595	147.0	32.1	20.9	926.3	6.0	ppmd	31.9	8.5	178.1	16.0	250.4
			median	12,918²	6,255	128.9	46.0	20.9	1,032.0	6.1	ppmd	5.1	1.2	193.3	8.3	215.3
			minimum		864	82.7	4.9	20.9	594.5	1.5	ppmd	ND	0.3	17.0	1.2	81.1
			maximum		12,000	247.7	47.4	20.9	1,200.0	10.4	ppmd	140.7	27.8	317.7	53.9	440.3
			mean^a								lb/ADTP	3.8E-02	7.0E-03	2.1E-01	2.1E-02	1.6E-01
			median								lb/ADTP	1.3E-03	1.2E-03	1.1E-01	2.2E-02	7.2E-02
			minimum								lb/ADTP	ND	3.2E-04	2.1E-02	8.2E-04	2.0E-02
			maximum								lb/ADTP	1.9E-01	2.3E-02	4.4E-01	3.0E-02	2.4E-01
			number of sources tested	3	5	4	5	1	5	5		4	5	5	5	5
			number of sources with detects									2	4	5	5	5
			% of TRS, S basis^b									36.5%	1.7%	54.7%	7.1%	100.0%

¹for TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources; ²estimated from dscfm, T and % H₂O; ^acomputed treating ND as ½ DL; ^bbased on mean of four data sets with all four reduced sulfur compounds tested

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-4. (Cont'd) TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds					TRS as S	
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS	DMDS		
XI. Miscellaneous Uncontrolled LVHC NCGs Including Vents Tested More Than Once																	
NCGS4a	08/99	3	Turpentine Decanter - before modifications were made to decanter to lower gas flow rate	151	119	113.0	14.3	21.0	701	0.2	ppmd	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	2,220	4,455	
												lb/hr	<i>0.003</i>	<i>0.005</i>	<i>0.006</i>	3.833	2.618
												lb/ADTP	<i>1.0E-04</i>	<i>1.5E-04</i>	<i>1.9E-04</i>	1.3E-01	9.0E-02
NCGS4b	06/99	3	Turpentine Decanter- before modifications were made to decanter to lower gas flow rate	138	114	103.4	11.4	20.9	701	0.2	ppmd	<i>0.5</i>	1,699	2,042	<i>0.5</i>	3,743	
												lb/hr	<i>0.000</i>	3.690	5.730	<i>0.001</i>	5.418
												lb/ADTP	<i>1.0E-05</i>	1.3E-01	2.0E-01	<i>2.9E-05</i>	1.9E-01
NCGS6a	08/99	3	NCG Vent from Evap. Seal Pit to the Header - before modifications were made to condenser to lower gas flow rate	376	259	98.6	27.1	20.8	701	0.4	ppmd	3,600	13,100	5,300	5	22,010	
												lb/hr	3.303	19.969	8.866	<i>0.013</i>	21.006
												lb/ADTP	1.1E-01	6.8E-01	3.0E-01	<i>4.3E-04</i>	7.2E-01
NCGS6b	06/99	3	NCG Vent from Evap. Seal Pit to the Header - before modifications were made to condenser to lower gas flow rate	350	339	71.6	2.7	21.0	701	0.5	ppmd	1,675	10,960	680	2.5	13,320	
												lb/hr	2.880	26.600	2.130	<i>0.013</i>	21.552
												lb/ADTP	9.9E-02	9.1E-01	7.3E-02	<i>4.3E-04</i>	7.4E-01
NCGS7a	08/99	3	Concentrator Seal Tank (swing - sftwd/hdwd)	123	35	176.0	65.3	19.8	701	0.1	ppmd	40	9,100	2,100	33,300	77,840	
												lb/hr	<i>0.005</i>	1.616	0.482	11.577	9.213
												lb/ADTP	1.7E-04	5.5E-02	1.7E-02	4.0E-01	3.2E-01
NCGS7b	06/99	3	Concentrator Seal Tank (swing - sftwd/hdwd)	97	68	132.2	21.6	20.9	701	0.1	ppmd	2,565	8,140	160	2.5	10,870	
												lb/hr	0.900	4.040	0.100	<i>0.002</i>	3.594
												lb/ADTP	3.1E-02	1.4E-01	3.4E-03	<i>8.5E-05</i>	1.2E-01
NCGS8	02/00	3	Sealed Evaporator Sump (swing - sftwd/hdwd)	173	154	100.0	5.4	19.0	701	0.2	ppmd	3,378	9,633	3,957	1,065	19,098	
												lb/hr	2.754	11.089	5.883	2.401	14.656
												lb/ADTP	9.4E-02	3.8E-01	2.0E-01	8.2E-02	5.0E-01

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Table A-5. TRS Data Summary – Kraft Thermal Oxidizers

Unit Code	Test Date	# of Runs	Description of Source	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/day	dscfm/ADTPD	Reduced Sulfur Compounds				TRS as S		
				acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	CH ₃ SH	DMS		DMDS	
I. Speciated and TRS Emissions																	
TOZD3	1996	6	Thermal Oxidizer Stack Gas – oxidizer burns SOGs, weak NCGs & strong NCGs		3,550		51.0		1,200	3.0	ppmd	<i>0.21^a</i>	<i>1.59</i>	<i>1.23</i>	<i>0.82</i>	<i>4.66</i>	
												lb/hr	<i>0.004^a</i>	<i>0.04</i>	<i>0.04</i>	<i>0.04</i>	<i>0.08</i>
												lb/ADTP	<i>7.9E-05^b</i>	<i>8.4E-04</i>	<i>8.4E-04</i>	<i>8.5E-04</i>	<i>1.6E-03</i>
TOME	9/94	3	Mill E NCG Thermal Oxidizer Scrubber Outlet Stack – see NCASI Tech. Bull. No. 677 for other details	16,108	7,475	173.0	44.4		1,695	4.4	ppmd	<i>0.14^a</i>	<i>0.45</i>	<i>0.45</i>	<i>0.45</i>	<i>1.93</i>	
												lb/hr	<i>0.006^a</i>	<i>0.025</i>	<i>0.032</i>	<i>0.049</i>	<i>0.072</i>
												lb/ADTP	<i>7.9E-05^b</i>	<i>3.5E-04</i>	<i>4.6E-04</i>	<i>6.9E-04</i>	<i>1.0E-03</i>
TOMG	9/94	3	Mill G NCG Thermal Oxidizer Outlet Stack – see NCASI Tech. Bull. No. 677 for other details	8,457	2,273	1251	12.9		3,270	0.7	ppmd	<i>0.89^a</i>	<i>0.53</i>	<i>0.28</i>	<i>0.28</i>	<i>2.27</i>	
												lb/hr	<i>0.011^a</i>	<i>0.009</i>	<i>0.006</i>	<i>0.009</i>	<i>0.026</i>
												lb/ADTP	<i>7.9E-05^b</i>	<i>6.6E-05</i>	<i>4.6E-05</i>	<i>6.9E-05</i>	<i>1.9E-04</i>
TOMM	9/94	3	Mill M NCG Thermal Oxidizer Outlet Stack – see NCASI Tech. Bull. No. 677 for other details	27,102	7,268	1290	11.1		1,010	7.2	ppmd	<i>0.09^a</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>1.10</i>	
												lb/hr	<i>0.003^a</i>	<i>0.014</i>	<i>0.018</i>	<i>0.027</i>	<i>0.040</i>
												lb/ADTP	<i>7.9E-05^b</i>	<i>3.3E-04</i>	<i>4.2E-04</i>	<i>6.4E-04</i>	<i>9.5E-04</i>
TOMN	9/94	3	Mill N NCG Thermal Oxidizer Outlet Stack – see NCASI Tech. Bull. No. 677 for other details	20,759	9,887	173	42.9		1,188	8.3	ppmd	<i>0.07^a</i>	<i>0.80</i>	<i>0.79</i>	<i>0.79</i>	<i>3.24</i>	
												lb/hr	<i>0.004^a</i>	<i>0.059</i>	<i>0.075</i>	<i>0.114</i>	<i>0.159</i>
												lb/ADTP	<i>7.9E-05^a</i>	<i>1.2E-03</i>	<i>1.5E-03</i>	<i>2.3E-03</i>	<i>3.2E-03</i>
TOIC	12/92	4	Incinerator Scrubber Outlet (design – sftwd:hdwd::1500:600) – see NCASI Tech. Bull. No. 701, Table 9, for other details	15,233	5,888	182	53.0	17.1	2,028	2.9	ppmd	<i>0.25</i>	<i>0.53</i>	<i>0.53</i>	<i>0.53</i>	<i>2.37</i>	
												lb/hr	<i>0.008</i>	<i>0.023</i>	<i>0.030</i>	<i>0.046</i>	<i>0.070</i>
												lb/ADTP	<i>9.2E-05</i>	<i>2.8E-04</i>	<i>3.6E-04</i>	<i>5.4E-04</i>	<i>8.2E-04</i>
TOQ	06/92	3	Thermal Oxidation Plant Vent (sftwd:hdwd::550:325)	6,044	3,500	160	32.0	16.0	875	4.0	ppmd	<i>0.16^a</i>	<i>0.50</i>	<i>0.50</i>	<i>0.40</i>	<i>1.96</i>	
												lb/hr	<i>0.003^a</i>	<i>0.013</i>	<i>0.017</i>	<i>0.020</i>	<i>0.034</i>
												lb/ADTP	<i>7.9E-05^b</i>	<i>3.6E-04</i>	<i>4.6E-04</i>	<i>5.6E-04</i>	<i>9.4E-04</i>
TOR	07/92	6	NCG Incinerator Stack (sftwd:hdwd::788::623)	6,126	2,900	173	43.3	16.5	1,412	2.1	ppmd	<i>0.25</i>	<i>0.70</i>	<i>1.05</i>	<i>0.53</i>	<i>3.06</i>	
												lb/hr	<i>0.004</i>	<i>0.015</i>	<i>0.029</i>	<i>0.022</i>	<i>0.044</i>
												lb/ADTP	<i>6.5E-05</i>	<i>2.6E-04</i>	<i>5.0E-04</i>	<i>3.8E-04</i>	<i>7.5E-04</i>

^aestimated from assumed lb/ADTP; ^bH₂S not measured; lb H₂S/ADTP assumed equal to median of measured values

Note : All italicized entries correspond to non-detect values at one-half the detection limit

Footnote B
Documentation

Work Order No. 00157.068.900

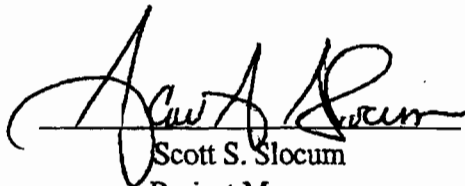
VOLUME I OF II

**High Volume Low Concentration (HVLC)
Emission Sources - Emission Test Report
International Paper
Pensacola Mill
Cantonment, Florida
July - August 2003**

