MILL VIABILITY PROJECT

Air Construction Permit – Phase II PSD Application

Submitted By:

INTERNATIONAL PAPER

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

Prepared For:

Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400

Prepared By:

all4 inc.
2393 Kimberton Road, Suite 100
P.O. Box 299
Kimberton, PA 19442
610.933.5246 (phone)
610.933.5127 (fax)

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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.

The Pensacola Mill is planning to make modifications to their integrated Kraft pulp and paper Mill during construction outages planned in 2003, 2004, and 2005. The changes proposed by the Mill meet the definition of "major modification" under 40 CFR Part 52.21 (2)(i) and will trigger major New Source Review (NSR) and require a Prevention of Significant Deterioration (PSD) permit. IP has prepared the following PSD permit application in accordance with PSD and Florida Department of Environmental Protection (DEP) requirements.

The proposed modifications result in calculated emission increases that exceed the PSD significance levels for several pollutants. These pollutants include total suspended 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), total reduced sulfur (TRS), and volatile organic compounds (VOC).

IP has taken a conservative approach in preparing this application for demonstrating compliance with all applicable Florida and Federal emission limits and air quality standards. Specifically, the emission rates, the assumptions used in the dispersion modeling analysis, and the interpretation of the model results are designed to ensure that "worst case" conditions are considered.

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. This Section also identifies the existing Mill emissions units for which new emission limits are proposed and includes a summary of the proposed changes.

- Section 3 provides an emissions inventory for all of the modified and affected Mill emissions units. Included in the emissions inventory are the baseline and maximum potential emission rates for all of the modified units along with the collateral emission increases for all affected units. 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.

- Section 5 contains the Best Available Control Technology (BACT) analysis required by the Federal Prevention of Significant Deterioration (PSD) regulations for the existing Mill emissions units that will be modified as a result of the project.

- Section 6 includes the results of the air quality modeling study that summarizes the expected air quality impacts from the project. This section also addresses the potential impact of the facility on soils, visibility, vegetation and growth, and addresses Class I area impacts.

- Appendix A contains the applicable Florida DEP air permit application forms for existing emissions units being modified due to the project and the existing Mill emissions units for which new emission limits are being proposed.

- Appendix B contains supporting documentation tables for the calculation of emission rates from all of the emissions units included in this application.

- Appendix C contains the results of the RACT/BACT/LAER Clearinghouse search.

- Appendix D contains a compact disc (CD) of backup information and modeling output data from the air quality modeling analysis.

2. FACILITY AND PROJECT OVERVIEW

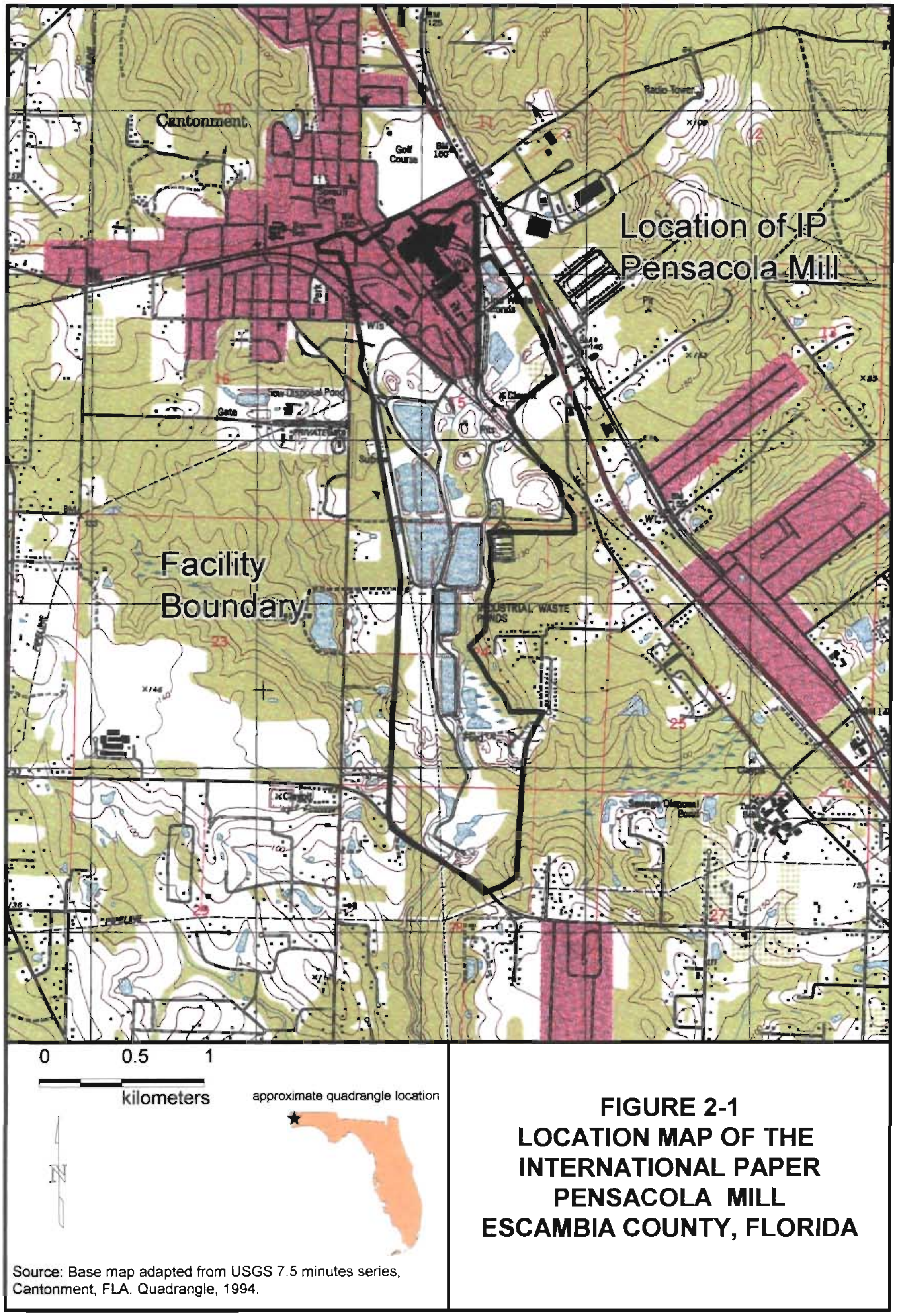
2.1 FACILITY LOCATION

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' 24.2"
- 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 as designated in the July 2002 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.



Source: Base map adapted from USGS 7.5 minutes series, Cantonment, FLA. Quadrangle, 1994.

**FIGURE 2-1
LOCATION MAP OF THE
INTERNATIONAL PAPER
PENSACOLA MILL
ESCAMBIA COUNTY, FLORIDA**

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.

The existing bleached Kraft pulp 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. Figure 2-2 presents a plot plan of the facility identifying the location of major emission points. Figure 2-3 is a process flow diagram depicting the overall operations at the IP Pensacola Mill.

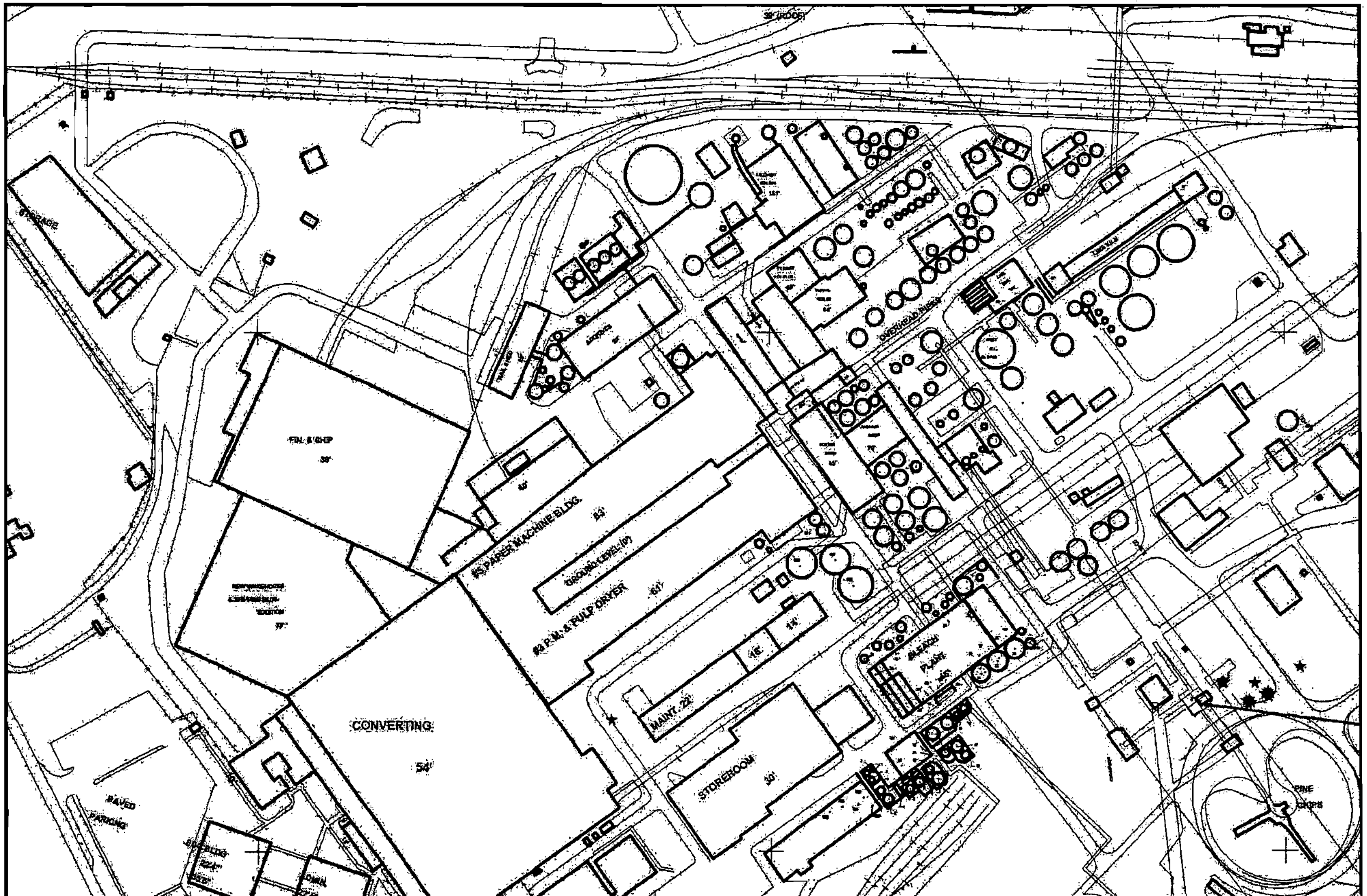


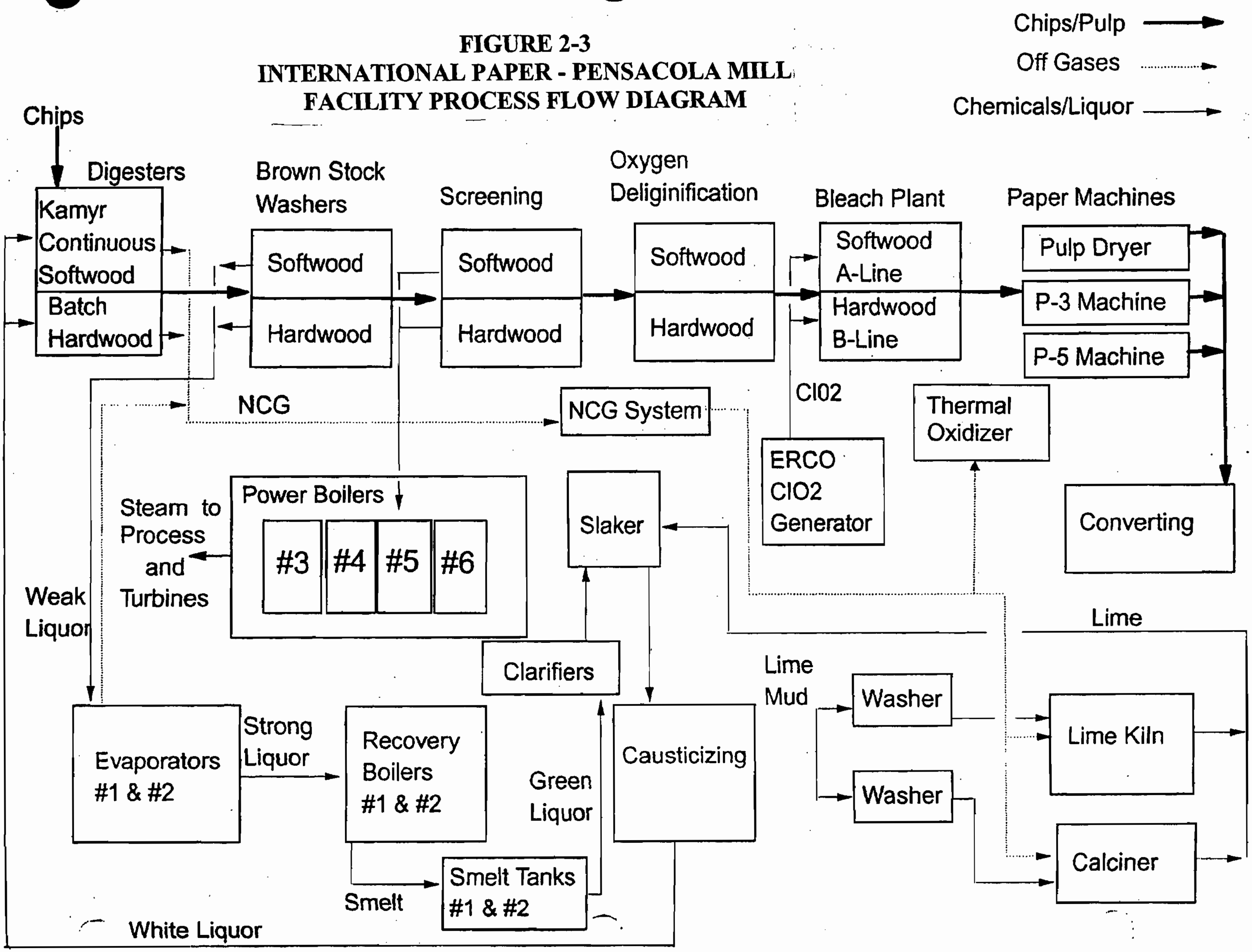
Figure 2-2
Facility Plot Plan
International Paper
Pensacola, Florida

N

Scale In Feet

0 200 400

FIGURE 2-3
INTERNATIONAL PAPER - PENSACOLA MILL
FACILITY PROCESS FLOW DIAGRAM



2.3 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 yards. 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 knotter, and screened to separate rejects. Hardwood chips are cooked in twelve conventional direct steam batch digesters and discharged into two blow tanks common to all twelve digesters. 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 bleach plants 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 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 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 existing WWTP consists of a settling basin 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 PROJECT

The Pensacola Mill has initiated plans for a multi-year project to upgrade the waste water treatment system and install a pipeline to future wetlands at the head of the Perdido Bay. The waste water treatment project is a multi-million dollar investment that will result in many environmental benefits for the area. However, there will be no economic benefit to the Mill for the project. As a result, IP conducted an analysis for the Pensacola Mill operations and determined that the Mill will need to produce an additional 150 air dried bleach tons of slush pulp per day (ADBTP/day) to maintain the viability of the Mill.

IP met with DEP in December, 2002 to introduce the proposed project and to discuss the components of the PSD application and the approach to developing the pertinent supporting sections. Specifically, IP and DEP discussed the procedures for calculating project-related emissions for modified and affected units, selection of baseline inventory years, identification of future emission and production limits, impact of the NSR Reform regulations, key air quality modeling considerations, and permit application submittal and review procedures. IP developed this permit application based on the shared understanding of the December, 2002 meeting and has documented the techniques used to prepare the key components.

In order to achieve the pulp production capacity increase and secure the future viability of the Mill, IP has determined that it will be necessary to modify the following systems:

- Kamyr Continuous Digester System
- No. 1 and No. 2 Recovery Furnaces
- No. 2 Multiple Effect Evaporator Set
- Lime Kiln/Mud Dryer
- Bleach Plant
- Oxygen Delignification (new Post O_2 Press)
- Lime Slaker/Causticizing Area (one new body, part of the set of 4 bodies)

IP would like to incorporate these changes over several planned Mill outages beginning in the Fall of 2003. The staging of these changes is critical and several of the less substantial changes are required to be completed in the Fall of 2003 in order to enable the Mill to make the significant modifications during the 2004 and 2005 outages.

The successful completion of these projects requires extensive coordination and the initiation of several changes to the process during the Fall 2003 outage. In order to accomplish this goal and to satisfy the preconstruction review requirements, IP has used a two-phased permitting approach. On April 21, 2003, IP submitted an Air Construction Permit Application for the Phase I activities. This permit application will serve as Phase II. Provided below is a summary of each of the Phase I and Phase II activities and how these phases are addressed in the permit applications.

2.5 PHASE I PROJECT DESCRIPTION AND PERMITTING ACTIVITIES

During Phase I of the project, IP committed to maintaining production levels equal to the historical actual production levels during the 1998/1999 calendar years to ensure that the first phase of the project will not trigger a Prevention of Signification Deterioration (PSD) permitting exercise. The 1998/1999 calendar years were selected by IP to be representative of baseline production for the Mill and this time period has been used to develop the baseline emissions inventory for both the Phase I and Phase II efforts. IP discussed this approach with DEP and provided previous justification for selecting this time period, as opposed to the most recent two years. Pulp production across the United States has been greatly impacted by the downturn in the United States economy since 2000 and the 1998/1999 time period is more representative of baseline production (and emissions).

Phase I activities will be completed during the Fall 2003 Outage. The Phase I activities are summarized below.

- ***Kamyr Digester System (E.U. 063)***. Replace the existing extraction screens with diagonal extraction screens to improve down flow cooking in the Kamyr Digester System. The Kamyr Digester System is currently controlled by the Low Volume High Concentration (LVHC) non-condensable gas (NCG) handling system and is routed to the thermal oxidizer for control. IP believes that this represents BACT for this unit and has identified it as such in this Phase II permit application.

- ***Causticizing Area***. Installation of a new causticizer body and support piping. After completion of the Phase II activities, the addition of the new causticizer body in conjunction with changes to the Lime Slaker will enable the Mill to meet the future white liquor requirements to support the additional 150 ADBTP/day. IP has reviewed the RACT/BACT/LAER Clearinghouse (RBLC) for BACT determinations for causticizers. The only BACT entry is for particulate matter emissions for a combined slaker/causticizer vent. The Pensacola Mill causticizer and slaker vent through separate stacks. IP has historically identified particulate matter emissions from the slaker; however, IP does not have any data to indicate particulate matter emissions from the causticizers. As a result, IP believes that BACT is no control for the new causticizer body and has identified it as such in this Phase II permit application.

- ***A and B Bleach Plant Lines (E.U. 050 and 051).*** Replacement of two (2) medium consistency (MC) pumps in the softwood (Pine) O_2 Delignification and bleach plant area. After completion of the Phase II activities, when three (3) additional MC pumps will be replaced, the new MC pumps will enable the Mill to meet the additional 150 ADBTP/day. IP does not believe that the new MC pumps qualify as emission units, and is not a physical modification to an existing emission unit; consequently, BACT is not applicable to the new MC pumps.

Concurrent with these activities, IP is working with the DEP to develop and obtain a PSD permit for the Phase II activities that are scheduled to begin during the Spring 2004 outage. As part of this Phase II PSD Permit Application, IP addresses all activities from both Phase I and Phase II to complete the requisite PSD applicability analysis, detailed BACT determinations, and air quality modeling analysis.

2.6 PHASE II PROJECT DESCRIPTION AND PERMIT ACTIVITIES

As discussed previously, the scope of the project is to produce an additional 150 ADBTP/day to maintain the viability of the Mill operations. Currently, the Recovery and Causticizing Areas limit the ability of the Mill to achieve the additional 150 ADBTP/day. After completing the proposed modifications, this additional production will provide the Mill with an annual average production rate of 1,650 ADBTP/day. The Mill will also have a short term production rate of 1,888 ADBTP/day of combined hardwood and softwood. IP understands that these limits will be the only production limits in the PSD permit and that all other production levels will be presented for emissions testing references only. For the purpose of developing this application, IP attributed the emissions increases associated with the additional 150 ADBTP/day to the softwood or Pine line at the Mill. This is a conservative approach that represents worst case project-related emissions based on available emission factor data. However, the increased Mill capacity could be achieved through additional softwood or hardwood production within the constraints of the proposed production limits.

Proposed changes to these Recovery, Causticizing, and Digester Areas will enable the Mill to achieve the additional production. These changes include modifications to existing emission units and multiple piping/valves/pumps that are proposed in the Digester, Bleaching, Causticizing, and Recovery Areas to enable the additional production. Modifications are also required in the Evaporator and Bleaching areas. The Mill has conducted an engineering study and determined that the additional Mill steam demand associated with the 150 ADBTP/day production rate will be satisfied by the increase in steaming capacity of the Recovery Furnaces. Consequently, no other boilers are affected by the project and the boilers were not included in the PSD analysis. IP will also modify the stack height of the No. 3 Power Boiler as part of these Phase II activities, while still remaining within Good Engineering Practice (GEP) stack height requirements.

Concurrent to, but independent of this project, IP is also upgrading the electrostatic precipitators (ESPs) on the Recovery Furnaces in order to comply with the requirements of 40 CFR 63, Subpart MM. The performance of the upgraded ESPs will be relied upon in this exercise to comply with the Subpart MM requirements and to satisfy a more stringent best available control technology (BACT) level of control.

A summary of the emission units at the Mill and their status as being modified or affected by the proposed project is provided in Table 2-1 at the end of this section. Also shown in Table 2-1 are the various pollutants that are emitted by the emission unit systems. Section 3 provides a discussion of the emission limits that have been developed in support of the proposed project. The emission limits represent BACT determinations for the modified units and several other limits that the Mill proposes as part of this permitting exercise.

The specific Phase II activities are to begin with the Spring 2004 outage. The Phase II activities will be completed during scheduled outages in 2004 and 2005. Phase II is scheduled to be completed during the Spring 2005 outage. Phase II activities are summarized below.

- ***A and B Bleach Plant Lines (E.U. 050 and 051).*** Replacement of three (3) MC Pumps will complete the replacement of five (5) MC pumps in the Oxygen Delignification and Bleach Plant areas. The major portion of the project includes installing three new MC Pumps and motors, installing Standpipe arrangements, installing level dilution control systems, upgrading existing controls and on/off valves, modifying the existing MC pump discharge piping, demolition of a portion of the existing pump pads and installing additional concrete pads required for new pump locations. New electrical switchgear is required for the new motors. IP does not believe that the new MC pumps qualify as emission units, and is not a physical modification to an existing emission unit; consequently, BACT is not applicable to the new MC pumps.

- ***No. 2 Multiple Effect Evaporator Set (E.U. 055).*** The objective of this project is to increase the No 2 Multiple Effect Evaporator Set capacity by 150,000 lb/hr. This will be accomplished by the installation of 862 tubes in the 5th and the 6th effects. The 5th and 6th effects were originally installed with this extra tubing availability for this capacity increase. The tube holes in the top and bottom of the tube sheets in the effects were blanked off with a welded plate. The process equipment will be upgraded for the additional capacity increase (process pumps and motors, instrumentation, etc.). Existing instrumentation not replaced will be recalibrated for new process flow conditions.

- ***Lime Slaker (E.U. 046).*** The Lime Slaker upgrade consists of replacing the existing Ducon scrubber and upgrading the existing Lime Feed conveyors. The existing scrubber will be demolished and replaced with a new Ducon particulate scrubber. The existing hot lime drag conveyor will be upgraded to increase speed from 40 to 45 feet per minute (fpm). The Hot Lime Bucket Elevator will be upgraded to increase speed from 85 to 100 fpm. The Hot Lime Screw Feeder Conveyor will be upgraded to increase speed from 28.8 RPM to 33.4 RPM. The Fresh Lime Screw Feeder Conveyor will be upgraded to increase speed from 28.8 RPM to 33.4 RPM. These changes will enable the Lime Slaker to process the additional 150 ADBTP/day.

- ***Nos. 1 and 2 Recovery Furnaces (E.U. 030 and 029).*** The Recovery Furnaces will be modified to increase the steaming capacity for each furnace. The precise scope will be finalized following engineering and modeling studies. The purpose of the project is to enable the Recovery Furnaces process the black liquor associated with the additional 150 ADBTP/day and to produce the additional steam needed throughout the process associated with the 150 ADBTP/day. The project scope is expected to include water coils, feed water piping modifications, header modifications, drum internals, supply and riser tubes and secondary air system upgrades.

- ***Lime Kiln/Mud Dryer.*** The chain section of the Lime Kiln/Mud Dryer will be modified. The primary purpose of the modification will be to achieve the new production rate associated with the 150 ADBTP/day. Secondary benefits will be to lower the operating temperature and lower the fuel cost per ton of product.

- ***Oxygen Delignification.*** A new Post O_2 Press will be installed on the Oxygen Delignification area. The unit will be rated at 940 ADBTP/day and the associated equipment and materials will consist of the following components:

    - 940 ADBTP/day O_2 Press with 40 HP Motor, Hood, Vat & Prebreaker Conveyor,
    - New Dilution Screw Conveyor,

- New No. 2 Post Oxygen Washer (POW) Feed Pump and piping modifications,
- New No. 2 POW Dilution Pump with new motor and piping modifications,
- New No. 2 POW Level Tank Pump with new motor and piping modifications,
- New No. 2 POW Level Tank
- Associated Instrumentation & Control Valve modifications,
- Associated Piping Tie-ins & Structural Steel modifications.

▪ ***Miscellaneous Pumps and Valves***. There will be numerous pumps and valves that will be replaced as part of the project in order to recognize the throughput increase. The main areas impacted will be the Digester Area and the Bleach Plant area. Provided below is the current list of replacements for the Digester Area. A similar review is currently being completed for the Bleach Plant Area.

- Upgrade White Liquor Pump and Motor (and Spare)
- Upgrade Make-up Liquor Pump and Motor (and Spare)
- Replace two (2) Flash Liquor Pumps and Motors
- Upgrade First Stage Filtrate Pump
- Upgrade Second Stage Filtrate Pump
- New 4" White Liquor Flow Valve
- New 10" No. 2 Flash Tank Level Valve
- New 4" No. 2 South Flash Tank Flow Valve
- New 6" Digester Vapor Temperature Valve
- New 10" Cold Blow Cooler Temperature Valve

▪ ***No. 3 Power Boiler (E.U. 033)***. The stack height of the No. 3 Power Boiler will be increased to 65 meters as part of this project. The increase in stack height to 65 meters is allowed under the GEP stack height regulations. The stack height increase is needed to ensure compliance with the National Ambient Air Quality Standards (NAAQS) and increment consumption.

2.7 PROJECT SCHEDULE

All of the Phase II activities are scheduled to commence during the Spring 2004 Outage and to be completed by the Fall 2005 Outage. IP recognizes that these activities may not commence until after receipt of a permit to construct and is prepared to work closely with DEP to satisfy this timeline.

IP has communicated this 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 ensure successful completion of the waste water treatment project.

TABLE 2-1
LIST OF EMISSION UNITS IMPACTED BY THE PROJECT
MODIFIED AND AFFECTED UNITS
INTERNATIONAL PAPER COMPANY - PENSACOLA MILL

Mill Area	Emission Units	Modified Units	Affected Units	Emission Calculation		Pollutants
				Actual to Potential	Incremental Increase	
WOODYARD	Woodyard Activities		X		X	PM_{10}
	Pine Chip Thickness Screening System and New Pine Long Log Chipper		X		X	PM_{10}
THERMAL OXIDIZER	Thermal Oxidizer	X		X		VOC, SO_2, NO_X, PM_{10}, CO, TRS, H_2SO_4
	Controls LVHC NCG from Batch Digesters				b	
	Controls LVHC NCG from Kamyr Continuous Digester	X			a	VOC, TRS
	Controls LVHC NCG from No. 1 Evaporator Set				b	
	Controls LVHC NCG from No. 2 Evaporator Set	X			a	VOC, TRS
	Controls SOGs from No. 1 Steam Stripper		X		a	VOC, TRS
	Controls SOGs from No. 2 Steam Stripper		X		a	VOC, TRS
BLEACH PLANT	A-Line Bleach Plant Scrubber	X		X		VOC, CO
	B-Line Bleach Plant Scrubber				b	
	Methanol Storage Tank		X		X	VOC
RECOVERY	No. 1 Recovery Furnace	X		X		VOC, SO_2, NO_X, PM_{10}, CO, TRS, H_2SO_4
	No. 2 Recovery Furnace	X		X		VOC, SO2, NO_X, PM_{10}, CO, TRS, H_2SO_4
	No. 1 Smelt Dissolving Tank		X	X		VOC, PM_{10}, SO_2, TRS
	No. 2 Smelt Dissolving Tank		X	X		VOC, PM_{10}, SO_2, TRS
LIME KILN	Lime Kiln/Mud Dryer	X		X		VOC, SO_2, NO_X, PM_{10}, CO, TRS
CAUSTICIZING	Lime Slaker	X		X		VOC, PM_{10}, TRS
	New Causticizer	X		X		VOC
UNREGULATED EMISSIONS	No. 1 Brown Stock Washing		X		X	VOC
	A-Line O2 Delignification		X		X	VOC, TRS
	Post O2 Press	X		X		VOC, TRS
	Bleach Plant - Other Sources		X		X	VOC, CO
	Digesters - Other Sources		X		X	VOC, TRS
	Evaps - Other Sources		X		X	VOC, TRS
	Lime Kiln/Mud Dryer - Other Sources		X		X	VOC
	Causticizing Area - Other Sources		X		X	VOC
	Converting Baghouse		X		X	PM_{10}
	Waste Water Treatment		X		X	VOC
POWER	Nos. 3, 4, 5 and 6 Power Boilers				b	
	Coal & Ash Handling and Storage				b	
PAPER MACHINES	P5 Paper Machine		X		X	VOC
	P5 Paper Machine Starch Silos 1&2, Clay Silo Dust Collector		X		X	PM_{10}
	P5 Paper Machine Make-Down Area Vent		X		X	PM_{10}
MISC.	Tall Oil Plant		X		X	VOC, TRS
	Roadways, Storage Piles, Material Handling Fugitive Emissions		X		X	PM_{10}

(a) The incremental increase is included with the Thermal Oxidizer

(b) This unit is part of the Hardwood Line and is not impacted by the proposed project.

3. SUMMARY OF PROPOSED EMISSION LIMITS

The IP Pensacola Mill is proposing new emission limits for several of the modified units at the Mill as well existing, unmodified emissions units. In some cases, multiple emission limits have been proposed to take into account short-term peak operations and long-term average operations. For those units subject to BACT, detailed supporting BACT analyses are included in Section 6 of this application. The following subsections outline the development of the proposed emission limits.

3.1 NO. 1 AND NO. 2 RECOVERY FURNACES

Tables 3-1 and 3-2 provide a summary of the proposed emission limits for the modified No. 1 and No. 2 Recovery Furnaces respectively.

PM/PM$_{10}$

The IP Mill proposes a PM/PM$_{10}$ emission limit of 0.021 grains per dry standard cubic feet corrected to 8 percent oxygen (0.021 grain/dscf @ 8% O_2). This value was based on a BACT determination and is consistent with the values in the RACT/BACT/LAER Clearinghouse (RBLC). Using the design volumetric flow rate of 163,000 dry standard cubic feet per minute at 8% O_2 (163,000 dscfm @ 8% O_2) for the No. 1 Recovery Furnace and 176,900 dscf @ 8% O_2 for the No. 2 Recovery Furnace, the Mill calculated mass emission rates of 27.9 pounds per hour (27.9 lb/hr) and 30.3 lb/hr respectively. The annual ton per year (tpy) PM/PM$_{10}$ emission limit for each recovery furnace is equal to the hourly emission rate multiplied by 8760 hours per year (hr/yr).

SO_2

The IP Mill proposes to maintain their current short-term SO_2 emission limit of 151 lb/hr for each Recovery Furnace based on the BACT analysis. This limit is equivalent to approximately 94 parts per million by volume, dry basis, corrected to 8 percent oxygen (94 ppmdv @ 8% O_2) for the No. 1 Recovery Furnace and 86 ppmdv @ 8% O_2 for the No. 2 Recovery Furnace when firing black liquor solids (BLS), natural gas, or fuel oil.

Table 3-1
Summary of Proposed Emission limits – Modified No. 1 Recovery Furnace
International Paper Pensacola, FL Mill

Emitting Unit	Pollutant and Averaging Period	Mass Emission Rate	Pollutant Concentration
No. 1 Recovery Furnace	PM_{10} (24-hour and Annual Average)	29.3 lb/hr and 128.5 tpy	0.021 grains per dscf @ 8% O_2
	SO_2 (24-hour and Annual Average)	151 lb/hr[a] and 661 tpy	94 ppmdv @ 8% O_2
	NO_X (30-day Rolling Average)	128 lb/hr and 563 tpy	110 ppmdv @ 8% O_2
	CO (24-hour Rolling Average)	355 lb/hr and 1557 tpy	500 ppmdv @ 8% O_2
	TRS (12-hour Average)	4.3 lb/hr and 18.9 tpy	5 ppmdv @ 8% O_2
	VOC (Annual Average)	20.3 lb/hr and 89 tpy	50 ppmdv @ 8% O_2

[a] This is an existing permit limit.

Table 3-2
Summary of Proposed Emission limits – Modified No. 2 Recovery Furnace
International Paper Pensacola, FL Mill

Emitting Unit	Pollutant and Averaging Period	Mass Emission Rate	Pollutant Concentration
No. 2 Recovery Furnace	PM_{10} (24-hour and Annual Average)	31.8 lb/hr and 139.5 tpy	0.021 grains per dscf @ 8% O_2
	SO_2 (24-hour and Annual Average)	151 lb/hr[a] and 661 tpy	86 ppmdv @ 8% O_2
	NO_X (30-day Rolling Average)	139 lb/hr and 610 tpy	110 ppmdv @ 8% O_2
	CO (24-hour Rolling Average)	386 lb/hr and 1689 tpy	500 ppmdv @ 8% O_2
	TRS (12-hour Average)	4.7 lb/hr and 20.5 tpy	5 ppmdv @ 8% O_2
	VOC (Annual Average)	22.0 lb/hr and 96.5 tpy	50 ppmdv @ 8% O_2

[a] This is an existing permit limit.