Prepared For

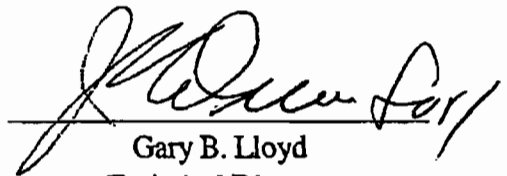
INTERNATIONAL PAPER

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19 December 2003

TABLE 2-2
SUMMARY OF EMISSIONS
NO. 1 HARWOOD BROWN STOCK WASHER, NO. 1 DRUM

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/5/03	8/5/03	8/5/03	—	---	---
Time Started	1027	1138	1253	—	---	---
Time Ended	1127	1238	1353	—	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	14.6	14.6	14.6	14.6	14.6	14.6
Maximum Process Rate, ODTP/hr	16.1	16.1	16.1	16.1	---	---
Stack Gas Characteristics						
Temperature, °F	102	103	103	103	102	103
Moisture, %	6.2	6.1	6.1	6.1	6.1	6.2
Velocity, ft/sec	38.4	37.5	37.7	37.9	37.5	38.4
Volumetric Flow Rate						
Actual, acfm	27,790	27,124	27,261	27,392	27,124	27,790
Wet Standard, wscfm	25,856	25,214	25,319	25,463	25,214	25,856
Dry Standard, dscfm	24,251	23,673	23,775	23,900	23,673	24,251
Methanol						
Concentration, ppmvd	55	57	63	58	55	63
Emission Rate, lb/hr	6.71E+00	6.68E+00	7.41E+00	6.94E+00	6.68E+00	7.41E+00
Adjusted Emission Rate, lb/hr	7.40E+00	7.37E+00	8.18E+00	7.65E+00	7.37E+00	8.18E+00
Process Emission Factor, lb/ODTP	4.60E-01	4.58E-01	5.08E-01	4.75E-01	4.58E-01	5.08E-01

Baseline + Future No. 1⁺² BSW No. 1 Drum

TABLE 2-3
SUMMARY OF EMISSIONS
NO. 1 HARWOOD BROWN STOCK WASHER, NO. 2 DRUM

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/5/03	8/5/03	8/5/03	—	---	---
Time Started	1443	1600	1705	—	---	---
Time Ended	1543	1700	1805	—	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	14.6	14.6	14.6	14.6	14.6	14.6
Maximum Process Rate, ODTP/hr	16.1	16.1	16.1	16.1	---	---
Stack Gas Characteristics						
Temperature, °F	102	99	99	100	99	102
Moisture, %	5.5	5.6	5.3	5.5	5.3	5.6
Velocity, ft/sec	32.4	32.4	32.6	32.5	32.4	32.6
Volumetric Flow Rate						
Actual, acfm	23,466	23,453	23,621	23,513	23,453	23,621
Wet Standard, wscfm	21,849	21,936	22,092	21,959	21,849	22,092
Dry Standard, dscfm	20,652	20,711	20,924	20,762	20,652	20,924
Methanol						
Concentration, ppmvd	22	39	36	32	22	39
Emission Rate, lb/hr	2.24E+00	4.04E+00	3.80E+00	3.36E+00	2.24E+00	4.04E+00
Adjusted Emission Rate, lb/hr	2.47E+00	4.45E+00	4.19E+00	3.70E+00	2.47E+00	4.45E+00
Process Emission Factor, lb/ODTP	1.54E-01	2.76E-01	2.60E-01	2.30E-01	1.54E-01	2.76E-01

Baseline + Future No 1⁺² BSW No 2 Drum

TABLE 2-4
SUMMARY OF EMISSIONS
NO. 1 HARDWOOD FOAM TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/5/03	8/5/03	8/5/03	—	---	---
Time Started	1014	1201	1407	—	---	---
Time Ended	1114	1301	1507	—	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	14.6	14.6	14.6	14.6	14.6	14.6
Maximum Process Rate, ODTP/hr	16.1	16.1	16.1	16.1	---	---
Stack Gas Characteristics						
Temperature, °F	150	151	153	151	150	153
Moisture, %	26.8	25.5	26.2	26.2	25.5	26.8
Velocity, ft/sec	49.9	49.5	49.3	49.6	49.3	49.9
Volumetric Flow Rate						
Actual, acfm	587	582	579	583	579	587
Wet Standard, wscfm	504	499	495	499	495	504
Dry Standard, dscfm	368	371	365	368	365	371
Methanol						
Concentration, ppmvd	1244	1254	1185	1228	1185	1254
Emission Rate, lb/hr	2.29E+00	2.32E+00	2.16E+00	2.26E+00	2.16E+00	2.32E+00
Adjusted Emission Rate, lb/hr	2.52E+00	2.56E+00	2.38E+00	2.49E+00	2.38E+00	2.56E+00
Process Emission Factor, lb/ODTP	1.57E-01	1.59E-01	1.48E-01	1.55E-01	1.48E-01	1.59E-01

Baseline + Future No. 1 + 2 BSW
 Foam Tanks

2.1.2 Hardwood O₂ System

Table 2-5 summarizes Hardwood O₂ System sources that were tested. The Table and Appendix Numbers guide the reader to tables and appendices within this report. Sampling, process, or analytical issues affecting reported data are summarized in the comments column. Sample calculations are presented in Appendix A. Sampling and analytical method descriptions are provided in Appendix B. Photographs of sample locations are provided in Appendix H.

**TABLE 2-5
HARDWOOD O₂ SYSTEM**

Source Name	Table Number	Appendix Number	Comments
Hardwood Decker <i>04-PK-025</i>	2-6	C.2.1	Testing proceeded as planned
Hardwood Decker Filtrate Tank <i>04-PK-025</i>	2-7	C.2.2	Testing proceeded as planned
Hardwood O ₂ Blow Tank <i>04-TK-028</i>	2-8	C.2.3	Testing proceeded as planned
Hardwood No. 1 POW <i>✓ 04-PK-029</i>	2-9	C.2.4	Testing proceeded as planned
457 (HW) No. 1 POW Seal Tank <i>04-TK-030</i>	2-10	C.2.5	Testing proceeded as planned
No. 3 Unbleached Pulp Storage Tank	2-11	C.2.6	Testing proceeded as planned

the No. 2 POW Filtrate Tank vents to No. 1 POW Seal Tank

**TABLE 2-6
SUMMARY OF EMISSIONS
HARDWOOD DECKER**

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/1/03	8/1/03	8/1/03	---	---	---
Time Started	0819	0944	1219	---	---	---
Time Ended	0919	1040	1319	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.4	30.4	30.4	30.4	30.4	30.4
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	178.8	182.8	143.0	168.2	143.0	182.8
Moisture, %	16.6	16.7	19.1	17.5	16.6	19.1
Velocity, ft/sec	39.5	37.2	33.4	36.7	33.4	39.5
Volumetric Flow Rate						
Actual, acfm	5,713	5,386	4,825	5,308	4,825	5,713
Wet Standard, wscfm	4,705	4,388	4,205	4,433	4,205	4,705
Dry Standard, dscfm	3,920	3,663	3,401	3,661	3,401	3,920
Methanol						
Concentration, ppmvd	332	47	263	298	263	332
Emission Rate, lb/hr	6.48E+00	8.64E-01	4.47E+00	5.48E+00	4.47E+00	6.48E+00
Adjusted Emission Rate, lb/hr	6.85E+00	9.12E-01	4.72E+00	5.78E+00	4.72E+00	6.85E+00
Process Emission Factor, lb/ODTP	2.13E-01	2.84E-02	1.47E-01	1.80E-01	1.47E-01	2.13E-01

Notes: Run 2 considered an outlier and excluded from average, maximum, and minimum calculations.

Baseline + Fibre HW Decker Washer

TABLE 2-7
SUMMARY OF EMISSIONS
HARDWOOD DECKER FILTRATE TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/30/03	7/30/03	7/30/03	---	---	---
Time Started	1241	1421	1602	---	---	---
Time Ended	1341	1521	1702	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.7	30.7	30.7	30.7	30.7	30.7
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	129	129	129	129	129	129
Moisture, %	12.6	12.2	12.8	12.5	12.2	12.8
Velocity, ft/sec	69.9	69.7	69.7	69.8	69.7	69.9
Volumetric Flow Rate						
Actual, acfm	2,287	2,278	2,280	2,282	2,278	2,287
Wet Standard, wscfm	2,040	2,031	2,033	2,035	2,031	2,040
Dry Standard, dscfm	1,783	1,784	1,773	1,780	1,773	1,784
Methanol						
Concentration, ppmvd	98	161	171	143	98	171
Emission Rate, lb/hr	8.69E-01	1.43E+00	1.51E+00	1.27E+00	8.69E-01	1.51E+00
Adjusted Emission Rate, lb/hr	9.08E-01	1.50E+00	1.58E+00	1.33E+00	9.08E-01	1.58E+00
Process Emission Factor, lb/ODTP	2.83E-02	4.67E-02	4.93E-02	4.15E-02	2.83E-02	4.93E-02

Baseline + Future Brown Stack
 Decker Seal Tank

TABLE 2-8
SUMMARY OF EMISSIONS
HARDWOOD O₂ BLOW TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/31/03	7/31/03	7/31/03	---	---	---
Time Started	0847	1010	1130	---	---	---
Time Ended	0947	1110	1230	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.6	30.6	30.6	30.6	<i>30.6</i>	<i>30.6</i>
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	108	105	108	107	<i>105</i>	<i>108</i>
Moisture, %	8.0	7.4	7.9	7.8	<i>7.4</i>	<i>8.0</i>
Velocity, ft/sec	3.4	3.2	3.5	3.4	<i>3.2</i>	<i>3.5</i>
Volumetric Flow Rate						
Actual, acfm	427	401	433	420	<i>401</i>	<i>433</i>
Wet Standard, wscfm	395	373	400	389	<i>373</i>	<i>400</i>
Dry Standard, dscfm	363	345	368	359	<i>345</i>	<i>368</i>
Methanol						
Concentration, ppmvd	93	75	58	75	<i>58</i>	<i>93</i>
Emission Rate, lb/hr	1.69E-01	1.29E-01	1.06E-01	1.35E-01	<i>1.06E-01</i>	<i>1.69E-01</i>
Adjusted Emission Rate, lb/hr	1.77E-01	1.36E-01	1.11E-01	1.41E-01	<i>1.11E-01</i>	<i>1.77E-01</i>
Process Emission Factor, lb/ODTP	5.52E-03	4.23E-03	3.46E-03	4.41E-03	<i>3.46E-03</i>	<i>5.52E-03</i>

Baseline + Future HW O₂ Blow Tank

TABLE 2-9
SUMMARY OF EMISSIONS
HARDWOOD NO. 1 POW

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/8/03	8/8/03	8/8/03	---	---	---
Time Started	0904	1022	1144	---	---	---
Time Ended	1004	1122	1244	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.2	30.2	30.2	30.2	30.2	30.2
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	134	135	134	134	134	135
Moisture, %	15.2	17.2	17.0	16.5	15.2	17.2
Velocity, ft/sec	33.1	33.3	32.3	32.9	32.3	33.3
Volumetric Flow Rate						
Actual, acfm	4,789	4,811	4,676	4,759	4,676	4,811
Wet Standard, wscfm	4,206	4,222	4,106	4,178	4,106	4,222
Dry Standard, dscfm	3,565	3,494	3,408	3,489	3,408	3,565
Methanol						
Concentration, ppmvd	89	109	127	108	89	127
Emission Rate, lb/hr	1.59E+00	1.89E+00	2.16E+00	1.88E+00	1.59E+00	2.16E+00
Adjusted Emission Rate, lb/hr	1.68E+00	2.01E+00	2.30E+00	2.00E+00	1.68E+00	2.30E+00
Process Emission Factor, lb/ODTP	5.25E-02	6.27E-02	7.15E-02	6.22E-02	5.25E-02	7.15E-02

Baseline + Future #1 POW Washer

TABLE 2-10
SUMMARY OF EMISSIONS
457 (HW) No. 1 POW SEAL TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/30/03	7/30/03	7/30/03	—	---	---
Time Started	1323	1441	1556	—	---	---
Time Ended	1423	1541	1656	—	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	29.7	29.7	29.7	29.7	29.7	29.7
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	158	162	163	161	158	163
Moisture, %	23.8	29.0	33.4	28.7	23.8	33.4
Velocity, ft/sec	11.8	11.6	12.2	11.9	11.6	12.2
Volumetric Flow Rate						
Actual, acfm	138	137	144	140	137	144
Wet Standard, wscfm	118	115	121	118	115	121
Dry Standard, dscfm	87	79	81	82	79	87
Methanol						
Concentration, ppmvd	416	593	636	549	416	636
Emission Rate, lb/hr	1.80E-01	2.34E-01	2.58E-01	2.24E-01	1.80E-01	2.58E-01
Adjusted Emission Rate, lb/hr	1.95E-01	2.53E-01	2.79E-01	2.42E-01	1.95E-01	2.79E-01
Process Emission Factor, lb/ODTP	6.06E-03	7.89E-03	8.70E-03	7.55E-03	6.06E-03	8.70E-03

*Baseline + Future HW No. 1 POW
Seal Tank*

TABLE 2-13
SUMMARY OF EMISSIONS
KAMYR FILTRATE TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/31/03	8/1/03	8/1/03	---	---	---
Time Started	1708	800	925	---	---	---
Time Ended	1808	900	1025	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.1	30.1	30.1	30.1	30.1	30.1
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	125	126	126	126	125	126
Moisture, %	10.5	11.1	11.9	11.2	10.5	11.9
Velocity, ft/sec	17.6	16.1	10.4	14.7	10.4	17.6
Volumetric Flow Rate						
Actual, acfm	207	189	123	173	123	207
Wet Standard, wscfm	186	170	110	155	110	186
Dry Standard, dscfm	166	152	97	138	97	166
Methanol						
Concentration, ppmvd	313	300	256	290	256	313
Emission Rate, lb/hr	2.60E-01	2.27E-01	1.24E-01	2.04E-01	1.24E-01	2.60E-01
Adjusted Emission Rate, lb/hr	2.99E-01	2.62E-01	1.43E-01	2.35E-01	1.43E-01	2.99E-01
Process Emission Factor, lb/ODTP	8.62E-03	7.54E-03	4.12E-03	6.76E-03	4.12E-03	8.62E-03

Baseline + Future 1st + 2nd Stage
 Filtrate Tank

**TABLE 2-14
SUMMARY OF EMISSIONS
KAMYR HIGH DENSITY TANK**

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/6/03	8/6/03	8/6/03	---	---	---
Time Started	0835	1025	1145	---	---	---
Time Ended	0935	1125	1245	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	26.8	26.8	26.8	26.8	26.8	26.8
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	126	126	116	123	116	126
Moisture, %	10.9	13.7	13.5	12.7	10.9	13.7
Velocity, ft/sec	15.6	14.6	12.0	14.0	12.0	15.6
Volumetric Flow Rate						
Actual, acfm	183	172	141	165	141	183
Wet Standard, wscfm	163	153	128	148	128	163
Dry Standard, dscfm	145	132	110	129	110	145
Methanol						
Concentration, ppmvd	244	257	454	318	244	454
Emission Rate, lb/hr	1.77E-01	1.69E-01	2.50E-01	1.99E-01	1.69E-01	2.50E-01
Adjusted Emission Rate, lb/hr	2.30E-01	2.19E-01	3.24E-01	2.58E-01	2.19E-01	3.24E-01
Process Emission Factor, lb/ODTP	6.62E-03	6.32E-03	9.32E-03	7.42E-03	6.32E-03	9.32E-03

*Baseline + Future High Density
Diffusion Tank*

TABLE 2-16
SUMMARY OF EMISSIONS
NO. 1 PINE DECKER ✓

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/6/03	8/6/03	8/6/03	---	---	---
Time Started	0848	1004	1120	---	---	---
Time Ended	0948	1104	1210	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	26.8	26.8	26.8	26.8	26.8	26.8
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	121	119	118	119	118	121
Moisture, %	10.1	9.1	8.1	9.1	8.1	10.1
Velocity, ft/sec	17.8	17.5	16.3	17.2	16.3	17.8
Volumetric Flow Rate						
Actual, acfm	2,567	2,525	2,355	2,482	2,355	2,567
Wet Standard, wscfm	2,310	2,282	2,133	2,242	2,133	2,310
Dry Standard, dscfm	2,076	2,071	1,960	2,036	1,960	2,076
Methanol						
Concentration, ppmvd	47	38	51	45	38	51
Emission Rate, lb/hr	4.85E-01	3.94E-01	4.95E-01	4.58E-01	3.94E-01	4.95E-01
Adjusted Emission Rate, lb/hr	6.29E-01	5.11E-01	6.42E-01	5.94E-01	5.11E-01	6.42E-01
Process Emission Factor, lb/ODTP	1.81E-02	1.47E-02	1.85E-02	1.71E-02	1.47E-02	1.85E-02

Baseline Brown Stack Decker

TABLE 2-17
SUMMARY OF EMISSIONS
PINE DECKER FILTRATE TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/29/03	7/30/03	7/30/03	---	---	---
Time Started	1124	0719	0840	---	---	---
Time Ended	1224	0819	0940	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	29.4	29.4	29.4	29.4	29.4	29.4
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	160	161	161	161	160	161
Moisture, %	30.7	31.6	31.6	31.3	30.7	31.6
Velocity, ft/sec	29.4	29.5	28.7	29.2	28.7	29.5
Volumetric Flow Rate						
Actual, acfm	1,317	1,324	1,287	1,309	1,287	1,324
Wet Standard, wscfm	1,114	1,120	1,088	1,107	1,088	1,120
Dry Standard, dscfm	772	766	744	761	744	772
Methanol						
Concentration, ppmvd	770	911	921	868	770	921
Emission Rate, lb/hr	2.97E+00	3.48E+00	3.42E+00	3.29E+00	2.97E+00	3.48E+00
Adjusted Emission Rate, lb/hr	3.50E+00	4.11E+00	4.04E+00	3.88E+00	3.50E+00	4.11E+00
Process Emission Factor, lb/ODTP	1.01E-01	1.18E-01	1.16E-01	1.12E-01	1.01E-01	1.18E-01

Notes: Measurement site located in a disturbance.

Baseline + Future Pine Decker
 Filtrate Tank

TABLE 2-18
SUMMARY OF EMISSIONS
PINE O₂ BLOW TANK ✓

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/30/03	7/30/03	7/30/03	—	---	---
Time Started	1040	0715	0855	—	---	---
Time Ended	1140	0815	0955	—	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	29.4	29.4	29.4	29.4	29.4	29.4
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	157	154	152	154	152	157
Moisture, %	29.8	28.1	26.7	28.2	26.7	29.8
Velocity, ft/sec	8.5	8.8	8.0	8.4	8.0	8.8
Volumetric Flow Rate						
Actual, acfm	1,058	1,087	996	1,047	996	1,087
Wet Standard, wscfm	902	930	856	896	856	930
Dry Standard, dscfm	633	668	628	643	628	668
Methanol						
Concentration, ppmvd	1007	674	729	804	674	1007
Emission Rate, lb/hr	3.18E+00	2.25E+00	2.28E+00	2.57E+00	2.25E+00	3.18E+00
Adjusted Emission Rate, lb/hr	3.75E+00	2.65E+00	2.70E+00	3.03E+00	2.65E+00	3.75E+00
Process Emission Factor, lb/ODTP	1.08E-01	7.65E-02	7.77E-02	8.74E-02	7.65E-02	1.08E-01

Baseline Pine O₂ Blow Tank

TABLE 2-19
SUMMARY OF EMISSIONS
PINE NO. 1 POW

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/1/03	8/1/03	8/1/03	---	---	---
Time Started	1504	1625	1741	---	---	---
Time Ended	1604	1725	1841	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.3	30.3	30.3	30.3	30.3	30.3
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	161	160	162	161	160	162
Moisture, %	32.6	32.8	33.3	32.9	32.6	33.3
Velocity, ft/sec	12.9	11.8	11.3	12.0	11.3	12.9
Volumetric Flow Rate						
Actual, acfm	1,864	1,708	1,640	1,737	1,640	1,864
Wet Standard, wscfm	1,578	1,445	1,383	1,468	1,383	1,578
Dry Standard, dscfm	1,063	972	922	986	922	1,063
Methanol						
Concentration, ppmvd	486	492	501	493	486	501
Emission Rate, lb/hr	2.58E+00	2.39E+00	2.30E+00	2.42E+00	2.30E+00	2.58E+00
Adjusted Emission Rate, lb/hr	2.95E+00	2.73E+00	2.64E+00	2.77E+00	2.64E+00	2.95E+00
Process Emission Factor, lb/ODTP	8.51E-02	7.87E-02	7.60E-02	7.99E-02	7.60E-02	8.51E-02