These two values are consistent with the values in the RBLC for recovery furnaces that have the capability to use fuel oil to start-up and to maintain heating load. The annual tpy limit for each recovery furnace is based on the short-term limit multiplied by 8760 hr/yr.

NO_X

For each recovery furnace, the IP Mill proposes a 30-day rolling average NO_X emission limit of 110 ppmdv @ 8% O_2 when firing black liquor solids or other fuels. This value was based on a BACT determination and is consistent with the values in the RBLC. Using the design volumetric flow rate, the Mill calculated a mass emission rate of 128 lb/hr and 139 lb/hr for the No. 1 and No. 2 Recovery Furnaces respectively. The annual tpy limit for each recovery furnace is based on the short-term limit multiplied by 8760 hr/yr.

CO

The IP Mill proposes a short-term, 24-hour CO emission limit of 500 ppmdv @ 8% O_2. The emission limit was based on a BACT determination and is consistent with the values in the RBLC. Using the 24-hour concentration of 500 ppmdv @ 8% O_2 and the design volumetric flow rates, a CO mass emission rate of 355 lb/hr for the No.1 Recovery Furnace and 386 lb/hr for the No. 2 Recovery Furnace were calculated. The annual tpy limit for each recovery furnace is based on the short-term limit multiplied by 8760 hr/yr.

TRS

The IP Mill has a current TRS emission limit of 5 ppmdv @ 8% O_2 and does not propose to change the concentration limit. The current limit is consistent with the values in the RBLC. Using the design volumetric flow rate, the Mill calculated mass emission rates of 4.3 lb/hr and 4.7 lb/hr for the No. 1 and No. 2 Recovery Furnaces respectively. Annual tpy TRS limits are based on the short-term limit multiplied by 8760 hr/yr.

VOC

The IP Mill proposes an annual average VOC emission limit of 50 ppmdv @ 8% O_2, reported as carbon for both recovery furnaces. The 50 ppmdv value was based on a BACT determination and is consistent with the values in the RBLC. Using the design volumetric flow rate, the Mill calculated a mass emission rate of 20.3 lb/hr for the No. 1 Recovery Furnace and 22.0 lb/hr for the No. 2 Recovery Furnace. Annual tpy VOC limits are based on the short-term limit multiplied by 8760 hr/yr.

3.2 LIME KILN/MUD DRYER

The Lime Kiln/Mud Dryer will be modified as part of the proposed project and a new emission limit for PM/PM_{10} will be established. New mass emission limits for CO, NO_X, VOC, and TRS will also be proposed; however, the existing concentration limits for these four pollutants will not change. The mass emission limit for SO_2 will remain unchanged. It should be noted that the existing concentration limits for CO, NO_X, VOC, and TRS are consistent with the BACT determinations identified in the RBLC. A summary of the proposed emission limits for the modified Lime Kiln/Mud Dryer is provided in Table 3-3.

PM/PM_{10}

The IP Mill proposes an annual average PM/PM_{10} emission limit of 0.033 grain/dscf @ 10% O_2. This value was based on a BACT determination and is consistent with the values in the RBLC. Using the design volumetric flow rate of 64,674 dscfm @ 10% O_2, the Mill calculated a mass emission rate of 18.3 lb/hr or 80.1 tpy based on 8760 hours per year of operation.

NO_X

As indicated previously, the IP Mill is proposing a new mass emission rate for NO_X that equates to 92.6 lb/hr or 406 tpy. The mass emission rate is based on a current concentration limit of 200 ppmdv @ 10% O_2 (based on oil firing) and the future maximum flow rate (64,674 dscfm @ 10% O_2) of the Lime Kiln/Mud Dryer. The NO_X concentration limit was developed based on a previous BACT determination and is still consistent with the values in the RBLC.

SO_2

The IP Mill proposes to maintain the SO_2 emission limit of 6.49 lb/hr or 28.43 tpy. The SO_2 mass emission limit was developed based on a previous BACT determination and is still consistent with the values in the RBLC.

CO

The IP Mill proposes a new short-term and annual CO emission limit of 12.7 lb/hr and 55.6 tpy respectively. The proposed emission limits are based on the current concentration limit of 45 ppmdv @ 10% O_2 and the future maximum flow rate (64,674 dscfm @10% O_2) of the Lime Kiln/Mud Dryer. The CO concentration limit was developed based on a previous BACT determination and is still consistent with the values in the RBLC.

TRS

The IP Mill has a current TRS emission limit of 8 ppmdv @ 10% O_2 and does not propose to change the limit; however, due to the additional exhaust flow of the modified Lime Kiln/Mud Dryer, the TRS mass emission rates will change. The TRS concentration limit was developed based on a previous BACT determination and is still consistent with the values in the RBLC. The proposed TRS mass emission rate is 1.3 lb/hr and 5.7 tpy.

Table 3-3
Summary of Proposed Emission limits – Modified Lime Kiln/Mud Dryer
International Paper Pensacola, FL Mill

Emitting Unit	Pollutant and Averaging Period	Mass Emission Rate	Pollutant Concentration
Lime Kiln/Mud Dryer	PM_{10} (24-hour and Annual Average)	18.3 lb/hr and 80.1 tpy	0.033 grains per dscf @ 10% O_2
	SO_2 (24-hour and Annual Average)	6.49 lb/hr[a] and 28.4 tpy	95% removal efficiency
	NO_X (30-day Rolling Average)	92.6 lb/hr and 406 tpy	200 ppmdv @ 10% O_2
	CO (24-hour Rolling Average)	12.7 lb/hr and 55.6 tpy	45 ppmdv @ 10% O_2
	TRS (12-hour Average)	1.3 lb/hr and 5.7 tpy	8 ppmdv @ 10% O_2
	VOC (Annual Average)	46.1 lb/hr and 202 tpy	104 ppmdv @ 10% O_2

[a] This is an existing permit limit.

VOC

The IP Mill has a current VOC emission limit of 104 ppmdv @ 10% O_2 and does not propose to change the limit; however, due to the additional exhaust flow of the modified Lime Kiln/Mud Dryer, the VOC mass emission rate will change. The VOC concentration limit was developed based on a previous BACT determination and is still consistent with the values in the RBLC. The proposed VOC mass emission rate is 46.1 lb/hr and 202 tpy.

3.3 LIME SLAKER

The Lime Slaker will be modified as part of the proposed project and new emission limits for TRS and VOC will be established. The new mass emission limits for VOC and TRS are based on BACT determinations. A summary of the proposed emission limits for the modified Lime Slaker is provided in Table 3-4.

3.4 POST O_2 PRESS

The Post O_2 Washer will be constructed as part of the proposed project and new emission limits for TRS and VOC will be established. The new mass emission limits for VOC and TRS are based on BACT determinations. A summary of the proposed emission limits for the new Post O_2 Washer is provided in Table 3-5. Please note that the Post O_2 Washer is regulated under 40 CFR 63, Subpart S (MACT 1, Phase II) and the exhaust gases will be required to be collected and controlled with the other high volume low concentration (HVLC) gases by April 2006.

Table 3-4
Summary of Proposed Emission limits – Modified Lime Slaker
International Paper Pensacola, FL Mill

Emitting Unit	Pollutant and Averaging Period	Mass Emission Rate	Pollutant Concentration
Lime Slaker	PM_{10} (24-hour and Annual Average)	1.59 lb/hr and 7.0 tpy	Existing permit limit
	TRS (12-hour Average)	1.3 lb/hr and 5.7 tpy	0.054 lb/ton CaO
	VOC (Annual Average)	1.2 lb/hr and 5.2 tpy	0.049 lb/ton CaO

Table 3-5
Summary of Proposed Emission limits – New Post O_2 Press
International Paper Pensacola, FL Mill

Emitting Unit	Pollutant and Averaging Period	Mass Emission Rate	Pollutant Concentration
Post O_2 Press	TRS (12-hour Average)	0.21 lb/hr and 0..93 tpy	0.0054 lb/ADTBP
	VOC (Annual Average)	3.6 lb/hr and 15.6 tpy	0.091 lb/ADTBP

3.5 NO. 3 POWER BOILER

As part of the project, the IP Mill is proposing a new SO_2 mass emission limit for the No. 3 Power Boiler. The new SO_2 emission limit is 201 lb/hr based on a 24-hour average. This emission rate is based on an emission factor of 0.75 lbs SO_2 per million British Thermal Units (MMBtu) and a 268 MMBtu/hr heat input (based on coal firing). It should be noted that the boiler has a higher heat input rating when firing different fuel mixtures (282 MMBtu/hr when burning wood waste and 347 MMBtu/hr when burning natural gas or oil). A higher heat input and lower SO_2 emission factor for an alternate fuel may also be used to demonstrate an emission rate equal to or lower than the proposed 201 lb/hr rate.

3.6 NO. 4 POWER BOILER

As part of the project, the IP Mill is proposing a new SO_2 mass emission limit for the No. 4 Power Boiler. The new SO_2 emission limit is 300.3 lb/hr on a 24-hour average. This emission rate is based on an emission factor of 0.55 lbs SO_2 per million British Thermal Units (MMBtu) and a 546 MMBtu/hr heat input (based on coal firing). It should be noted that the boiler has a higher heat input rating when firing different fuel mixtures (666 MMBtu/hr when burning wood waste, natural gas, or oil). A higher heat input and lower SO_2 emission factor for an alternate fuel may also be used to demonstrate an emission rate equal to or lower than the proposed 300.3 lb/hr rate.

4. EMISSIONS INVENTORY

This section includes an overview of the emissions data developed and relied upon for this permit application. The procedures for developing project-related emissions were discussed during the December, 2002 meeting with IP and DEP and the techniques outlined in the meeting are summarized in this section. A general overview of the calculation of the emissions increase associated with the project, including all affected emissions units, is provided in Section 4.1. Section 4.2 outlines the emission increases associated with the project. A detailed discussion of the netting analysis is provided in Section 4.3. In addition to the netting analysis to determine PSD applicability, IP developed several other inventories to support air quality modeling tasks that are presented in Section 4.4 and Section 4.5. A description of assumptions and notes on emission calculations pertaining to specific point and area sources is provided in Section 4.6. Supporting tables, emission factors and related emissions inventory documentation is provided in Appendix B and any additional information not provided in this application can be provided upon request by IP.

4.1 CALCULATION OF PROJECT EMISSIONS INCREASES

The emissions increase associated with a PSD project is the total emissions increase from all modified units and affected units. <u>Modified units</u> are defined as those emissions units that will undergo a "physical change", or a "change in the method of operation" resulting in an emission increase. <u>Affected units</u> are those units that are impacted by the proposed changes and will experience an emissions increase as a result of a modification to an emissions unit located upstream or downstream (i.e., as a result of debottlenecking). The emission increase for a modified unit is calculated as the difference between the baseline and the proposed "potential to emit" (PTE), where the baseline is defined as the average actual emissions rate from the two years prior to the date of the permit application submittal. The emissions increase for affected units is calculated based on the incremental increase above the unit's current production capacity, taking into account the process bottlenecks that were in place prior to the modification.

Emission rates associated with the production rate increase were calculated based upon a combination of emission factors from Mill specific stack testing, the U.S. Environmental Protection Agency (EPA) document entitled *"AP-42: Compilation of Air Pollutant Emission Factors, Volume I, Stationary Sources, 5th Edition and Supplements"*, National Council of Air and Stream Improvement (NCASI) technical bulletins, and existing regulatory limits or operating emission limits. Unit-specific emission factors, and their origin, are presented in Appendix B. These factors are consistent with those reported by IP in the Electronic Annual Operating Report (EAOR) that is submitted each year except where noted in Section 4.3. 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:

1 ADTBP = 3,600 lb BLS = 700 lb CaO

The incremental emissions were then calculated using the planned production increase and the appropriate emission factor. Emission rates were also calculated on a short-term basis for use in the air quality impacts analysis.

Emission rates were calculated for all PSD regulated pollutants for the modified and affected units. Existing emission limits and proposed operating and/or emission limits (including BACT limits) were included in developing the baseline and PTE scenarios.

4.1.1 Calculation Methodology for "Modified" Emission Units

Emissions from "modified" emission units were calculated by subtracting the difference between future PTE emissions and past actual baseline average emissions. The future PTE values were established through a BACT analysis for the following modified units:

- Causticizing Operations
- A and B Bleach Plant Lines (E.U. 050 and 051)

- Kamyr Digester System (E.U. 063)
- No. 2 Multiple Effect Evaporator Set (E.U. 055)
- No. 1 Recovery Furnace (E.U. 030)
- No. 2 Recovery Furnace (E.U. 029)
- Lime Kiln/Mud Dryer (E.U. 028)
- Lime Slaker (E.U. 046)
- Post O_2 Press (new unit)

Baseline actual emissions were calculated by taking the average of emissions from 1998 and 1999. IP presented rationale for selecting this baseline period to DEP with the Phase I application. In short, due to the downturn in the economy and the overall lack of demand of paper, the Pensacola Mill has not achieved production levels in the past several years that are representative of true baseline conditions. The baseline period of 1998/1999 best reflects baseline production and emission rates during the most recent 5-year time period. IP utilized the previously prepared EAOR submittals for 1998 and 1999 to develop the baseline emission inventory. Emission rates identified in these inventories were based on the best available data as described above.

4.1.2 Calculation Methodology for "Affected" Emission Units

Emissions from "affected" emission units were calculated by applying a percentage increase to past actual baseline average emissions. The percentage increase was developed independently for each emission unit, based on the difference between baseline production and potential post-project production. Post-project production was calculated using the following assumption:

- The total Mill production will be 1,650 ADTBP/day after the Phase I and Phase II activities and the operating schedule is 24 hours per day, 7 days per week, and 8,760 hours per year. Current Mill production is 1,500 ADTBP/day.

- Using the mill-specific relationships, maximum BLS processing will be 123,750 lb BLS/hr for each Recovery Furnace and lime production will be 24.06 tons CaO/hr.

4.2 DETERMINATION OF PROJECT EMISSION INVENTORY

The projected emissions increases associated with the Phase I and Phase II activities are summarized in Table 4-1. It is important to note that the future maximum emissions were based on BACT concentrations, multiplied by the maximum volumetric flow rate of the exhaust gases, for 8760 hours in a year, where appropriate. It is expected that the actual change in emissions will be only slightly more than the past actual baseline average emissions. Table 4-2 identifies the Project Emission Inventory for all of the modified and affected units, compared with the PSD significant increase threshold values. As shown in the table, the project, by itself and without considering contemporaneous emission increases and decreases, results in a significant emissions increases for PM/PM_{10}, CO, VOC, SO_2, NO_2, and TRS.

4.3 PSD NETTING ANALYSIS

Since the proposed project is considered a major modification to an existing major source, the PSD regulations allow the Mill to conduct a netting analysis, taking into account all contemporaneous emissions increases and decreases at the facility. The purpose of the netting analysis is to establish whether there have been sufficient emission reductions at the facility over the contemporaneous period such that the net increase in emissions is below the PSD applicability threshold level for a given regulated pollutant. The facility is required to examine all creditable emissions increases and decreases over the contemporaneous period in the netting analysis. The contemporaneous period is defined as the five-year period extending back from the expected date to commence construction. The Mill expects to commence construction of Phase I of this project during the Fall 2003 outage; therefore, the contemporaneous period is defined as October 15, 1998 to October 15, 2003. The MACT-Regulated Gas Control System Project (Thermal Oxidizer project - 2001) and the shutdown of the existing 800 ADBTP/day Post O_2

TABLE

PROJECT EMISSIONS INVENTORY
MODIFIED AND AFFECTED UNITS
INTERNATIONAL PAPER COMPANY - PENSACOLA MILL

Mill Area	Emission Unit	PSD Pollutant Emission Increases (tons/yr)									
		PM	PM_{10}	SO_2	NO_X	CO	VOC	TRS	H_2SO_4	Pb	Hg
WOODYARD	Woodyard Activities (a)	3.71	3.71	--	--	--	--	--	--	--	--
	Pine Chip Thickness Screening System and New Pine Long Log Chipper	0.21	0.08	--	--	--	--	--	--	--	--
THERMAL OXIDIZER	Thermal Oxidizer	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	--	--
BLEACH PLANT	A-Line Bleach Plant Scrubber	--	--	--	--	30.33	0.14	--	--	--	--
	Methanol Storage Tank	--	--	--	--	--	0.26	--	--	--	--
RECOVERY	No. 1 Recovery Furnace	-1.07	-1.07	595.03	223.29	1103.44	36.90	13.05	0.56	0.0012	0.0042
	No. 2 Recovery Furnace	57.81	57.81	614.43	318.88	1384.83	44.10	15.60	0.58	0.0013	0.0043
	No. 1 Smelt Dissolving Tank	80.61	80.61	0.19	--	--	0.55	7.83	--	--	--
	No. 2 Smelt Dissolving Tank	89.83	89.83	0.30	--	--	0.38	7.24	--	--	--
LIME KILN	Lime Kiln/Mud Dryer	71.44	71.44	26.23	276.13	44.00	199.09	3.57	--	0.0045	0.0033
CAUSTICIZING	Lime Slaker	3.06	3.06	--	--	--	2.01	2.20	--	--	--
	New Causticizer	--	--	--	--	--	0.11	--	--	--	--
UNREGULATED EMISSIONS	No. 1 Brown Stock Washing	--	--	--	--	--	2.13	--	--	--	--
	A-Line O2 Delignification	--	--	--	--	--	17.63	3.49	--	--	--
	Post O2 Press	--	--	--	--	--	15.60	0.93	--	--	--
	Bleach Plant - Other Sources	--	--	--	--	--	2.15	--	--	--	--
	Digesters - Other Sources	--	--	--	--	--	2.10	0.57	--	--	--
	Evaps - Other Sources	--	--	--	--	--	3.63	1.15	--	--	--
	Lime Kiln/Mud Dryer - Other Sources	--	--	--	--	--	1.15	--	--	--	--
	Causticizing Area - Other Sources						4.74				
	Converting Baghouse	0.20	0.20	--	--	--	--	--	--	--	--
	Waste Water Treatment	--	--	--	--	--	49.87	--	--	--	--
PAPER MACHINES	P5 Paper Machine	--	--	--	--	--	1.87	--	--	--	--
	P5 Paper Machine Starch Silos 1&2, Clay Silo Dust Collector	0.09	0.09	--	--	--	--	--	--	--	--
	P5 Paper Machine Make-Down Area Vent	0.07	0.07	--	--	--	--	--	--	--	--
MISC.	Tall Oil Plant	--	--	--	--	--	41.34	0.04	--	--	--
	Roadways, Storage Piles, Material Handling Fugitive Emissions (b)	39.4	14.9	--	--	--	--	--	--	--	--
	Totals	**345.38**	**320.74**	**1236.17**	**818.30**	**2562.61**	**425.73**	**55.66**	**1.14**	**0.007**	**0.012**

(a) - Woodyard Activities include the Pine Chip Fines Cyclone, Pine Chip No. 1 Cyclone, Air Density Separator, and wood handling emissions.

(b) - Miscellaneous Roadways includes the Chip Piles, and Roadway emissions.

(c) - Emissions from the Thermal Oxidizer include the LVHC Handling System. Since components of the LVHC Handling System have been modified as part of this exercise and the full potential to emit for the Thermal Oxidizer was considered when quantifying emissions from a previous permitting exercise, the emissions from the Thermal Oxidizer have been included in the contemporaneous period.

TABLE 4-2
COMPARISON OF PROJECT EMISSION INVENTORY WITH PSD SIGNIFICANT INCREASE THRESHOLD VALUES
INTERNATIONAL PAPER COMPANY - PENSACOLA MILL

Pollutant	Project-Related Emission Increase (tons/yr)	PSD Significance Levels (tons/yr)	PSD Significant
PM	345.38	25	Yes
PM_{10}	320.74	15	Yes
SO_2	1,236.17	40	Yes
NO_X	818.30	40	Yes
CO	2,562.61	100	Yes
VOC	425.73	40	Yes
TRS	55.66	10	Yes
H_2SO_4	1.14	7	No
Pb	0.01	0.6	No
Hg	0.01	0.1	No

Press (to be taken out of service when the new Post O_2 Press is constructed as part of this permitting exercise) are the only projects that are considered to be in the contemporaneous period for PSD applicability purposes.

The Thermal Oxidizer project entailed the re-piping of regulated non-condensable gas (NCG) and regulated condensate streams in order to comply with the pulp and paper industry maximum achievable control technology (MACT) standards codified at 40 CFR 63, Subpart S. The Thermal Oxidizer was installed to effectively treat the low volume high concentration (LVHC) NCGs. The removal of the existing Post O_2 Press will be completed prior to bringing the proposed new Post O_2 Press on-line.

The emissions increases and decreases associated with the projects from the contemporaneous period described above are summarized in Table 4-3. A summary of the netting analysis associated with the project, including the contemporaneous period is provided in Table 4-4. The proposed project will only result in a significant emissions increase of PM/PM_{10}, CO, VOC, SO_2, NO_X, and TRS. Therefore, only these pollutants will be considered in the BACT and Ambient Air Quality Modeling Analyses.

Different emission inventories are required to determine the inputs for the Ambient Air Quality Modeling Analysis. Section 7 provides an overview of the initial screening and refined air quality modeling exercises. A summary of the data used to develop the modeling inputs and an overview of the calculation methodology is presented in Section 7.

4.4 SUMMARY OF EMISSION CALCULATION METHODS

The following subsections provide a brief overview of notable approaches followed for estimating emissions from each of the emission units at the Mill.

TABLE 4-3
PROJECT CONTEMPORANEOUS PERIOD EMISSIONS INCREASES/DECREASES

INTERNATIONAL PAPER COMPANY - PENSACOLA MILL

Mill Area	Emission Unit	PSD Pollutant Emission Increases/Decreases (tons/yr)									
		PM	PM_{10}	SO_2	NO_X	CO	VOC	TRS	H_2SO_4	Pb	Hg
Thermal Oxidizer	Thermal Oxidizer	4.40	4.40	25.00	39.90	29.80	4.80	2.20	2.50	--	--
Unregulated Emissions	Post O2 Press	--	--	--	--	--	-10.20	-0.61	--	--	--
	Totals	**4.40**	**4.40**	**25.00**	**39.90**	**29.80**	**-5.40**	**1.59**	**2.50**	**0.00**	**0.00**

(a) - Emssions from the Thermal Oxidizer include the LVHC Handling System. Since components of the LVHC Handling System have been modified as part of this exercise and the full potential to emit for the Thermal Oxidizer was considered when quantifying emissions from modified units in the pplicability determination, the emissions from the Thermal Oxidizer have not been included in the contemporaneous period.

TABLE 4-4
PROJECT NETTING ANALYSIS INCLUDING
CONTEMPORANEOUS PERIOD EMISSIONS
INTERNATIONAL PAPER COMPANY - PENSACOLA MILL

Pollutant	Project-Related Emission Increase (tons/yr)	PSD Significance Levels (tons/yr)	PSD Significant
PM	349.78	25	Yes
PM_{10}	325.14	15	Yes
SO_2	1,261.17	40	Yes
NO_X	858.20	40	Yes
CO	2,592.41	100	Yes
VOC	420.33	40	Yes
TRS	57.25	10	Yes
H_2SO_4	3.64	7	No
Pb	0.01	0.6	No
Hg	0.01	0.1	No

4.4.1 Point Sources

Emissions from the majority of the point sources at the Mill are calculated based upon the current emission factor reported to DEP in the EAOR multiplied by the incremental increase in production, converted into the emission factor's units of measure. However, certain sources are based on either updated factors or the emissions calculations require further explanation. These sources are discussed in the following subsections.

4.4.1.1 Nos. 1 and 2 Smelt Dissolving Tanks

IP calculated the projected related emissions associated with these units using the difference between the 1998/1999 baseline period and the PTE for the units. While these units are not being modified and qualify as affected units, IP used this approach because the units will receive their input stream (smelt) directly from the modified Nos. 1 and 2 Recovery Furnaces. This estimation approach is extremely conservative and represents worst-case project emissions.

4.4.1.2 Thermal Oxidizer

IP calculated the project related emissions associated with these units using the difference between the 1998/1999 baseline period and the PTE for the unit. Since the Thermal Oxidizer was constructed in 2001, the full PTE was considered in the PSD applicability analysis for this emission unit. The Thermal Oxidizer receives LVHC gases from numerous emission units; however, the Kamyr Digester System and the No. 2 Multiple Effect Evaporator Set represent a substantial component of this LVHC stream and IP believes that the proposed calculation approach represents worst-case project emissions.

4.4.2 Unregulated Emissions Units

Emissions from units that have not been regulated under the Title V permit, and are not required to be included in the EAOR, have been included in the PSD applicability analysis. Most of these units qualify as affected units and the calculation approach outlined in Section 4.1.2 has been utilized.

4.4.3 Fugitive Emissions

Sources of fugitive emissions affected by the proposed project include the plant roadways, chip storage piles at the woodyard, and emissions generated from dropping chips onto the piles. Fugitive emission calculations are summarized in tabular form in Appendix C. Emission calculations for each of these sources are discussed below.

4.4.3.1 Plant Roadways

Plant roadway and storage pile emissions associated with the project were determined using the incremental change in the woodyard emissions over baseline woodyard emissions and applying the incremental percentage change to the annual truck traffic and storage pile emissions. Although some of the truck traffic and the pile emissions are not associated with the woodyard operations, the use of the woodyard incremental percentage change is conservative with respect to the other operations at the Mill.

Fugitive particulate matter emissions from paved and unpaved roadways were calculated using the methods developed by EPA and published in AP-42, Chapter 13. The incremental emission increase was calculated using a mean vehicle weight for each segment of roadway and the expected increase in average daily truck traffic for each type of truck. A silt loading based on the EPA default value was used in the roadway calculations and was justified based on observations of the Mill roads.

4.4.3.2 Wood Chip Storage Piles

PM_{10} emissions from storage piles were calculated using the methodology for the particulate matter calculations described in AP-42 Chapter 13.2.5 Industrial Wind Erosion. Data requirements for the calculation include fastest mile wind speed (this data was unavailable – instead the fastest observed one minute from the 1999 monthly Local Climatic Data summaries for Pensacola, Florida was used), threshold friction velocity based on pile type, number of disturbances of the pile, pile height, pile width, pile length, pile shape (for the calculation of pile area), and percentage of pile disturbed per wind erosion event. The method utilizes fastest wind mile data to calculate a friction velocity. A constant threshold friction velocity was determined based on the storage pile material (no data was available for wood chips or dust, therefore a conservative default – "fine coal dust on a concrete pad" was used). From the friction velocity and threshold friction velocity, an actual erosion potential was calculated. The actual erosion potential, the number of times the pile is typically disturbed, and a default particle size multiplier for PM_{10} were used to calculate an emission rate. The calculations were performed for each month conservatively assuming that the maximum fastest one-minute wind speed was comparable to the fastest one mile (i.e., the wind speed could be sustained for one mile in length) and the maximum for the month occurred each day of the month. The monthly calculations were summed to determine the annual emission factor in $g/m^2/yr$. The emission factor was applied to the average disturbed surface area of the pile and used to generate a total annual PM_{10} emission rate.

4.4.3.3 Wood Chip Pile Material Loading

PM_{10} emissions from load-out of the wood chip and bark storage piles were calculated using the methodology for the particulate matter calculations described in AP-42 Chapter 13.2.4 Material Handling. Data requirements for the calculation include average wind speed and material moisture content. The algorithm produces an emission factor in lb/ton material throughput. This factor was applied to the estimated incremental increase in wood chip and bark production, respectively, to estimate the potential PM_{10} emissions increase.

4.4.4 Secondary Emissions

Secondary emissions are those emissions that are not emitted from the source or facility itself, but are emitted from an off-site source as a direct result of the PSD project. Secondary emissions may only occur from sources that would not have realized an emissions increase but for the construction or modification of the stationary source submitting the application. Secondary emissions do not include emissions from a mobile source which come directly from the tailpipe of a motor vehicle or from the propulsion of a train or vessel. Secondary emissions are excluded from the potential emissions estimates developed for applicability determination but must be included in the PSD analysis if PSD review is required for the pollutant.

IP evaluated the potential for secondary emissions as a result of the proposed project. The only secondary emissions that will occur are a result of the increase in delivery truck traffic to the Mill. IP has assumed that the incremental increase in truck traffic to the Mill will also result in a corresponding increase on the roads leading to the Mill. As explained in the above paragraph, only fugitive emissions generated by the truck traffic on the road should be considered and emissions produced by the vehicles engines are excluded from the definition of secondary emissions.

IP does not believe that a detailed analysis of secondary emissions is required. PM_{10} is the only pollutant that would be impacted and IP believes that the impact of these emissions would be negligible. The Pensacola Mill is located right on Highway 29 which is a major north/south thoroughfare. As a result, the percentage of Mill traffic (and more importantly, incremental Mill traffic that would be attributed to this project) on the surrounding roads is negligible with respect to normal commuter and highway traffic.

5. 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.

5.1 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.

5.1.1 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;
- Subpart BB – Standards of Performance for Kraft Pulp Mills; and
- Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

5.1.1.1 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). Consequently, IP currently complies with the applicable Subpart A requirements. Applicable sections of Subpart A are presented in the following table:

Citation	Description
40 CFR §60.1	Applicability.
40 CFR §60.2	Definitions.
40 CFR §60.3	Units and abbreviations.
40 CFR §60.4	Determination of construction or modification.
40 CFR §60.7	Notification and record keeping.
40 CFR §60.8	Performance tests.
40 CFR §60.9	Availability of information.
40 CFR §60.10	State authority.
40 CFR §60.11	Compliance with standards and maintenance requirements.
40 CFR §60.12	Circumvention.
40 CFR §60.13	Monitoring requirements
40 CFR §60.14	Modification.
40 CFR §60.15	Reconstruction.
40 CFR §60.18	General control device requirements.
40 CFR §60.19	General notification and reporting requirements.

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 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. Specific potentially applicable NSPS are discussed in the following sub sections.

5.1.1.2 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, evaporators, condensate stripper systems, recovery furnaces, smelt dissolving tanks, brown stock washers and Lime Kilns 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 Kamyr Continuous Digester System, the No. 2 Stripper Column, and the No. 2 Multiple Effect Evaporator Set are subject to Subpart BB. Units that are being modified as part of this project that are potentially subject to the Subpart BB requirements are the Nos. 1 and 2 Recovery Furnaces and the Lime Kiln/Mud Dryer. The Kamyr Continuous Digester System and the No. 2 Multiple Effect Evaporator Set are already regulated under Subpart BB and are not further addressed.

The Nos. 1 and 2 Recovery Furnaces are potentially subject to the PM and TRS standards included in Subpart BB. The current PM emission limits for the IP Recovery Furnaces is 111 lb/hr and 3 lb/3000 lb of virgin BLS. As part of the BACT analysis, IP proposes a limit of 0.021 gr/dscf @ 8% O_2 which equates to an emission rate around 30 lb/hr. IP is able to commit to this lower allowable limit as a result of the performance upgrades being made to the Recovery Furnace ESPs concurrent with, but independent of, the proposed project. Consequently, there is not an increase in PM emissions and IP is not subject to the Subpart BB requirements for PM from the Recovery Furnaces. The current TRS emission limits for the IP Recovery Furnaces is 5 ppmdv @ 8% O_2. As part of the BACT analysis, IP proposes to continue to meet the 5 ppmdv @ 8% O_2 limit. Nevertheless, there will be an increase in mass emissions of TRS as a result of the proposed project. Consequently, IP will be subject to the Subpart BB requirements for TRS from the Recovery Furnaces.

The Lime Kiln/Mud Dryer is potentially subject to the PM and TRS standards included in Subpart BB. The current PM emission limit for the Lime Kiln/Mud Dryer is 12.96 lb/hr. As part of the BACT analysis, IP proposes to meet 0.033 gr/dscf @ 10% O_2 (18.3 lb/hr). This represents an increase in emissions and subjects the Lime Kiln/Mud Dryer to the requirements of Subpart BB for PM. As a note, the proposed BACT level of 0.33 gr/dscf @ 10% O_2 is more stringent than the Subpart BB emission limit of 0.66 gr/dscf @ 10% O_2 and will take precedence. The Mill will be required to monitor scrubber parameters on the Lime Kiln/Mud Dryer such as flow rate and pressure drop pursuant to Subpart BB.

IP performed a similar analysis for TRS. The current TRS emission limit for the Lime Kiln/Mud Dryer is 8 ppmdv @ 10% O_2. As part of the BACT analysis, IP proposes to continue to meet the 8 ppmdv @ 10% O_2 limit. Nevertheless, there will be an increase in mass emissions of TRS as a result of the proposed project. Consequently, IP will be subject to the Subpart BB requirements for TRS from the Lime Kiln/Mud Dryer.

5.1.1.3 Subpart Db - Standards Of Performance For Industrial-Commercial-Institutional Steam Generating Units

Subpart Db regulations apply to steam generating units for which construction, modification, or reconstruction commenced after June 19, 1984 and that have a heat input capacity of greater than 100 million Btu/hour. Potentially subject units at the Pensacola Mill include the Nos. 1 and 2 Recovery Furnaces. Each of these units was installed prior to June 19, 1984 and is being reconstructed or modified as part of this project. The only time that the Recovery Furnaces are potentially subject to the Db requirements is when they are firing fossil fuels. The Nos. 1 and 2 Recovery Furnaces are currently rated at 572 MMBtu/hr when firing the back-up fuels of natural gas, No. 4 fuel oil, or No. 6 fuel oil. IP proposes to maintain the current rating when firing back-up fuels.

Since no changes to the current back-up fuel firing capacities of the Recovery Furnaces will be made as part of the proposed project, there will be no increase in the emission rates of any of the

Subpart Db regulated pollutants due to auxiliary fuel firing. As a result, Subpart Db will not be applicable to the Nos. 1 and 2 Recovery Furnaces as a result of the proposed project.

5.1.2 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 NESHAP 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 subject to MACT standards under 40 CFR Part 63. The following emission units that are modified as part of this project are subject to the requirements of 40 CFR 63, Subpart S:

- A and B Bleach Plant Lines
- Kamyr Digester System
- No. 2 Multiple Effect Evaporator Set
- Post O_2 Press (MACT I, Phase II – 2006 compliance timeline)

The activities associated with this project and the permitting exercise will not impact the applicability of 40 CFR 63, Subpart S.

There are also specific emission units that are part of this project and are subject to CFR 63, Subpart MM that has a final compliance date of January 12, 2004. These units include:

- No. 1 Recovery Furnace
- No. 2 Recovery Furnace

- Lime Kiln/Mud Dryer

The activities associated with this project and the permitting exercise will not impact the applicability of 40 CFR 63, Subpart MM. In the case of the Lime Kiln/Mud Dryer, the emission limit from Subpart MM has been included in this permitting exercise. The proposed BACT emission levels for the Recovery Furnaces are more stringent than the Subpart MM requirements.

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

5.1.3 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 Phase II activities described herein, by themselves, trigger the PSD regulations since the project related emissions increases (i.e., total future potential to emit from new and modified emissions units minus baseline actual emission rates) are above the PSD-significance levels for the applicable PSD pollutants. IP has included the emissions associated with the Phase I activities as part of the Phase II PSD permitting analysis.

5.1.4 Compliance Assurance Monitoring (CAM)

EPA's CAM rule is codified at 40 CFR Part 64. Section 64.2 of the CAM rule specifies the criteria for determining applicability with the CAM rule, and Table 5-1 summarizes the applicability requirements for Part 64. If an emissions unit satisfies ***all*** of the applicability requirements listed in Table 3-1, the emissions unit is subject to CAM. Otherwise, Part 64 does not apply to the emissions unit.

Table 5-1
CAM Applicability Requirements Summary

Part 64 Reference	Requirement
§64.2(a)	Unit is located at major source that is required to obtain a Title V permit.
§64.2(a)(1)	Unit is subject to an emission limitation or standard for an applicable pollutant.
§64.2(a)(2)	Unit uses a control device to achieve compliance with this applicable limitation or standard (See §64.1 for definition of control device).
§64.2(a)(3)	Potential pre-control emissions of the applicable pollutant from the unit are at least 100 percent of major source threshold amount (i.e., greater than 100 ton/yr).
§64.2(a)(b)	Unit is not otherwise exempt.

Based on the aforementioned criteria, the Nos. 1 and 2 Recovery Furnaces and the Lime Kiln/Mud Dryer are potentially subject to the CAM rule since they use a control device to achieve compliance with an applicable emission limitation or they have pre-controlled emissions that are greater than 100 ton/yr for PM (Recovery Furnaces, Lime Kiln/Mud Dryer, and Lime Slaker) and SO_2 (Lime Kiln/Mud Dryer).

40 CFR 64.2(b) identifies exemptions from the requirements for any emission limitation or standards proposed by Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act (the NSPS and NESHAP requirements). PM from the Recovery Furnaces and the Lim Kiln Mud Dryer are regulated pursuant to 40 CFR 63, Subpart MM, therefore, these units would be exempt from developing a CAM Plan for PM. SO_2 from the Lime Kiln/Mud Dryer is not regulated pursuant to Subpart MM or any other applicable NSPS or NESHAP; therefore, a CAM Plan must be developed for SO_2. Under the Florida Code, the IP Mill has up to one year to submit a revised Title V – Major Source Operating Permit Application which will include a CAM Plan for SO_2 from the Lime Kiln/Mud Dryer.

5.2 *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 62-204 – Air Pollution Control - General Provisions
- Chapter 62-212 – Preconstruction Review
- Chapter 62-213 – Operation Permits for Major Sources for Air Pollution
- Chapter 62-296 – Stationary Sources - Emission Standards
- Unit-specific Title V Permit Conditions

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.

5.2.1 Chapter 62-204 – Air Pollution Control - General Provisions

The provisions of this rule establish the framework for the Florida air permitting programs. The IP Mill has undergone numerous permitting exercises at the Mill over its lifetime and is subject to the general provisions outlined in Chapter 62-204.

5.2.2 Chapter 62-212 Stationary Sources – Preconstruction Review

Chapter 62-212 adopts and implements parts of the Federal regulations and also outlines specific requirements for Florida. As previously stated in Section 5.1.3, the proposed Phase I and Phase II activities project are not subject to the Nonattainment provisions of the rule since the Mill is located in an attainment area. In addition, the Phase II activities are subject to the PSD provisions of the rule since they qualify as a "Modification to a Major Facility" pursuant to 62-212.400(2)(d)4.

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

Chapter 62-213 implements the Title V Operating Permit Program. As previously stated in the introduction, 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 include the Phase I and Phase II activities at a later date, independent of this construction permit exercise.

5.2.4 Chapter 62-296 – Stationary Sources - Emission Standards

The Phase I and Phase II activities are potentially subject to Chapter 62-296.404 – Kraft (Sulfate) Pulp Mills and Tall Oil Plants. These units are currently subject to particulate matter and total reduced sulfur emissions provisions of this rule and will continue to be subject to these requirements. These requirements have been included in the Mill's Title V Operating Permit.

5.2.5 Unit-specific Title V Permit Conditions

The Pensacola Mill is currently operating pursuant to a Title V Operating Permit. Provided below is a summary of the existing Title V Permit conditions that impact the Phase I and Phase II activities. *Please note, many of these identified existing permit conditions will require changes as a result of the proposed project.*

5.2.5.1 Causticizing Operations

The causticizing operations have been identified as an Unregulated Emissions Unit under Appendix U of the Title V Operating Permit and are not subject to any unit-specific requirements.

5.2.5.2 A and B Bleach Plant Lines (E.U. 050 and 051)

The A and B Bleach Plant Lines are subject to the following Title V Permit Requirements:

- The maximum operating rate for the A Bleach Plant Line is 888 air dried bleached tons per day.
- The maximum operating rate for the B Bleach Plant Line is 830 air dried bleached tons per day.
- The Maximum average total for both lines is 1,500 air dried bleached tons per calendar day.
- The bleach plant lines are permitted to operate 8,760 hours per year.
- The Mill shall demonstrate compliance with emission standards by using a surrogate parameter control of the scrubber white liquor pH (minimum of 10.0, 12-hour average).

5.2.5.3 Kamyr Digester System (E.U. 063)

The Kamyr Digester System is subject to the following Title V Permit Requirements:

- The Kamyr Digester System is vented to the Low Volume High Concentration (LVHC) Non-Condensable Gas (NCG) Handling System.
- For the purposes of performance testing, the maximum operating rate for the Kamyr Digester System is 40 air dried unbleached tons per hour.
- The Kamyr Digester System is permitted to operate 8,760 hours per year.
- Emissions from the Kamyr Digester System shall be collected and incinerated in the thermal oxidizer or the Lime Kiln.
- A log on NCG venting shall be maintained and available for inspection.
- Cumulative venting time shall not exceed ten days in any annual period.

5.2.5.4 No. 2 Multiple Effect Evaporator Set (E.U. 055)

The No. 2 Multiple Effect Evaporator Set is subject to the following Title V Permit Requirements:

- The following operational conditions are applicable to both the No. 1 and No. 2 MEE sets:

  1) When the Nos. 1 and 2 MEE sets are operated simultaneously, the maximum operating rate shall be 278,000 lbs/hr dry Black Liquor Solids (BLS) as a total combined input to them (24-hour average) and determined by measuring solids and flow into each evaporator set;
  2) When only one MEE set is in operation, the maximum operating rate shall be 181,000 lbs/hr dry BLS and determined by measuring solids and flow into that evaporator set (24-hour average).

- The off-gas from the evaporators shall be vented into the Non- Condensable Gas (NCG) Handling System and combusted in the thermal oxidizer or the Lime Kiln.
- This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

5.2.5.5 Nos. 1 and 2 Recovery Furnaces (E.U. 030 and E.U. 029)

The Nos. 1 and 2 Recovery Furnaces are subject to the following Title V Permit Requirements:

- The maximum allowable operating rate of each boiler is 111,000 pounds of virgin black liquor solids fired per hour.
- The primary fuel shall be virgin black liquor solids. Natural gas, number 4 (maximum of 1.0% sulfur) or number 6 (maximum of 1.0% sulfur) fuel oil may be used as a backup fuel. Records of the sulfur content of the fuel oils shall be maintained and available for inspection by the Department.
- Particulate matter emissions from each unit shall not exceed 111 pounds per hour or 3 pounds per 3000 pounds of virgin black liquor solids burned.
- Visible emissions shall not exceed 45% opacity (6 minute average), except for up to 60% for 6 minutes during any hour.

- Total reduced sulfur emissions from each unit shall not exceed 5 ppmdv at standard conditions corrected to 8% oxygen as a 12 hour average.

5.2.5.6 Lime Kiln/Mud Dryer (E.U. 028)

The Lime Kiln/Mud Dryer is subject to the following Title V Permit Requirements:

- The maximum operating rate is 20.83 tons per hour of lime as CaO. Capacity records shall be maintained and available for inspection by the Department.
- This emission unit shall be fueled by natural gas or number 6 or 4 fuel oil with a maximum sulfur content of 1.0 %, by weight. Records of the sulfur content of the fuel oils shall be maintained and available for inspection by the Department.
- This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
- Nitrogen oxide from Number 6 or 4 Fuel Oil firing shall not exceed 200 ppmdv at 10% O_2 (49.3 lbs/hr) based on a 24-hour average.
- Nitrogen oxide from Natural Gas firing shall not exceed 175 ppmdv at 10% O_2 (43.1 lbs/hr) based on a 24-hour average.
- Carbon monoxide shall not exceed 45 ppmdv at 10% O_2 (6.75 lbs/hr) based on a 24-hour average.
- Particular matter shall not exceed 12.96 pounds per hour.
- Volatile organic compounds shall not exceed 104 ppmdv at 10% O_2 (as propane) (24.5 lbs/hr) based on a 24-hour average.
- Total reduced sulfur shall not exceed 8 ppmdv at 10% oxygen (1.46 lbs/hr) based on a 12-hour average.
- Sulfur dioxide shall not exceed 6.49 pounds per hour.
- Visible emissions shall be less than 20% opacity.
- Sulfur dioxide compliance shall be assured by maintaining a minimum scrubber pH of 7.5 based on a 12 hour average. The pH shall be continuously monitored and recorded. Records shall be maintained and available for inspection by the Department. For the purpose of periodic monitoring, continuous monitoring shall be considered 95% of emitting unit operating hours.

5.2.5.7 Lime Slaker (E.U. 046)

The Lime Slaker is subject to the following Title V Permit Requirements:

- The maximum operating rate is 20.8 tons of lime added to green liquor per hour. Capacity records shall be maintained and available for inspection by the Department.
- This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
- Particulate matter shall not exceed 1.59 pounds per hour.
- Visible emissions shall not be greater than 20% opacity. If observed greater than 20% opacity by the Department, a special compliance test may be required to demonstrate compliance with the particulate matter mass emissions standard.
- Compliance with the particulate emission limit is assured if the green liquor flow rate to the wet scrubber exceeds 80 gallons per minute. The scrubber flow shall be continuously monitored and recorded. The flow rate shall be logged once per shift. Records shall be maintained and available for inspection by the Department. For the purpose of periodic monitoring, continuous monitoring shall be considered 95% of emitting unit operating hours.

6. BEST AVAILABLE CONTROL TECHNOLOGY ANALYSIS

6.1 INTRODUCTION

The PSD regulations require that a Best Available Control Technology (BACT) analysis be conducted for modified emission units that are part of the project and emit any of the PSD significant pollutants. The following emission units are considered to be modified emission units (or a new unit in the case of the Post O_2 Press) and are subject to a BACT analysis:

- No. 1 Recovery Furnace
- No. 2 Recovery Furnace
- Lime Kiln/Mud Dryer
- Lime Slaker
- Digester System/Evaporator System/NCG Gas Handling System
- Post O_2 Press

Table 6-1 identifies the pollutants that were reviewed for the BACT analyses associated with each modified emission unit. Supporting BACT tables are provided in Appendix C and are referenced throughout this section.

Table 6-1
Pollutants Subject to BACT Review
for Modified Emission Units

Emission Unit	Pollutant
Nos. 1 and 2 Recovery Furnaces	PM/PM_{10}, SO_2, NO_X, CO, VOC, TRS
Lime Kiln/Mud Dryer	PM/PM_{10}, SO_2, NO_X, CO, VOC, TRS
Lime Slaker	PM/PM_{10}, VOC, TRS
Digester System	VOC, TRS
Evaporator System	VOC, TRS
Post O_2 Press	VOC, TRS

BACT determinations are case-by-case analyses that involve an assessment of the availability of applicable technologies capable of sufficiently reducing a specific pollutant emission, as well as the economic, energy, and environmental impacts of using each technology.

The methodology used in this study to determine BACT follows the "top-down" approach outlined in Chapter B of the EPA Draft *"New Source Review Workshop Manual"* dated October 1990. A "top-down" BACT analysis contains the following elements:

- Determination of the most stringent control alternatives potentially available.
- Discussion of the technical and economic feasibility of each alternative.
- Assessment of energy and environmental impacts, including toxic and hazardous pollutant impacts, of feasible alternatives.
- Selection of the most stringent control alternative that is technically and economically feasible and that provides the best overall control of all pollutants.
- Confirmation that the selected BACT is at least as stringent as NSPS and State Implementation Plan (SIP) limits for the source.

EPA Guidance recommends that the BACT analysis be conducted using a step by step approach. Specifically, a top-down BACT analysis includes the following 5 basic steps.

Step 1 – Identify all Available Control Technologies. *Compilation of all potential control technologies available. List should not exclude technologies implemented outside the United States.*

Step 2 – Eliminate Technically Infeasible Options. *Determine if any of the technologies identified in Step 1 are not technically feasible based on physical, chemical and engineering principles.*

Step 3 – Rank Remaining Control Technologies by Control Effectiveness. *Remaining control alternatives not eliminated in Step 2 are ranked in order of most effective (i.e., lowest emission rate) to the least. Each technology is evaluated based on economic, environmental and energy impacts.*

Step 4 – Evaluate Most Effective Controls and Document Results. *The information developed in Step 3 is objectively evaluated to determine whether economic, environmental, or energy impacts are sufficient to justify exclusion of the technology. The analysis begins with the top ranked technology and continues until the technology under consideration cannot be eliminated by any environmental, economic, and energy impacts which justify that the alternative is inappropriate as BACT.*

Step 5 – Identify BACT. *The highest ranked remaining technology is identified as BACT.*

The Pensacola Mill performed the BACT review for the modified emission units utilizing the following key technical resources to establish BACT levels:

- RACT/BACT/LAER Clearinghouse (RBLC) on the EPA Technical Transfer Network (TTN). The search was limited to determinations occurring after 1990 http://cfpub1.epa.gov/rblc/htm/bl02.cfm;
- California Air Resources Board (CARB) BACT Clearinghouse;
- The California South Coast Air Quality Management District (AQMD) BACT worldwide web site at http://www.aqmd.gov/bact/;
- The California Bay Area AQMD BACT worldwide web site at http://www.baaqmd.gov/permit/bactworkbook/default.htm;

- The Texas National Resource Conservation Commission's BACT worldwide web site at http://www.tnrcc.state.tx.us/air/nsr_permits/bact.htm;.
- Phone conversations with various EPA Regions and State regulatory agencies to identify any recent Recovery Furnace projects that were not yet posted on the RBLC database; and.
- Phone conversations with recovery furnace and control equipment vendors to inquire about any projects that may be in the pre-permit submittal stage and to query them on levels of control required on domestic or foreign projects with which they may be involved.

IP requests that DEP consider the BACT analysis in context with the NSR Reform regulations recently codified by the EPA and the "clean unit" designation. IP believes that the emission units that undergo a BACT determination as part of this exercise should be identified as clean units in the construction permit – consistent with the requirements presented in the NSR Reform regulations. IP understands that the clean unit designation will provide flexibility in future air permitting exercises and recognizes the importance of the clean unit designation as part of this PSD permitting process.

6.2 USE OF THE RACT/BACT/LAER CLEARINGHOUSE (RBLC)

The RBLC is an excellent tool for reviewing recent BACT determinations and control options. Unfortunately, however, the RBLC is like all databases and is only as good as the data that is entered into it. IP has made significant effort to review all entries to determine the validity of the data and the relativity of the data with respect to the IP proposed modifications. Provided below are several key IP considerations when applying the RBLC data.

- IP utilized all sections of the RBLC to review possible BACT determinations (i.e., IP did not constrict the query to just the determinations since 1993. Instead, IP search all determinations including draft determinations still in process.)
- IP only utilized RBLC entries that were representative of industry standard or mill specific processes/units. In addition, IP only included entries that were complete and enabled an

accurate comparison/analysis of data. Entries that did not allow the development of a BACT emission rate in normal units of measure for a given process type (e.g., gr/dscf, lb/ton, ppmdv, etc.) were excluded from the review.

- IP performed follow-up conversations and review of entries that were not consistent with other RBLC entries.

- IP paid special attention to the Apple Grove Pulp and Paper Company, Inc. entries. The Apple Grove facility was a proposed "Greenfield" facility to be constructed in West Virginia that underwent a detailed BACT review. Many of the BACT determinations for the Apple Grove facility are much lower than historical pulp and paper industry BACT determinations. IP contacted the West Virginia Air Pollution Control Commission to discuss these determinations. The West Virginia Agency indicated that this facility has not been constructed and these BACT determinations have not been demonstrated. As a result, IP has presented the Apple Grove determinations for various emission units in the BACT summaries; however, IP has not relied upon these undemonstrated values in BACT determinations for IP units.

Provided below are the BACT determinations for the modified emission units at the IP Pensacola Mill.

6.3 NOS. 1 AND 2 RECOVERY FURNACES BACT ANALYSIS

In performing the BACT review and analyzing the various BACT determinations, it is important to recognize that the Nos. 1 and 2 Recovery Furnaces are existing direct contact evaporator (DCE) units, originally designed and constructed in 1975. Many of the determinations in the EPA's RBLC are for new recovery furnaces. While IP believes that the proposed control technologies included in this application are consistent with previous control technology determinations for both new and modified existing furnaces, the fact remains that the Nos. 1 and 2 Recovery Furnaces are older units. This is reflected in the proposed BACT emission limits for certain pollutants which may be slightly higher than limits proposed for new recovery furnaces. There are operational and physical constraints associated with older modified units that prevent them from obtaining the same levels of control as new units.

When the Nos. 1 and 2 Recovery Furnaces were designed, it was common practice to burn black liquor at lower percent solids. Operators of Recovery Furnaces learned in later years that operating at higher solids increased thermal and chemical reduction efficiency and also resulted in lower TRS and SO_2 emissions. The introduction of higher solids to the Nos. 1 and 2 Recovery Furnaces results in heat releases per unit area that are much higher than newly constructed furnaces, which are designed to meet lower heat release design criteria. The Recovery Furnace cross-sectional area is limited by the footprint of the boiler and is constrained by the location of the existing four walls. Upon project completion, the Recovery Furnace will be operating at an even higher heat release rate. The project will be conducted in a manner that meets all safety standards for Recovery Furnaces. However, it is important to note that the Nos. 1 and 2 Recovery Furnaces cannot be directly compared to other modified Recovery Furnaces in the RBLC, due to their high heat release rates. A summary of the BACT evaluation for each pollutant is provided in the Subsections below.

6.3.1 BACT for PM/PM_{10}

A summary of the PM/PM_{10} data obtained from the RBLC search is provided in Table C-1. PM/PM_{10} concentrations identified in the RBLC range from 0.012 gr/dscf to 0.044 gr/dscf, corrected to 8% O_2. Control was achieved with the use of an electrostatic precipitator (ESP).

IP contacted the appropriate state regulatory agencies regarding the Apple Grove Pulp and Paper Company in West Virginia and U.S. Alliance facility located in Alabama. In both cases, representatives of the state regulatory agencies indicated that these units were not constructed and that they had not demonstrated compliance with the proposed BACT limits. As a result, IP proposes to meet the 0.021 gr/dscf at 8% O_2 on a long term basis by rebuilding and improving the existing two-chamber ESP. This emission rate is consistent with the most stringent limits that have been achievable through demonstration for the sources listed in Table C-1.

6.3.1.1 Proposed PM/PM$_{10}$ BACT

IP conducted the PM/PM$_{10}$ BACT analysis by reviewing the most recent emission limitations identified in the EPA RBLC, and accepting the most stringent value that has been achievable through demonstration. The analysis did not include any economic justification for emission limitations for any other less stringent levels of emissions. IP is already planning to upgrade the ESPs in order to meet the MACT standard requirements codified in 40 CFR 63, Subpart MM and is committed to meet the most stringent BACT limit of 0.021 gr/dscf at 8% O_2, regardless of economic analysis. This proposed BACT level is also more stringent than the recently promulgated MACT standard limits.

6.3.2 BACT for Nitrogen Dioxide

Nitrogen oxides (NO_X) are products of all conventional combustion processes. Nitric oxide (NO) is the predominant form of NO_X produced at high temperatures, with lesser amounts of nitrogen dioxide (NO_2) present. Once emitted, NO converts to NO_2 in the atmosphere. NO and NO_2 are collectively referred to as NO_X. The generation of NO_X from fuel combustion is a result of two formation mechanisms: fuel-derived NO_X and thermal NO_X formation. Fuel-derived NO_X is the result of the oxidation of nitrogen compounds contained in the fuel. Most of the NO_X emissions from recovery furnaces can be attributed to fuel NO_X resulting from partial oxidation of the black liquor nitrogen content. The NO_X produced by exposing nitrogen in the combustion air supply (ambient air contains 79 percent nitrogen by volume) to high temperatures (>2,200°F) is referred to as thermal NO_X. The black liquor nitrogen content is partially oxidized to form NO_X.

Kraft recovery furnaces are a unique type of combustion source that are inherently "low-NO_x". The furnace process involves injecting black liquor through specially designed nozzles so that organics, including lignin derivatives, carbohydrates, soaps, waxes, and residual fiber will combust and the sodium compounds in the liquor can be recovered as molten smelt and tapped from the char bed at the furnace bottom. Recovery furnaces operate with a reducing zone in the lower part of the furnace and an oxidizing zone in the region of the liquor spray guns and secondary air thereby "staging" combustion.

6.3.2.1 Nitrogen Dioxide Control Alternatives

There are two basic approaches to controlling NO_X emissions from combustion processes. The first approach consists of combustion modifications that attempt to control the introduction of combustion air in such a way that N_2 formation is favored over NO_X formation in the combustion zone. These modifications typically include staging combustion so that combustion air is limited in the first stage to create a reducing environment, followed by the introduction of excess air in the second stage. Staged combustion can reduce both fuel NO_X and thermal NO_X formation. Reduction of peak flame temperatures and/or oxygen content can further reduce thermal NO_X formation.

The second approach to NO_X control involves conversion of NO_2 to N_2 and water in the presence of a reducing reagent at elevated temperatures. This reaction can occur at high temperatures (1,600 to 2,000°F) without the assistance of a catalyst where the technology is known as Selective Non-Catalytic Reduction (SNCR). Alternatively, the reaction can take place at lower temperatures (600 to 750°F) in the presence of a catalyst where the technology is known as selective catalytic reduction (SCR). The common reagents used for these techniques are ammonia (NH_3) and urea (NH_2CONH_2).

Selective Catalytic Reduction (SCR)

SCR involves injecting ammonia (NH_3), a reducing agent, into the flue gas stream at the inlet of a catalytic reactor. The ammonia reacts with the NO_2 on the catalyst surface to form nitrogen and water. Optimum NO_2 reduction occurs at catalyst bed temperatures between 600 and 750°F. The ammonia is stored as a liquid, then is vaporized and injected into the flue gas using air or steam as a carrier/dilution gas.

Extensive SCR experience has been gained in the U.S. and by the Japanese, mostly on base-loaded combustion turbines firing natural gas. These applications have been shown to operate at NO_2 reduction rates of up to 90 percent when the gas temperature and the ammonia feed rate are maintained in the correct ranges. SCR represents the "top" NO_2 control technology alternative based on the maximum potential reduction achieved.

Of primary concern with the consideration of the application of SCR to the project is that the technology is undemonstrated for Kraft recovery furnace operations. The particulate matter loading present in the recovery furnace exhaust will foul the catalyst. Based on the technical inapplicability of SCR to the proposed recovery furnace project, SCR is eliminated from further consideration as an alternative NO_2 control technology.

Selective Non-Catalytic Reduction (SNCR)

Two SNCR technologies are commercially available. These technologies represent the next most significant potential NO_X emission reduction options following SCR. Thermal $DeNO_X$ is ExxonMobil Research and Engineering Company's patented SNCR technology for reducing NO_X by injecting ammonia into the flue gas. The ammonia reduces the nitrogen dioxide to molecular nitrogen and water without a catalyst. The flue gas temperature must be much higher for thermal $DeNO_X$ than for SCR, in the range of 1,600-2,000°F. The ammonia is stored as a liquid, then vaporized and injected into the flue gas using a carrier gas such as compressed air or steam. The air or steam dilutes the ammonia and facilitates dispersion into the flue gas. Fuel Tech has another patented SNCR technology, NO_XOUT that involves injection of a urea-based reagent into flue gases.

SNCR has been applied to gas-fired boilers and has achieved NO_2 reductions of 70 to 80 percent. Other SNCR applications on commercial oil-fired boilers and oil and coal-fired utility boilers, glass furnaces, and municipal solid waste incinerators have achieved NO_2 reductions in the 40 to 60 percent range. As stated above, the optimal temperature window for SNCR is between 1,600 and 2,000°F. When applied to oil and gas-fired boilers, this temperature window is within the upper portions of the furnace itself. A similar injection location would be necessary for applying SNCR to a recovery furnace. Due to the potential deleterious effect of injecting ammonia or urea into the actual Kraft recovery process, SNCR has not been applied to Kraft recovery furnaces in the United States. There are also several safety and operational issues associated with SNCR systems including:

- The safety risk of a smelt/water explosion should boiler tube walls corrode and leak near urea injection points.
- The additional safety risks associated with an ammonia handling system for the SNCR system.
- Operational concerns associated with the formation of acidic sulfates resulting in corrosion.

Exxon and Fuel-tech were contacted regarding their experience in the application of SNCR technology to Kraft recovery furnaces both domestically and internationally. Exxon had no knowledge of SNCR being applied to any Kraft recovery furnaces. Fuel-tech was involved in a single SNCR demonstration project on a Kraft recovery furnace in Sweden in 1990. The short pilot study project resulted in a 60% reduction in NO_2 emissions with about 8 ppm ammonia slip. SNCR was not used beyond the demonstration period and the long-term effect of SNCR on the recovery process and the recovery furnace could not be evaluated. A search of the RBLC confirmed that no domestic recovery furnace has used SNCR.

Since the SNCR process has not been demonstrated commercially on Kraft recovery furnaces and due to the additional safety and operational concerns associated with SNCR applied to Kraft recovery furnaces, IP considers SNCR technically infeasible.

Combustion Controls

Controlling the combustion process is a well-demonstrated NO_2 control method applied to stationary combustion sources. These techniques include low excess air (LEA), staged combustion and flue gas recirculation (FGR). LEA techniques control the combustion air supply, thereby minimizing the potential for thermal NO_X formation. Staged combustion, similar to LEA, minimizes combustion air (and therefore ambient nitrogen and oxygen) at the peak combustion temperatures and completes oxidation reactions in "stages" at lower temperatures. Temperature and oxygen availability are key determinants in the NO_2 formation kinetics. Staged combustion is effective at reducing NO_2 formation by minimizing the temperatures at which oxidation occurs. Both LEA and staged combustion techniques are inherent in Kraft recovery furnaces.

FGR re-introduces a portion of the combustion flue gases into the combustion zone. The flue gas has reduced oxygen content available for thermal NO_X formation in the combustion zone. FGR is typically used in gas or oil-fired boilers where the flue gases are relatively clean and can be readily recirculated. FGR is not applicable to the Kraft recovery furnace since it is not feasible to recirculate the recovery furnace exhaust gases.

6.3.2.2 Proposed Nitrogen Dioxide BACT

A summary of recent (post 1990) BACT determinations for NO_2 emissions from Kraft recovery furnaces is included in Table C-2. The more recent BACT determinations for NO_2 are generally trending higher than determinations from the early 1990s, i.e., 100 to 115 ppmdv @ 8% O_2 vs. 75 to 80 ppmdv @ 8% O_2. The increase may be attributable to the current trend to maximize the solids content of the black liquor fed to recovery furnaces (i.e., greater than 70%). The higher black liquor solids content results in higher furnace temperatures and greater NO_2 formation. Recent (post 1995) BACT NO_2 concentrations identified on the RBLC range from a low of 78 ppmdv @ 8% O_2 (Louisiana Pacific, CA-866, 4/12/99) to 112 ppmdv @ 8% O_2 (Georgia Pacific, LA - under review). The required control technology in all cases was related to proper design, operation, and control of the recovery furnace combustion process.

Most of the NO_2 emissions from recovery furnaces can be attributed to fuel NO_X resulting from partial oxidation of the black liquor nitrogen content. Recovery furnaces also operate with a reducing zone in the lower part of the furnace and an oxidizing zone in the region of the liquor spray guns and secondary air thereby "staging" combustion. Therefore, consistent with previous BACT determinations identified in Table C-2, IP proposes that BACT for NO_2 emissions from the DCE Kraft recovery furnace is proper design, operation, and control of the recovery furnace combustion process with a corresponding NO_2 concentration of 112 ppmdv @ 8% O_2.

6.3.3 BACT for Sulfur Dioxide

A summary of the SO_2 data obtained from the RBLC search is identified in Table C-3. SO_2 emissions from recovery furnaces are variable and are dependant on several factors including liquor properties (e.g., sulfidity, sulfur to sodium ratio, heat value, and solids content), combustion air, liquor firing patterns, furnace design features, and type of startup fuel. BACT SO_2 concentrations identified in the RBLC range from 10 ppmdv @ 8% O_2 to 220 ppmdv @ 4% O_2. It is important to note that the IP Nos. 1 and 2 Recovery Furnaces have the ability to utilize natural gas or fuel oil for startup and sustaining load, which results in different SO_2 emissions than during black liquor solids firing. Black liquor solids firing produces sodium fume, which effectively scrubs SO_2 emissions. Fuel oil firing, which is not the typical furnace operating scenario, results in SO_2 emissions that are consistent with the sulfur content of the fuel oil.

There is one entry in the RBLC that is 10 ppmdv @ 8% O_2 for SO_2. The recovery furnace is located at the James River facility in Camas, Washington and was installed in 1991. This mill installed "heat recovery" scrubbers on each of two recovery furnaces at the mill. Mr. Alan Butler of the Washington State Department of Ecology was contacted regarding the circumstances of the SO_2 limit determination. Based on the conversation with Mr. Butler, there are no underlying regulatory reasons (e.g., non-attainment, ambient impact, or Class I concerns) for the scrubbers.

According to Mr. Butler, the primary purpose of the scrubbers is to recover heat and the scrubbers were not installed with the intent to reduce SO_2 emissions. Consequently, this is not an appropriate benchmark for developing a BACT level of control for SO_2.

The next most stringent entry in the RBLC is for 50 ppmdv SO_2, for a recovery furnace located at the IP facility in Quinnesec, Michigan. This furnace does not burn fuel oil, whereas the Pensacola Mill Recovery Furnaces are designed to startup and shutdown on fuel oil. Therefore, 50 ppmdv is not an appropriate BACT level for the Pensacola Recovery Furnaces.

6.3.3.1 Proposed BACT for Sulfur Dioxides

The Pensacola Mill proposes BACT for SO_2 for the modified recovery furnace to be proper design, operation, and control of the combustion process. The Mill proposes an SO_2 emission rate limit of 151 lb/hr which is the emission limit that has been identified for the unit in previous permit renewals. This value equates to approximately 94 ppmdv @ 8% O_2 for the No. 1 Recovery Furnace and approximately 86 ppmdv @ 8% O_2 for the No. 2 Recovery Furnace.

6.3.4 BACT for Carbon Monoxide

CO is emitted from the combustion process occurring in the Kraft recovery furnace. Furnace design and combustion conditions within the furnace have the greatest influence on levels of CO in the furnace exhaust gases. Add-on pollution abatement equipment has not been applied for the control of CO emissions from recovery furnaces.

6.3.4.1 Control Alternatives

Oxidation

Oxidation is accomplished by raising the temperature of the exhaust stream to the level required for combustion by adding an auxiliary fuel. Process exhaust streams with a high energy content (i.e., high VOC content) may be self sustaining. However, as is the case with low CO concentration, for high volume process exhaust gas streams (such as recovery furnaces), the amount of auxiliary fuel required is too great for oxidation to be feasible from a cost perspective.

Catalytic oxidizers use a catalyst bed or matrix to convert CO into carbon dioxide (CO_2). Catalytic oxidation is essentially a flameless combustion process, wherein a catalyst is used to initiate the oxidation reaction at a much lower temperature than thermal oxidation. In most applications, the oxidizer is equipped with a burner and also with a heat exchanger to raise the exhaust gas to oxidation temperatures. Catalytic oxidation systems are available but have only been demonstrated on "clean" combustion processes such as combustion turbines. The technology is therefore not directly transferable to recovery furnaces.

Catalytic oxidizer disadvantages are primarily the potential for catalyst fouling. Catalyst poisons including metals, halides (e.g., chlorine), and sulfur may inactivate precious metal catalysts. Catalyst activity may also be reduced through blinding or masking (build-up of material on the active sites) or erosion of catalyst over time. Due to these disadvantages, catalytic oxidation is considered technologically infeasible for application on recovery furnaces.

Combustion Control

CO emissions from recovery furnaces generally result from incomplete combustion of the organic constituents in the fuel. Increasing residence time, oxygen, turbulence, and temperature may minimize CO emissions. However, these strategies must be carefully controlled since individually, and in aggregate, they act to increase the formation of NO_2.

6.3.4.2 Proposed Carbon Monoxide BACT

A summary of the CO data obtained from the RBLC search is identified in attached Table C-4. CO concentrations reflective of BACT identified on the RBLC range from a low of 200 ppmdv @ 8% O_2 to 800 ppmdv @ 8% O_2 with a mean of about 300 ppmdv @ 8% O_2. The required control technology in all cases was related to proper design, operation, and control of the combustion process. The Apple Grove Pulp and Paper Company entry was much lower than the rest of the range (17 ppmdv @ 8% O_2 citing the use of catalytic oxidation); however, as discussed previously, this unit has not been constructed and this level has not been demonstrated.

Consistent with the discussion presented above and the previous BACT determinations presented in Table C-4, IP proposes that BACT for CO from the modified recovery furnace is the proper design, operation, and control of the combustion process and a CO concentration of 500 ppmdv @ 8% O_2. The proposed CO concentration limit is further supported by the low, proposed NO_X concentration limit and the relationship of NO_X and CO in the combustion process.