Baseline #1 POW

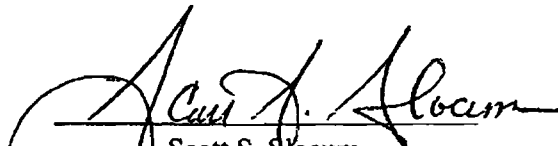
Work Order No. 00157.068.900

**Knotter and Screen Systems
HAP Emission Test Report
International Paper
Pensacola, Florida
July - August 2003**

Prepared For

INTERNATIONAL PAPER

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19 December 2003

TABLE 2-2
SUMMARY OF EMISSIONS – NO. 1 AND 2 COMBINED KNOT TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	8/1/03	8/1/03	8/1/03	---	---	---
Time Started	0903	1017	1132	---	---	---
Time Ended	1003	1117	1232	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.4	30.4	30.4	30.4	30.4	30.4
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	109	109	107	108	107	109
Moisture, %	5.5	7.5	7.9	7.0	5.5	7.9
Velocity, ft/sec	23.1	23.1	23.1	23.1	23.1	23.1
Volumetric Flow Rate						
Actual, acfm	272	272	271	272	271	272
Wet Standard, wscfm	252	252	252	252	252	252
Dry Standard, dscfm	238	233	232	234	232	238
Methanol						
Concentration, ppmvd	142	131	120	131	120	142
Emission Rate, lb/hr	1.69E-01	1.52E-01	1.38E-01	1.53E-01	1.38E-01	1.69E-01
Adjusted Emission Rate, lb/hr	1.78E-01	1.61E-01	1.46E-01	1.62E-01	1.46E-01	1.78E-01
Process Emission Factor, lb/ODTP	5.55E-03	5.01E-03	4.55E-03	5.04E-03	4.55E-03	5.55E-03

*Baseline + Future No. 1 + 2 Combined
Knot Tank*

TABLE 2-3
SUMMARY OF EMISSIONS – COMBINED HARDWOOD AND PINE ✓
REFINED REJECTS TANK (59.13/66.8)

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/30/03	7/30/03	7/30/03	—	---	---
Time Started	1240	1418	1535	—	---	---
Time Ended	1340	1518	1635	—	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	59.1	59.1	59.1	59.1	59.1	59.1
Maximum Process Rate, ODTP/hr	66.8	66.8	66.8	66.8	---	---
Stack Gas Characteristics						
Temperature, °F	116	116	117	116	116	117
Moisture, %	8.3	10.2	10.5	9.7	8.3	10.5
Velocity, ft/sec	18.2	18.0	18.7	18.3	18.0	18.7
Volumetric Flow Rate						
Actual, acfm	214	211	220	215	211	220
Wet Standard, wscfm	195	193	200	196	193	200
Dry Standard, dscfm	177	173	179	177	173	179
Methanol						
Concentration, ppmvd	137	139	145	140	137	145
Emission Rate, lb/hr	1.21E-01	1.20E-01	1.30E-01	1.24E-01	1.20E-01	1.30E-01
Adjusted Emission Rate, lb/hr	1.37E-01	1.35E-01	1.47E-01	1.40E-01	1.35E-01	1.47E-01
Process Emission Factor, lb/ODTP	2.05E-03	2.03E-03	2.19E-03	2.09E-03	2.03E-03	2.19E-03

Baseline + Future Refined Rejects Tank (4w)
 Baseline Refined Rejects Tank (sw)

TABLE 2-4
SUMMARY OF EMISSIONS – PINE REJECTS DRAINER VIBRATORY HOOD

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/31/03	7/31/03	7/31/03	---	---	---
Time Started	0842	0953	1106	---	---	---
Time Ended	0942	1053	1206	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	29.5	29.5	29.5	29.5	29.5	29.5
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	134	133	133	133	133	134
Moisture, %	15.8	16.5	16.5	16.3	15.8	16.5
Velocity, ft/sec	20.2	20.3	19.6	20.0	19.6	20.3
Volumetric Flow Rate						
Actual, acfm	238	238	231	236	231	238
Wet Standard, wscfm	210	211	204	208	204	211
Dry Standard, dscfm	177	176	171	175	171	177
Methanol						
Concentration, ppmvd	138	109	106	118	106	138
Emission Rate, lb/hr	1.22E-01	9.56E-02	9.02E-02	1.03E-01	9.02E-02	1.22E-01
Adjusted Emission Rate, lb/hr	1.44E-01	1.12E-01	1.06E-01	1.21E-01	1.06E-01	1.44E-01
Process Emission Factor, lb/ODTP	4.14E-03	3.24E-03	3.06E-03	3.48E-03	3.06E-03	4.14E-03

Baseline Rejects Drainer

TABLE 2-5
SUMMARY OF EMISSIONS – PINE SCREEN DILUTION TANK ✓

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/30/03	7/30/03	7/30/03	---	---	---
Time Started	0743	0902	1021	---	---	---
Time Ended	0843	1002	1121	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	29.2	29.2	29.2	29.2	29.2	29.2
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	132	129	125	129	125	132
Moisture, %	15.1	15.1	14.8	15.0	14.8	15.1
Velocity, ft/sec	21.9	21.8	21.7	21.8	21.7	21.9
Volumetric Flow Rate						
Actual, acfm	258	256	255	256	255	258
Wet Standard, wscfm	228	228	229	229	228	229
Dry Standard, dscfm	194	194	195	194	194	195
Methanol						
Concentration, ppmvd	246	256	240	247	240	256
Emission Rate, lb/hr	2.38E-01	2.47E-01	2.34E-01	2.40E-01	2.34E-01	2.47E-01
Adjusted Emission Rate, lb/hr	2.83E-01	2.94E-01	2.78E-01	2.85E-01	2.78E-01	2.94E-01
Process Emission Factor, lb/ODTP	8.16E-03	8.47E-03	8.02E-03	8.22E-03	8.02E-03	8.47E-03

Baseline Screen Dilution Tank

TABLE 2-6
SUMMARY OF EMISSIONS – SECONDARY KNOTTER VIBRATORY HOOD ✓

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/31/03	7/31/03	7/31/03	---	---	---
Time Started	0839	1000	1120	---	---	---
Time Ended	0939	1100	1220	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	29.5	29.5	29.5	29.5	29.5	29.5
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	130	128	126	128	126	130
Moisture, %	10.3	11.2	12.5	11.4	10.3	12.5
Velocity, ft/sec	14.1	14.0	12.8	13.6	12.8	14.1
Volumetric Flow Rate						
Actual, acfm	166	164	151	160	151	166
Wet Standard, wscfm	148	146	135	143	135	148
Dry Standard, dscfm	133	130	118	127	118	133
Methanol						
Concentration, ppmvd	308	201	176	228	176	308
Emission Rate, lb/hr	2.04E-01	1.30E-01	1.04E-01	1.46E-01	1.04E-01	2.04E-01
Adjusted Emission Rate, lb/hr	2.40E-01	1.53E-01	1.22E-01	1.72E-01	1.22E-01	2.40E-01
Process Emission Factor, lb/ODTP	6.90E-03	4.41E-03	3.52E-03	4.94E-03	3.52E-03	6.90E-03

Baseline Secondary Knotter

TABLE 2-7
SUMMARY OF EMISSIONS - SECONDARY KNOTTER VIBRATORY LEVEL TANK

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/31/03	7/31/03	7/31/03	—	---	---
Time Started	1307	1422	1535	—	---	---
Time Ended	1407	1522	1635	—	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	29.5	29.5	29.5	29.5	29.5	29.5
Maximum Process Rate, ODTP/hr	34.7	34.7	34.7	34.7	---	---
Stack Gas Characteristics						
Temperature, °F	126	127	135	129	126	135
Moisture, %	12.7	11.4	14.5	12.8	11.4	14.5
Velocity, ft/sec	12.7	13.1	13.5	13.1	12.7	13.5
Volumetric Flow Rate						
Actual, acfm	149	155	159	154	149	159
Wet Standard, wscfm	134	138	140	137	134	140
Dry Standard, dscfm	117	122	120	120	117	122
Methanol						
Concentration, ppmvd	231	236	340	269	231	340
Emission Rate, lb/hr	1.35E-01	1.44E-01	2.03E-01	1.61E-01	1.35E-01	2.03E-01
Adjusted Emission Rate, lb/hr	1.59E-01	1.69E-01	2.39E-01	1.89E-01	1.59E-01	2.39E-01
Process Emission Factor, lb/ODTP	4.57E-03	4.88E-03	6.89E-03	5.45E-03	4.57E-03	6.89E-03

Baseline Secondary Knotter Level Tank

TABLE 2-8
SUMMARY OF EMISSIONS – HARDWOOD REJECTS DRAINER VIBRATORY HOOD

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/31/03	7/31/03	7/31/03	---	---	---
Time Started	1254	1405	1520	---	---	---
Time Ended	1354	1505	1620	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	31.5	31.5	31.5	31.5	31.5	31.5
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	134	136	137	135	134	137
Moisture, %	14.4	15.5	16.9	15.6	14.4	16.9
Velocity, ft/sec	18.8	18.2	18.3	18.4	18.2	18.8
Volumetric Flow Rate						
Actual, acfm	221	214	215	217	214	221
Wet Standard, wscfm	195	188	189	191	188	195
Dry Standard, dscfm	167	159	157	161	157	167
Methanol						
Concentration, ppmvd	107	104	109	107	104	109
Emission Rate, lb/hr	8.96E-02	8.25E-02	8.58E-02	8.60E-02	8.25E-02	8.96E-02
Adjusted Emission Rate, lb/hr	9.13E-02	8.41E-02	8.75E-02	8.76E-02	8.41E-02	9.13E-02
Process Emission Factor, lb/ODTP	2.85E-03	2.62E-03	2.72E-03	2.73E-03	2.62E-03	2.85E-03

*Baseline + Future Rejects Drainers
Vibratory Hood*

TABLE 2-9
SUMMARY OF EMISSIONS – HARDWOOD SCREEN DILUTION TANK ✓

Parameter	Run 1	Run 2	Run 3	Average	Min	Max
Date	7/30/03	7/30/03	7/31/03	---	---	---
Time Started	1538	1703	1528	---	---	---
Time Ended	1638	1750	1628	---	---	---
Production Rate						
Process Rate During Testing, ODTP/hr	30.4	30.4	30.4	30.4	<i>30.4</i>	<i>30.4</i>
Maximum Process Rate, ODTP/hr	32.1	32.1	32.1	32.1	---	---
Stack Gas Characteristics						
Temperature, °F	111	115	118	115	<i>111</i>	<i>118</i>
Moisture, %	9.8	9.0	10.1	9.6	<i>9.0</i>	<i>10.1</i>
Velocity, ft/sec	9.4	14.6	21.8	15.3	<i>9.4</i>	<i>21.8</i>
Volumetric Flow Rate						
Actual, acfm	111	172	256	179	<i>111</i>	<i>256</i>
Wet Standard, wscfm	102	157	233	164	<i>102</i>	<i>233</i>
Dry Standard, dscfm	92	142	209	148	<i>92</i>	<i>209</i>
Methanol						
Concentration, ppmvd	90	75	322	162	75	322
Emission Rate, lb/hr	4.10E-02	5.34E-02	3.35E-01	1.43E-01	<i>4.10E-02</i>	<i>3.35E-01</i>
Adjusted Emission Rate, lb/hr	4.32E-02	5.64E-02	3.54E-01	1.51E-01	<i>4.32E-02</i>	<i>3.54E-01</i>
Process Emission Factor, lb/ODTP	1.35E-03	1.76E-03	1.10E-02	4.71E-03	<i>1.35E-03</i>	<i>1.10E-02</i>

Notes: Run 3 methanol results are higher than other runs. A review of the sampling and analytical data indicates that results are valid.