6.3.5 BACT for Volatile Organic Compounds

VOC is emitted from the combustion process occurring in the Kraft recovery furnace. A summary of the VOC data obtained from the RBLC search is identified in attached Table C-5. Additional VOC may be "stripped" from black liquor in DCE recovery furnaces during the direct contact process. Furnace design and the combustion conditions within the furnace typically have the greatest influence on VOC concentrations in DCE recovery furnace exhaust. Add-on VOC abatement has not been applied to recovery furnace exhaust streams due to the extremely high volumetric flow rates from Kraft recovery furnaces and relatively low VOC concentrations.

6.3.5.1 Proposed Volatile Organic Compound BACT

The RBLC presents VOC BACT emission rates in a variety of units including lb/MMBtu, lb/TBLS, lb/hr, ton/year and ppm. In reviewing the secondary limits associated with the various RBLC entries, emission rates ranged from 18 lbs VOC/hr to 116 lbs VOC/hr. The required control technology in all cases was related to proper design, operation, and control of the combustion process. Increasing residence time, oxygen, turbulence, and temperature can reduce VOC emissions. However, these strategies act to increase the formation of NO_2.

Consistent with previous BACT determinations identified in Table C-5, BACT for VOC emissions from the modified recovery furnace is the proper design, operation, and control of the combustion process. The resulting VOC emission rate associated with the recovery furnace modification will be furnace-specific and will reflect the combustion characteristics of the furnace after the modification. IP proposes a BACT concentration limit of 50 ppmdv @ 8% O_2 for VOC from each Recovery Furnace.

6.3.6 BACT for Total Reduced Sulfur Compounds

Kraft recovery furnaces have the potential to generate TRS emissions from the recovery process as well as from the stripping of TRS compounds from black liquor in furnaces using wet bottom ESPs. Boiler design and optimization of combustion conditions in the Nos. 1 and 2 Recovery Furnaces are the most effective methods identified for minimizing TRS emissions from the recovery process itself. Table C-6 includes the listings from the RBLC for TRS BACT determinations. The IP Recovery Furnaces utilize black liquor oxidizers and combustion optimization to minimize TRS emissions from the recovery process.

6.3.6.1 Proposed Total Reduced Sulfur Compounds BACT

Consistent with previous BACT determinations identified in Table C-6, BACT for TRS emissions from the modified recovery furnace is the proper design, operation, and control of the combustion process. The resulting TRS emission rate is 5 ppmdv, corrected to 8% O_2, based on a 12-hour average. This limit is consistent with the NSPS requirement in Subpart BB, 40 CFR 60.283, as well as recent BACT determinations for recently modified recovery furnaces which are similar to the Pensacola Mill recovery furnaces.

6.4 LIME KILN/MUD DRYER

IP is planning modifications to the Lime Kiln/Mud Dryer. Lime Kiln/Mud Dryers utilize the hot flue gases from the kiln to remove the moisture from the lime mud prior to the lime mud entering the kiln. The flue gases and water vapor are separated from the lime mud in a cyclone. The gases exiting the Lime Kiln/Mud Dryer proceed to the Lime Kiln pollution control system.

A number of the determinations listed on the RBLC database are for new Lime Kilns. IP performed a BACT analysis for the Pensacola Mill Lime Kiln/Mud Dryer as part of the 1991 PSD application. After review of RBLC, IP believes that the BACT levels that were established as part of the 1991 PSD permitting process continue to satisfy BACT level of control. A pollutant-specific analysis is provided below.

6.4.1 BACT for PM/PM_{10}

A summary of the PM/PM_{10} data obtained from the RBLC search is provided in Table C-8. PM/PM_{10} concentrations identified in the RBLC range from 0.013 gr/dscf to 0.1 gr/dscf, corrected to 10% O_2. Control was achieved with the use of an electrostatic precipitator (ESP), wet scrubber, or fabric filter.

IP contacted the appropriate state regulatory agencies regarding the Apple Grove Pulp and Paper Company in West Virginia. A representative of the state regulatory agency indicated that this unit has not constructed and that they had not demonstrated compliance with the proposed BACT limits. The Lincoln Pulp and Paper Company Lime Kiln that utilize the wet scrubber as the particulate matter control device has identified a limit of 0.013 gr/dscf at 10% O_2. All Lime Kilns with ESP controls have identified 0.033 gr/dscf at 10% O_2 as the BACT level of control.

6.4.1.1 Proposed PM/PM$_{10}$ BACT

IP proposes to continue to meet the 0.033 gr/dscf at 10% O_2 limit for the Lime Kiln on a long term basis. This emission rate is consistent with the most stringent limits that have been achievable through demonstration for the similar sources with similar control configurations listed in Table C-8. This proposed BACT level is also more stringent than the recently promulgated MACT standards identified in 40 CFR 63, Subpart MM.

6.4.2 BACT for Nitrogen Dioxide

Nitrogen Dioxide (NO_2) is a product of all conventional combustion processes. Nitric oxide (NO) is the predominant form of NO_X produced at high temperatures, with lesser amounts of nitrogen dioxide (NO_2) present. Once emitted, NO converts to NO_2 in the atmosphere. NO and NO_2 are collectively referred to as NO_X. The generation of NO_X from fuel combustion is a result of two formation mechanisms: fuel-derived NO_X and thermal NO_X formation. Fuel-derived NO_X is the result of the oxidation of nitrogen compounds contained in the fuel. The NO_x produced by exposing nitrogen in the combustion air supply (ambient air contains 79 percent nitrogen by volume) to high temperatures (>2,200^{o}F) is referred to as thermal NO_X. NO_X emissions from Lime Kilns are generated primarily through thermal NO_X formation by the combustion of fossil fuel (oil or natural gas).

6.4.2.1 Control Alternatives

A detailed description of available NO_X control techniques is presented in Subsection 6.3.2.1 above.

Selective Catalytic Reduction

As detailed in Subsection 6.3.2.1 above regarding Recovery Furnaces, SCR is undemonstrated for Lime Kiln operations and the particulate matter loading present in the Lime Kiln exhaust will foul the catalyst. Consequently, SCR is not technically feasible for use on a Lime Kiln exhaust.

Selective Non-Catalytic Reduction

As detailed in Subsection 6.3.2.1 above regarding recovery furnaces, SNCR is undemonstrated for Lime Kiln operations. In addition there are potential harmful effects of injecting ammonia or urea into the Lime Kiln and several safety and operational issues associated with SNCR. Consequently, SNCR is not technically feasible for use on a Lime Kiln exhaust.

Combustion Controls

As previously discussed, thermal NO_X formation is related to conditions such as excess air, operating temperature, and residence time. Combustion technology utilizes integral methods of minimizing NO_X formation during the combustion process. Combustion design strategies that lower NO_2 emissions include reducing the available oxygen at critical stages in the combustion zone, lowering the peak flame temperature, and reducing the residence time during which nitrogen is oxidized.

The Lime Kiln is an inherently high-temperature operation requiring high flame temperatures and long residence times. Consequently, the combustion technologies listed and discussed above in Subsection 6.3.2.1 are technically infeasible for this operation. Fortunately, NO_2 emissions from Lime Kilns are considered relatively low for the extreme combustion temperatures realized in the kilns because the gases can cool somewhat before exiting the kiln. This results in the NO_2 formation equation shifting back to N_2.

6.4.2.2 Proposed Nitrogen Dioxide BACT

A summary of the NO_2 data obtained from the RBLC search is identified in Table C-9. NO_2 concentrations identified on the RBLC ranged from a low of 175 ppmdv to 300 ppmdv @ 10% O_2. The required control technology in all cases (except one) was related to proper design, operation, and control of the combustion process. One entry identified the use of low NO_x burners as BACT for the control of NO_2 from Lime Kiln operations (3.5 lb. NO_2/ton CaO). To compare this emission rate to others identified on the search, entries stated as lbs. NO_2/hr that identified production in tons CaO/day were converted to a lbs. NO_2/ton CaO basis. The range of NO_2 emissions for these units was 2.19 to over 3.8 lb. NO_2/ton CaO.

IP followed up with state air pollution control agencies in West Virginia, Florida, Alabama, and Georgia regarding several of the lower BACT emission rates in Table D-8. The only demonstrated BACT emission rate was at the Buckeye Florida, L.P. facility that tested at less than 68.44 lbs. NO_2/hr. Consistent with the discussion above and previous BACT determinations, IP believes that BACT for NO_2 emissions from the Lime Kiln is proper design, operation, and control of the combustion process and the current emission levels that were determined from the 1991 BACT analysis (175 ppmdv @ 10% O_2 for natural gas combustion and 200 ppmdv @ 10% O_2 for fuel oil combustion).

6.4.3 BACT for Sulfur Dioxide

A summary of the SO_2 data obtained from the RBLC search is identified in Table C-10. SO_2 emissions from Lime Kilns are typically controlled by a wet scrubber and/or low sulfur fuel oil, if firing fuel oil as a supplemental fuel. Little information is provided for SO_2 emissions in the RBLC. The SO_2 entries are typically provided in units of "lb/hr" and range from 6.49 lb/hr for the IP Pensacola Mill entry to 41.6 lb/hr.

6.4.3.1 Proposed BACT for Sulfur Dioxides

The Pensacola Mill proposes that BACT for SO_2 for the Lime Kiln/Mud Dryer be use of the wet scrubber and a limit of 6.49 lb/hr. This value represents approximately 95% control of the SO_2 emitted from the process.

6.4.4 BACT for Carbon Monoxide

CO emissions from Lime Kilns generally result from incomplete combustion of the organic constituents in the fuel.

6.4.4.1 Control Alternatives

Oxidation

The same discussion presented in Subsection 6.3.4.1 above regarding CO emissions from recovery furnaces is applicable to CO emissions from Lime Kilns. Therefore, both thermal and catalytic oxidation are technically infeasible for application on Lime Kilns.

Combustion Control

CO emissions from Lime Kilns result from incomplete combustion of the organic constituents of the fuel. Increasing residence time, oxygen, turbulence, and temperature may minimize CO emissions. However, these strategies must be carefully controlled since individually and in aggregate, they act to increase the formation of NO_2.

6.4.4.2 Proposed Carbon Monoxide BACT

A summary of the CO data obtained from the RBLC search is identified in Table C-11. CO concentrations reflective of BACT identified on the RBLC range from 45 ppmdv @ 10% O_2 to

80 ppmdv @ 10% O_2. Several determinations are expressed as lbs. CO/hr and range from 2.0 to 50 lbs. CO/hr. The required control technology in all cases was proper design, operation, and control of the combustion process. Increasing residence time, oxygen, turbulence, and temperature can reduce CO emissions from Lime Kiln operations. However, these strategies act to increase the formation of NO_2.

Consistent with previous BACT determinations presented in Table C-11, BACT for CO emissions from Lime Kilns Mud Dryer is the proper design, operation, and control of the combustion process and the current emission levels that were determined from the 1991 BACT analysis (CO concentration of 45 ppmdv @ 10% O_2).

6.4.5 BACT for Volatile Organic Compounds

VOC emissions from Lime Kilns generally result from incomplete combustion of the organic constituents in the fuel and from any residual VOC carried into the kiln with the lime mud.

6.4.5.1 Control Alternatives

Based on the results of the RBLC search presented in Table C-12, add-on abatement systems to control VOC emissions from Lime Kilns have not been required as BACT. Most determinations relate to the proper design and operation of the kiln and good combustion control. VOC, CO, and NO_X are interrelated and are greatly impacted by furnace design and the combustion conditions within the furnace. Lime kiln exhaust streams are generally very wet (saturated) with relatively high particulate loadings, even after particulate matter control systems making typical VOC control equipment infeasible from a practical stand point.

6.4.5.2 Proposed BACT for Volatile Organic Compounds

Consistent with the recent determinations presented in Table C-12 and the values that IP has proposed for CO and NO_X, IP proposes that BACT for VOC emissions from the Lime Kiln/Mud

Dryer is the proper design and operation of the kiln and the current emission levels that were determined from the 1991 BACT analysis (VOC concentration of 104 ppmdv @ 10% O_2).

6.4.6 BACT for Total Reduced Sulfur Compounds

A summary of the TRS data obtained from the RBLC search is identified in Table C-13. TRS emissions from Lime Kilns are typically controlled by proper kiln design, operation and process controls (i.e., control of the gas exit O_2 concentration and cold end temperature). The TRS entries are typically provided in units of ppmdv @ 10% O_2.

6.4.6.1 Proposed BACT for Total Reduced Sulfur Compounds

The Pensacola Mill proposes that BACT for TRS for the Lime Kiln/Mud Dryer be proper design, operation, and process controls of the kiln and the current emission levels that were determined from the 1991 BACT analysis (TRS concentration of 8 ppmdv @ 10% O_2).

6.5 KAMYR DIGESTER SYSTEM AND NO. 2 MULTIPLE EFFECT EVAPORATOR SET BACT ANALYSIS

The only PSD-regulated pollutants emitted from the digester and evaporator systems are VOC and TRS. There are only RBLC entries for VOC and TRS from the Kamyr Digester System and TRS from the No. 2 Multiple Effect Evaporator Set. Therefore, a BACT analysis is required for these pollutants and their respective units. A search of entries for control determinations for Kraft pulp and paper mill digester systems, evaporator systems and NCG handling systems was performed using the RBLC and the CARB BACT Clearinghouse. The results of the searches are summarized in Tables C-14 throughC-16.

Three additional internet sites maintained by state regulatory agencies were identified and reviewed for BACT guidance and/or determinations pertaining to Kraft pulp and paper mills; however, none of the web sites contained any guidance or determinations pertaining to pulp and paper mill digester systems. Summaries of the VOC and TRS BACT evaluations are provided in the subsections below.

6.5.1 BACT for Volatile Organic Compounds and Total Reduced Sulfur Compounds

The control techniques identified in the EPA RBLC and the CARB BACT Clearinghouse for control of emissions from pulp mill digester systems, evaporator systems and NCG handling systems are routing the digester and evaporator NCGs to an add-on thermal oxidation unit or to other treatment units for thermal oxidation. The Mill currently collects the LVHC gases from the Kamyr Digester System and the No. 2 Multiple Effect Evaporator Set and controls them with the use of a dedicated Thermal Oxidizer.

6.5.1.1 Proposed BACT for Volatile Organic Compounds and Total Reduced Sulfur Compounds

Since the Mill will continue to control the emissions with the Thermal Oxidizer, and thermal oxidation is the most stringent VOC and TRS control technology available, no further technical or economic discussion is required. The Mill believes that collecting the Kamyr Digester System and the No. 2 Multiple Effect Evaporator Set gases and routing them to the Thermal Oxidizer for thermal oxidation constitutes BACT for VOC and TRS.

In addition, the NESHAP for pulp and paper mills (40 CFR Part 63, Subpart S) stipulates that controlling the Digester and Evaporator Systems and venting them to a closed-vent system routed to a treatment unit (e.g., thermal oxidizer) constitutes Maximum Achievable Control Technology (MACT). Since the control device satisfies the MACT requirements and meets the BACT level of control provided in the RBLC, the Mill believes that collection of the Kamyr Digester System and the No. 2 Multiple Effect Evaporator Set LVHC gases and thermal oxidation of these gases in the NCG incinerator or back-up system constitutes BACT for VOC and TRS.

6.6 LIME SLAKER BACT ANALYSIS

The only PSD-regulated pollutants emitted from the Lime Slaker are PM/PM_{10}, VOC and TRS. Therefore, a BACT analysis is required for these pollutants. IP reviewed the RBLC and found limited information and entries available for lime slakers. The Pensacola Mill Lime Slaker is equipped with a wet scrubber that is used primarily as a PM/PM_{10} control device.

6.6.1 BACT for PM/PM_{10}

A summary of the PM/PM_{10} data obtained from the RBLC search is provided in Table C-17. The control alternatives summarized include various wet scrubbers. PM/PM_{10} BACT levels are provided in terms of lb/hr and range from 0.73 – 12 lb/hr.

6.6.1.1 Proposed PM/PM_{10} BACT

IP believes that the current control configuration represents BACT level of control. IP proposes to that BACT for PM/PM_{10} from the Lime Slaker is the application of a wet scrubber and meeting the existing 1.59 lb/hr limit.

6.6.2 BACT for Volatile Organic Compounds

A summary of the VOC data obtained from the RBLC search is provided in Table C-18. There is one entry and it identifies a wet scrubber as the control alternatives. The VOC BACT level is provided in terms of 3.8 lb/hr.

6.6.2.1 Proposed Volatile Organic Compound BACT

IP believes that the current control configuration represents BACT level of control. IP proposes to that BACT for VOC from the Lime Slaker is the application of a wet scrubber and establishing a new emission limit. IP reviewed the available NCASI data and utilized an emission factor from NCASI Technical Bulletin 676. To be conservative, IP included a 20% safety factor on the emission factor (0.049 lb/ton CaO) to establish a new 1.2 lb/hr limit.

6.6.3 BACT for Total Reduced Sulfur Compounds

A summary of the PM/PM_{10} data obtained from the RBLC search is provided in Table C-19. The control alternatives include the use of a wet scrubber and venting of the gas stream to an NCG control device. TRS BACT levels are provided in terms of 0.14 lb/hr for the wet scrubber and an outlet concentration of 5 ppmdv for the NCG Incinerator/Lime Kiln.

6.6.3.1 Proposed Total Reduced Sulfur BACT

IP believes that the current control configuration represents BACT level of control. IP proposes to that BACT for TRS from the Lime Slaker is the application of a wet scrubber and establishing a new emission limit. . IP reviewed the available NCASI data and utilized an emission factor from NCASI Technical Bulletin 849. To be conservative, IP included a 20% safety factor on the emission factor (0.054 lb/ton CaO) to establish a new 1.3 lb/hr limit.

6.7 POST O_2 PRESS BACT ANALYSIS

The only PSD-regulated pollutants emitted from the Post O_2 Press are VOC and TRS. Therefore, a BACT analysis is required for these pollutants. IP reviewed the RBLC and found that there are no entries available for post oxygen presses. As a result, the current BACT analysis defines BACT as no control.

6.7.1 BACT for Volatile Organic Compounds

IP reviewed the readily available industry databases and identified units similar to the proposed IP Post O_2 Press that have test data for VOCs. The average VOC test data (from NCASI TB 675, Mill N) is 0.075 lb/ADTBP, reported as C from Method 25A.

6.7.1.1 Proposed Volatile Organic Compound BACT

IP believes that the current control configuration represents a BACT level of control. IP reviewed the available NCASI data and utilized an emission factor from NCASI Technical Bulletin 675. To be conservative, IP included a 20% safety factor on the emission factor (0.091 lb/ton ADTBP) to establish a new 3.6 lb/hr limit.

6.7.2 BACT for Total Reduced Sulfur Compounds

IP reviewed the readily available industry databases and identified units similar to the proposed IP Post O_2 Press that have test data for TRS. The average TRS test data (from NCASI TB 849, Mill N) is 0.0045 lb/ADTBP.

6.7.2.1 Proposed Total Reduced Sulfur BACT

IP believes that the current control configuration represents BACT level of control. As discussed above, IP will collect and treat this gas stream as part of the MACT I, Phase II efforts. Currently, IP proposes to that BACT for TRS from the Post O_2 Press is no control. IP reviewed the available NCASI data and utilized an emission factor from NCASI Technical Bulletin 849. To be conservative, IP included a 20% safety factor on the emission factor (0.0054 lb/ton ADTBP) to establish a new 0.21 lb/hr limit until the unit is collected and treated as part of MACT I, Phase II.

7. AIR QUALITY MODELING ANALYSIS

As indicated in previous sections of this application, IP is proposing to make changes at the Pensacola, Florida Mill that will qualify as "major modifications" as described in the PSD regulations. Since the changes are "major modifications" and will result in a significant increase in emissions above current baseline emission levels, an air quality modeling study has been performed. The air quality modeling study was conducted to demonstrate that emissions from the Mill will not result in a violation of the NAAQS, Florida air quality standards, and PSD increments and will not adversely impact air quality related values (AQRVs) at the Breton Wilderness Class I area or at Class II areas surrounding the Mill.

As part of the air quality modeling study, IP prepared an air quality modeling protocol to document the air quality modeling approach and technical information that were part of the air quality modeling effort. Additionally, IP contacted Florida DEP and EPA Region IV air quality modeling personnel to discuss various aspects of the air quality modeling approach. The Federal Land Manager for the Breton Wilderness area was also contacted to review which AQRVs were critical to the Breton Class I area.

The air quality modeling study is described in detail in the following subsections. Specifically, information concerning the Mill's background, the emissions inventories, technical air quality modeling approach, air quality modeling results, Class I AQRV analysis, and Class II impacts are provided as outlined.

Section 7.1	Background Information for the Mill
Section 7.2	Project, Mill-Wide, and Local Emissions Inventories
Section 7.3	Air Quality Modeling Approach and Technical Information
Section 7.4	Significance, NAAQS and PSD Air Quality Modeling Results
Section 7.5	Class I AQRV Analysis
Section 7.6	Class II Impacts

7.1 BACKGROUND INFORMATION FOR THE MILL

The Mill is being modified to realize pulping capability that the Mill currently has, but is not able to achieve due to limitations with selected process units. The production of additional pulp will allow the Mill to make more paper. In order to produce more paper, several emission units at the Mill will need to be modified. Specifically, the No. 1 and No. 2 Recovery Furnaces at the Mill will be modified as part of the proposed project. Other Mill emission units may also be modified including the No. 2 Evaporator Set, the Lime Kiln/Lime Mud Dryer, Continuous Digester System, Lime Slaker, Bleach Plant System and other minor process equipment. In addition, a new Causticizer may be installed as a result of the proposed project.

7.1.1 Mill History

The Pensacola Mill was built in 1941 by the Pensacola Pulp and Paper Company. The Mill was subsequently purchased by St. Regis Paper Company and then by Champion International Corporation. In 2000, IP purchased Champion International Corporation. The Mill has undergone many modifications over the years. In July 1979, the first PSD permit for the Mill was submitted and involved a mill expansion that was projected to result in a significant increase in particulate matter emissions. In October 1979, another PSD permit was submitted that involved the No. 4 Power Boiler. The submittal of the 1979 PSD applications triggered the minor source baseline date for SO_2, and PM/PM_{10}. In February 1991, the Mill submitted a PSD application for a natural gas-fired boiler that established the minor source baseline date for NO_2. The most recent PSD projects at the Mill were the Lime Kiln/Mud Dryer project and the Alkaline Conversion project that were constructed in 1993 and 1998, respectively. During the past five years there has been one minor NSR permitting project that included the installation of the Thermal Oxidizer which qualified as a pollution control project.

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 as designated in the July 2002 Code of Federal Regulations.

7.2 SUMMARY OF THE PROJECT, MILL-WIDE, AND LOCAL EMISSIONS INVENTORIES

The air quality modeling analysis required the development of multiple emissions inventories. These emission inventories included project-only emissions, mill-wide permitted and PTE emissions, mill-wide PSD increment consuming emissions, local source permitted and PTE emissions, and local source PSD increment consuming emissions. In addition to the emissions inventory, an inventory of the physical characteristics for the stack sources and fugitive emission sources at the Mill was developed. A description of each emissions inventory is provided in the following subsections.

7.2.1 Project-Only Emissions Inventory

As a part of the PSD project evaluation, the emission increases associated with the project were determined. The project-specific emissions inventory was used to determine if the emissions from the proposed project resulted in ambient air concentrations above the PSD significance levels. The project-specific emission inventory was used for the Class I AQRV analysis and for the assessment of the additional Class II impacts (e.g., acidification of soil and rainfall, effects on vegetation, etc.). As part of the project-specific emission inventory, emissions from the Thermal Oxidizer pollution control project, which was a contemporaneous project, were also included.

The project emission inventory represents the change in emissions associated with the project. To determine the change in emissions, baseline emissions and future emissions were determined and the differences calculated. Baseline emissions were determined using Mill production data for the January 1998 through December 1999 period. The project emission inventory includes "modified" emission units (emission units that will be physically modified or experience a change in the method of operation) and "affected" emission units (emission units that will not be physically modified or experience a change in the method of operation but that will see a change in emissions due to higher process throughput or utilization).

For sources that are modified, the project emissions represent the difference between the January 1998 through December 1999 actual emissions and the proposed or existing PTE for the modified emission unit. This difference was calculated on an annual averaging basis as well as a short-term basis. Emission units that are "affected" will experience an incremental change in emissions above the baseline emissions as a result of the project. For example, the increase in BLS firing at the No. 1 and No. 2 Recovery Furnaces will result in an increased pulping capacity for the Mill and will increase the wood/chip throughput in the woodyard. Mill engineering studies were used to determine the percentage increase at the woodyard above current actual emissions. The incremental changes in emissions for affected emissions units were included as project emissions. The proposed approach to calculating project-related emissions was reviewed and approved by Florida DEP air quality engineers.

The annual and short-term project related emission increases from modified and affected emission units are summarized in Table 7-1. Also shown in Table 7-1 are the PSD significant annual emission increase levels. According to Table 7-1, the Mill will experience a significant emissions increase for PM_{10}, NO_X, SO_2, CO. Therefore "significance" air quality modeling was performed for these four pollutants. The results of the significance analysis are discussed in Section 7.4.

Emissions of TRS, H_2SO_4, and VOC were not evaluated with air dispersion models since there are either no applicable ambient air quality standards (i.e., TRS and H_2SO_4) or acceptable air quality modeling techniques (i.e., VOC). Project-related VOC emissions were semi-quantitatively evaluated for their potential impact on ozone levels using the method developed by Scheffe and described in Section 7.6.3.

In the course of calculating the PM_{10} emissions due to the project, there are instances where PM_{10} emission data were not available and thus all particulate matter was assumed to be PM_{10}. This assumption results in a conservative estimate of the actual PM_{10} emissions and resulting ambient air concentrations.

Table 7-1
Project Related Emissions
IP Mill
Pensacola, Florida

Source	Short-Term and Long-Term Project Related Emission Rates					
	SO_2 lb/hr and tpy		NO_X tpy	CO lb/hr	PM_{10} lb/hr and tpy	
Lime Mud Dryer	3.89	26.23	276.13	[a]	[a]	71.44
No. 1 Recovery Furnace	33.10	595.03	223.29	5.44	18.06	-1.07
No. 2 Recovery Furnace	33.10	614.43	318.88	5.44	0.56	57.81
No. 1 Smelt Tank	0.04	0.19	na	na	6.64	80.61
No. 2 Smelt Tank	0.04	0.30	na	na	4.79	89.83
Thermal Oxidizer [b]	5.71	25.0	39.9	6.80	1.00	4.4
A-Line Bleach Plant	na	na	na	1.91	na	na
B-Line Bleach Plant	na	na	na	1.53	na	na
No. 1 Starch Silo	na	na	na	na	0.007	0.031
No. 2 Starch Silo/Clay Silo	na	na	Na	na	0.013	0.057
Dry Additives	na	na	na	na	0.015	0.066
Woodyard	na	na	na	na	0.98	4.29
Project Totals		**1236.17**	**818.30**	**110.54** [c]		**320.74**
PSD Significance Levels		**40 tpy**	**40 tpy**	**100 tpy**		**15 tpy**

(a) No short-term emission increase is projected over the baseline peak short-term emissions
(b) The emissions from the thermal oxidizer are reflective of the pollution control project, which is a contemporaneous project. The thermal oxidizer emissions represent the permitted emission rates for this emissions unit.
(c) Emission rate is in units of tons per year.
na = not applicable

7.2.2 Mill-Wide Emission Inventory

As detailed in Section 7.4.1, emissions from the proposed project will result in ambient air concentrations that are greater than the PSD ambient air significance levels for SO_2, PM_{10}, and NO_2. Consequently, a mill-wide emission inventory was developed for these three pollutants. The mill-wide emission inventory was used to demonstrate compliance with the NAAQS, Florida air quality standards, and PSD increments for the applicable pollutants.

For the NAAQS and Florida air quality standards analyses, maximum short-term emission rates were used to demonstrate compliance with short-term air quality standards and the maximum annual emission rates were used for demonstrating compliance with the annual air quality standards. Maximum emission rates were based on permit limits or an emissions unit's maximum capacity and a worst-case emission factor. A summary of the permitted or maximum PTE emission rates for all of the emission units at the Mill is provided in Tables 7-2, 7-3, and 7-4 for SO_2, PM_{10}, and NO_X respectively.

For the PSD increment analysis, PSD emission rates were used for each emission unit. The PSD emission rate reflects the difference in emission levels from the minor source baseline dates (1979 for SO_2 and PM_{10} and 1991 for NO_2) and the actual current emissions during the 2001 and 2002 period. For emission units that will have new permitted emission rates as a result of the project, the PSD emission rate is the difference between the baseline emission rate and the new permitted emission rate. It should be noted that based on statements in the October 1979 PSD application, the Mill believes that there were no increases in actual SO_2 or PM_{10} emission resulting from Mill construction projects between the major source baseline date and the dates that the two 1979 PSD permit application were submitted. Similarly, the Mill believes that there was no increase in NO_X emissions due to construction projects between the major source NO_2 baseline date and the 1991 minor source baseline date. The Mill PSD increment consuming emission rates are provided in Table 7-5.

Table 7-2
SO_2 NAAQS Emission Rates for Sources
at the International Paper Company
Pensacola, Florida

Emission Unit	ISCST3 Modeling ID	SO_2 Emission Rate (g/sec)	Basis for Emission Rate
No. 3 Power Boiler	BOILER3	25.043	.75 lb/MMBtu & 268 MMBtu/hr
No. 4 Power Boiler	BOILER4	37.838	.55 lb/MMBtu & 546 MMBtu/hr
No. 5 Power Boiler	BOILER5	0.0147	0.0006 lbs/MMBtu & 195 MMBtu/hr
No. 6 Power Boiler	BOILER6	0.0633	0.00094 lbs/MMBtu & 533 MMBtu/hr
Thermal Oxidizer	INCIN	0.7182	5.7 lb/hr permit limit
Lime Mud Dryer	LMUDDRY	0.8177	6.49 lb/hr permit limit
No. 1 Recovery Furnace	RECVRY1	19.02	151 lb/hr permit limit
No. 2 Recovery Furnace	RECVRY2	19.02	151 lb/hr permit limit
No. 1 Smelt Tank	SMELT1	0.0468	0.006 lb/ton BLS & 61.875 tons BLS/hr
No. 2 Smelt Tank	SMELT2	0.0468	0.006 lb/ton BLS & 61.875 tons BLS/hr

Note: The No. 3 and No. 4 Power Boiler SO_2 emissions rates are new, proposed emission rates. The lb/MMBtu and MMBtu/hr factors are provided for reference purposes only and are not intended to represent limits.

Table 7-3
PM_{10} NAAQS Emission Rates for Sources at the International Paper Company Pensacola, Florida

Emission Unit	ISCST3 Modeling ID	PM_{10} Emission Rate (g/sec)	Basis for Emission Rate
No. 3 Power Boiler	BOILER3	4.372	0.1 lbs/MMBtu & 347 MMBtu/hr
No. 4 Power Boiler	BOILER4	8.392	0.1 lbs/MMBtu & 666 MMBtu/hr
No. 5 Power Boiler	BOILER5	0.1852	0.0075 lbs/MMBtu & 195 MMBtu/hr
No. 6 Power Boiler	BOILER6	0.3364	0.005 lbs/MMBtu & 533 MMBtu/hr
Thermal Oxidizer	INCIN	0.126	1.0 lb/hr permit limit
Lime Mud Dryer	LMUDDRY	1.633	12.96 lb/hr permit limit
No. 1 Recovery Furnace	RECVRY1	3.697	0.021 grains/dscf & 163,000 dscf/min
No. 2 Recovery Furnace	RECVRY2	4.012	0.021 grains/dscf & 176,900 dscf/min
No. 1 Smelt Tank	SMELT1	1.559	.2 lb/ton BLS & 61.875 tons BLS/hr
No. 2 Smelt Tank	SMELT2	1.559	.2 lb/ton BLS & 61.875 tons BLS/hr
Pine Chip Fines Cyclone	CYCLON1	0.07938	permit limit
Pine Chip No. 1 Cyclone	CYCLONFI	0.00076	permit limit
Air Density Separator	AIRSEP	0.02646	permit limit
Lime Slaker	SLAKVENT	0.2003	1.59 lbs/hr permit limit
No. 1 Starch Silo	STSILO	0.00857	permit limit
No. 2 Starch Silo	STSILO2	0.00857	permit limit
Coal Crusher Vent	CRUSHVNT	0.045	Title V emission rate
Coal Bunker	CBUNKER	0.1449	Title V emission rate
Dry Additive	DRYADD	0.1336	0.05 grains/dscf & 2475 dscf/min
Clay Silo	CLAYSILO	0.00857	permit limit
Chip Pile	PINECHIP	0.203	AP-42 calculations
	HARDCHIP	0.0547	AP-42 calculations
Coal Pile	COALPIL1	0.342	AP-42 calculations
	COALPIL2	0.396	AP-42 calculations
Ash Pile	ASHPILE	0.487	AP-42 calculations
Bark Pile	WASTEWD	0.0769	AP-42 calculations
Roadways	R1-R321	1.111	AP-42 calculations for paved/unpaved roads

Table 7-4
NO_X NAAQS Emission Rates for Sources at the International Paper Company Pensacola, Florida

Emission Unit	ISCST3 Modeling ID	NO_X Emission Rate (g/sec)	Basis for Emission Rate
No. 3 Power Boiler	BOILER3	23.69	.7 lb/MMBtu & 236 MMBtu/hr
No. 4 Power Boiler	BOILER4	48.13	.7 lb/MMBtu & 546 MMBtu/hr
No. 5 Power Boiler	BOILER5	2.46	0.1 lb/MMBtu & 195 MMBtu/hr
No. 6 Power Boiler	BOILER6	4.03	0.06 lb/MMBtu & 533 MMBtu/hr
Thermal Oxidizer	INCIN	1.147	9.1 lb/hr permit limit
Lime Mud Dryer	LMUDDRY	6.212	49.30 lb/hr permit limit
No. 1 Recovery Furnace	RECVRY1	16.184	110 ppm & 163,000 dscf/min
No. 2 Recovery Furnace	RECVRY2	17.56	110 ppm & 176,900 dscf/min

Table 7-5
PSD Increment Emission Rates for Sources
at the International Paper Company
Pensacola, Florida

Emission Unit	ISCST3 Modeling ID	PM_{10} Increment Emission Rate (g/sec)	SO_2 Increment Emission Rate (g/sec)	NO_x Increment Emission Rate (g/sec)
No. 3 Power Boiler	BOILER3	2.029	20.682	0.000
No. 4 Power Boiler	BOILER4	6.136	12.623	0.000
No. 5 Power Boiler	BOILER5	0.033	0.015	0.219
No. 6 Power Boiler	BOILER6	0.015	0.063	0.938
Thermal Oxidizer	INCIN	0.126	0.630	1.147
Lime Mud Dryer	LMUDDRY	1.633	0.818	4.386
No. 1 Recovery Furnace	RECVRY1	3.698	19.030	6.350
No. 2 Recovery Furnace	RECVRY2	4.012	19.030	9.395
No. 1 Smelt Dissolving Tank	SMELT1	1.559	0.047	na
No. 2 Smelt Dissolving Tank	SMELT2	1.559	0.047	na
Pine Chip Fines Cyclone	CYCLONF1	0.07938	na	na
Pine Chip No. 1 Cyclone	CYCLON1	0.00076	na	na
Air Density Separator	AIRSEP	0.02646	na	na
Lime Slaker	SLAKVENT	0.2003	na	na
No. 1 Starch Silo	STSILO	0.00857	na	na
No. 2 Starch Silo	STSILO2	0.00857	na	na
Coal Crusher Vent	CRUSHVNT	0.045	na	na
Coal Bunker	CBUNKER	0.1449	na	na
Dry Additive	DRYADD	0.1336	na	na
Clay Silo	CLAYSILO	0.00857	na	na
Baseline No. 3 Power Boiler	EBOILER3	0.000	-3.682	na
Baseline No. 1 Recovery Furnace	ERECVRY1	-4.406	-14.570	0.000
Baseline No. 2 Recovery Furnace	ERECVRY2	-3.75	-14.194	0.000
Decommissioned No. 1 Boiler	BOILER1	-0.058	-0.109	0.000
Decommissioned No. 2 Boiler	BOILER2	-0.039	-0.007	0.000
Decommissioned Calciner	CALCIN	-0.282	-0.022	0.000
Decommissioned Lime Kiln	LIMEKILN	0.000	-0.054	0.000
Baseline No. 1 Smelt Tank	ESMELT1	-2.243	0.000	na
Baseline No. 2 Smelt Tank	ESMELT2	-1.373	0.000	na

Note: The No. 3 and No. 4 Power Boilers have not undergone any changes since the 1988 major source NO_2 baseline date and thus the actual emissions from these two sources are esentially the same and do not consume any NO_2 increment.