Baseline + Future Screen Dilution Tanks

Footnote F
Documentation

TB 678

**TABLE VI.A.9 SUMMARY OF EMISSION TEST RESULTS
MILL G SOFTWOOD BROWN STOCK WASHING**

ANALYTE	SOFTWOOD DIFFUSION WASHER VENT (GV14)	SOFTWOOD DIFFUSION WASHER FILTRATE TANK VENT (GV15)	SYSTEM TOTAL
HEATED CANISTER	AVG (lb/T)	AVG (lb/T)	(lb/T)
acetaldehyde (H)	1.8E-3	8.0E-5	1.8E-3
methanol (H)	4.1E-2	2.4E-3	4.3E-2
methyl mercaptan	3.4E-4	1.8E-5	3.6E-4
acetone	3.6E-3	2.0E-4	3.8E-3
dimethyl sulfide	1.4E-2	2.2E-3	1.6E-2
methylene chloride (H)	< 2.5E-5	< 4.8E-6	< 3.0E-5
1,2-dichloroethylene	< 1.0E-5	< 1.9E-6	< 1.2E-5
methyl ethyl ketone (H)	1.5E-3	1.5E-4	1.7E-3
n-hexane (H)	1.1E-4	1.6E-5	1.2E-4
chloroform (H)	< 5.0E-5	< 9.5E-6	< 6.0E-5
1,2-dichloroethane (H)	< 1.4E-5	< 2.6E-6	< 1.6E-5
1,1,1-trichloroethane (H)	< 1.4E-5	< 2.6E-6	< 1.7E-5
benzene (H)	1.1E-5	3.5E-7	1.1E-5
carbon tetrachloride (H)	< 6.5E-5	< 1.2E-5	< 7.7E-5
trichloroethylene (H)	U 1.8E-5	U 3.8E-6	U 2.2E-5
methyl isobutyl ketone (H)	3.7E-5	3.3E-6	4.0E-5
dimethyl disulfide	1.7E-2	6.0E-4	1.8E-2
1,1,2-trichloroethane (H)	< 1.4E-5	< 2.6E-6	< 1.7E-5
toluene (H)	2.0E-4	1.3E-5	2.2E-4
tetrachloroethylene (H)	< 1.7E-5	< 3.3E-6	< 2.1E-5
chlorobenzene (H)	U 3.2E-6	< 7.4E-7	U 3.6E-6
m,p-xylene (H)	6.2E-5	4.1E-6	6.6E-5
o-xylene (H)	< 3.7E-6	< 7.0E-7	< 4.4E-6
xylene (H)			
styrene (H)	3.8E-4	2.2E-5	4.0E-4
alpha-pinene			
beta-pinene			
terpenes	SAT	1.3E-3	> 1.3E-3
1,2,4-trichlorobenzene (H)	< 6.4E-6	< 1.2E-6	< 7.6E-6
acrolein (H)	5.2E-5	< 1.1E-6	5.2E-5
IMPINGER			
methanol (H)			
acetone			
methyl ethyl ketone (H)			
acetaldehyde (H)			
acrolein (H)			
formaldehyde (H)	< 4.2E-5	< 7.6E-6	< 5.0E-5
Total HAPs	4.5E-2	2.7E-3	4.8E-2
THC (Method 25A)	2.9E-1	1.3E-2	3.0E-1
Flow (DSCFM)	358	66	424
PROD RATE, ODTP/D	569	569	569

U = UNEXPECTED AND UNCONFIRMED BY GC/MSD
 ODTP/D = OVEN DRIED TONS OF PULP PER DAY
 H = CAA HAP
 SAT = SATURATED (ABOVE DETECTOR QUANTITATION RANGE)

Footnote K
Documentation

Table 2. TRS Data Summary – Oxygen Delignification System Vents

	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/ day	dscfm/ ADTPD	Reduced Sulfur Compounds					TRS ¹ as S
	acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	MM	DMS	DMDS	
mean ^a	8,180 ²	4,938	150.4	30.2	20.8	1,206	4.0	ppmd	9.35	7.46	104.55	13.17	147.73
median	6,557 ²	4,691	139.3	18.8	20.8	1,211	3.6	ppmd	7.96	<i>5.09</i>	5.85	12.06	43.03
minimum		1,420	122.0	12.2	20.8	1,006	1.1	ppmd	2.75	<i>0.35</i>	0.51	<i>0.36</i>	4.85
maximum		8,952	190.0	59.6	20.8	1,395	7.7	ppmd	18.88	19.30	406.00	28.18	484.50
mean ^a								lb/ADTP	2.7E-03	2.0E-03	4.4E-02	5.4E-03	3.0E-02
median								lb/ADTP	2.7E-03	<i>7.6E-04</i>	1.8E-03	3.0E-03	6.0E-03
minimum								lb/ADTP	2.7E-03	<i>3.5E-04</i>	9.2E-04	<i>6.9E-04</i>	4.5E-03
maximum								lb/ADTP	2.7E-03	6.2E-03	1.7E-01	1.5E-02	1.0E-01
number of sources tested	3	4	3	3	1	4	4		1	4	4	4	4
no. of sources with detects									1	1	3	2	4
% of TRS, S basis ^b									2.5%	4.0%	83.8%	9.7%	100.0%

^acomputed treating ND as 0.5 DL; ^bbased upon sole set of data with all 4 reduced sulfur compounds tested

¹Note: For total reduced sulfur or TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources.

²estimated from dscfm, T and % H₂O

All data in italics correspond to non-detects shown at one-half detection limit

Baseline A-Line O₂ Delignification
Baseline + Future B-Line O₂
Delignification

Table 6. TRS Data Summary – Pulp Deckers

	Gas Flow Rate		Vent Gas Properties			Prod.		Reduced Sulfur Compounds					TRS ¹ as S
	acfm	dscfm	Temp °F	% H ₂ O	% O ₂	ADTP/ day	dscfm/ ADTPD	Units	H ₂ S	MM	DMS	DMDS	
mean ^a	15,125 ²	13,059	105.7	7.5	20.8	654.7	22.0	ppmd	ND ^b	12.1	25.9	13.7	65.4
median	10,633 ²	9,306	101.8	6.9	20.8	625.1	17.1	ppmd	ND ^b	0.5	6.9	4.0	15.5
minimum		436	88.3	4.5	20.8	322.1	0.7	ppmd	ND ^b	0.2	0.5	0.2	1.9
maximum		31,392	136.0	14.0	20.9	1,296.0	46.1	ppmd	ND ^b	97.2	173.0	115.0	500.2
mean ^a								lb/ADTP	ND ^b	9.9E-03	4.8E-02	2.8E-02	5.1E-02
median								lb/ADTP	ND ^b	3.4E-03	2.7E-02	2.8E-02	3.5E-02
minimum								lb/ADTP	ND ^b	3.7E-04	4.1E-03	1.4E-03	9.2E-03
maximum								lb/ADTP	ND ^b	7.4E-02	1.9E-01	5.8E-02	1.4E-01
number of sources tested	10	11	10	10	7	11	11		1	11	11	11	11
number of sources with detects									0	2	10	8	10
% of TRS, S basis ^b									0.0%	19.4%	34.6%	46.0%	100.0%

^acomputed treating ND as 1/2 DL; ^bND – non-detect, detection limit unknown; ^bbased upon sole data set with all 4 reduced sulfur compounds tested

¹Note: For total reduced sulfur or TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources.

²estimated from dscfm, T and % H₂O

All data in italics correspond to non-detects shown at one-half detection limit

Baseline + Future A+B Line
Decker System

Table 10. TRS Data Summary - Uncontrolled Kraft Non-Condensable Gases - Continuous Digester Blow Gases

Description of Source	Gas Flow Rate		Vent Gas Properties			Prod.		Reduced Sulfur Compounds					TRS ¹ as S
	acfm	dscfm	Temp °F	% H ₂ O	% O ₂	ADTP/ day	dscfm/ ADTPD	Units	H ₂ S	MM	DMS	DMDS	
mean ^a	480 ²	411	105.9	8.2	19.5	736.4	0.74	ppmd	122.4	4,128	2,072	935	8,193
median	385 ²	288	97.9	6.3	20.8	616.0	0.37	ppmd	4.1	2.3	643.5	43.4	736.7
minimum		34	39.0	0.8	13.3	432.8	0.06	ppmd	ND	ND	5.0	0.44	25.8
maximum		1,472	212.0	25.5	20.9	1,572.0	3.40	ppmd	975.0	32,575	8,737	7,590	33,731
mean ^a								lb/ADTP	0.001	0.12	0.51	0.10	0.41
median								lb/ADTP	3.2E-04	1.4E-04	0.031	0.003	0.02
minimum								lb/ADTP	ND	ND	2.2E-04	8.4E-05	0.001
maximum								lb/ADTP	0.01	1.12	3.84	0.52	2.16
number of sources tested	7	10	10	8	8	10	10		8	10	10	10	10
number of sources with detects									4	3	9	8	10
% of total TRS, S basis ^b									0.3%	19.4%	63.8%	16.5%	100.0%
mean for 4 hardwood systems								lb/ADTP	0.003	0.02	1.14	0.10	0.67
mean for 5 softwood systems								lb/ADTP	2.9E-04	0.22	0.10	0.01	0.21

^acomputed treating ND as 1/4 DL; ^bbased upon mean of 8 data sets with all 4 reduced sulfur compounds tested

¹Note: For total reduced sulfur or TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources.

²estimated from dscfm, T and % H₂O

Baseline + Future Digester Blow
Gases (Uncontrolled)

Table 1. TRS Data Summary – Kraft Pulp Mill Bleach Plant Scrubbers

	Gas Flow Rate		Vent Gas Properties			Prod.	dscfm/ ADTBPD	Reduced Sulfur Compounds					TRS ^{1,2} as S
	acfm	dscfm	Temp ° F	% H ₂ O	% O ₂	ADTBP/ day		Units	H ₂ S	MM	DMS	DMDS	
mean ^a	24,566 ³	19,691	120.9	11.8	20.8	698.2	32.9	ppmd		1.70	1.59	0.86	5.01
median	22,986 ³	18,927	114.9	10.4	20.8	662.9	32.2	ppmd		0.50	0.50	0.47	1.94
minimum		1,646	98.0	6.0	20.8	276.5	4.0	ppmd		0.24	0.24	0.24	0.95
maximum		38,723	158.0	29.7	20.9	1,345.7	100.1	ppmd		11.38	13.94	9.70	35.82
mean ^a								lb/ADTBP		6.6E-03	1.1E-02	8.9E-03	1.6E-02
median								lb/ADTBP		3.3E-03	3.6E-03	5.1E-03	7.6E-03
minimum								lb/ADTBP		1.8E-04	2.4E-04	3.6E-04	4.8E-04
maximum								lb/ADTBP		3.4E-02	8.1E-02	8.6E-02	1.1E-01
no. of sources tested	26	26	26	26	15	26	26			26	26	26	26
no. of sources with detects										9	11	6	16
% of TRS ¹ , S basis ^b										27.0%	35.6%	37.4%	100.0%

^acomputed treating ND as 0.5 DL; ^bbased upon mean of all 26 data sets

¹TRS – total reduced sulfur, not including H₂S

²Note: For total reduced sulfur or TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources.

³estimated from dscfm, T and % H₂O

All data in italics correspond to non-detects shown at one-half detection limit

Baseline A-Line Bleach Plant
Baseline + Future B-Line Bleach
Plant

Baseline Brown Stock Washers

Table 3. TRS Data Summary – “High-Flow” Brownstock Washer Vents

	Gas Flow Rate		Vent Gas Properties			Prod. ADTP/ day	dscfm/ ADTPD	Reduced Sulfur Compounds					TRS ¹ as S
	acfm	dscfm	Temp °F	% H ₂ O	% O ₂			Units	H ₂ S	MM	DMS	DMDS	
mean ^a	61,909 ²	53,758	101.2	7.7	20.8	587.7	94.6	ppmd	0.85	1.71	12.19	2.65	20.05
median	57,168 ²	49,949	102.1	7.0	20.8	604.6	79.9	ppmd	0.48	0.89	8.37	1.35	12.42
minimum		6,050	66.3	1.5	20.8	100.0	19.1	ppmd	0.04	0.04	0.25	0.19	1.80
maximum		139,053	136.7	18.3	20.9	1,132.0	348.5	ppmd	2.39	11.80	60.48	10.25	84.33
mean ^a								lb/ADTP	8.7E-03	3.6E-02	3.0E-01	9.2E-02	2.5E-01
median								lb/ADTP	5.8E-03	1.9E-02	1.1E-01	7.0E-02	1.2E-01
minimum								lb/ADTP	1.1E-03	2.0E-04	1.5E-03	1.7E-03	5.4E-03
maximum								lb/ADTP	4.1E-02	3.6E-01	1.7E+00	4.0E-01	1.2E+00
number of sources tested	24	24	24	24	16	24	24		13	24	24	24	24
number of sources with detects									6	14	23	22	24
% of TRS, S basis ^b									5.6%	18.6%	44.8%	31.0%	100.0%
mean of 9 hardwood lines	73,096 ²	64,046	98.5	7.3	20.8	589.3	110.4	lb/ADTP	6.6E-03	2.1E-02	2.5E-01	1.0E-01	2.2E-01
mean of 14 softwood lines	53,463 ²	46,746	100.3	7.2	20.8	547.9	87.5	lb/ADTP	9.9E-03	4.5E-02	3.3E-01	8.8E-02	2.7E-01
								TRS as S					
Additional data (1997-99) for seven “high-flow” washers tested only for TRS emissions									ppmd	lb/ADTP			
mean ^a	39,981 ²	34,274	104.9	8.3	20.4	697.4	54.2		5.63	2.8E-02			
median	32,503 ²	27,233	112.2	9.2	20.4	689.0	39.5		3.74	3.8E-02			
minimum		17,758	84.0	4.4	20.4	476.0	30.0		0.45	5.2E-03			
maximum		57,096	121.7	12.3	20.4	1,009.9	105.2		10.72	5.1E-02			
Averages for all 31 “high-flow” washers (7 tested for TRS and 24 for individual reduced sulfur compounds) – TRS and vent gas properties													
mean of all 31 “high-flow” lines ^a	57,008 ²	49,358	102.0	7.8	20.7	612.5	85.5			16.8	2.0E-01		
median	51,784 ²	44,819	104.4	7.5	20.7	623.7	70.8			10.5	1.0E-01		
minimum		6,050	66.3	1.5	20.4	100.0	19.1			0.5	5.2E-03		
maximum		139,053	136.7	18.3	20.9	1,132.0	348.5			84.3	1.2E+00		
number of sources tested	30	31	30	30	17	31	31			31	31		

^acomputed treating ND as 0.5 DL; ^bbased upon mean of 13 data sets with all 4 reduced sulfur compounds tested

¹Note: For total reduced sulfur or TRS, the mean and median are estimated from the means and medians of the individual reduced sulfur compounds, respectively. However, the minimum and maximum correspond to the actual minimum and maximum TRS concentration estimated among all sources.

²estimated from dscfm, T and % H₂O

All data in italics correspond to non-detects shown at one-half detection limit

Future Brown Stock Washers

Footnote O
Documentation

Combined LVHC NCGs + SOGs

- Obtained by combining mean of 13 LVHC NCGs and four SOGs.
- Mean and median TRS contents in lb S/ADTP were 5.77 and 4.21, respectively (range 1.17 to 19.31).
- 5.77 lb S/ADTP when oxidized results in about 11.54 lb SO₂/ADTP which is normally scrubbed in an SO₂ scrubber.
- H₂S and methyl mercaptan comprise the bulk (about 73%) of reduced sulfur compounds, implying a significant fraction of combined kraft mill LVHC NCG/SOG reduced sulfur compounds are acidic in nature and can be scrubbed in an alkaline scrubber.

HVLC NCGs

- Mean and median TRS contents in lb S/ADTP for five HVLC NCGs were 0.16 and 0.072, respectively (range 0.02 to 0.24).

Thermal Oxidizers

- Negligible TRS emissions from eight oxidizer vent gases (mean – 0.0012 lb S/ADTP).
- Limited data on two scrubbers suggest over 99% TRS removal.

NDCE Kraft Recovery Furnaces

- H₂S (67%) and methyl mercaptan (20%) dominate furnace reduced sulfur compound emissions.
- Only one of 13 furnaces tested had TRS concentrations exceeding 5 ppm @8% O₂ (NSPS limit).
- TRS emissions show weak correlation with normalized stack gas flow rates and with stack O₂.
- Mean and median TRS emissions in lb S/ton bls for 13 furnaces were 0.041 and 0.018, respectively (range ND to 0.17).

DCE Kraft Recovery Furnaces

- H₂S (56%) and methyl mercaptan (31%) once again dominate furnace reduced sulfur compound emissions.
- Fifteen of 18 furnaces tested had emissions exceeding 5 ppm @8% O₂ (NSPS limit).
- Poor correlation between TRS and normalized flue gas flow or stack O₂.
- Mean and median TRS emissions in lb S/ton bls for 18 furnaces were 0.14 and 0.092, respectively (0.055 to 0.33).

Saltcake Mix Tanks

- Negligible TRS concentrations in three mix tank vent gases (mean – 0.0022 lb S/ton bls).

Smelt Dissolving Tanks

- DMS and DMDS comprise the bulk of reduced sulfur compounds (over 72%), possibly suggesting role of weak wash used in scrubbers and for dissolving smelt.

Footnotes U, KK
Documentation

International Paper
Cantonment, Florida

Thermal Oxidizer Emission Compliance Test Report

19-20 and 24 January 2005

Work Order No.: 00157.076.002

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TABLE 2-3
THERMAL OXIDIZER
SUMMARY OF NO_x, SO₂, CO, AND THC EMISSION RESULTS

	Run 1	Run 2	Run 3	Mean
Date	1/24/05	1/24/05	1/24/05	---
Time Began	1527	1718	1840	---
Time Ended	1627	1818	1940	---
Stack Gas Data				
Temperature, °F	167	166	170	168
Velocity, ft/sec	15	13	13	14
Moisture, %	38	37	39	38
CO ₂ Concentration, %	7.8	7.5	7.6	7.6
O ₂ Concentration, %	7.3	7.6	7.7	7.5
VFR, x 10 ³ dscfm	4.25	3.82	3.78	3.95
Production Rate, ADTUP/hr	76.0	76.0	76.0	76.0
Nitrogen Oxides				
Concentration, ppm	318	309	306	311
Emission Rate, lb/hr	9.7	8.5	8.3	8.8
Permit Limit, lb/hr	----	----	----	9.1 /
Sulfur Dioxide				
Concentration, ppm	75	96	119	97
Emission Rate, lb/hr	3.2	3.7	4.5	3.8
Permit Limit, lb/hr	----	----	----	5.7
Carbon Monoxide				
Concentration, ppm	7.0	4.0	3.0	4.7
Emission Rate, lb/hr	0.1	0.1	0.1	0.1
Permit Limit, lb/hr	----	----	----	6.8
Total Hydrocarbon				
Concentration, ppmv as Carbon	<4.8	<4.8	<5.0	<4.9
Emission Rate, lb/hr as Carbon	<0.04	<0.04	<0.04	<0.04
Permit Limit, lb/hr	----	----	----	1.1

Baseline
NO_x

8.8/76
8.63/76

0.1136

2.0/76

Baseline
+ Future
CO

Footnote V
Documentation

Table 4.16 VOC^a Emissions from Kraft Mill Paper Machine Vents

Type of Paper Machine	No.	Range	Median	Mean
		lb/ADTFP		
VOC ^a , Unbleached Linerboard	2	0.42 – 0.60	0.51	0.51
VOC ^a , Bleached Paper & Pulp	2	0.038 – 0.10	0.069	0.069

^a lb C/ADTFP (air dry ton of finished product) as measured by EPA Method 25A

4.16 Miscellaneous Kraft Mill Sources

VOCs may be emitted from various other point sources in a kraft pulp mill. Table 4.17 provides estimates of VOC emissions from three salt cake mix tanks, one UNOX system vent, and one cooling tower. It should be noted that cooling tower VOC emissions are expected to be extremely mill-specific, depending mainly on the type of condensate reuse practices and level of VOCs present in the water sent to the cooling tower. Detailed data including descriptions for each source are provided in Appendix A, Table A17. Several other sources of VOC emissions potentially exist in a pulp and paper mill. These include wastewater treatment systems, both primary and secondary, open sewers, landfills, etc. No data are available for such sources. However, the VOC emissions from these sources (except perhaps wastewater treatment systems) are expected to be small compared with those from various process vents and boiler stacks at a mill.