As shown in Table 7-5, there are several emission units that are increment expanding sources. The shutdown of the No. 1 and No. 2 boilers and the Lime Kiln and Calciner at the Mill resulted in a net decrease in actual SO_2, PM_{10}, and NO_X emissions. Additionally, the No. 1 Recovery Furnace will lower actual PM_{10} emissions relative to the minor source baseline date. The Mill also estimates that actual levels of fugitive PM_{10} emissions have decreased due to improved dust suppression activities as well as paving of previous unpaved road. No credit for the decrease in actual fugitive emissions has been included in the PM_{10} increment analysis.

7.2.3 Physical Emission Characteristics

A listing of the physical emission characteristics for all of the Mill emissions units is provided in Table 7-6. Physical emission characteristics have been summarized for stack sources as well as fugitive emission sources. Physical stack characteristics include such information as source location, release height, stack temperature, stack diameter and stack exit velocity. Any stacks that are inverted or have a raincap were evaluated with a 0.01 meter per second (m/sec) exit velocity. Fugitive emission sources have been characterized differently than the stack sources as described below.

Fugitive emission sources at the Mill include roadways and storage piles. Since all of the fugitive emission sources have an initial dispersion associated with them (e.g., wakes created by trucks result in an initial dispersion of emissions), the fugitive emission sources were characterized as volume sources. EPA guidance contained in Section 1.2.2 of the "Industrial Source Complex (ISC) Model User's Guide – Volume II" (USEPA 1995) was used to determine the appropriate variables to characterize the volume sources.

There are several types of storage piles at the Mill including chip piles, coal piles, and ash piles. For these storage piles the sigma y (σ_y) and the sigma z (σ_z) values were based on the actual dimensions of respective pile. The σ_y values were based on the lateral dimensions divided by 4.3 if the pile was represented by a single volume source or 2.15 if the pile was represented by

Table 7-6
Summary of Physical Stack Characteristics
and Volume Source Characterizations
International Paper Company
Pensacola, FL

Source	ISCST3 Stack ID	Stack Location (UTM Coordinates NAD 27)		Stack Elevation (meters)	Stack Height (meters)	Stack Exit Velocity (meters/sec)	Stack Temperature (degrees K)	Stack Diameter (meters)
No. 3 Power Boiler	BOILER3	469,182	3,385,726	42.7	65.00 [(a)]	7.620	335.8	2.44
No. 4 Power Boiler	BOILER4	469,236	3,385,715	42.7	67.36	10.210	335.2	3.66
No. 5 Power Boiler	BOILER5	469,199	3,385,809	42.7	14.33	26.270	533.0	1.22
No. 6 Power Boiler	BOILER6	469,148	3,385,726	42.7	38.10	14.420	449.8	2.59
Coal Bunker	CBUNKER	469,235	3,385,760	42.7	10.67	0.001	298.0	1.01
Coal Crusher Vent	CRUSHVNT	469,301	3,385,558	42.7	30.48	0.001	298.0	1.01
Pine Chip Fines Cyclone	CYCLON1	468,998	3,385,505	42.7	13.72	1.220	298.0	0.91
Pine Chip No. 1 Cyclone	CYCLONFI	468,998	3,385,532	42.7	9.14	4.910	298.0	0.61
Dry Additive	DRYADD	469,220	3,385,859	42.7	10.70	16.150	310.8	0.31
Lime Mud Dryer	LMUDDRY	469,280	3,385,515	42.7	41.45	8.750	342.3	1.98
No. 1 Recovery Furnace	RECVRY1	469,323	3,385,736	42.7	55.41	27.18	516.3	2.74
No. 2 Recovery Furnace	RECVRY2	469,303	3,385,721	42.7	55.41	27.18	499.7	2.74
Lime Slaker	SLAKVENT	469,228	3,385,592	42.7	27.43	15.240	360.8	0.70
No. 1 Smelt Tank	SMELT1	469,307	3,385,758	42.7	52.4	10.98	349.7	1.22
No. 2 Smelt Tank	SMELT2	469,286	3,385,743	42.7	52.4	10.60	355.2	1.22
No. 1 Starch Silo	STSILO	469,169	3,385,905	42.7	24.38	11.580	298.0	0.21
No. 2 Starch Silo	STSILO2	469,182	3,385,900	42.7	24.38	11.580	298.0	0.21
Clay Silo	CLAYSILO	469,172	3,385,888	42.7	24.38	11.580	298.0	0.21
Thermal Oxidizer	INCIN	469,294	3,385,689	42.7	30.48	8.130	319.3	0.91
Air Density Separator	AIRSEP	468,973	3,385,540	42.7	18.29	21.880	298.0	0.61
A-Line Bleach Plant	BPSTACKA	469,013	3,385,695	42.7	29.8	16.460	310.8	0.61
B-Line Bleach Plant	BPSTACKB	469,008	3,385,652	42.7	29.70	15.540	310.8	0.53

Source	ISCST3 Fugitive Source ID	Fugitive Source Location (UTM Coordinates NAD 27)	Source Elevation (meters)	Initial Sigma Z (meters)	Initial Sigma Y (meters)	Release Height (meters)
Roadways	Road 1-n	Multiple	42.7	1.42	11.34	1.52
Chip Pile	PINECHIP	Multiple	42.7	4.25	23.8	4.57
	HARCHIP	Multiple	42.7	7.09	10.6	7.62
Coal Pile	COALPIL1	Multiple	42.7	3.53	5.33	3.80
	COALPIL2	Multiple	42.7	3.53	5.33	3.80
Ash Pile	ASHPILE	Multiple	42.7	1.42	83.4	1.53
Bark Pile	WASTEWD	Multiple	42.7	1.42	47.7	1.53

[(a)] The No. 3 Power Boiler will experience an increase in stack height from 45.11 meters to 65 meters.

multiple volume sources. In all instances involving volume sources that are rectangular in shape, the minimum lateral volume source dimension was used to calculate the σ_y. The minimum lateral dimension will result in a conservative estimate of the initial plume dispersion and result in higher downwind concentrations. The σ_z for storage piles was determined by taking the height of the pile and dividing by 2.15. The release height for each storage pile volume source was determined by multiplying the actual pile height by one-half.

Emissions from roadway sources were also represented as a volume sources. The initial σ_y of the roadway volume sources was based on the typical roadway width of 12.19 meters (40 feet). Multiple volume sources were used to represent the entire length of the roadway. In order to manage the number of roadway volume sources and still provide a spatial representation of the roadways, the roadway volume sources were spaced apart by 24.38 meters (i.e., twice the lateral dimension). The 24.38 meter distance was measured from the center of each volume source to the neighboring volume source. The initial σ_z was based on a truck height of 3.05 meters (10 feet). The release height of the roadway sources was one-half of the truck height or 1.52 meters (5 feet).

7.2.4 Local Emission Inventory

An emission inventory of local sources was required based on the outcome of the significance air quality modeling analyses. As documented in Section 7-4, emissions from the proposed project and the contemporaneous project cause ambient air concentrations that exceed the PSD ambient air significance levels for SO_2, PM_{10}, and NO_2. Florida DEP and Alabama Department of Environmental Management (ADEM) were contacted to obtain information on sources that have emissions of SO_2, PM_{10}, and NO_X and that are within the SIA plus a 50 kilometer buffer. The listings of emission sources provided by Florida DEP and ADEM are provided in Appendix D.

Since the local emission inventory included many small or distant facilities, a screening approach was used to eliminate these insignificant sources of emissions. A "20D" approach, which has been accepted by Florida DEP and EPA Region IV, was used to screen out small and distant facilities on a pollutant by pollutant basis. Facilities were excluded from the local source emission inventory if, for a particular pollutant, the annual permitted facility pollutant emissions are less than 20 times the distance between the source and the Pensacola Mill. For example, if a facility has total annual PM_{10} emissions of 150 tons per year (tpy) and the source was located 8 km from the Pensacola Mill, it will not be necessary to include the source since 20 times the distance between the sources is 160 km and the total annual emissions are only 150 tpy. It should be noted that any emission source that is located within the SIA for a particular pollutant was included in the local source emission inventory regardless of its annual emissions or distance from the Pensacola Mill. The summary of local emission sources that were included in the NAAQS, Florida air quality standards, and PSD increments air quality modeling analyses are provided in Tables 7-7, 7-8, and 7-9 for SO_2, PM_{10}, and NO_X respectively.

There are several items to note in these three tables concerning the physical emission characteristics as well as pollutant emission rates. Information for several emissions units at various facilities did not include all of the physical stack characteristics. Where stack information was missing, representative physical stack characteristics were employed in the air quality modeling analysis. These representative stack characteristics have been bolded in the tables. Additionally, for several emissions units listed in the Florida local emission inventory, PTE or permitted emission rates were not available and thus actual reported emission rates were used in the air quality modeling study. The highest actual emission rate for the two years of data provided (2000 and 2001) was used in the air quality modeling analysis.

Also to reduce the number of emission sources included in the air quality modeling analysis, similar emissions sources from a facility were often combined into a single, surrogate source. When multiple sources were combined, the pollutant emission rates were summed for the surrogate source. The stack characteristics for the surrogate source represented the worst case characteristics from all of the sources combined. For example, if four emission units were combined into a single source, the shortest stack height from the four sources was assigned to the

Table 7-7
Local SO_2 NAAQS and PSD Emissions Inventory Summary
International Paper Company
Pensacola, Florida

Sources [a]	ISC ID	UTM Easting (meters)	UTM Northing (meters)	Base Elevation (meters)	SO_2 NAAQS Emission Rate (g/sec)	SO_2 PSD [b] Emission Rate (g/sec)	Stack Height (meters)	Stack Temperature (degrees K)	Exit Velocity (meters/sec)	Stack Diameter (meters)
SOLUTIA INC.										
	SOL2	476,010	3,384,990	14.8	0.006 [c]	0	18.29	497.04	28.65	1.219
	SOL3_4	476,010	3,384,990	14.8	0.019	0.0142	38.1	383.15	10.36	3.658
	SOL5	476,010	3,384,990	14.8	0.0006 [c]	0.0006	38.1	428.15	5.49	0.823
	SOL7_13	476,010	3,384,990	14.8	3.28 [c]	3.28	38.1	428.15	6.1	0.823
	SOL14_16	476,010	3,384,990	14.8	230.9	28.682	45.72	455.37	10.67	3.048
	SOL32	476,010	3,384,990	14.8	0.402 [c]	0.402	30.48	422.04	22.86	4.572
	SOL75	476,010	3,384,990	14.8	0.02	0	38.1	428.15	8.53	0.823
	SOL76	476,010	3,384,990	14.8	0.143	0	38.1	343.15	31.68	1.067
GULF POWER COMPANY										
	GPC1_5	478,261	3,381,360	2.4	1366.1	241.26	130.53	416	16	5.49
	GPC6_7	478,270	3,381,360	2.4	5662.81	1,100.58	137.16	433	29.6	7.07
EXXON/MOBIL PRODUCTION COMPANY										
	EXM34	482,870	3,416,040	2.4	126.126	92.77	76.2	755.37	15	0.914
	EXM35	482,870	3,416,040	2.4	157.5	5.89	35.66	1273.15	40	0.914
	EXM38_44	482,870	3,416,040	2.4	1.98 [c]	1.98	9.14	699.82	24.11	0.305
ADEM Sources										
	502005	489,500	3,437,800	30.78	0.2	na	22.86	345.93	13.18	1.01
	502004	489,500	3,437,800	30.78	0.2	na	22.86	347.04	12.78	1.01
	50215E	489,500	3,437,800	30.78	38.71	0.68	64.92 [d]	500.93	15.79	2.29
	50215W	489,500	3,437,800	30.78	38.71	0.68	64.92 [d]	500.93	15.79	2.29
	50203S	489,500	3,437,800	30.78	8.08	na	64.92 [d]	487.59	11.67	2.38
	502001	489,500	3,437,800	30.78	139.53	11.51	64.92 [d]	424.82	19.43	3.66
	502002	489,500	3,437,800	30.78	205.18	na	64.92 [d]	412.59	9.85	3.66
	50203N	489,500	3,437,800	30.78	8.08	na	64.92 [d]	487.59	11.67	2.38
	502304A	475,000	3,432,500	71.63	0.83	0.83	9.75	722.04	12.52	0.46
	502304B	475,000	3,432,500	71.63	0.83	0	9.75	722.04	12.52	0.46
	502304C	475,000	3,432,500	71.63	0.83	0	9.75	722.04	12.52	0.46
	502F501	475,000	3,432,500	71.63	288.54	na	64.92 [d]	722.04	4.64	1.93
	502FL01	475,000	3,432,500	71.63	25.2	na	29.26	1255.37	121.94	0.36
	502PB1	475,000	3,432,500	71.63	7.4	na	10.97	644.26	17.52	1.58
	50271_4	465,300	3,436,400	79.25	195.56	97.78	9.14	574.82	14.38	0.46
	5027009	465300	3436400	79.25	na	-318.78 [e]	64.92 [d]	455.19	17.03	1.6
	5027010	465300	3436400	79.25	1607.76	431.83	64.92 [d]	449.82	40.63	1.68

[a] Sources listed meet the 20D requirement (i.e., total facilty SO_2 emissions were greater than 20 times the distance between the source and the Pensacola Mill).

[b] PSD emission rates represent the maximum actual annual emissions reported in the 2000/2001 emissions inventory provided by Florida DEP. For the baseline sources (i.e., the sources operating before the minor source bsaeline date), the use of actual emission will conservatively over-estimate the PSD increment consumption since no credit is taken for baseline SO_2 emissions. The emissions inventory provided by Alabama DEM identified increment consumming emissions.

[c] NAAQS emission rate included actual emissions since the actual emissions are greater than the potential emissions listed or no potential/permitted emissions are provided.

[d] GEP stack height was used instead of actual height which is taller than GEP.

[e] PSD increment expansion.

Table 7-8
Local PM_{10} NAAQS and PSD Emissions Inventory Summary
International Paper Company
Pensacola, Florida

Sources [a]	ISC ID	UTM Easting (meters)	UTM Northing (meters)	Base Elevation (meters)	PM_{10} NAAQS Emission Rate (g/sec)	PM_{10} PSD [b] Emission Rate (g/sec)	Stack Height (meters)	Stack Temperature (degrees K)	Exit Velocity (meters/sec)	Stack Diameter (meters)
SOLUTIA INC.										
	SOL2	476,010	3,384,990	14.8	0.58 [c]	0.58	18.29	497.04	28.65	1.219
	SOL3_4	476,010	3,384,990	14.8	0.48 [c]	0.48	38.1	383.15	10.36	3.658
	SOL5_13	476,010	3,384,990	14.8	0.149	0.059	38.1	428.15	5.49	0.823
	SOL14_16	476,010	3,384,990	14.8	7.79 [c]	7.79	45.72	455.37	10.67	3.048
	SOL32	476,010	3,384,990	14.8	0.492 [c]	0.491	30.48	422.04	22.86	4.572
	SOL49	476,010	3,384,990	14.8	0.363 [c]	0.363	27.43	473.71	14.02	1.463
	SOL50_60	476,010	3,384,990	14.8	0.446 [c]	0.289	16.5	299.79	4.51	0.3
	SOL61_73	476,010	3,384,990	14.8	7.364	0.559	7.6	295.35	13.4	0.4
	SOL76	476,010	3,384,990	14.8	0.15	0	38.1	343.15	31.68	1.067
	SOL79	476,010	3,384,990	14.8	0.186	0.026	16.5	298 [e]	70.11	0.3
GULF POWER COMPANY										
	GPC1_5	478,161	3,381,360	2.4	14.408	1.994	130.53	416.48	15.85	5.486
	GPC6_7	478,270	3,381,360	2.4	22.441	8.912	137.16	433.15	29.57	7.071
	GPC9	478,270	3,381,360	2.4	2.146 [c]	0 [f]	10	298 [e]	10	1
	GPC11	478,270	3,381,360	2.4	0.021 [c]	0 [f]	10	477.39	10	1
	GPCA	478,270	3,381,360	2.4	56.51 [c]	0 [f]	16.71	306.5	38.79	12.8
	GPCB	478,270	3,381,360	2.4	50.23 [c]	0 [f]	18.39	305.9	38.79	12.06
	GPCC	478,270	3,381,360	2.4	69.07 [c]	0 [f]	18.39	305.9	38.79	14.15
AIR PRODUCTS AND CHEMICALS, INC.										
	APC1_3	487,000	3,383,400	0	0.736	0.088	12.5	394.14	7.9	1.5
	APC5	487,000	3,383,400	0	0.037	0	11	643.89	19.8	0.2
	APC6_7	487,000	3,383,400	0	0.019	0.0028	7.6	464.53	0.6	0.9
	APC8_10	487,000	3,383,400	0	0.536	0.453	25	435.77	29.6	1.1
	APC11	487,000	3,383,400	0	0.28 [c]	0.28	7.6	449.64	18.9	0.8
	APC14_16	487,000	3,383,400	0	20.937	0.408	15.8	312	11	1.5
	APC22	487,000	3,383,400	0	0.008	0	21.6	449.64	29.9	0.9
	APC23	487,000	3,383,400	0	0.005	0	28.7	444.09	28.7	0.8
	APC26_27	487,000	3,383,400	0	0.792	0.177	4.6	310.89	5.2	0.1
	APC63	487,000	3,383,400	0	5.58 [c]	5.58	10	298 [e]	10	1
ADEM Sources										
	ADEM1	489,500	3,437,800	30.78	15.4	na	64.92 [d]	487.59	11.67	2.38
	ADEM2	489,500	3,437,800	30.78	42.04	1.3	64.92 [d]	412.59	9.85	3.66
	ADEM3	489,500	3,437,800	30.78	1.93	na	64.92 [d]	332.59	5.74	1.52
	ADEM4	489,500	3,437,800	30.78	6.88	na	22.86	345.93	12.78	1.01
	ADEM5	489,500	3,437,800	30.78	2.75	na	33.53	340.37	9.8	0.76
	ADEM6	489,500	3,437,800	30.78	7.66	4.62	64.92 [d]	500.93	15.79	2.29

[a] Sources listed meet the 20D requirement (i.e., total facilty PM_{10} emissions were greater than 20 times the distance between the source and the Pensacola Mill).

[b] PSD emission rates represent the maximum actual annual emissions reported in the 2000/2001 emissions inventory provided by Florida DEP. For the baseline sources (i.e., the sources operating before the minor source bsaeline date), the use of actual emission will conservatively over-estimate the PSD increment consumption since no credit is taken for baseline PM_{10} emissions. The emissions inventory provided by Alabama DEM identified increment consumming emissions.

[c] NAAQS emission rate included actual emissions since the actual emissions are greater than the potential emissions listed or no potential/permitted emissions are provided.

[d] GEP stack height was used instead of actual height which is taller than GEP.

[e] No stack temperature was provided so a 298 degree K was assumed.

[f] Assumed to be baseline sources.

Table 7-9
Local NO_X NAAQS and PSD Emissions Inventory Summary
International Paper Company
Pensacola, Florida

Sources [a]	ISC ID	UTM Easting (meters)	UTM Northing (meters)	Base Elevation (meters)	NO_X NAAQS Emission Rate (g/sec)	NO_X PSD [b] Emission Rate (g/sec)	Stack Height (meters)	Stack Temperature (degrees K)	Exit Velocity (meters/sec)	Stack Diameter (meters)
SOLUTIA INC.										
	SOL2	476,010	3,384,990	14.8	8.899 [c]	8.899	18.29	497.04	28.65	1.219
	SOL3 4	476,010	3,384,990	14.8	5.67	0.888	38.1	383.15	10.36	3.658
	SOL5 13	476,010	3,384,990	14.8	1.95	1.34	38.1	428.15	5.49	0.823
	SOL14 16	476,010	3,384,990	14.8	35.59	30.08	45.72	455.37	10.67	3.048
	SOL32	476,010	3,384,990	14.8	13.43	5.874	30.48	422.04	22.86	4.572
	SOL42	476,010	3,384,990	14.8	23.625	18.636	36.58	428.71	34.14	1.372
	SOL49	476,010	3,384,990	14.8	1.815	1.464	27.43	473.71	14.02	1.463
	SOL75	476,010	3,384,990	14.8	0.388	0.249	38.1	428.15	8.53	0.823
	SOL76	476,010	3,384,990	14.8	5.667	0	38.1	343.15	31.68	1.067
	SOL88	476,010	3,384,990	14.8	0.218 [c]	0.218	19.81	1088.7	40	1.402
GULF POWER COMPANY										
	GPC1 5	478,161	3,381,360	2.4	237.23	75.205	130.53 [d]	416.48	15.85	5.486
	GPC6 7	478,270	3,381,360	2.4	573.31	313.907	137.16	433.15	29.57	7.071
STERLING FIBERS, INC.										
	STERL4 9	489,200	3,380,200	0	20.16 [c]	18.382	15.24	444.3	13.2	1.524
AIR PRODUCTS AND CHEMICALS, INC.										
	APC1	487,000	3,383,400	0	30.279 [c]	29.939	7.62	449.8	0.61	0.244
	APC2	487,000	3,383,400	0	22.79	18.874	4.57	310.9	5.18	0.076
	APC3	487,000	3,383,400	0	14.34	2.896	10.97	394.3	7.92	0.244
	APC4	487,000	3,383,400	0	14.54	9.503	21.64	449.8	29.57	0.914
	APC5	487,000	3,383,400	0	11.13 [c]	9.694	27.43	435.9	30.78	0.762
EXXON/MOBIL PRODUCTION COMPANY										
	EXM37	482,870	3,416,040	0	1.512	0.322	10.67	699.82	17.95	0.762
	EXM38	482,870	3,416,040	0	0.63	0.608	9.14	699.82	24.12	0.305
	EXM40 42	482,870	3,416,040	0	3.805 [c]	3.805	18.29	338.7	10	0.61
	EXM43	482,870	3,416,040	0	10.405 [c]	10.405	9.14	338.7	10	3.81
	EXM44 46	482,870	3,416,040	0	36.25 [c]	36.25	6.71	338.7	10	0.305
SANTA ROSA ENERGY LLC										
	SREC1	488,970	3,381,530	0	26.78	26.78	60.96	369.26	19.23	5.79
GULF POWER COMPANY PEA RIDGE PLANT										
	GPCPR1	486,870	3,384,320	0	22.68	9.543	18.29	435.93	16.61	1.219
ADEM Sources										
	502005	489,500	3,437,800	30.78	1.89	na	22.86	345.93	13.18	1.01
	502004	489,500	3,437,800	30.78	1.89	na	22.86	347.04	12.78	1.01
	50215E	489,500	3,437,800	30.78	11.49	na	64.92	500.93	15.79	2.29
	50215W	489,500	3,437,800	30.78	11.49	na	64.92 [d]	500.93	15.79	2.29
	50203S	489,500	3,437,800	30.78	4.47	na	64.92 [d]	487.59	11.67	2.38
	502001	489,500	3,437,800	30.78	22.91	9.57	64.92 [d]	424.82	19.43	3.66
	502002	489,500	3,437,800	30.78	27.39	na	64.92 [d]	412.59	9.85	3.66
	50203N	489,500	3,437,800	30.78	4.47	na	64.92 [d]	487.59	11.67	2.38

[a] Sources listed meet the 20D requirement (i.e., total facilty NO_X emissions were greater than 20 times the distance between the source and the Pensacola Mill).

[b] PSD emission rates represent the maximum actual annual emissions reported in the 2000/2001 emissions inventory provided by Florida DEP. For the baseline sources (i.e., the sources operating before the minor source bsaeline date), the use of actual emission will conservatively over-estimate the PSD increment consumption since no credit is taken for baseline NO_X emissions. The emissions inventory provided by Alabama DEM identified increment consumming emissions.

[c] NAAQS emission rate included actual emissions since the actual emissions are greater than the potential emissions listed or no potential/permitted emissions are provided.

[d] GEP stack height was used instead of actual height which is taller than GEP.

surrogate source. Similarly, the lowest exit velocities and the smallest stack diameter were combined even though this combination would result in a conservative exhaust flow for the surrogate stack.

The ADEM emission inventory included information concerning the PSD increment consuming emissions attributable to each emissions unit. For Florida, PSD increment consuming emission rates were not readily available. However, it was possible to confirm that the Gulf Power Crist Power Station was a baseline source for SO_2, PM_{10}, and NO_X. Additionally, Solutia, Inc. (formerly Monsanto) is also a baseline source for NO_X and likely for SO_2 and PM_{10} as well. Air Products and Exxon/Mobil were NO_X baseline sources. Although it was possible to determine which sources were baseline sources, the actual baseline emissions were typically only available for NO_2 sources. For SO_2 and PM_{10}, information concerning the difference between baseline emissions and current actual emissions had to be inferred. For example, in 1979 the Gulf Power Crist Station used a coal with an higher sulfur content than it currently uses; therefore, there should be no increase in actual SO_2 levels emitted (i.e., no PSD increment consumption) and likely an actual decrease. When it was *reasonably certain* that no increment consumption had occurred, this assumption was incorporated into the air quality modeling analysis. Where is was *not certain* that actual emissions had been unchanged since the appropriate PSD baseline data, the actual 2001 and 2000 emissions reported in the Florida DEP emissions inventory were conservatively used as the increment consuming emission. It should be noted that the use of 2001/2000 actual emissions will overstate the PSD increment consumption since baseline emissions, which were present, are not subtracted from the current emissions.

7.3 AIR QUALITY MODELING APPROACH AND TECHNICAL INFORMATION

This section of the air quality modeling report contains information on the technical approach that was followed in the air quality modeling study. The air dispersion model selection is discussed as well as the model options that were used. The supporting information that was used in the air quality modeling analysis is presented. The supporting information includes a land use determination, building downwash analyses, meteorological data, and terrain data. Whenever possible, the guidance provided in 40 CFR Part 51 Appendix W "Guideline on Air Quality Models" (USEPA 2001) was used to conduct the air quality modeling analyses. Additional guidance provided by Florida DEP, EPA Region IV, and the FLM were incorporated as appropriate.

7.3.1 Air Dispersion Model Selection

For the SIA, NAAQS, and PSD increment analyses, the current version of the Industrial Source Complex Short-Term 3 (ISCST3 Version 02035) air dispersion model was used. The ISCST3 air dispersion model is an Appendix A air dispersion model as noted in 40 CFR Part 51 Appendix W "Guideline on Air Quality Models". ISCST3 is recommended by EPA for estimating ground level concentrations in rural and urban areas and is capable of calculating short-term (i.e., 1-hour, 3-hour, 8-hour, 24-hour) and long-term (i.e., quarterly and annual) concentrations.

Some of the features to ISCST3 include the ability to incorporate building downwash as part of the concentration calculations by using the Schulman/Scire building downwash algorithms. ISCST3 also contains the COMPLEX1 complex terrain algorithms for predicting concentrations at receptor locations that have elevations higher than the stack height elevation or plume height elevation. The ISCST3 air dispersion model also contains options to scale emission rates by wind speed and stability. This ability is critical when evaluating the dispersion of fugitive emissions from storage piles.

The ISCST3 air dispersion model has various user selectable options that must be considered. EPA has recommended that certain options be selected when performing air quality modeling studies for regulatory purposes. The following regulatory default options were used in the ISCST3 air quality modeling study;

- Final Plume Rise

- Stack-Tip Downwash
- Buoyancy Induced Dispersion
- Model Accounts for Elevated Terrain Effects
- Calms Processing Routine Used
- No Exponential Decay for Rural Mode
- Upper Bound Value for "Supersquat" Buildings
- Missing Data Processing Used
- Default Wind Profile Exponents
- Default Vertical Potential Temperature Gradients

7.3.2 Topographic and Land Use Analysis

The Pensacola Mill is located in Cantonment which is approximately 20 kilometer (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 was 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' 24.2"
- Latitude (degrees, minutes, seconds): 30° 36' 28.1"

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.

A land use analysis for the area surrounding the Pensacola Mill was compiled. The land use analysis was based on review of the USGS 7.5 minute topographic map for the area. Following EPA guidance (USEPA 2001), the land use designation was based on the land use typing scheme developed by Auer (Auer 1978). Using the Auer land use classifications, industrial, commercial, and residential areas are classified as urban land use while agricultural, undeveloped land, and common residential areas are considered to be a rural land use. If more than 50% of the land use within a 3 km radius of the facility is rural, then a rural designation should be used in the air dispersion model. A visual inspection of the USGS topographic map shows that within a 3 km radius of the Pensacola Mill, the land use is overwhelmingly rural, therefore the rural option was selected in the ISCST3 air dispersion model. The 3 km radius surrounding the Mill is shown in Figure 7-1.

7.3.3 Receptor Grid

The receptor grid for the ISCST3 analysis covered a 20-km square area that was centered on the Mill. All receptors were referenced to the UTM coordinate system, Zone 16, and using NAD 27 datum. Rectangular coordinates were used to identify each receptor location. The rectangular receptor grid was centered on 469,183 meters easting and 3,385,829 meters northing and included the following grid spacing;

- 100 meters out to ± 1 kilometer
- 200 meters out to ± 3 kilometers
- 500 meters out to ± 5 kilometers
- 1,000 meters out to ± 10 kilometers

The 10 km extent of the receptor grid was adequate to determine the radius of significant concentrations due to project-related emissions.