Table 4.17 VOC Emissions from Miscellaneous Kraft Mill Sources

	Units ^a	No. ^b	Range	Median	Mean
Salt Cake Mix Tank Vent	lb/ton bls	3	3.9E-05 – 0.0076	0.0013	0.003
UNOX System Vent	lb/ODTUBP	1		0.019	0.019
Cooling Tower ^c	lb/ADTP	1		0.79	0.79

^a lb C as measured by EPA Method 25A; ^b number of sources tested; ^c mill with steam stripper – tower treats entire mill effluent and discharges to a high rate activated sludge system

5.0 SULFITE PULP MILL SOURCES

In a sulfite pulp mill, VOC and SO₂ emissions can arise from uncontrolled digester and relief gases, pulp washing and bleaching sources, and recovery area sources. Just as for kraft pulp mill sources, fugitive VOC emissions from wastewater treatment area sources, such as primary clarifiers and secondary treatment systems, surface impoundments, flow-through basins, lagoons, and open sewers are not included in this report. CO is expected to be present in emissions from all vents where some form of combustion, either of spent liquor or fuel, takes place. CO is also expected from bleach plant vents (no data available). Particulate matter is expected to be present in emissions from the sulfite recovery furnaces, boilers burning fuels, wood preparation activities and to a lesser extent, paper machines. Limited data on particulate matter emissions from paper machines and wood preparation activities are presented in Section 8.0. Oxides of nitrogen (or NO_x) are expected to be present in all combustion-related source vents.

Table A-18 (Cont'd). Summary of 'Air Toxic' Emissions from Virgin Chemical Paper Machines

Volatile Organic Compound	Mill Code	Emissions		Test Method	Comments
		Range lb/ADTFP	Avg. lb/ADTFP		
<i>I. Unbleached Linerboard Paper Machine Dryers (Contd.)</i>					
1,2,4-Trichlorobenzene	PMMG		1.1E-02	Heated Canister	FID, U
1,2,4-Trichlorobenzene	PMMH	ND[5.4E-03]	2.7E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
2	1	ND to 0.011	6.9E-03	6.9E-03	5.5E-03
1,1,1-Trichloroethane	PMMG		1.8E-03	Heated Canister	FID
1,1,1-Trichloroethane**	PMMH	ND[1.2E-02]		Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
1	1		1.8E-03	1.8E-03	9.0E-04
** data rejected based upon 1/2 DL being > highest detected observation (1.8E-03)					
1,1,2-Trichloroethane	PMMG		2.1E-03	Heated Canister	FID, U
1,1,2-Trichloroethane**	PMMH	ND[1.2E-02]		Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
1	1		2.1E-03	2.1E-03	1.1E-03
** data rejected based upon 1/2 DL being > highest detected observation (2.1E-03)					
Trichloroethylene	PMMG	ND[3.3E-03]	1.7E-03	Heated Canister	FID
Trichloroethylene	PMMH		6.0E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	701 Median
2	1	ND to 0.006	3.8E-03	3.8E-03	3.0E-03
m,p-Xylene	PMMG		7.2E-04	Heated Canister	FID
m,p-Xylene	PMMH		2.7E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	
2	2	7.2E-04 to 0.0027	1.7E-03	1.7E-03	
o-Xylene	PMMG		5.2E-04	Heated Canister	FID
o-Xylene	PMMH		2.4E-03	Heated Canister	FID
No. of Units	Detects	Range	Median	Mean	
2	2	5.2E-04 to 0.0024	1.5E-03	1.5E-03	
Total Hydrocarbons	PMMG		6.0E-01	M25A	
Total Hydrocarbons	PMMH		4.2E-01	M25A	
No. of Units	Detects	Range	Median	Mean	
2	2	0.42 to 0.60	5.1E-01	5.1E-01	

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Table A-18 (Cont'd). Summary of 'Air Toxic' Emissions from Virgin Chemical Paper Machines

Volatile Organic Compound	Mill Code	Emissions		Test Method	Comments
		Range lb/ADTFP	Avg. lb/ADTFP		
<i>II. Bleached Paper Machine And Pulp Dryer, Contd.</i>					
Total Hydrocarbons	PMMK		3.8E-02	M25A	
Total Hydrocarbons	PDMN		1.0E-01	M25A	
No. of Units	Detects	Range	Median	Mean	
2	2	0.038 to 0.10	6.9E-02	6.9E-02	

Notes

- (a) U - unidentified and unconfirmed by GC/MSD
- (b) For all FID analyses the heated canister gases were concentrated before analysis

Note: All italicized entries correspond to non-detect values at one-half the detection limit

Footnote W
Documentation

Table 4.7 VOC^a Emissions from Pulp Deckers

No. ^b	Range	Median	Mean
	lb C/ADTUBP		
3	0.051 – 0.09	0.077	0.073

^a as measured by EPA Method 25A^b number of sources tested

4.8 Oxygen Delignification System Vents

In mills that practice oxygen delignification, volatile organic compounds present in the incoming pulp slurry, oxidized white liquor, and washer shower water can be released in blow tank, washer hood, washer filtrate tank, and pulp storage tank vent gases. The amounts of these compounds present in the various process liquids will depend upon the water reuse practices of the mill, particularly if condensates are used on the post-oxygen washers. Releases of volatile organic compounds from washer systems are also a function of the extent to which exhaust air and process liquids are in contact, which in turn depends upon equipment design and ventilation practices.

Carbon dioxide and smaller amounts of carbon monoxide are formed in the reactor as the delignification proceeds. The majority of these gases will be released from the blow tank vent. In an NCASI study (NCASI 1998), average carbon monoxide emissions from O₂ delignification system vents at eight kraft mills were found to range from 0.01 to 0.44 lb/ODTP, with no readily apparent relationship to either the amount of oxygen applied or to the reduction in kappa number accomplished.

Table 4.8 gives estimates of VOC and CO emissions from oxygen delignification system vents. Detailed data including descriptions for each system are provided in Appendix A, Table A8.

Table 4.8 VOC^a and CO Emissions from O₂ Delignification System Vents

Pollutant	No. ^b	Range	Median	Mean
		lb/ADTUBP		
VOC ^a	12	ND – 1.09	0.20	0.35
CO	8	0.0 – 0.61	0.045	0.12

^a measured as C using EPA Method 25A^b number of sources tested

Baseline A-Line
O₂ Delignification
Baseline +
Future B-Line
O₂ Delignification

4.9 Bleach Plant Vents

Trace quantities of VOC emissions have been measured in bleach plant vents. Carbon monoxide (CO) is generated in bleach plants that use chlorine dioxide. While not regulated specifically from pulp bleaching operations, CO is a criteria pollutant and thus contributions from pulp bleaching operations may be relevant in accounting for total mill emissions of CO (e.g., for air quality permitting purposes).

In an NCASI study, long-term continuous emission monitoring data collected at six bleach plants showed a range of 0.20 to about 1.65 lb CO/ODTP (NCASI 1998). The major sources of CO emissions from bleach plants were the chlorine dioxide bleaching towers. Contributions from

extraction and peroxide stages were typically small. At elemental chlorine free (ECF) bleach plants, the CO emissions were weakly correlated with total percent ClO₂ applied on pulp. However, for bleaching with less than complete substitution, CO emissions exhibited a poor correlation with percent ClO₂ applied on pulp. The data reviewed during the NCASI investigation suggested that as long as the total amount of equivalent chlorine applied on pulp remains the same, the total bleach plant CO emissions will remain unaffected by increasing the ClO₂ substitution levels in the first stage (NCASI 1998).

Table 4.9 gives estimates of VOC and CO emissions from kraft mill bleach plant vents. Included are bleach plant scrubber vents, extraction-stage vents, and ClO₂ generator scrubber vents. Detailed data including descriptions for each bleach plant vent are provided in Appendix A, Tables A9a, A9b, A9c, and A9d. The CO emissions from 100% ClO₂ substitution bleach plant vents are presented as equations relating to the amount of ClO₂ applied on pulp (NCASI 1998).

Table 4.9 VOC^b and CO Emissions from Bleach Plant Vents

Vent(s)	No. ^d	Range	Median	Mean	
		lb/ODTUBP			
Bleach Plant Scrubber ^a	VOC ^b	33	0.001 - 0.31	0.050	0.092
Bleach Plant Scrubber	CO	A	0.20 - 1.65	A	A
Extraction Stage Vents	VOC ^b	10	1.1E-04 - 0.231	0.021	0.050
Extraction Tower Only	CO	4	0.004 to 0.13	0.037	0.040
ClO ₂ Generator Scrubber	VOC ^c	1		0.017	0.017
R8 Tail Gas Scrubber	VOC ^b	1		3.5E-05	3.5E-05

^a 32 of 33 bleach plant vents passed through a scrubber; ^b measured as C using EPA Method 25A, 25, or CARB 100; ^c lb C/ton ClO₂ as measured by EPA Method 25A; ^d number of sources tested
 A - for bleaching with 100% ClO₂ substitution, the following correlations may be used:

$$Y = 0.18 \cdot X + 0.45 \text{ (for softwoods)} \quad n = 9$$

$$Y = -0.03 \cdot X + 0.69 \text{ (for hardwoods)} \quad n = 7$$

where

Y = CO emissions in lb/ODTUBP; and
 X = % ClO₂ applied (total) in lb ClO₂ per 100 lb ODTUBP (NCASI 1998)
 n = number of sources tested

Baseline A-Line Scrubber
Baseline + Future B-Line Scrubber
Baseline A-Line ETO Tower
Baseline + Future B-Line ETO Tower

4.10 Black Liquor Oxidation Systems

Vent gases from black liquor oxidation (BLO) towers and tanks have high moisture contents and large flow rates. Concentrations of organic sulfide gases tend to be low, normally under 50 ppmv. Volatile organic compounds are also present in these gases, having been stripped from the black liquor. Table 4.10 gives estimates of VOC emissions from seven BLO systems. All data correspond to oxidation of strong liquors. Table 4.10 also provides total particulate matter emission data reported on just one BLO system (USEPA 1992). Detailed data including descriptions for each BLO system are provided in Appendix A, Table A10.