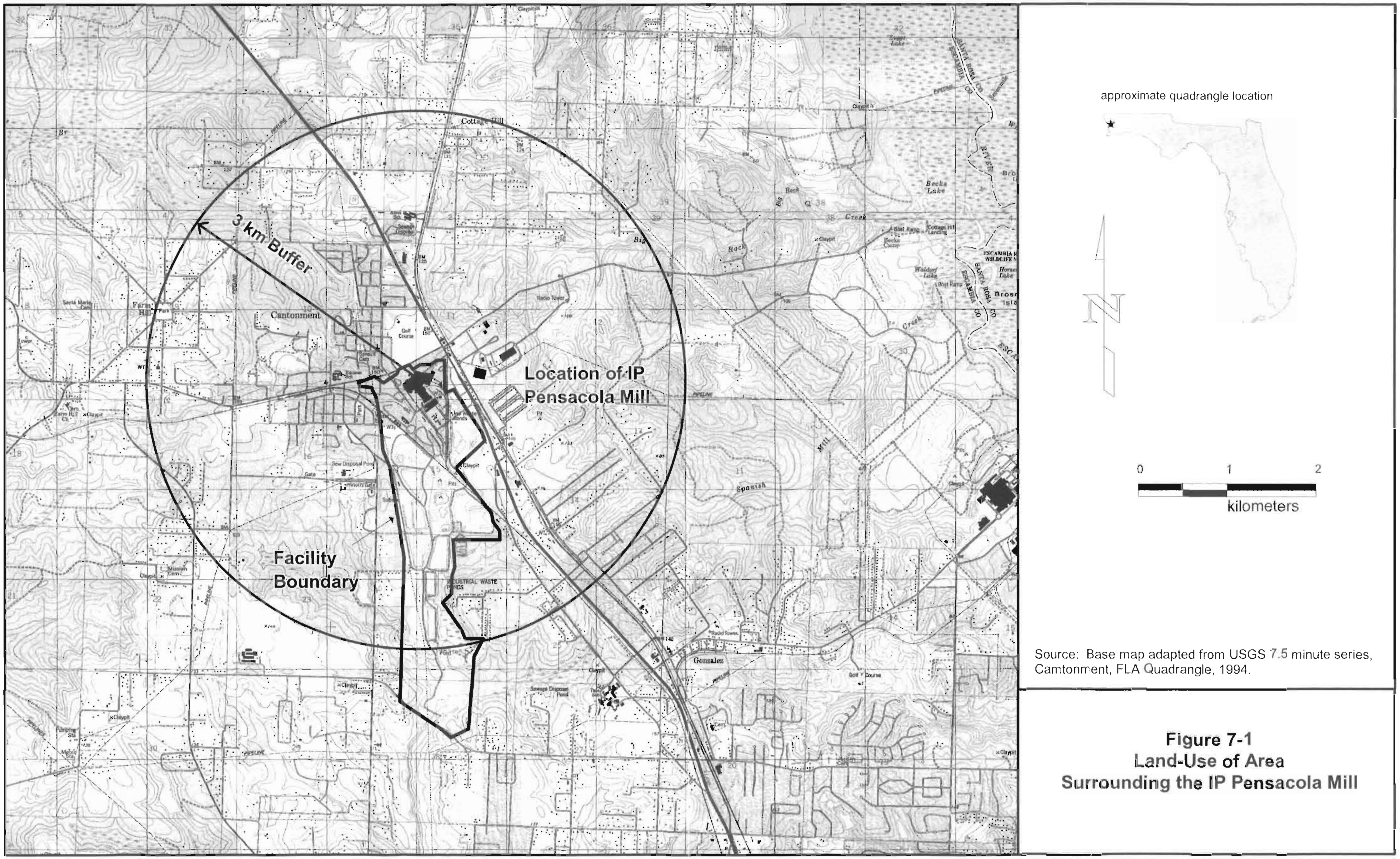


Figure 7-1
Land-Use of Area
Surrounding the IP Pensacola Mill

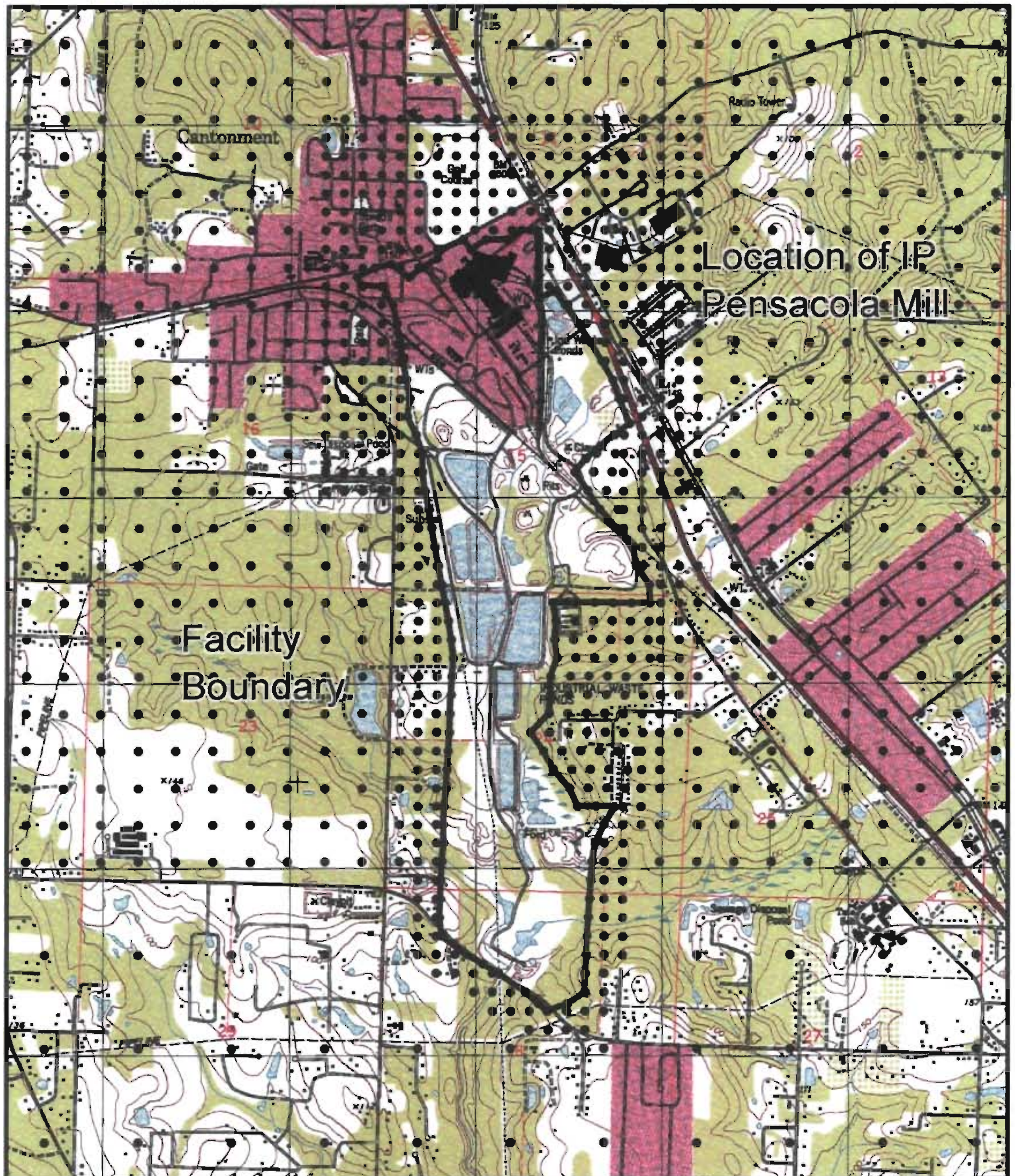
In addition to the main rectangular coordinate receptor grid, property line receptors were used in the air quality modeling analysis. The property line receptors were spaced approximately every 100 meters and included an additional buffer of receptors that followed the property line but were 100 meters from the edge of the property line. A plot of the inner portion of the receptor grid is shown in Figure 7-2.

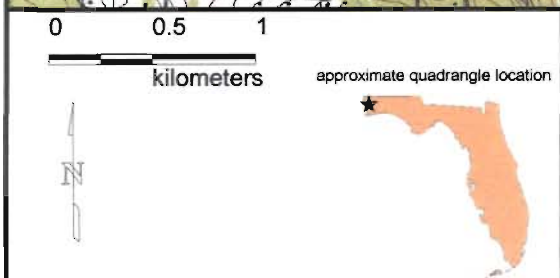
The main receptor grid was further supplemented as part of the NAAQS, Florida air quality standards, and PSD increment analyses. In several instances the peak modeled concentrations were predicted to occur in areas where the receptor spacing was in excess of 100 meters. Therefore, a refined receptor grid using 100 meter spacing and extending ±500 meters to the north, south, east, and west was centered over the receptors with peak modeled concentrations. The ISCST3 air dispersion model was then used to refine the concentration gradient in these selected areas.

Terrain elevations were assigned to all receptors. The AERMAP terrain preprocessor (Version 02222) and USGS 1:24,000 DEM Level I and II files were used to determine representative terrain elevations for all of the receptors. The AERMAP terrain preprocessor determines a receptor's elevation by choosing the highest terrain elevation from the four closest elevation nodes contained in the DEM files. Both Level I and Level II DEM files have elevation nodes every 30 meters.

7.3.4 Meteorological Data

The meteorological data for the ISCST3 air quality modeling study consisted of five years of National Weather Service (NWS) data. Meteorological data for the 1990 thru 1994 period were used. The surface NWS data were from the Pensacola, Florida Airport (surface station 13899) while the upper air NWS radiosonde data were from Slidell, Louisiana (upper air station 53813).





Source: Base map adapted from USGS 7.5 minutes series, Cantonment, FLA. Quadrangle, 1994.

FIGURE 7-2
INNER PORTION OF RECEPTOR GRID
INTERNATIONAL PAPER
PENSACOLA MILL
ESCAMBIA COUNTY, FLORIDA

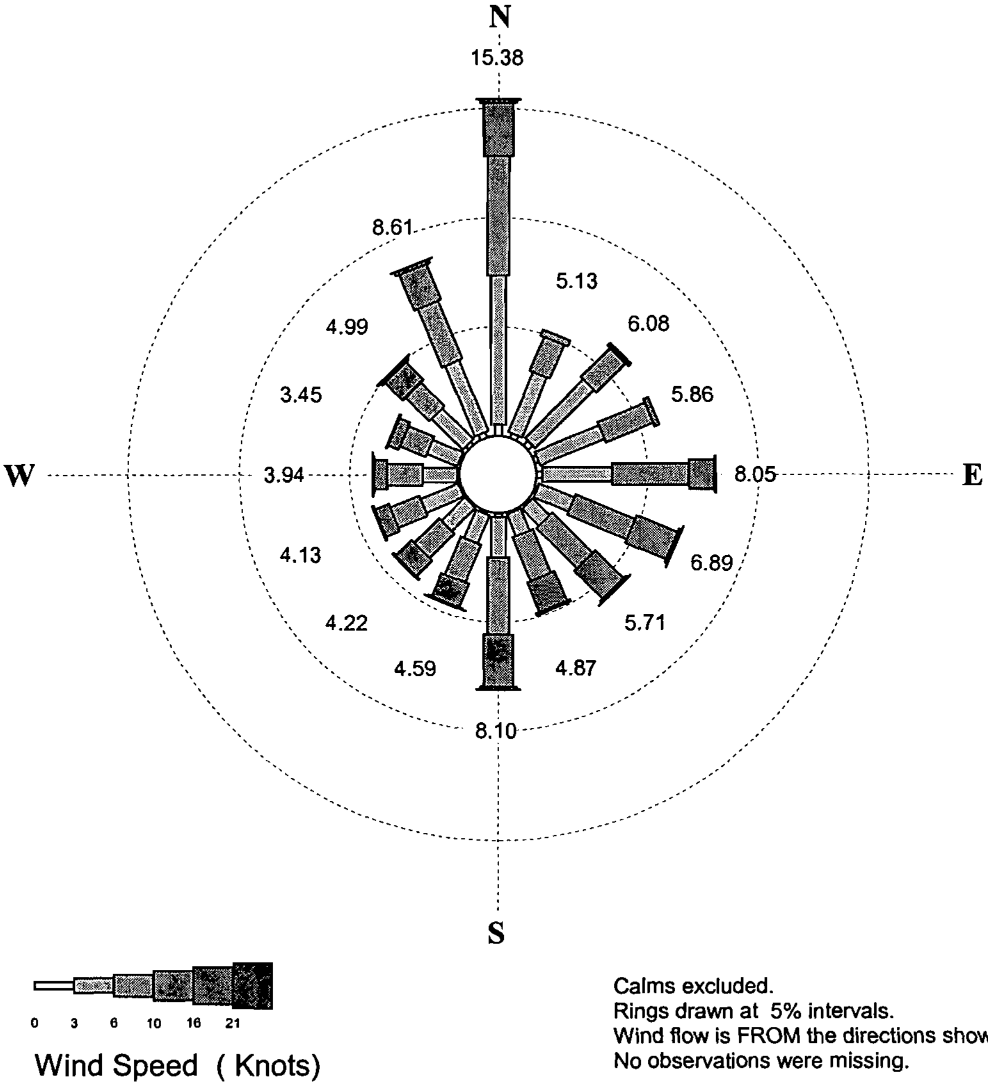
Both sets of meteorological data were obtained from the National Climatic Data Center (NCDC). The Pensacola NWS data can be considered representative of the meteorological conditions at the Pensacola Mill due to the close proximity of the two sites. Also there are no significant terrain features between the two sites. The Slidell upper air data, while located west of the Pensacola Mill, are representative of the general flow conditions along the Northern edge of the Gulf of Mexico. A five year wind rose (1990-1994) for the Pensacola NWS surface station meteorological data is shown in Figure 7-3. The wind data were collected at a 6.7 meter (22 ft) height.

The EPA meteorological preprocessor PCRAMMET (Version 99169) was used to format the Pensacola NWS and Slidell upper air data so that the data could be used with the ISCST3 air dispersion model. The Pensacola NWS were in Hourly United States Weather Observation (HUSWO) format while the Slidell upper air data were in Forecast Systems Laboratory (FSL) format. Missing surface meteorological data were replaced with the same values as the previous hour. Missing mixing heights were replaced by the average of the previous valid hour and the next, non-missing hour.

7.3.5 Good Engineering Practice (GEP) Stack Height Analysis

An analysis was conducted to determine the potential for building downwash at the Mill. Guidance contained in the EPA "Guideline for Determination of Good Engineering Practice (GEP) Stack Height (Revised)" (USEPA 1985) and the EPA Building Profile Input Program (BPIP, 95086) was followed. To perform the building downwash analysis, a facility plot plan showing the Mill buildings and stacks was digitized using geographical information system (GIS) software. The geographic coordinates of the corners of buildings and the heights of all the buildings that were digitized were used as input to BPIP. Round structures such as storage tanks were represented as a square structure. Buildings with multiple tiers were digitized as a single building with multiple tiers rather than multiple buildings with a single tier.

Figure 7-3
Wind Rose 1990 - 1994
Pensacola, Florida NWS



Calms excluded.
Rings drawn at 5% intervals.
Wind flow is FROM the directions shown.
No observations were missing.

PERCENT OCCURRENCE: Wind Speed (Knots)
LOWER BOUND OF CATEGORY

DIR	0	3	6	10	16	21
N	0.52	6.81	5.46	2.43	0.15	0.01
NNE	0.23	2.96	1.65	0.29	0.00	0.00
NE	0.28	3.76	1.86	0.18	0.00	0.00
ENE	0.18	3.14	2.29	0.24	0.00	0.00
E	0.25	3.16	3.45	1.14	0.04	0.00
ESE	0.11	1.72	2.92	2.00	0.13	0.01
SE	0.10	1.11	2.61	1.79	0.10	0.01
SSE	0.06	1.09	2.15	1.47	0.10	0.00

TOTAL OBS = 43820 MISSING OBS = 0

PERCENT OCCURRENCE: Wind Speed (Knots)
LOWER BOUND OF CATEGORY

DIR	0	3	6	10	16	21
S	0.18	1.84	3.53	2.41	0.13	0.01
SSW	0.11	1.40	1.87	1.14	0.06	0.01
SW	0.09	1.47	1.58	0.99	0.08	0.01
WSW	0.10	1.85	1.42	0.68	0.08	0.01
W	0.08	1.59	1.61	0.59	0.06	0.01
WNW	0.12	1.50	1.26	0.51	0.06	0.00
NW	0.18	2.03	1.50	1.11	0.12	0.04
NNW	0.27	3.50	2.89	1.76	0.18	0.01

CALM OBS = 3522

Professional judgment was used to exclude low height buildings from the analysis unless there was a stack within the influence area of the building. The result of the GIS digitization process is shown in Figure 7-4. A Mill plot plan is included for comparison purposes in Appendix D.

7.3.6 Background Ambient Air Data

Background ambient air quality data are required for the each pollutant for which an NAAQS or Florida air quality standards demonstration is necessary. The background concentration data should be representative of "background" sources or uninventoried pollutant sources that are not included in the air quality modeling study (e.g., small sources, area sources, mobile sources). The background data do not necessarily need to be from the same airshed as the Pensacola Mill, but may be from a more distant area that is still representative of the air quality in the area surrounding the Mill.

Background ambient air data were obtained from the Aerometric Information Retrieval System (AIRS) for the three most recently available years were reviewed. SO_2, PM_{10}, and NO_X ambient monitoring data are available from two monitoring sites in Escambia County. However, both of these sites are impacted by emissions from three of the large emission sources in the county, the IP Mill, Gulf Power, and Solutia, Inc. The Ellyson Industrial Park monitoring site is only 5.1 km southeast of the Gulf Power Crist facility and 14.3 km southeast of the IP Pensacola Mill. Additionally, a second Escambia County monitoring site at the University of Western Florida is only 2.6 km from Gulf Power and 12.2 km from the IP Pensacola Mill. For the SO_2 background concentration, it was necessary to account for the impact of these three sources especially for the 3-hour and 24-hour averaging periods. Florida DEP provided a revised set of 3-hour and 24-hour SO_2 background concentrations that were based on a previous analysis of 1999 monitoring data.

The revised background SO_2 data were based on 1999 concentrations for Escambia County that were adjusted to exclude periods when IP, Gulf Power, and Solutia, Inc. were impacting the monitoring site. By removing the contribution of the three nearby sources there would be no

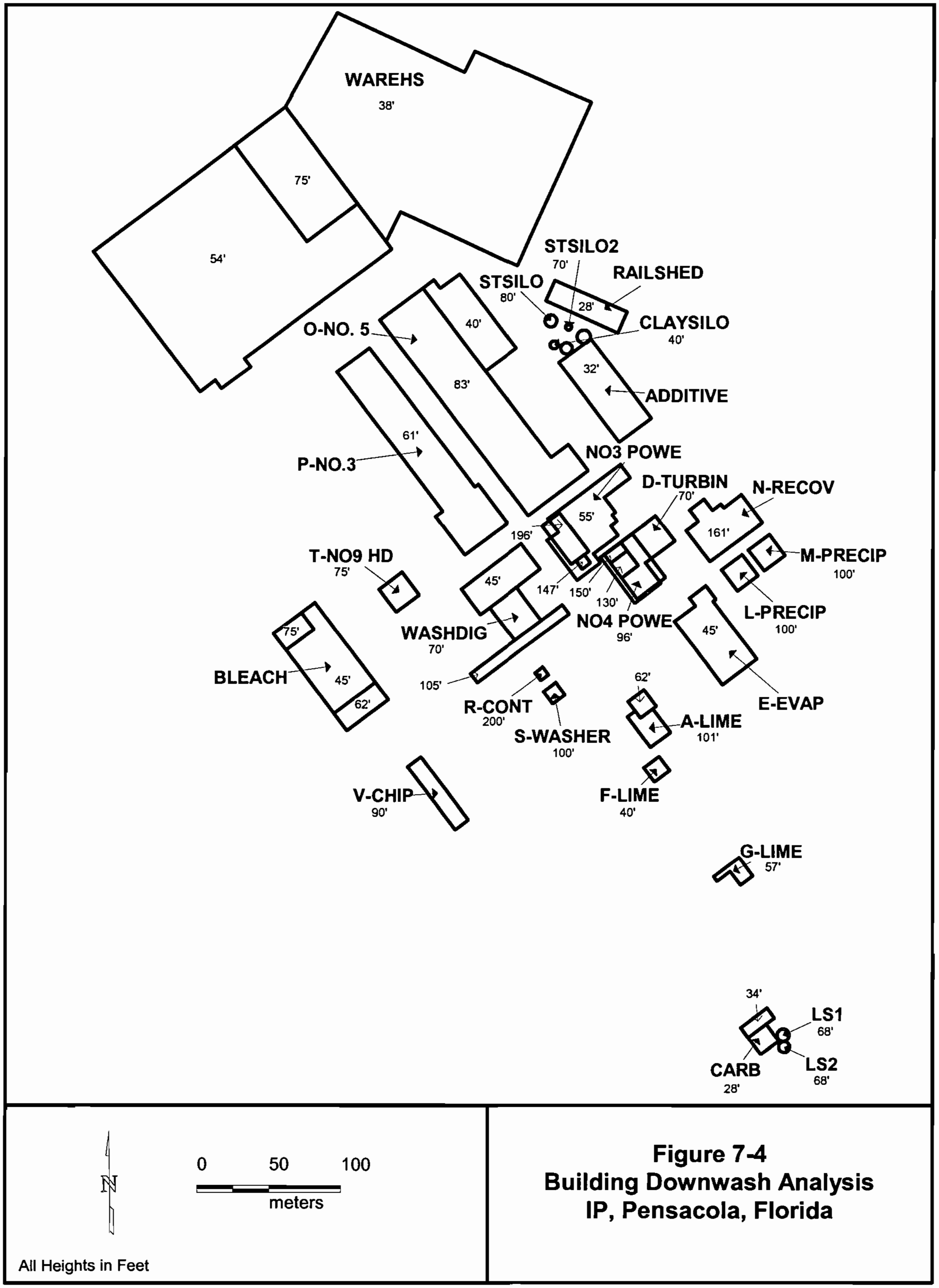


Figure 7-4
Building Downwash Analysis
IP, Pensacola, Florida

double-counting (i.e., modeling concentrations and background concentration data include emissions from the same sources) and the revised background SO_2 data would truly represent background SO_2 levels. However, since the background SO_2 data are 1999 and more recent data are available, the highest, second-highest SO_2 concentrations for the 2000-2002 period were used to rescale the 1999 data. The highest, second-highest 2000-2002 concentrations were divided by the 1999 highest, second-highest 3-hour and 24-hour concentrations. The resulting ratio was used to scale the 1999 adjusted data. The final result is that the 24-hour background SO_2 concentration that was used in the air NAAQS and Florida air quality standard demonstration is 29.2 $\mu g/m^3$ while the 3-hour background SO_2 concentration is 140.4 $\mu g/m^3$. No adjustment was made to the annual SO_2 background concentration since the variability of the wind direction reduces the magnitude of the impact from the three local sources.

It was only necessary to adjust the SO_2 short-term background concentrations, the annual SO_2, PM_{10}, and NO_2 and the 24-hour PM_{10} data were taken from the Ellyson Industrial Park. The background concentration data for the 2000 thru 2002 are listed in Table 7-10 with the actual concentrations that were used in the NAAQS and Florida air quality standards analyses bolded. Complete listings of the AIRS data are provided in Appendix D.

7.3.7 NO to NO_2 Conversion

A NO to NO_2 conversion factor was used to adjust all modeled annual NO_2 concentrations. The NO to NO_2 conversion factor accounts for the actual composition of the flue gas stream which is primarily NO but once emitted to the atmosphere will begin to convert to NO_2. The NO to NO_2 conversion rate is dependent on multiple variables including residence time, ozone levels, and solar intensity. An EPA recommended default value of 0.75 was used.

7.4 SIGNIFICANCE, NAAQS, AND PSD AIR QUALITY MODELING

This section presents the results of the air quality modeling analyses and demonstrates compliance with the applicable Class II air quality standards. Specifically the significance

Table 7-10
Background Concentration Levels
Highest, Second-Highest Short-Term and Highest Annual Values

Pollutant and Averaging Period	Monitored Value ($\mu g/m^3$) and Year			Monitor Location
SO_2	2002	2001	2000	
Annual	7.8	7.8	**10.4**	Pensacola, Escambia County
24-Hour [a]			**29.2**	Pensacola, Escambia County
3-Hour [a]			**140.4**	Pensacola, Escambia County
NO_2	2002	2001	2000	
Annual	13.4	17.2	**19.1**	Pensacola, Escambia County
PM_{10}	2002	2001	2000	
Annual	32	**37**	34	Pensacola, Escambia County
24-Hour	17	19	**21**	Pensacola, Escambia County
CO	2002	2001	2000	
8-Hour	3,777.8	3,777.8	**4,777.8**	Sarasota, Sarasota County
1-Hour	5,371.4	5,142.9	**7,542.9**	Sarasota, Sarasota County

Note: The highest of the second-highest monitored short-term values for each pollutant and short-term time period, which are highlighted in bold, were used as a background concentration for the short-term NAAQS and Florida air quality standards demonstrations. The highest annual values from the three years of data were used for the annual NAAQS demonstrations. All of the background data were selected from the Ellyson Industrial Park monitoring site except for CO which was selected from the Sarasota monitoring site. The Sarasota monitoring site is similar to the rural/urban setting of Pensacola and thus this site was selected for CO background concentrations.

[a] The 3-hour and 24-hour SO_2 background data were adjusted by Florida DEP to exclude the effect of SO_2 emissions from local sources including the IP Mill.

impact area modeling is presented as well as air quality modeling results that show the IP Mill is in compliance with the NAAQS, Florida air quality standards, and the PSD increments.

7.4.1 Significance Analysis

The air quality impact analysis evaluated all project-related emissions of SO_2, CO, PM_{10}, and NO_X at the Mill as well as emissions from the thermal oxidizer pollution control project, which is the only contemporaneous project that was undertaken during the past five years. The results of this air quality modeling analysis were compared to the PSD significance levels of:

- 1 $\mu g/m^3$ for annual average PM_{10} and NO_2, and SO_2
- 5 $\mu g/m^3$ for 24-hour average PM_{10} and SO_2
- 500 $\mu g/m^3$ for 8-hour average CO
- 25 $\mu g/m^3$ for 3-hour average SO_2
- 2,000 $\mu g/m^3$ for 1-hour CO

Based on the five years of meteorological data, the proposed changes at the Mill resulted in predicted PM_{10}, SO_2, and NO_2 concentrations that were greater than the PSD significance levels. The predicted CO concentrations were less than the significance levels; therefore, no further CO air quality modeling was required. The highest short-term and annual concentrations were used in the significance analyses. A summary of the significant impact analysis modeling results is provided in Table 7-11.

The significant impact area for SO_2, PM_{10}, and NO_X and for each averaging period was defined by a radius extending from the No. 5 Power Boiler stack out to the greatest distance where a receptor with a maximum concentration at or just below the respective significance level concentration existed. A summary of the SIA distances is included in Table 7-11.

Table 7-11
Results of Significant Impact Area Modeling Study
International Paper Company
Pensacola, FL
Peak Predicted Project-Related Concentrations at All Receptors

updated 7/15/03 isc model

Pollutant and Averaging Period	PSD Significane Levels (μg/m³)	De-Minimus Monitoring Levels (μg/m³)	Modeled Concentration (μg/m³)	Year [a]	UTM Coordinates [b] East (m)	UTM Coordinates [b] North (m)	Relative Location [c] Dist. (m)	Relative Location [c] Dir. (deg)	Receptor Terrain Elevation (ft)	Receptor Terrain Type [d]
SO_2										
3-Hour	25	---	74.43	1994	469,483.0	3,386,129.0	428	42	158.20	Simple
24-Hour	5	13	30.75	1994	469,383.0	3,385,929.0	220	57	134.71	Simple
Annual	1	---	7.40	1994	469,383.0	3,384,929.0	899	168	134.71	Simple
PM_{10}										
24-Hour	5	10	27.54	1994	469,383.0	3,385,929.0	220	57	134.71	Simple
Annual	1	---	6.83	1994	469,383.0	3,385,929.0	220	57	134.71	Simple
NO_2		---								
Annual	1	14	5.75	1993	469,521.0	3,384,929.0	937	160	149.47	Simple
CO										
1-Hour [e]	2,000	—	114.42	1991	469,760.0	3,385,329.0	738	131	147.54	Simple
8-Hour [e]	500	575	33.37	1994	469,383.0	3,385,929.0	220	57	134.71	Simple

Receptors Defining Maximum Significant Impact Radius

Pollutant and Averaging Period	PSD Significane Levels (μg/m³)	Modeled Concentration (μg/m³)	Year [f]	UTM Coordinates East (m)	UTM Coordinates North (m)	Relative Location Dist. (m)	Relative Location Dir. (deg)	Receptor Terrain Elevation (ft)	Receptor Terrain Type
SO_2									
3-Hour	25	27.70	1994	469,883.0	3,383,229.0	2,669	165	170.31	Simple
24-Hour	5	5.30	1990	470,183.0	3,381,329.0	4,587	168	148.42	Simple
Annual	1	1.04	1994	469,183.0	3,378,829.0	6,980	180	145.50	Simple
PM_{10}									
24-Hour	5	5.23	1991	469,783.0	3,383,029.0	2,841	168	149.24	Simple
Annual	1	1.03	1994	469,183.0	3,381,829.0	3,980	180	115.02	Simple
NO_2									
Annual	1	1.01	1993	469,683.0	3,380,829.0	5,003	174	127.75	Simple

NOTES

[a] – Peak concentration year from 5 years, 1990-1994 evaluated.

[b] – Universal Transverse Mercator coordinates, North American Datum 1927, Zone 16

[c] – Distance and compass direction from No. 5 Power Boiler stack location at UTM coordinates 469,198 m E, 3,385,689 m N.

[d] – Terrain type classified relative to the No. 3 Power Boiler stack top elevation (213 ft stack height, plus 140 ft base elevation).

[e] – The peak modeled concentration is less than the significance level, therefore no significant impact radius was calculated.

[f] – Maximum Significant Impact Radius year from 5 years, 1990-1994 evaluated.

In addition to determining the SIA, the significance air quality modeling results were also compared to the ambient air de-minimus monitoring levels. The de-minimus evaluation was only conducted for SO_2, PM_{10}, NO_X, and CO. As shown in Table 7-11, the project-related NO_X and CO emissions result in concentrations that are less than the short-term de-minimus levels, while SO_2 and PM_{10} emissions result in concentrations above the de-minimus levels. It should also be noted that Florida DEP operates two ambient monitoring sites in Escambia County and the need to collect additional SO_2 and PM_{10} ambient air monitoring data is not warranted.

7.4.2 NAAQS and Florida Air Quality Standards Analyses

Since the significance impact area analysis determined that emissions from the proposed project would result in SO_2, PM_{10}, and NO_2 concentrations that were above the significance levels, NAAQS and Florida air quality standards analyses were required. The NAAQS and Florida air quality standards analysis included all SO_2, PM_{10}, and NO_X emissions units at the Mill as well as other background emission sources. As discussed in Section 7.2, the maximum permitted emission rates were used for all of the Mill sources. Additionally, for the background sources, a screening approach, described in Section 7.3, was used to exclude the small and distant emission sources from the NAAQS and Florida air quality standards analysis.

The highest, second-highest modeled concentrations of SO_2 and the highest, sixth-highest PM_{10} concentrations from the five years of air quality modeling were determined as well as the maximum annual SO_2, PM_{10}, and NO_X concentrations. Ambient air background concentrations were then added to the modeled concentrations. Summaries of the combined concentrations are shown in Tables 7-12, 7-13, and 7-14 for SO_2, PM_{10}, and NO_2 respectively. As shown in these tables, the modeled SO_2, PM_{10}, and NO_2 concentrations plus ambient air background levels are below the applicable NAAQS and Florida air quality standards. A 100 meter spacing was used to refine the peak modeled concentrations in several instances.

Table 7-12
Results of SO_2 NAAQS Air Quality Modeling Study
International Paper Company
Pensacola, FL

SO_2 Highest-Second Highest Short-Term and Maximum Annual Concentrations -- All Sources (1990-1994)

Pollutant and Averaging Period	Concentration ($\mu g/m^3$)	IP Contribution ($\mu g/m^3$)	UTM Coordinates [a] East (m)	UTM Coordinates [a] North (m)	Relative Location [b] Dist. (m)	Relative Location [b] Dir. (deg)	Receptor Terrain Elevation (ft)	Receptor Terrain Type [c]
Modeled SO_2 3-Hour Concentration	864.9	0.0	478,183.0	3,382,829.0	9,466	108	30	Simple
Background Concentration	140.4							
Total Concentration	1005.3							
NAAQS	1300							
Modeled SO_2 24-Hour Concentration	227.7	0.0	480,183.0	3,387,829.0	11,169	80	55	Simple
Background Concentration	29.2							
Total Concentration	256.9							
NAAQS	365							
Modeled SO_2 Annual Concentration	40.9	17.6	469,183.0	3,386,229.0	420	358	158	Simple
Background Concentration	10.4							
Total Concentration	51.3							
NAAQS	80							

NOTES

[a] -- Universal Transverse Mercator coordinates, North American Datum 1927, Zone 16

[b] -- Distance and compass direction from No. 5 Power Boiler stack location at UTM coordinates 469,199 m E, 3,385,809 m N.

[c] -- Terrain type classified relative to the No. 3 Power Boiler stack top elevation (213 ft stack height, plus 140 ft base elevation).

Note: The highest, second-highest 3-hour and 24-hour concentrations and the highest annual concentration occurred in 1993 and the annual occurred in 1990.

Table 7-13
Results of PM_{10} NAAQS Air Quality Modeling Study
International Paper Company
Pensacola, FL

PM_{10} Highest-Sixth Highest Short-Term and Maximum Annual Concentrations -- All Sources

Pollutant and Averaging Period	Concentration ($\mu g/m^3$)	IP Contribution ($\mu g/m^3$)	UTM Coordinates [a] East (m)	UTM Coordinates [a] North (m)	Relative Location [b] Dist. (m)	Relative Location [b] Dir. (deg)	Receptor Terrain Elevation (ft)	Receptor Terrain Type [c]
Modeled PM_{10} 24-Hour Concentration	93.6	87.6	468,704.0	3,385,029.0	924	212	144	Simple
Background Concentration	37.0							
Total Concentration	130.6							
NAAQS	150							
Modeled PM_{10} Annual Concentration	24.7	24.7	468,704.0	3,385,029.0	924	212	144	Simple
Background Concentration	19.0							
Total Concentration	43.7							
NAAQS	50							

NOTES

[a] -- Universal Transverse Mercator coordinates, North American Datum 1927, Zone 16

[b] -- Distance and compass direction from No. 5 Power Boiler stack location at UTM coordinates 469,198 m E, 3,385,689 m N.

[c] -- Terrain type classified relative to the No. 3 Power Boiler stack top elevation (213 ft stack height, plus 140 ft base elevation).

Table 7-14

Results of NO_2 NAAQS Air Quality Modeling Study

International Paper Company

Pensacola, FL

NO_2 Maximum Annual Concentrations -- All Sources (1990-1994)

Pollutant and Averaging Period	Concentration ($\mu g/m^3$)	IP Contribution ($\mu g/m^3$)	UTM Coordinates [a] East (m)	UTM Coordinates [a] North (m)	Relative Location [b] Dist. (m)	Relative Location [b] Dir. (deg)	Receptor Terrain Elevation (ft)	Receptor Terrain Type [c]
Modeled NO_2 Annual Concentration	34.3	29.6	469,383.0	3,386,229.0	459	24	149	Simple
Adjusted by 0.75	25.7							
Background Concentration	19.1							
Total Concentration	53.4							
NAAQS	100							

NOTES

[a] -- Universal Transverse Mercator coordinates, North American Datum 1927, Zone 16

[b] -- Distance and compass direction from No. 5 Power Boiler stack location at UTM coordinates 469,199 m E, 3,385,809 m N.

[c] -- Terrain type classified relative to the No. 3 Power Boiler stack top elevation (213 ft stack height, plus 140 ft base elevation).

Note: Peak impact occurred in 1994, a summary of all five years is provided in Appendix D.

It should be noted that the modeled concentrations shown in Tables 7-12, 7-13, and 7-14 are only for time periods and receptor locations where the IP Mill contributes a significant concentration (i.e., the IP Mill has a concentration impact of more than 5 $\mu g/m^3$ for the 24-hour SO_2 and PM_{10} averaging period, more than 25 $\mu g/m^3$ for the 3-hour SO_2 averaging period, and more than 1.0 $\mu g/m^3$ for the annual SO_2, PM_{10}, and NO_2 averaging period). The air quality modeling study identified several receptors and time periods where other background sources in combination with an ambient air background concentration exceeded the 3-hour SO_2 NAAQS and the 24-hour SO_2 Florida air quality standard. However, since modeled SO_2 concentrations from the IP Mill for the specific receptors and time periods were less than the significance levels, the IP Mill does not cause or contribute to the modeled violations. A summary of the receptors and time periods where modeled violations of the 3-hour and 24-hour SO_2 standards are predicted and the source contribution from the sources modeled is provided in Appendix D.

7.4.3 PSD Increment Analysis

The PSD minor source baseline date for NO_2, PM_{10}, and SO_2 has been triggered for the air quality control region in which the Pensacola Mill is located. Therefore, "actual" emission increases or creditable emission decreases from all sources potentially affect the amount of increment that is consumed. The PSD emission rates discussed in Sections 7.2.2 and 7.2.4 were used for the PSD analysis.

The PSD increment consumption due to PM_{10}, SO_2, and NO_X emissions from the Mill was determined. The highest, second-highest modeled short-term and the highest modeled annual concentrations were compared to the increment values and are summarized in Table 7-15. As shown in Table 7-15, the predicted concentrations are below the short-term and annual increment levels. Thus the project will not cause or contribute to an ambient air concentration that exceeds the applicable increment levels.

The peak predicted highest, second-highest 24-hour SO_2 concentration is 90.9 $\mu g/m^3$ and is a result of the conservative building downwash algorithms contained in the ISCST3 air dispersion

Table 7-15
Results of PSD Increment Air Quality Modeling Study
International Paper Company
Pensacola, FL

Highest, Second-Highest Short-Term and Maximum Annual Concentrations

Pollutant and Averaging Period	Allowable PSD Increment ($\mu g/m^3$)	Peak Modeled Concentration ($\mu g/m^3$)	Period (yr/mo/day/hr)	UTM Coordinates [a] East (m)	UTM Coordinates [a] North (m)	Relative Location [b] Dist. (m)	Relative Location [b] Dir. (deg)	Receptor Terrain Elevation (ft)	Receptor Terrain Type [c]
PM_{10}									
24-Hour	30	26.39	94/08/18/24	469,383	3,386,229	459	24	149	Simple
Annual	17	3.28	1992	469,333	3,385,869	147	66	143	Simple
SO_2									
3-Hour	512	215.13	93/06/17/12	468,583	3,386,029	654	290	144	Simple
24-Hour	91	90.92	94/08/29/24	469,383	3,386,229	459	24	149	Simple
Annual	20	12.42	1994	469,383	3,386,229	459	24	149	Simple
NO_2									
Annual [d]	25	16.39	1991	484,183	3,382,829	15,278	101	0	Simple

NOTES

[a] -- Universal Transverse Mercator coordinates, North American Datum 1927, Zone 16

[b] -- Distance and compass direction from No. 5 Power Boiler stack location at UTM coordinates 469,199 m E, 3,385,809 m N.

[c] -- Terrain type classified relative to the No. 3 Power Boiler stack top elevation (213 ft stack height, plus 140 ft base elevation).

[d] -- The NO_2 concentration includes an NO to NO_2 adjustment factor of 0.75 per USEPA guidance.

model. The hybrid version of ISCST3 that contains the Plume Rise Model Enhancements (PRIME) building downwash algorithms was used to refine the concentrations predicted by the ISCST3 air dispersion model. Using the same emission information and the expanded BPIP analyses, the ISCPrime air dispersion model predicted a peak high, second-high SO_2 concentration of 82.0 $\mu g/m^3$. Since the ISCPrime air dispersion model is not currently an approved air dispersion model, the ISCPrime concentration is provided for reference purposes only.

7.5 CLASS I AIR QUALITY RELATED VALUES ANALYSIS

The Pensacola Mill is located within 200 km of the Breton Wilderness Area as shown in Figure 7-5. No other Class I areas are within 200 km of the Mill. Based on conversations with the FLM for Breton, visibility and ambient air concentrations are the only Class I AQRVs that need to be addressed. The following approach was used to evaluate the impact of the project-related emissions on the Breton Class I area.

7.5.1 Air Quality Model Selection

The CALPUFF air dispersion model and the CALPOST post processor were used to determine potential impacts on the AQRVs at the Breton Wilderness Area. The CALPUFF air dispersion model was used in a screening level mode following the guidance contained the "Inter-Agency Workgroup on Air Quality Modeling (IWAQM) Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts" (USEPA 1998) and the "Federal Land Manager' Air Quality Related Values Workgroup (FLAG) Phase I Report (United States Forest Service et al. 2000). CALPUFF model option selections that are different from those recommended are presented in Table 7-16.

Since the CALPUFF air dispersion model was used in a screening mode, the maximum predicted impacts on visibility and ambient air concentration do not necessarily need to occur at the Class I area in order to be compared against FLM derived screening level criteria.

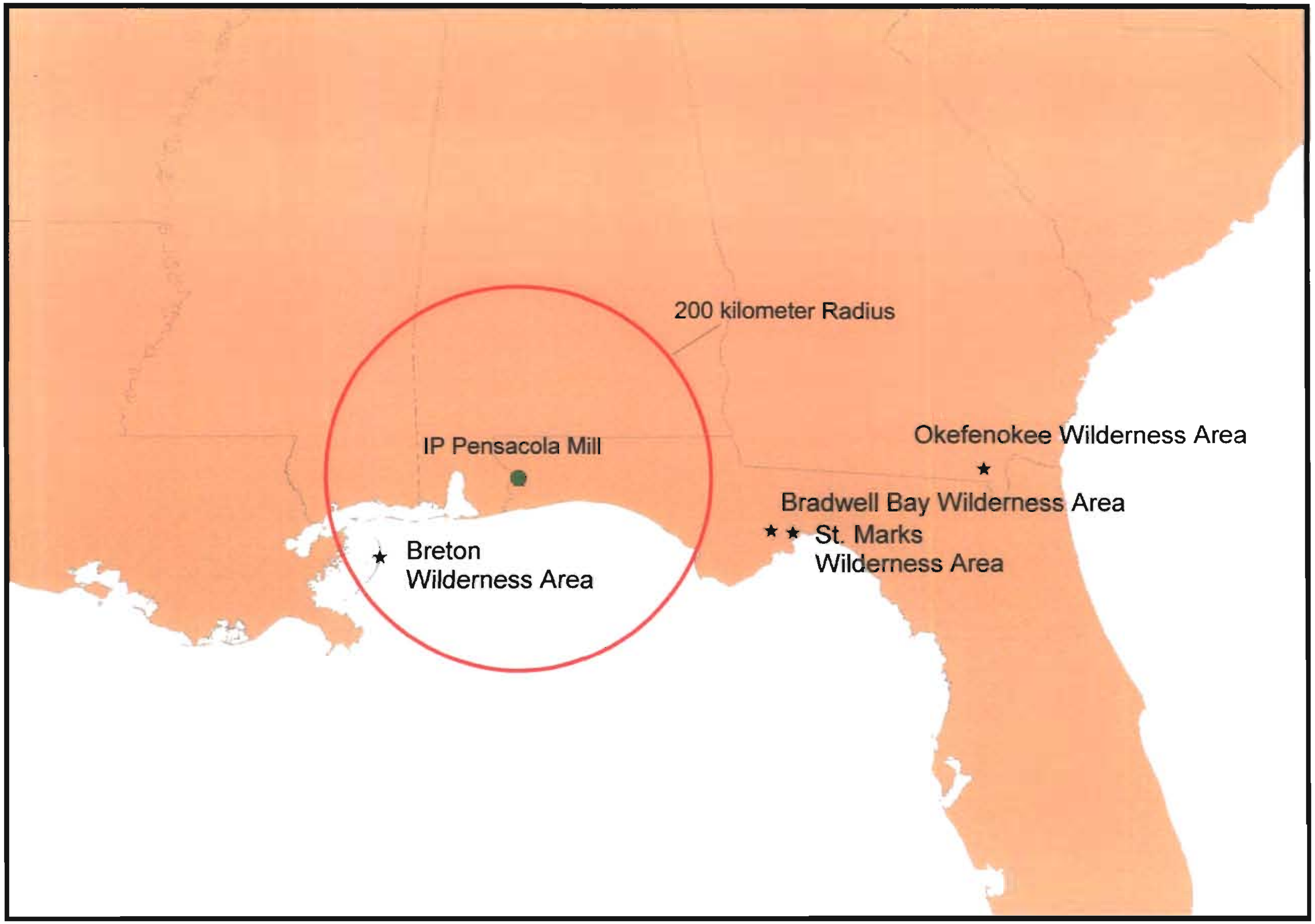


Figure 7-5
Location of Breton Wilderness Class I Area

Table 7-16
CALPUFF Model Options Selected

- Six chemical species modeled, with four chemical species emitted, SO_2, H_2SO_4, NO_X, PM_{10}
- MREG = 0
- Grid Cell Spacing = 4 km and 6 vertical layers
- Background ozone = 80 parts per billion
- Background ammonia = 10 parts per billion
- PM_{10} extinction efficiency = 1.0
- Relative Humidity capped at 98%
- Seasonal f(RH) values from isopleth plots will be used instead of Table 2.B-1 values.
- Winter f(RH) = 3.4
- Spring f(RH) = 4.0
- Summer f(RH) = 4.1
- Fall f(RH) = 3.6

7.5.2 CALPUFF Receptor Grid

A screening level receptor grid was developed for the CALPUFF analysis. The screening level receptor grid consisted of a polar grid, referenced in Cartesian coordinates. The polar grid included radials and downwind rings that corresponded to the closest edge and the mid-point of the Breton Class I area. The 360 one-degree radials and two downwind rings were centered at 160 km and 175 km. Since the Breton Class I area is basically at sea level, no elevations were used for any of the receptors.

7.5.3 CALPUFF Meteorological Data

The same meteorological data as that which was used for the ISCST3 air quality modeling analysis was used for the CALPUFF screening level analysis. The micro-meteorological variables, which are listed in Table 7-17, were used to supplement the processing of the ISCST3 based meteorological data.

The micro-meteorological variables were determined for the area surrounding the Mill based on guidance contained in the AERMET User's Guide (the meteorological processor for the Aermic Model or AERMOD). To account for variability in surface roughness, Bowen ratio, and albedo in the area surrounding the Mill, the USGS 1:24,000 topographic map and ortho quad were reviewed to develop sector-based averages for the three micro-meteorological variables. Additionally, seasonal values of surface roughness, Bowen ratio, and albedo were established. Since the winter season in Pensacola is not typical of more northern latitudes, the fall seasonal values of surface roughness, Bowen ratio, and albedo were used for the winter season.

Table 7-17
Micro-Meteorological Variables
Selected for Pensacola, FL

Micro-Meteorological Variable	Seasonal Value	Upwind Sector	Micro-Meteorological Value
Albedo [a]	Winter	All	0.18
	Spring	All	0.14
	Summer	All	0.20
	Fall	All	0.18
Bowen Ratio [a]	Winter	All	0.5
	Spring	All	0.3
	Summer	All	0.4
	Fall	All	0.5
Surface Roughness [b]	Winter	90 to 120 and 210 to 360	0.2
	Winter	All other sectors	0.05
	Spring	90 to 120 and 210 to 360	0.2
	Spring	All other sectors	0.05
	Summer	90 to 120 and 210 to 360	0.2
	Summer	All other sectors	0.1
	Fall	90 to 120 and 210 to 360	0.2
	Fall	All other sectors	0.05

[a] Values are from the AERMET User's Manual (USEPA 1999)

[b] Values are from Högström and Högström (Högström and Högström 1978)

7.5.4 CALPUFF Visibility Results

The visibility impacts due to emissions from the proposed PSD project were determined by calculating the beta extinction coefficient (B_{ext}) in inverse meg-meters (Mm^{-1}) for a set of receptors that represented distance from the IP Mill to the Breton Wilderness Area. The short-term project related emissions (i.e., 24-hour project emission rates) were used to assess potential impacts on visibility. The maximum 24-hour CALPUFF modeling visibility results for the Breton Wilderness Area indicated that in 1993 there will be a worst case 1.073 Mm^{-1} beta extinction (B_{ext}) due to emissions from the project. When the maximum B_{ext} due to the project and the five years of meteorological data is compared to the 22.633 Mm^{-1} B_{ext}, which corresponds to a "natural" background plus the project related B_{ext}, the delta change is 4.97%. A delta B_{ext} value of less than 5% has been considered acceptable according to FLM guidance. As a result, the proposed PSD project will not adversely impact Class I visibility. The visibility impacts are summarized in Table 7-18.

7.5.5 CALPUFF Ambient Air Concentration Results

The CALPUFF model was used to predict ambient air concentrations for the Breton Wilderness Area. As with the visibility analysis, short-term project-related emissions were used to predict short-term concentrations (3-hour and 24-hour) and long-term project-related emissions were used to predict annual concentrations. The peak short-term and annual concentrations for SO_2, NO_2, and PM_{10} are summarized in Table 7-19. The highest concentrations are less than the Class I PSD increment significance levels recommended by the EPA and the FLM for all averaging periods.

Table 7-18
CALPUFF Visibility Screening Modeling Results
Breton Wilderness Class I Area AQRV Analysis
International Paper Company
Pensacola, Florida

Air Quality Related Value (AQRV) / Visibility	Units	Year	Maximum Project Impact [a] Value	Distance (km)	Direction [b] (deg)	Significance Threshold
Percent Change in Extinction						
	%	1990	4.95	160.3	291	5
	%	1991	4.06	160.1	196	5
	%	1992	4.97	160.2	209	5
	%	1993	3.58	160.1	188	5
	%	1994	4.54	160.2	245	5

NOTES

[a] - Maximum over all receptors and all years modeled (1990-1994).

[b] - Distance and direction are relative to the No. 5 Power Boiler stack location at UTM coordinates 469,198 m E, 3,385,689 m N.

Table 7-19
CALPUFF Ambient Air Concentration Screening Modeling Results
Breton Wilderness Class I Area AQRV Analysis
International Paper Company
Pensacola, Florida

Ambient Air Concentration	Units	Year	Maximum Project Impact [a] Value	Distance (km) [b]	Direction (deg)	Significance Threshold
Nitrogen Dioxide (NO_2)						
Annual Average	$\mu g/m^3$	1990	0.004	160.1	166	0.1
	$\mu g/m^3$	1991	0.004	160.1	166	0.1
	$\mu g/m^3$	1992	0.005	160.1	169	0.1
	$\mu g/m^3$	1993	0.005	160.1	168	0.1
	$\mu g/m^3$	1994	0.005	160.1	180	0.1
Sulfur Dioxide (SO_2)						
3-hour Average	$\mu g/m^3$	1990	0.255	160.2	149	1.0
	$\mu g/m^3$	1991	0.207	160.4	353	1.0
	$\mu g/m^3$	1992	0.256	160.2	223	1.0
	$\mu g/m^3$	1993	0.203	160.2	143	1.0
	$\mu g/m^3$	1994	0.188	160.2	224	1.0
24-hour Average	$\mu g/m^3$	1990	0.069	160.1	167	0.2
	$\mu g/m^3$	1991	0.064	160.1	196	0.2
	$\mu g/m^3$	1992	0.062	160.1	157	0.2
	$\mu g/m^3$	1993	0.071	160.1	187	0.2
	$\mu g/m^3$	1994	0.066	160.2	250	0.2
Annual Average	$\mu g/m^3$	1990	0.015	160.1	166	0.1
	$\mu g/m^3$	1991	0.015	160.1	169	0.1
	$\mu g/m^3$	1992	0.016	160.1	167	0.1
	$\mu g/m^3$	1993	0.017	160.1	167	0.1
	$\mu g/m^3$	1994	0.018	160.1	179	0.1
Particulate Matter 10 Microns						
24-hour Average	$\mu g/m^3$	1990	0.053	160.3	292	0.3
	$\mu g/m^3$	1991	0.040	160.3	295	0.3
	$\mu g/m^3$	1992	0.044	160.2	209	0.3
	$\mu g/m^3$	1993	0.043	160.3	298	0.3
	$\mu g/m^3$	1994	0.048	160.4	23	0.3
Annual Average	$\mu g/m^3$	1990	0.007	160.1	166	0.1
	$\mu g/m^3$	1991	0.007	160.1	169	0.1
	$\mu g/m^3$	1992	0.007	160.1	167	0.1
	$\mu g/m^3$	1993	0.008	160.1	167	0.1
	$\mu g/m^3$	1994	0.008	160.1	179	0.1

NOTES

[a] - Maximum over all receptors and all years modeled (1990-1994).

[b] - Distance and direction are relative to the No. 5 Power Boiler stack location at UTM coordinates 469,198 m E, 3,385,689 m N.

7.6 CLASS II IMPACTS

A discussion of the impacts of the proposed project on the Class II area surrounding the Mill is provided in this subsection. As part of this discussion, the potential growth resulting from the project will be estimated. Additionally, acidification of rainfall and impacts on soil and vegetation will be qualitatively addressed. Finally a discussion of the impact that VOC emissions from the project may have on existing ozone levels is provided.

7.6.1 Potential Growth

According to Florida Administrative Code (F.A.C.) Rule 62-212.400(3)(h)(5), information concerning the air quality, commercial, residential, and industrial growth since 1977 should be addressed "in the area the facility or modification would affect". For purposes of defining the area where the proposed modification will have an affect, the annual significant impact area for SO_2 was selected. Project related emissions of SO_2 resulted in the greatest downwind distance to a 1.0 $\mu g/m^3$ concentration level relative to PM_{10} and NO_2. Since changes in growth are long-term, an annual averaging period should be used to establish the area for assessing any changes that have occurred since 1977. For the proposed project, the maximum SIA extends approximately 7 km from the center of the Mill processing area. USGS maps for the 1977 time period and a recent 1999 digital ortho photo quads were used to assess the growth within the SIA.

A circle with a radius of 7 km was established and used with USGS maps to establish the baseline conditions for the 1977 period. The 1:24,000 scale USGS topographic map for this time period shows that there are residential communities to the west and northwest of the Mill. In addition, there is a small community to the east of the Mill. The digital ortho quad shows that there has been some expansion of these residential communities in the past 25 years especially the small community to the east of the Mill, which has increased by 70 to 80 homes. Also, several small businesses have been established to the east of the Mill. A significant portion of the land used within a 7 km radius of the Mill is unchanged from the baseline period.

The proposed project is not expected to contribute to significant growth at the Mill. No additional employees will be required as a result of the changes. Furthermore, there is no anticipated increase in local industrial growth due to this project.

7.6.2 Acidification of Rainfall and Soil

Vegetation can be impacted from the emission of excessive amounts of common atmospheric pollutants such as sulfur dioxide, nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen fluoride, ozone, hydrocarbons, particulates and metals (Malhotra and Khan, 1984). In general, however the main atmospheric pollutants that affect vegetation are nitrate, sulfate and ozone, with ozone causing more damage to plants than all other air pollutants combined (ARS, 1999). The sensitivity of vegetation to atmospheric pollution varies greatly with such factors as plant species and variety, climatic and seasonal conditions, soil composition, the concentration and duration of exposure, and the nature of combinations of pollutants (Treshow, 1984; Whitmore, 1985). In general, plants tend to be more susceptible to visible damage during spring and summer growing seasons and when exposed to short-term, high concentrations as opposed to continuous lower levels of pollution (Hicks, 1978).

A summary of research on air pollution effects on vegetation divides air pollution injuries to plants into three general categories: acute, chronic, and subtle (Treshow, 1984). Acute injury is caused by exposure to a high concentration of a substance resulting in rapid visible death of some tissue. Chronic injury is caused by long-term exposure to low pollutant levels which gradually disrupts physiological processes and retards growth or yield (Hicks, 1978). The long-term subtle effects of air pollution on vegetation have been demonstrated (MacKenzie and El-Ashry, 1989). However, determining the threshold concentrations and exposure times that may cause subtle damage is difficult to define. The ambient air concentration levels that trigger acute and chronic effects are higher than the levels that can be expected from the Mill. A brief discussion of the possible impacts of NO_X, SO_2, and PM_{10} emissions on vegetation is provided below.

7.6.2.1 Nitrogen Oxides

Research has demonstrated that significant impacts to vegetation from nitrogen dioxide are limited to concentrations comparable to highly polluted areas (greater than 1,886 μ/m^3). These impacts include reduced growth and yield, reduced photosynthesis and plant metabolism impacts (Whitmore, 1985). Studies at lower concentrations of nitrogen dioxide have shown mixed results that are species specific. The response of species also varied with nutrient status of the soil (Whitmore, 1985).

Potential damage to vegetation in the area surrounding the Mill from oxides of nitrogen is unlikely. In general, acute damage to vegetation is not likely to occur at levels found outdoors, although some reduction in growth might occur at continuous nitrogen dioxide levels as low as 200 – 500 ug/m^3 (Joosting and ten Houten, 1972, Whitmore, 1985). These values are significantly above the NAAQS for nitrogen dioxide (100 ug/m^3). In view of the information presented on nitrogen dioxide levels that produce effects and the small increase in ambient concentration levels anticipated as a result of the proposed project at the Mill, adverse effects on vegetation are not expected to occur.

7.6.2.2 Sulfur Dioxide

Elevated SO_2 concentrations have the potential to damage vegetation. Sulfur dioxide passes through the plant's stomata and is absorbed into the leaf tissue. After the SO_2 has been absorbed into the leaf tissue, it is converted to sulfate, which is relatively non-toxic, or sulfite, which demonstrates a greater toxicity. Sulfite is subsequently converted to sulfurous acid that damages plant cells. Plants, especially conifers, appear to be most susceptible to SO_2 damage during spring and summer. Damage to susceptible plants has been reported due to short-term exposure to SO_2 concentrations of 1,200 $\mu g/m^3$. The ambient air SO_2 concentrations due to emission from the Mill are below NAAQS and thus should ensure that local vegetation is not adversely affected.

7.6.2.3 Particulate Matter

Particulate matter, another pollutant associated with the proposed Mill modification, is not likely to cause adverse effects on vegetation. Investigation of particulate effects on plants has generally shown no damage, although some interference with respiration and photosynthesis might occur if heavy crusts of dust accumulate on moist plant tissue (Jackson et al., 1970). This level of accumulation is more likely to be associated with heavy agricultural or construction activities than with highly controlled industrial particulate emissions. Furthermore, natural weather conditions tend to remove dust and particulates from plant surfaces before heavy accumulations can build up. Consequently, no adverse effects on vegetation are expected to result from PM_{10} emissions due to the Mill.

7.6.3 Increase in Ozone Levels

The area surrounding the Pensacola Mill is in attainment with the current 1-hour ozone standard. The most recent two years of ozone monitoring data for the Pensacola area are summarized in Table 7-20. It is anticipated that the proposed project related increase in VOC emissions (approximately 425 tpy) will not adversely impact these existing levels. In order to provide a semi-quantitative assessment of the impact project related VOC emissions could have on existing ozone levels, an ozone analysis using the Scheffe method was conducted.

The Scheffe method incorporates work that was performed by Mr. Richard Scheffe for U.S. EPA's Office of Air Quality Planning and Standards (OAQPS) Source Receptor Analysis Branch. These procedures were developed as a draft in September 1988 and have not been finalized. The Scheffe approach is based on model predictions from the Reactive Plume Model–II (RPM–II). Multiple modeling analyses were performed using the RPM–II to develop two tables that related mass emission rates of VOC and oxides of nitrogen (NO_X) from a single point source to ozone concentrations. The tables were generated for application in rural and urban areas. The RPM–II ozone concentration results that were generated are conservative predictions.

Table 7-20
Ozone Monitoring Data

Year	1-Hour Monitored Value ($\mu g/m^3$)	Monitor Location
2002	0.102	Ellyson Industrial Park, Escambia County
2002	0.092	Naval Air Station, Escambia County
2002	0.098	Navy Blvd, Escambia County
2001	0.104	Ellyson Industrial Park, Escambia County
2001	0.106	Naval Air Station, Escambia County
2001	0.092	Navy Blvd, Escambia County

To use the Scheffe tables, an annual VOC emission rate based on daily maximum VOC emissions and a VOC/NO_X annual emission ratio are required. The maximum daily VOC emissions from the Pensacola facility include emissions from all the project related sources is equal to 425 tpy.

The annual NO_X and VOC emission rates, which are based on project related emission, were used to calculate a VOC/NO_X ratio. As previously stated the VOC annual emissions are 425 tpy. The annual project-related NO_X emissions are estimated to be approximately 818 tpy. Using the 425 tpy VOC and 818 tpy NO_X emission rates, the VOC/NO_X emission ratio is 0.52

The maximum annual VOC emission rate of 425 tpy and the 0.52 VOC/NO_X emission ratio were used with the rural matrix of ozone values that are listed in Table 1 of the Scheffe report. The ozone values listed in Scheffe Table 1 for 300 tpy and 500 tpy of VOC are 1.7 parts per hundred million (pphm) and 1.9 pphm. Performing a linear interpolation between the 1.9 pphm and 1.7 pphm values results in an expected ozone impact of 1.8 pphm or 0.018 ppm. These calculations are summarized in Table 7-21.

The predicted ambient air ozone concentration due to the proposed project at the Pensacola facility is 0.018 ppm or approximately 14.5% of the current ozone standard (0.12 ppm). This contribution is a relatively minor amount of the total, regional ozone level as determined from 2001 and 2002 ozone monitoring data from Escambia County, which are listed in Table 7-20. IP believes that using the Scheffe modeling approach represents a conservative demonstration of what potential ozone concentrations could result due to VOC and NO_X emission from the Pensacola Mill. Therefore, there is no need to conduct ozone monitoring as a result of the proposed project.

Table 7-21
Ozone Calculations
International Paper Company
Pensacola, Florida

Pollutant	Calculated Annual NO_X and VOC Emissions (tpy)	Maximum Annual Emissions (tpy
NO_X	818	818
VOC	425.73	426

VOC/NO_X Ratio		0.52

Scheffe VOC Emissions (tpy)	Rural Based Ozone Level for Sources with 0.52 VOC/NO_X Ratio (pphm)
300	1.7
500	1.9

Calculated VOC Emissions (tpy)	Interpolated Ozone Level (pphm)	Ozone Level (ppm)
425.73	1.82573	0.018

Interpolated Ozone Level = ((426-300) x (1.9-1.7))/(500-300) + 1.7

7.7 REFERENCES

Auer 1978, Auer Jr., A.H., - "Correlation of Land Use and Cover with Meteorological Anomalies", Journal of Applied Meteorology, 17:636-643, 1978.

Högström and Högström 1978 – "A Practical Method for Determining Wind Frequency Distribution for the Lowest 200 m from Routine Meteorological Data" Journal of Applied Meteorology Volume 17, July 1978 942-954.

USEPA 1985 – "Guideline for Determination of Good Engineering Practice (GEP) Stack Height (Technical Support Document for Stack Height Regulations) Revised" EPA-450:4-80-023R, June 1985.

USEPA 1993 – "User's Guide to the Building Profile Input Program", October 1993.

USEPA 1995 – "User's Guide for the Industrial Source Complex (ISC3) Dispersion Models Volume II – Description of Model Algorithms", U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC, September 1995.

USEPA 1998 – "Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts" EPA-454/R-98-019, December 1998.

USEPA 1999 – "Revised Draft User's Guide AERMOD Meteorological Preprocessor (AERMET)", U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC, January 1999.

U.S.F.S. 2000 – "Federal Land Managers' Air Quality Related Values Workgroup (FLAG) Phase I Report" December 2000.

USEPA 2001 – 40 CFR Part 51 Appendix W "Guideline on Air Quality Models (Revised) July 2001.

USEPA 2002a – "Revised Draft User's Guide for the AERMOD Terrain Preprocessor (AERMAP)" U.S. Environmental Protection Agency Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division Research Triangle Park, NC, August 2002.

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 Title V 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.

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: ***International Paper Company***	
2. Site Name: ***Pensacola Mill***	
3. Facility Identification Number: ***10PEN170042*** [ ] Unknown	
4. Facility Location: ***Cantonment, FL*** Street Address or Other Locator: ***375 Muscogee Road*** City: ***Cantonment*** County: ***Escambia*** Zip Code: ***32533-0087***	
5. Relocatable Facility? [ ] Yes [*X*] No	6. Existing Permitted Facility? [**X**] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: ***Jim Spahr, Senior Environmental Engineer***
2. Application Contact Mailing Address: Organization/Firm: ***International Paper Company Pensacola Mill*** Street Address: ***375 Muscogee Road*** City: ***Cantonment*** State: ***FL*** Zip Code: ***32533-0087***
3. Application Contact Telephone Numbers: Telephone: ***(904) 968 - 2121*** **Fax: *(904) 968 - 3068***

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	0330042-008-AC
3. PSD Number (if applicable):	PSD-FL-335
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: ____________________

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: ____________________

Operation permit number to be revised: ____________________

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: ____________________

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: ____________________

Reason for revision: ____________________

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[*X*] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1.	Name and Title of Owner/Authorized Representative or Responsible Official: ***Nicki S. Slusser, Mill Manager***
2.	Owner/Authorized Representative or Responsible Official 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 or Responsible Official Telephone Numbers: Telephone: ***(904) 968 - 2121*** Fax: ***(904) 968 - 3068***
4.	Owner/Authorized Representative or Responsible Official Statement: *I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions unit.* Nicki S. Slusser 7/17/03 Signature Date

* Attach letter of authorization if not currently on file.

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 x 12*** Fax: ***(610) 933-5127***

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(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

(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.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], 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 schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [✓], 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.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], 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.

Signature — 7/21/03 Date

(seal) **see attached exception** WVA

* Attach any exception to certification statement.

As an independent professional engineer and air quality consultant, my responsibilities with this project included the following:

- review and recommendation of air pollution control strategy;
- qualification and quantification of emissions of regulated air pollutants;
- identification of permitting approach; and
- development of the PSD permit application.

IP engineering personnel and emission unit/air pollution control device vendors have lead the design and engineering modifications to the emissions units and associated air pollution control equipment. IP staff are not under my direct supervision. I reviewed the data to the extent that it relates to applicable air quality regulatory and permitting requirements and found it to be in conformity with sound engineering principles applicable to the control of emissions of air pollutants.

Signature

7/21/03
Date

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
N/A	*Causticizing Operations*	*AC1F*	*$7,500 (PSD App.)*
050,051	*A and B Bleach Plant Lines*	*AC1C*	
063	*Kamyr Digester System*	*AC1E*	
030	*No. 1 Recovery Furnace*	*AC1C*	
029	*No. 2 Recovery Furnace*	*AC1C*	
055	*No. 2 Multiple Effect Evaporator Set*	*AC1F*	
046	*Lime Slaker*	*AC1E*	
N/A	*Oxygen Delignification (new Post O_2 Press)*	*AC1E*	
028	*Lime Kiln/Mud Dryer*	*AC1C*	

Application Processing Fee

Check one: [*X*] Attached - Amount: $ *7,500* [] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations: ***See Section 2 of the attached application narrative***
2. Projected or Actual Date of Commencement of Construction: ***10/03***
3. Projected Date of Completion of Construction: ***12/05***

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: East (km): North (km):			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): *30/30/19* Longitude (DD/MM/SS): *87/19/13*			
3. Governmental Facility Code: *0*	4. Facility Status Code: *A*	5. Facility Major Group SIC Code: *26*	6. Facility SIC(s): *2611*
7. Facility Comment (limit to 500 characters):			

Facility Contact

1. Name and Title of Facility Contact: *Jim Spahr, Senior Environmental Engineer*
2. Facility Contact Mailing Address: Organization/Firm: *International Paper Company Pensacola Mill* Street Address: *375 Muscogee Road* City: *Cantonment* State: *FL* Zip Code: **32533-0087**
3. Facility Contact Telephone Numbers: Telephone: *(908) 968 - 2121 x 3833* *Fax: (908) 968 - 3068*

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source?	[ ] Unknown
2. [*X*] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?	
4. [*X*] Major Source of Hazardous Air Pollutants (HAPs)?	
5. [ ] Synthetic Minor Source of HAPs?	
6. [*X*] One or More Emissions Units Subject to NSPS?	
7. [*X*] One or More Emission Units Subject to NESHAP?	
8. [*X*] Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):	

List of Applicable Regulations

See Section 5 of the attached application narrative	

B. FACILITY POLLUTANTS

List of Pollutants Emitted ***See Section 4 of the attached application narrative and previous Title V Application submittal.***

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	tons/year	4. Basis for Emissions Cap	5. Pollutant Comment

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements ***See Section 5 of the attached application narrative***

1. Area Map Showing Facility Location: [*X*] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Facility Plot Plan: [*X*] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested – S***ee previously submitted Title V Permit Application***
3. Process Flow Diagram(s): [*X*] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID:________ [ ] Not Applicable [*X*] Waiver Requested ***IP currently maintains roadways and equipment to minimize the generation of fugitive emissions.***
5. Fugitive Emissions Identification: [*X*] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 4 of the attached application narrative***
6. Supplemental Information for Construction Permit Application: [*X*] Attached, Document ID: [ ] Not Applicable ***See attached application narrative***
7. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities: [ ] Attached, Document ID:________ [*X*] Not Applicable
9. List of Equipment/Activities Regulated under Title VI: [ ] Attached, Document ID:________ [ ] Equipment/Activities On site but Not Required to be Individually Listed [*X*] Not Applicable
10. Alternative Methods of Operation: [ ] Attached, Document ID:________ [*X*] Not Applicable
11. Alternative Modes of Operation (Emissions Trading): [ ] Attached, Document ID:________ [*X*] Not Applicable
12. Identification of Additional Applicable Requirements: [*X*] Attached, Document ID:________ [ ] Not Applicable ***See Section 5 of the attached application narrative***
13. Risk Management Plan Verification: [*X*] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID:________) or previously submitted to DEP (Date and DEP Office: ***March 23, 2001 – NW District Air Program – Change of ownership*** [ ] Plan to be submitted to CEPPO (Date required:________________________) [ ] Not Applicable
14. Compliance Report and Plan: [ ] Attached, Document ID:________ [*X*] Not Applicable
15. Compliance Certification (Hard-copy Required): [ ] Attached, Document ID:________ [*X*] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

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).