Footnote EE
Documentation

10. 345 P. 8
A.R.
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**International Paper Company
Cantonment, FL**

**Emissions Compliance Report for
the Thermal Oxidizer System**



**ENSR Corporation
February 2004
Document Number 06890-347-PRO**

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Table 2-1 Emission Results Summary

**Summary of Results
Thermal Oxidizer**

METHODS RESULTS						
		Run 1	Run 2	Run 3	Averages	Allowable
Method 5	lb/hr	0.13	0.13	0.18	0.15	1.0
PM ₁₀	lb/hr	0.30	0.22	0.27	0.26	1.0
Method 8	lb/hr <i>H₂S₄</i>	0.58	0.46	0.49	0.51	0.6
CEM RESULTS						
		Run 1	Run 2	Run 3	Averages	Allowable
NO _x	lb/hr	6.57	6.93	7.16	6.9	9.1
		Run 2	Run 3	Run 5	Averages	Allowable
SO ₂	lb/hr	0.66	1.56	0.68	0.97	5.7
Visible Emission Results						
		Run 1	Run 2	Run 3	Averages	Allowable
Method 9	%	1	4	3	3	20

Footnote PP
Documentation



RESULTS AND DISCUSSION

2.2 A-LINE SOFTWOOD BLEACH PLANT

Tables 2-6 through 2-9 summarize the test results for the Eo Washer and Scrubber Vent. Supporting field data are in Appendix D.

TABLE 2-6
TOTAL HYDROCARBON EMISSION DATA -
A-LINE SOFTWOOD BLEACH PLANT - EO WASHER

	Run 1	Run 2	Run 3	Mean
Date	4/9/96	4/9/96	4/9/96	—
Time Began	1329	1447	1548	—
Time Ended	1429	1547	1648	—
Stack Gas Data				
Temperature, °F	130	133	132	132
Velocity, ft/sec	38	40	40	39
Moisture, %	15	16	16	16
VFR, dscfm	7010	7050	7120	7060
Production Rate, ton ADUBP ^a /hr	35.3	35.1	33.1	34.5
Total Hydrocarbon^b				
Concentration, ppmvd	49	38	33	40
Emission Rate, lb/hr	0.64	0.49	0.43	0.52
Emission Factor, lb/ton ADUBP	0.018	0.014	0.013	0.015

^aAir dried un-bleached pulp.

^bAs carbon.



RESULTS AND DISCUSSION

TABLE 2-8
TOTAL HYDROCARBON EMISSION DATA -
A-LINE SOFTWOOD BLEACH PLANT - SCRUBBER VENT

	Run 1	Run 2	Run 3	Mean
Date	4/9/96	4/9/96	4/9/96	—
Time Began	0917	1050	1151	—
Time Ended	1017	1150	1251	—
Stack Gas Data				
Temperature, °F	132	135	135	134
Velocity, ft/sec	36	36	36	36
Moisture, %	16	17	17	17
VFR, dscfm	7040	6930	6910	6960
Production Rate, ton ADUBP ^a /hr	35.6	35.6	35.6	35.6
Total Hydrocarbon^b				
Concentration, ppmvd	37	39	38	38
Emission Rate, lb/hr	0.48	0.51	0.49	0.50
Emission Factor, lb/ton ADUBP	0.014	0.014	0.014	0.014

^aAir dried un-bleached pulp.

^bAs carbon.



RESULTS AND DISCUSSION

2.4 B-LINE HARDWOOD BLEACH PLANT

Tables 2-13 and 2-14 summarize the test results for the Eo Washer and Scrubber Vent. Supporting field data are in Appendix F.

TABLE 2-13
TOTAL HYDROCARBON AND CHLOROFORM EMISSION DATA -
B-LINE HARDWOOD BLEACH PLANT - EO WASHER

	Run 1	Run 2	Run 3	Mean
Date	4/11/96	4/11/96	4/11/96	---
Time Began	0855	1008	1118	---
Time Ended	1000	1108	1220	---
Stack Gas Data				
Temperature, °F	138	140	141	140
Velocity, ft/sec	32	32	31	32
Moisture, %	19	20	20	20
VFR, dscfm	5440	5330	5180	5320
Production Rate, ton ADUBP^a/hr	32.2	32.7	33.3	32.7
Total Hydrocarbon^b				
Concentration, ppmvd	38	38	43	40
Emission Rate, lb/hr	0.39	0.38	0.42	0.39
Emission Factor, lb/ton ADUBP	0.012	0.012	0.012	0.012
Chloroform				
Concentration, ppm	0.0051	0.0098	0.0044	0.0064
Emission Rate, x 10 ⁻⁴ lb/hr	5.1	9.7	4.2	6.4
Permit Limit, lb/hr	---	---	---	0.038
Emission Factor, x 10 ⁻⁵ lb/ton ADUBP	1.6	3.0	1.3	2.0

^aAir dried un-bleached pulp.

^bAs carbon.



RESULTS AND DISCUSSION

TABLE 2-14
TOTAL HYDROCARBON, CHLORINE, CHLORINE DIOXIDE, AND
CHLOROFORM EMISSION DATA -
B-LINE HARDWOOD BLEACH PLANT - SCRUBBER VENT

	Run 1	Run 2	Run 3	Mean
Date	4/11/96	4/11/96	4/11/96	—
Time Began	1402 ^a	1514	1620	—
Time Ended	1502	1614	1720	—
Stack Gas Data				
Temperature, °F	145	147	144	145
Velocity, ft/sec	29	30	29	29
Moisture, %	22	23	22	22
VFR, dscfm	3730	3770	3800	3770
Production Rate, ton ADUBP ^b /hr	33.3	33.1	33.3	33.2
Total Hydrocarbon^c				
Concentration, ppmvd	44	40	41	42
Emission Rate, lb/hr	0.31	0.28	0.29	0.29
Emission Factor, lb/ton ADUBP	0.0092	0.0085	0.0087	0.0088
Chlorine				
Concentration, ppm	0.074	0.075	0.076	0.075
Emission Rate, lb/hr	0.0031	0.0031	0.0032	0.0031
Permit Limit, lb/hr	—	—	—	1.0
Emission Factor, x 10 ⁻⁵ lb/ton ADUBP	9.2	9.4	9.5	9.4
Chlorine Dioxide				
Concentration, ppm	0.049	0.050	0.050	0.050
Emission Rate, lb/hr	0.0019	0.0020	0.0020	0.0020
Permit Limit, lb/hr	—	—	—	0.45
Emission Factor, x 10 ⁻⁵ lb/ton ADUBP	5.8	6.0	6.0	6.0
Chloroform				
Concentration, ppm	0.043	0.043	0.044	0.043
Emission Rate, lb/hr	0.0030	0.0030	0.0031	0.0030
Permit Limit, lb/hr	—	—	—	0.34
Emission Factor, x 10 ⁻⁵ lb/ton ADUBP	9.0	9.2	9.3	9.2

^aCl₂, ClO₂, and CHCl₃ testing was performed during 1325 - 1425.

^bAir dried un-bleached pulp.

^cAs carbon.

PM/PM₁₀ Roadway Emission Calculations

Summary of Future Fugitive PM₁₀ Emissions from Paved and Unpaved Roads
 IP Mill
 Pensacola, FL

Future Actual Conditions						Segment	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W					
Route	Length (mi)	Trips	Empty	Full	Average	Seg Length (ft)	959.376	323.664	445.104	397.056	257.136	667.392	1763.52	353.76	1021.68	586.08	205.92	454.08	546.48	1198.56	258.72	105.6	1716	997.92	1483.68	2555.52	3168	475.2	3067.68					
1	0.182	3,642	20,000	85,000	52,500	191,205																												
2	0.923	94,692	30,000	80,000	55,000	5,208,060																												
3	0.923	55,844	30,000	85,000	57,500	3,211,030																												
4	0.839	92,264	30,000	80,000	55,000	5,074,520																												
5	0.728	180,886	30,000	85,000	57,500	10,400,945																												
6	0.061	36.48	35,000	80,000	57,500	2,097,600																												
7	0.671	8	40,000	60,000	50,000	400,000																												
8	0.634	3	20,000	65,000	42,500	127,500																												
9	1.316	10	40,000	60,000	50,000	500,000																												
10	0.296	8.92	30,000	85,000	57,500	512,900																												
11	0.296	4.46	40,000	75,000	57,500	256,450																												
12	1.110	8.92	40,000	60,000	50,000	446,000																												
13	0.534	5,575	40,000	60,000	50,000	278,750																												
Total RT VMT						775,0665																												
W =																																		
Mean GVWT (lb)						52.500	57.500	56.397	56.397	42.500	56.299	56.656	56.656	56.656	55.000	55.665	55.665	55.927	56.056	54.753	52.650	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000				
Total VMT/day						1.32	4.47	71.43	41.27	0.76	285.03	36.6	105.71	20.48	11.98	26.41	31.16	74.42	1.61	1.52	15.92	2.11	10.63	8.63	12	3.24	9.3							
Grand Total VMT						776																												
E (lb/hr) PM ₁₀						0.00	0.01	0.12	0.07	0.00	0.46	0.06	0.17	0.03	0.02	0.04	0.05	0.12	0.00	0.00														
E (ton/yr) PM ₁₀						0.01	0.03	0.51	0.29	0.00	2.01	0.26	0.75	0.14	0.08	0.18	0.22	0.52	0.01	0.01														
E (lb/hr) PM _{2.5}						0.01	0.04	0.59	0.34	0.00	2.35	0.31	0.88	0.16	0.10	0.21	0.25	0.61	0.01	0.01														
E (ton/yr) PM _{2.5}						0.04	0.17	2.59	1.50	0.02	10.31	1.34	3.86	0.72	0.43	0.94	1.12	2.67	0.06	0.05														
Paved						E = k(sL/2) ^{0.85} (W/3) ^{1.5} [1-P/(4(N))]																												
k _{PM10} =						0.016 lb/VMT																												
k _{PM2.5} =						0.082 lb/VMT																												
sL =						site specific segment silt loadings (g/m2)																												
P =						110																												
N - Annual						365																												
Segments A-P																																		
Segment Silt Loading(g/m2)						5.000E-02																												
Values from non IP Mill						4.213E-02																												
Unpaved						E=k(s/12) ^{0.85} (W/3) ^{1.5} (M/0.2) ^{0.5} [(365 - p)/365]																												
k _{PM10} =						2.6 lb/VMT																												
k _{PM2.5} =						10 lb/VMT																												
s =						8.4 % (Lumber sawmills)																												
P =						110																												
M =						0.2 (default)																												
a						0.8																												
b						0.4																												
c						0.3																												
PM10						unpaved (g/s) PM ₁₀																												
paved (g/s) PM ₁₀						0.000241																												
PM2.5						unpaved (g/s) PM _{2.5}																												
paved (g/s) PM _{2.5}						0.000936																												
Volume Receptors Per Segment						13																												
(g/s) PM ₁₀ for each Volume Receptor						0.00001856																												
(g/s) PM _{2.5} for each Volume Receptor						1.86E-05																												
Segments Q-W																																		
Total						1.15																												
lb/hr PM ₁₀						5.03																												
ton/yr PM ₁₀						5.89																												
lb/hr PM _{2.5}						25.79																												
ton/yr PM _{2.5}																																		