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

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

[*X*] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Causticizing Area

4. Emissions Unit Identification Number: [*X*] No ID
ID: [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***Variable***	***26***	[***NO***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): *None*	
2. Control Device or Method Code(s): *None*	

Emissions Unit Details

1. Package Unit: *NA* Manufacturer: *NA*	Model Number: *NA*	
2. Generator Nameplate Rating: *NA*	MW	
3. Incinerator Information: Dwell Temperature: *NA* Dwell Time: *NA* Incinerator Afterburner Temperature: *NA*		 °F seconds °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: *NA*		
4. Maximum Production Rate: *NA*		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	*8760* hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: *NA*	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): *NA*		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment *1* of *1*

1. Segment Description (Process/Fuel Type) (limit to 500 characters): *Not Classified*		
2. Source Classification Code (SCC): *3-07-001-99*	3. SCC Units: *NA*	
4. Maximum Hourly Rate: *NA*	5. Maximum Annual Rate: *NA*	6. Estimated Annual Activity Factor: *NA*
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *NA*
10. Segment Comment (limit to 200 characters): ***Causticizing Area***		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H001	*None*		*NS*
H115	*None*		*NS*
VOC	*None*		*NS*
HAP	*None*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions *See Section 4 of the attached application narrative*

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions *1* of *1*

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation *1* of *1*

1. Visible Emissions Subtype: *NA*	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor *1* of *1*

1. Parameter Code: *NA*	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***See previously submitted Title V and Thermal Oxidizer Permit Applications***
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:_______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***In-line process. Causticizing Area Startup and Shutdown Procedures are maintained on-site.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID:________ [ ] Not Applicable ***See attached application narrative***
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
    [ ] Attached, Document ID:________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
    [ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
    [ ] Attached, Document ID:________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
    [ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

    [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
    Attached, Document ID:________

    [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
    Attached, Document ID:________

    [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
    Attached, Document ID:________

    [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
    Attached, Document ID:________

    [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
    Attached, Document ID:________

    [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
    Attached, Document ID:________

    [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

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. Regulated or Unregulated Emissions Unit? (Check one)

[ ] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
A-Line Bleach Plant Operations

4. Emissions Unit Identification Number: [ ] No ID
ID: ***050*** [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***1985***	***26***	[***NO***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): ***Scrubber (ClO_2)***	
2. Control Device or Method Code(s): ***070***	

Emissions Unit Details

1. Package Unit: Manufacturer: ***SUNDS***	Model Number: ***NA***
2. Generator Nameplate Rating: ***NA***	MW
3. Incinerator Information: Dwell Temperature: ***NA***	°F
Dwell Time: ***NA***	seconds
Incinerator Afterburner Temperature: ***NA***	°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: ***1038 ADTBP/day (A Line), 830 ADTBP/day (B Line)***		
4. Maximum Production Rate: ***1650 ADTBP/day – combined***		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	*8760* hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? *NA*	2. Emission Point Type Code:

3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):
MC pumps will not contain Emission Points and will not emit regulated air pollutants.

4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:

5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %

11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet

13. Emission Point UTM Coordinates:
Zone: East (km): North (km):

14. Emission Point Comment (limit to 200 characters):

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): *Not Classified*		
2. Source Classification Code (SCC): *3-07-001-99*	3. SCC Units: *ADTBP*	
4. Maximum Hourly Rate: *43.25*	5. Maximum Annual Rate: *378,870*	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *NA*
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO	*None*		*NS*
VOC	*None*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions __1__ of __1__

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation ___*1*___ of ___*1*___

1. Visible Emissions Subtype: *NA*	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor ___*1*___ of ___*1*___

1. Parameter Code: *NA*	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***See previously submitted Title V and Thermal Oxidizer Application.***
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Bleach Plant Area Startup and Shutdown Procedures are maintained on-site in the Control Room.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID:________ [ ] Not Applicable ***See attached application narrative***
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:________

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:________

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:________

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:________

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:________

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:________

[X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

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

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

[*X*] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Kamyr Digester System (LVHC NCG Handling System)

4. Emissions Unit Identification Number: [ ] No ID
ID: ***063*** [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***1982***	***26***	[***No***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): ***Thermal Oxidizer or Lime Kiln***
2. Control Device or Method Code(s): ***099***

Emissions Unit Details

1. Package Unit: Manufacturer: ***Kamyr***	Model Number: ***NA***
2. Generator Nameplate Rating: ***NA***	MW
3. Incinerator Information:	
Dwell Temperature: ***NA***	°F
Dwell Time: ***NA***	seconds
Incinerator Afterburner Temperature: ***NA***	°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: *1,133 ADTUP/day*		
4. Maximum Production Rate: *NA*		
5. Requested Maximum Operating Schedule:	*24* hours/day	*7* days/week
	52 weeks/year	*8760* hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: *NA*
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): ***NA – Emission Unit is vented to the Thermal Oxidizer or Lime Kiln.***	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	

5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %

11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters):	

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment *1* of *1*

1. Segment Description (Process/Fuel Type) (limit to 500 characters): *Digester/blow tank*		
2. Source Classification Code (SCC): *3-07-001-01*	3. SCC Units: *ADTUP*	
4. Maximum Hourly Rate: *47.2*	5. Maximum Annual Rate: *413,472*	6. Estimated Annual Activity Factor: *NA*
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *NA*
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H001	*099 – Thermal Oxidizer*		*NS*
H115	*099 – Thermal Oxidizer*		*NS*
VOC	*099 – Thermal Oxidizer*		*NS*
TRS	*099 – Thermal Oxidizer*		*WP*
HAP	*099 – Thermal Oxidizer*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour tons/year		4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year		
6. Emission Factor: Reference:		7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions *1* of *1* - ***see Section 5 of the attached application narrative***

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation ___*1*___ of ___*1*___

1. Visible Emissions Subtype: *NA*	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor ___*1*___ of ___*1*___

1. Parameter Code: *NA*	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [*X*] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested ***See previously submitted Title V and Thermal Oxidizer Permit Applications***
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [*X*] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested ***Kamyr Digester System Startup and Shutdown Procedures are maintained on-site in the Control Rooms and the Environmental Office.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [*X*] Attached, Document ID:________ [ ] Not Applicable ***See attached application narrative***
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [*X*] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:________

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:________

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:________

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:________

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:________

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:________

[X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

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

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

[*X*] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
No. 1 Recovery Furnace

4. Emissions Unit Identification Number: [ ] No ID
ID: ***030*** [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***1975***	***26***	[***NO***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1.	Control Equipment/Method Description (Limit to 200 characters per device or method): ***ESP***
2.	Control Device or Method Code(s): ***010***

Emissions Unit Details

1.	Package Unit: Manufacturer: ***B & W***	Model Number: ***NA***
2.	Generator Nameplate Rating: ***NA***	MW
3.	Incinerator Information: Dwell Temperature: ***NA*** Dwell Time: ***NA*** Incinerator Afterburner Temperature: ***NA***	 °F seconds °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: ***123,750 lb/hr BLS***		
4. Maximum Production Rate: ***481,136 lb/steam/hr***		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	***8760*** hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? *NA*	2. Emission Point Type Code: *1*	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): *NA*		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: *030*		
5. Discharge Type Code: *V*	6. Stack Height: *182* feet	7. Exit Diameter: *9* feet
8. Exit Temperature: *470* °F	9. Actual Volumetric Flow Rate: *308,000* acfm	10. Water Vapor: *NA* %
11. Maximum Dry Standard Flow Rate: *NA* dscfm	12. Nonstack Emission Point Height: *NA* feet	
13. Emission Point UTM Coordinates: Zone: *16* East (km): *469323.2* North (km): *3385736.3*		
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): ***Recovery Furnace with Direct Contact Evaporator***		
2. Source Classification Code (SCC): ***3-07-001-10***	3. SCC Units:	
4. Maximum Hourly Rate: ***61.88 TBLS***	5. Maximum Annual Rate: ***542,025 TBLS***	6. Estimated Annual Activity Factor: ***NA***
7. Maximum % Sulfur: ***Oil – 1%***	8. Maximum % Ash: ***NA***	9. Million Btu per SCC Unit: ***NA***
10. Segment Comment (limit to 200 characters): ***Natural gas and oil can be used for start-up and emergency. Normal fuel is BLS.***		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO	*010*		*NS*
H017	*010*		*NS*
H106	*010*		*NS*
H115	*010*		*NS*
H120	*010*		*NS*
NOX	*010*		*NS*
PM	*010*		*EL*
PM10	*010*		*EL*
SO2	*010*		*EL*
TRS	*010*		*EL*
VOC	*010*		*NS*
Total HAPs	*010*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 1 of 1 ***see Section 5 of the attached application narrative***

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1 - ***see Section 5 of the attached application narrative***

1. Visible Emissions Subtype: *NA*	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: ***EM, O2***	2. Pollutant(s): ***TRS***
3. CMS Requirement:	[*X*] Rule [ ] Other
4. Monitor Information: ***8850/100-DP*** Manufacturer: ***STI*** Model Number:	Serial Number: ***3169***
5. Installation Date: ***NA***	6. Performance Specification Test Date: ***11/90***
7. Continuous Monitor Comment (limit to 200 characters): ***62-296.404(5)(a) FAC***	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [*X*] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [ ] Not Applicable [*X*] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [ ] Not Applicable [*X*] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [*X*] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested ***Recovery Furnace Startup and Shutdown Procedures are maintained on-site in the Control Room.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [*X*] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:________ [*X*] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [*X*] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation [ ] Attached, Document ID:________ [X] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID:________ [X] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID:________ [X] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID:________ [X] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:________ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:________ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:________ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:________ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:________ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:________ [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

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

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

[*X*] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
No. 2 Recovery Furnace

4. Emissions Unit Identification Number: [ ] No ID
ID: ***029*** [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***1975***	***26***	[***NO***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): ***ESP***	
2. Control Device or Method Code(s): ***010***	

Emissions Unit Details

1. Package Unit: Manufacturer: ***B & W***	Model Number: ***NA***	
2. Generator Nameplate Rating: ***NA***	MW	
3. Incinerator Information: Dwell Temperature: ***NA*** Dwell Time: ***NA*** Incinerator Afterburner Temperature: ***NA***		 °F seconds °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: ***123,750 lb/hr BLS***		
4. Maximum Production Rate: ***481,136 lb/steam/hr***		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	***8760*** hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? *NA*	2. Emission Point Type Code: *1*

3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): *NA*
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: *G0828*

5. Discharge Type Code: *V*	6. Stack Height: *182* feet	7. Exit Diameter: *9* feet
8. Exit Temperature: *441* °F	9. Actual Volumetric Flow Rate: *304,601* acfm	10. Water Vapor: *NA* %

11. Maximum Dry Standard Flow Rate: *NA* dscfm	12. Nonstack Emission Point Height: *NA* feet

13. Emission Point UTM Coordinates: Zone: *16* East (km): *469302.5* North (km): *3385720.7*
14. Emission Point Comment (limit to 200 characters):

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment *1* of *1*

1. Segment Description (Process/Fuel Type) (limit to 500 characters): ***Recovery Furnace with Direct Contact Evaporator***		
2. Source Classification Code (SCC): ***3-07-001-10***	3. SCC Units:	
4. Maximum Hourly Rate: ***61.88 TBLS***	5. Maximum Annual Rate: ***542,025 TBLS***	6. Estimated Annual Activity Factor: ***NA***
7. Maximum % Sulfur: ***Oil – 1%***	8. Maximum % Ash: ***NA***	9. Million Btu per SCC Unit: ***NA***
10. Segment Comment (limit to 200 characters): ***Natural gas and oil can be used for start-up and emergency. Normal fuel is BLS.***		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO	*010*		*NS*
H017	*010*		*NS*
H106	*010*		*NS*
H115	*010*		*NS*
H120	*010*		*NS*
NOX	*010*		*NS*
PM	*010*		*EL*
PM10	*010*		*EL*
SO2	*010*		*EL*
TRS	*010*		*EL*
VOC	*010*		*NS*
Total HAPs	*010*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions 1 of 1 - ***see Section 5 of the attached application narrative***

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation *1* of *1* ***see Section 5 of the attached application narrative***

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor *1* of *1*

1. Parameter Code: ***EM, O2***	2. Pollutant(s): ***TRS***
3. CMS Requirement:	[***X***] Rule [ ] Other
4. Monitor Information: ***8850/100-DP*** Manufacturer: ***STI*** Model Number:	Serial Number: ***3169***
5. Installation Date: ***NA***	6. Performance Specification Test Date: ***11/90***
7. Continuous Monitor Comment (limit to 200 characters): ***62-296.404(5)(a) FAC***	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [ ] Not Applicable [X] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Recovery Furnace Startup and Shutdown Procedures are maintained on-site in the Control Room.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:________ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation [ ] Attached, Document ID:________ [X] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID:________ [X] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID:________ [X] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID:________ [X] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:________ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:________ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:________ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:________ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:________ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:________ [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

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).

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

[*X*] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Multiple Effect Evaporators Set #2

4. Emissions Unit Identification Number: [*X*] No ID
ID: ***055*** [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***1982*** ***Modified in 1995***	***26***	[***NO***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): ***Thermal Oxidizer or Lime Kiln***	
2. Control Device or Method Code(s): ***099***	

Emissions Unit Details

1. Package Unit: Manufacturer: ***Kamyr/Lundberg***	Model Number: ***NA***	
2. Generator Nameplate Rating: ***NA***	MW	
3. Incinerator Information:		
Dwell Temperature: ***NA***		°F
Dwell Time: ***NA***		seconds
Incinerator Afterburner Temperature: ***NA***		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: *NA*		
4. Maximum Production Rate: *NA*		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	*8760* hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): ***When both evaporator sets are operating the combined limit is 278,000 lb BLS/hr***		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? *NA*	2. Emission Point Type Code:
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): ***NA – Emission Unit is vented to the Thermal Oxidizer or Lime Kiln.***	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	

5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate acfm	10. Water Vapor: %

11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet
13. Emission Point UTM Coordinates: Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters):	

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment *1* of *1*

1. Segment Description (Process/Fuel Type) (limit to 500 characters): *Multi-effect Evaporator*		
2. Source Classification Code (SCC): *3-07-001-03*	3. SCC Units:	
4. Maximum Hourly Rate: *85 ADTUP*	5. Maximum Annual Rate: *744,600 ADTUP*	6. Estimated Annual Activity Factor: *NA*
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *NA*
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H001	*099 – Thermal Oxidizer*		*NS*
H115	*099 – Thermal Oxidizer*		*NS*
VOC	*099 – Thermal Oxidizer*		*WP*
TRS	*099 – Thermal Oxidizer*		*WP*
HAP	*099 – Thermal Oxidizer*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions *1* of *1* ***- see Section 5 of the attached application narrative***

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: *NA*	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: *NA*	2. Pollutant(s
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date: *NA*
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:________ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
    [ ] Attached, Document ID:________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
    [ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
    [ ] Attached, Document ID:________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
    [ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

    [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
    Attached, Document ID:________

    [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
    Attached, Document ID:________

    [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
    Attached, Document ID:________

    [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
    Attached, Document ID:________

    [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
    Attached, Document ID:________

    [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
    Attached, Document ID:________

    [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

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

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

[*X*] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Lime Slaker

4. Emissions Unit Identification Number: [ ] No ID
ID: ***046*** [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***1985***	***26***	[***NO***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): ***Wet Scrubber***	
2. Control Device or Method Code(s): ***001***	

Emissions Unit Details

1. Package Unit: Manufacturer: ***Goslin/Birmingham #20***	Model Number: ***NA***
2. Generator Nameplate Rating: ***NA*** MW	
3. Incinerator Information: Dwell Temperature: ***NA*** Dwell Time: ***NA*** Incinerator Afterburner Temperature: ***NA***	 °F seconds °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: *NA*		
4. Maximum Production Rate: ***24.06 TPH CaO***		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	*8760* hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): ***CaO added to Green Liquor***		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? *NA*	2. Emission Point Type Code: *1*	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): *NA*		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: ***G1035***		
5. Discharge Type Code: *V*	6. Stack Height: ***90*** feet	7. Exit Diameter: ***2.3*** feet
8. Exit Temperature: ***190*** °F	9. Actual Volumetric Flow Rate: ***5,330*** acfm	10. Water Vapor: *NA* %
11. Maximum Dry Standard Flow Rate: *NA* dscfm	12. Nonstack Emission Point Height: *NA* feet	
13. Emission Point UTM Coordinates: Zone: ***16*** East (km): ***469227.8*** North (km): ***3385591.9***		
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): *Not Classified*		
2. Source Classification Code (SCC): *3-07-001-99*	3. SCC Units:	
4. Maximum Hourly Rate: *24.06*	5. Maximum Annual Rate: *210,765*	6. Estimated Annual Activity Factor: *NA*
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *NA*
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
H001	*001*		*NS*
H115	*001*		*NS*
PM	*001*		*EL*
PM10	*001*		*EL*
Total HAPs	*001*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour tons/year		4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year		
6. Emission Factor: Reference:		7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions 1 of 1 - ***see Section 5 of the attached application narrative***

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation *1* of *1*

1. Visible Emissions Subtype: *NA*	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor *1* of *1*

1. Parameter Code: ***FLOW***	2. Pollutant(s): ***PM***
3. CMS Requirement:	[*X*] Rule [ ] Other
4. Monitor Information: ***NA*** Manufacturer: Model Number: Serial Number:	
5. Installation Date: ***NA***	6. Performance Specification Test Date: ***NA***
7. Continuous Monitor Comment (limit to 200 characters): ***Permit Condition***	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [ ] Not Applicable [X] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Lime Slaker Startup and Shutdown Procedures are maintained on-site in the Control Room.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:________ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation [ ] Attached, Document ID:________ [X] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID:________ [X] Not Applicable
13. Identification of Additional Applicable Requirements [ ] Attached, Document ID:________ [X] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID:________ [X] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:________ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:________ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:________ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:________ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:________ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:________ [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

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

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

[*X*] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Oxygen Delignification (new Post O_2 Press)

4. Emissions Unit Identification Number:
ID:

[*X*] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	***2004***	***26***	[***No***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): ***The unit will be initially uncontrolled; however, the unit is regulated under 40 CFR 63, Subpart S and is required to be collected and controlled by April 2006.***
2. Control Device or Method Code(s): *NA*

Emissions Unit Details

1. Package Unit: Manufacturer: ***TBD – O_2 System is Sunds***	Model Number: *NA*
2. Generator Nameplate Rating: *NA* MW	
3. Incinerator Information: Dwell Temperature: *NA* °F; Dwell Time: *NA* seconds; Incinerator Afterburner Temperature: *NA* °F	

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *NA*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: *940 ADTUP/day (Softwood)*		
4. Maximum Production Rate: *NA*		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	*8760* hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: *NA*	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): ***not constructed. Stack characteristics are still in preliminary design stages.***		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code:	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	9. Actual Volumetric Flow Rate: acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment *1* of *1*

1. Segment Description (Process/Fuel Type) (limit to 500 characters): *Not Classified*		
2. Source Classification Code (SCC): *3-07-001-99*	3. SCC Units: *NA*	
4. Maximum Hourly Rate: *NA*	5. Maximum Annual Rate: *NA*	6. Estimated Annual Activity Factor: *NA*
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *NA*
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			*EL*
TRS			*EL*
HAP			*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:	
3. Potential Emissions: lb/hour tons/year		4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year		
6. Emission Factor: Reference:		7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions *1* of *1* - ***see Section 5 of the attached application narrative***

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___1___

1. Visible Emissions Subtype: *NA*	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor ___1___ of ___1___

1. Parameter Code: *NA*	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***O_2 Delignification Startup and Shutdown Procedures are maintained on-site in the Control Rooms and the Environmental Office.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID:________ [ ] Not Applicable ***See attached application narrative***
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:________

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:________

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:________

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:________

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:________

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:________

[X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

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

[*X*] 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. Regulated or Unregulated Emissions Unit? (Check one)

[*X*] 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.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Lime Kiln/Mud Dryer

4. Emissions Unit Identification Number: [ ] No ID
ID: ***028*** [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	***1975***	***26***	[***NO***]

9. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): ***ESP and a Wet Scrubber***
2. Control Device or Method Code(s): ***010, 001***

Emissions Unit Details

1. Package Unit: Manufacturer: ***Alli-Chalmers/Ahlstrom***	Model Number: ***Variable***
2. Generator Nameplate Rating: ***NA*** MW	
3. Incinerator Information: Dwell Temperature: ***NA*** °F Dwell Time: ***NA*** seconds Incinerator Afterburner Temperature: ***NA*** °F	

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: *150*		mmBtu/hr
2. Maximum Incineration Rate: *NA*	lb/hr	tons/day
3. Maximum Process or Throughput Rate: *24.06 ton CaO/hr*		
4. Maximum Production Rate: *24.06 ton CaO/hr*		
5. Requested Maximum Operating Schedule:		
	24 hours/day	*7* days/week
	52 weeks/year	*8760* hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Section 5 of the attached application narrative.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? *NA*		2. Emission Point Type Code: *1*
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): *NA*		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: *G0931*		
5. Discharge Type Code: *V*	6. Stack Height: *136* feet	7. Exit Diameter: *6.5* feet
8. Exit Temperature: *164* °F	9. Actual Volumetric Flow Rate: *22,714* acfm	10. Water Vapor: *NA* %
11. Maximum Dry Standard Flow Rate: *NA* dscfm		12. Nonstack Emission Point Height: *NA* feet
13. Emission Point UTM Coordinates: Zone: *16*	East (km): *469302.5*	North (km): *3385720.7*
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): *Lime Mud*		
2. Source Classification Code (SCC): *3-07-001-06*	3. SCC Units: *ton CaO*	
4. Maximum Hourly Rate: *24.06*	5. Maximum Annual Rate: *210,766 ton CaO*	6. Estimated Annual Activity Factor: *NA*
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *NA*
10. Segment Comment (limit to 200 characters): ***Natural gas and oil can be used for start-up and emergency.***		

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): ***natural gas***		
2. Source Classification Code (SCC): *3-90-006-03*	3. SCC Units: *MMCF*	
4. Maximum Hourly Rate: *0.15*	5. Maximum Annual Rate: *1,288 (at 8760 hr/yr)*	6. Estimated Annual Activity Factor: *NA*
7. Maximum % Sulfur: *NA*	8. Maximum % Ash: *NA*	9. Million Btu per SCC Unit: *1020*
10. Segment Comment (limit to 200 characters): ***Natural gas and oil can be used for start-up and emergency.***		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 3 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): ***Fuel Oil***		
2. Source Classification Code (SCC): ***3-90-005-03***	3. SCC Units: ***gal***	
4. Maximum Hourly Rate: ***1,000***	5. Maximum Annual Rate: ***1,000 gal/yr***	6. Estimated Annual Activity Factor: ***NA***
7. Maximum % Sulfur: ***~1%***	8. Maximum % Ash: ***NA***	9. Million Btu per SCC Unit: ***150***
10. Segment Comment (limit to 200 characters): ***Natural gas and oil can be used for start-up and emergency.***		

Segment Description and Rate: Segment _____ of ____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO	*001*		*EL*
H001	*001*		*NS*
H115	*001*		*NS*
NOX	*001*		*EL*
PM	*001*		*EL*
PM10	*001*		*EL*
SO2	*001*		*EL*
TRS	*001*		*EL*
VOC	*001*		*EL*
Total HAPs	*001*		*NS*

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions ***See Section 4 of the attached application narrative***

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 ______ to ______ tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 characters):	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions __*1*__ of __*1*__ ***- see Section 5 of the attached application narrative***

1. Basis for Allowable Emissions Code: *NA*	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation ___*1*___ of ___*1*___ ***see Section 5 of the attached application narrative***

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor ___*1*___ of ___*1*___

1. Parameter Code: ***EM, O_2, pH***	2. Pollutant(s): ***TRS, SO_2 (surrogate)***
3. CMS Requirement:	[*X*] Rule [ ] Other
4. Monitor Information: ***8850/100-DP*** Manufacturer: ***STI*** Model Number: Serial Number: ***3163***	
5. Installation Date: ***NA***	6. Performance Specification Test Date: ***11/90***
7. Continuous Monitor Comment (limit to 200 characters): ***TRS - 62-296.404(5)(a) FAC, SO_2 – Permit Condition***	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID:________ [ ] Not Applicable [ ] Waiver Requested ***See Section 2 of the attached application narrative***
2. Fuel Analysis or Specification [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:________ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:________ [ ] Not Applicable [X] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:________ [ ] Previously submitted, Date:______________ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Lime Kiln Mud Dryer Startup and Shutdown Procedures are maintained on-site in the Control Room.***
7. Operation and Maintenance Plan [ ] Attached, Document ID:________ [X] Not Applicable [ ] Waiver Requested ***Mill Operation and Maintenance Plans are maintained on-site and are available for agency review.***
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:________ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:________ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
    [ ] Attached, Document ID:________ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
    [ ] Attached, Document ID:________ [X] Not Applicable

13. Identification of Additional Applicable Requirements
    [ ] Attached, Document ID:________ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
    [ ] Attached, Document ID:________ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

    [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
    Attached, Document ID:________

    [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
    Attached, Document ID:________

    [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
    Attached, Document ID:________

    [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
    Attached, Document ID:________

    [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
    Attached, Document ID:________

    [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
    Attached, Document ID:________

    [X] Not Applicable

APPENDIX B – SUPPORTING EMISSION RATE CALCULATIONS

TABLE B-1
IP PENSACOLA MILL
PROJECT BOB
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

PROJECT EMISSIONS INCREASE FROM MODIFIED UNITS

POLLUTANT	BASELINE EMISSIONS (1999/1998) (tons/yr)	FUTURE POTENTIAL TO EMIT (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO	768.81	3,301.08	2,532.27
NO_X	760.50	1,578.80	818.30
PM	284.66	586.35	301.69
PM_{10}	284.66	586.35	301.69
SO_2	118.27	1,354.44	1,236.17
TRS	19.22	69.02	49.80
VOC	149.97	438.40	288.43
H_2SO_4 *Mist*	7.53	8.67	1.14

- Baseline emissions based on the 1999/1998 baseline period. Future Potential to Emit is based on a combination of RBLC values and existing permit limits.

TAB[illegible]

IP PENSACOLA MILL

PRELIMINARY EMISSIONS INVENTORY

PSD APPLICABILITY ANALYSIS

NO. 1 RECOVERY FURNACE

POLLUTANT		BASELINE EMISSIONS[a] 1999/1998 Average (tons/yr)	PTE EMISSION Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO		453.14	500	ppmdv @ 8% O_2	BACT - RBLC	163,032	dscfm @ 8% O2	1556.58	1103.44
NO_X		339.30	110	ppmdv @ 8% O_2	BACT - RBLC	163,032	dscfm @ 8% O2	562.59	223.29
PM		129.60	0.021	gr/dscf @ 8% O_2	BACT - RBLC	163,032	dscfm @ 8% O2	128.53	-1.07
PM_{10}		129.60	0.021	gr/dscf @ 8% O_2	BACT - RBLC	163,032	dscfm @ 8% O2	128.53	-1.07
SO_2		66.35	151	lb/hr	BACT - Permit Limit	8,760	hrs/yr	661.38	595.03
TRS		5.85	5	ppmdv @ 8% O_2	BACT - RBLC	163,032	dscfm @ 8% O2	18.90	13.05
VOC		52.05	50	ppmdv @ 8% O_2	BACT - RBLC	163,032	dscfm @ 8% O2	88.95	36.90
H_2SO_4 Mist	(d)	3.78	0.016	lb/Ton BLS	NCASI TB 701, Mill A	61.88	Ton BLS/hr	4.34	0.56
Lead	(d)	8.3E-03	35	lb/10^6 Ton BLS	NCASI TB 701, Unit RFID1	61.88	Ton BLS/hr	9.5E-03	0.0012
Mercury	(d)	2.8E-02	120	lb/10^6 Ton BLS	NCASI TB 701, Unit RB11	61.88	Ton BLS/hr	3.3E-02	0.0042

[a] Baseline emissions were developed from the Annual Emission Inventories submitted by the mill.

[b] Existing Permit Limits for PM (3 lb/1000 lb BLS, 111 lb/hr) and TRS (5 ppm @ 8% O2) are less stringent then the values from the RACT/BACT/LAER Clearinghouse (RBLC).RBLC values. All emission factors were developed from the RBLC.

[c] Volumetric flow rate data and production data are mill values that have been corrected to the future scenario values.

[d] Pollutant not reported in EAOR. Value developed using the PTE emission factor and actual 1998/1999 production data.

Key Information:

Baseline Scenario

Emission Characteristics:	134,103	dscfm	2002 PM test results
	6.833	% O_2	
	0.009	gr/dscf - 2002 PM Testing	
	146,235	dscfm @ 8% O_2	
Production Characteristics:	472,001	tons BLS/yr	1999/1998 Average
	655	MMBtu/hr	Rated Heat Input on BLS
	572	MMBtu/hr	Rated Heat Input on Natural gas/Oil
	111,000	lb BLS/hr	Permitted BLS capacity

Future Scenario

Emission Characteristics:	163,032	dscfm @ 8% O_2	Baseline Volumetric Flowrate corrected to new production rate (146,235 x (123,750/111,000))
	93	ppmdv @ 8% O2 (back calculated from permit limit and future volumetric flow rate)	
Production Characteristics:	123,750	lb BLS/hr	Future BLS capacity based on 1650 ADBT/day and 3600 lb BLS/ADBT
	730	MMBtu/hr	Rated Heat Input on BLS corrected to new production rate (655 x (123,750/111,000))
	638	MMBtu/hr	Rated Heat Input on Natural gas/Oil corrected to new production rate (572 x (123,750/111,000))

TAB[illegible]3
IP PENSACOLA MILL
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

NO. 2 RECOVERY FURNACE

POLLUTANT		BASELINE EMISSIONS[a] 1999/1998 Average (tons/yr)	PTE EMISSION Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO		304.10	500	ppmdv @ 8% O_2	BACT - RBLC	176,895	dscfm @ 8% O2	1688.93	1384.83
NO_X		291.55	110	ppmdv @ 8% O_2	BACT - RBLC	176,895	dscfm @ 8% O2	610.43	318.88
PM		81.65	0.021	gr/dscf @ 8% O_2	BACT - RBLC	176,895	dscfm @ 8% O2	139.46	57.81
PM_{10}		81.65	0.021	gr/dscf @ 8% O_2	BACT - RBLC	176,895	dscfm @ 8% O2	139.46	57.81
SO_2		46.95	151	lb/hr	BACT - Permit Limit	8,760	hrs/yr	661.38	614.43
TRS		4.91	5	ppmdv @ 8% O_2	BACT - RBLC	176,895	dscfm @ 8% O2	20.51	15.60
VOC		52.42	50	ppmdv @ 8% O_2	BACT - RBLC	176,895	dscfm @ 8% O2	96.51	44.10
H_2SO_4 Mist	(d)	3.76	0.016	lb/Ton BLS	NCASI TB 701, Mill A	61.88	Ton BLS/hr	4.34	0.58
Lead	(d)	8.2E-03	35	lb/10^6 Ton BLS	NCASI TB 701, Unit RFID1	61.88	Ton BLS/hr	9.5E-03	0.0013
Mercury	(d)	2.8E-02	120	lb/10^6 Ton BLS	NCASI TB 701, Unit RB11	61.88	Ton BLS/hr	3.3E-02	0.0043

[a] Baseline emissions were developed from the Annual Emission Inventories submitted by the mill.
[b] Existing Permit Limits for PM (3 lb/1000 lb BLS, 111 lb/hr) and TRS (5 ppm @ 8% O2) are less stringent then the values from the RACT/BACT/LAER Clearinghouse (RBLC).RBLC values. All emission factors were developed from the RBLC.
[c] Volumetric flow rate data and production data are mill values that have been corrected to the future scenario values.
[d] Pollutant not reported in EAOR. Value developed using the PTE emission factor and actual 1998/1999 production data.

Key Information:

Baseline Scenario

Emission Characteristics:	131,460	dscfm	2002 PM test results
	5.33	% O_2	
	0.023	gr/dscf - 2002 PM Testing	
	158,669	dscfm @ 8% O_2	
Production Characteristics:	469,559	tons BLS/yr	1999/1998 Average
	655	MMBtu/hr	Rated Heat Input on BLS
	572	MMBtu/hr	Rated Heat Input on Natural gas/Oil
	111,000	lb BLS/hr	Permitted BLS capacity

Future Scenario

Emission Characteristics:	176,895	dscfm @ 8% O_2	Baseline Volumetric Flowrate corrected to new production rate (158,669 x (123,750/111,000))
	86	ppmdv @ 8% O2 (back calculated from permit limit and future volumetric flow rate)	
Production Characteristics:	123,750	lb BLS/hr	Future BLS capacity based on 1650 ADBT/day and 3600 lb BLS/ADBT
	730	MMBtu/hr	Rated Heat Input on BLS corrected to new production rate (655 x (123,750/111,000))
	638	MMBtu/hr	Rated Heat Input on Natural gas/Oil corrected to new production rate (572 x (123,750/111,000))

TABLE B-4
IP PENSACOLA MILL
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

NO. 1 SMELT DISSOLVING TANK

POLLUTANT	BASELINE EMISSIONS[a] 1999/1998 Average (tons/yr)	PTE EMISSION Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO	0.00						0.00	0.00
NO_X	0.00						0.00	0.00
PM	35.03	26.4	lb/hr	Permit Limit	8,760	hours/yr	115.63	80.61
PM_{10}	35.03	26.4	lb/hr	Permit Limit	8,760	hours/yr	115.63	80.61
SO_2	1.44	0.006	lb/ton BLS	Stack Testing	61.88	ton BLS/hr	1.63	0.19
TRS	0.85	0.048	lb/3000 lb BLS	Permit Limit	123,750	lb BLS/hr	8.67	7.83
VOC	14.60	3.46	lb/hr	Stack Testing	8,760	hours/yr	15.15	0.55
H_2SO_4 Mist	NA						0.00	#VALUE!

[a] Baseline emissions were developed from the Annual Emission Inventories submitted by the mill.
[b] Existing Permit Limits for PM (26.4 lb/hr) and TRS (0.048 lb/3000 lb BLS). All other emission factors were developed from the historical mill data.
[c] Production values that have been corrected to the future scenario values.

Key Information:

Baseline Scenario

Emission Characteristics:	9,346	dscfm	2002 PM test results
	20.9	% O_2	
	0.155	lb/3000 lb BLS	
Production Characteristics:	472,001	tons BLS/yr	1999/1998 Average
	42,319	lb smelt/hr	Permitted smelt capacity
	111,000	lb BLS/hr	Permitted BLS capacity

Future Scenario

Emission Characteristics:	10,420	dscfm	Baseline Volumetric Flowrate corrected to new production rate (9,346 x (123,750/111,000))
Production Characteristics:	123,750	lb BLS/hr	Future BLS capacity based on 1650 ADBT/day and 3600 lb BLS/ADBT
	47,180	lb smelt/hr	Future smelt capacity corrected to new production rate (42,319 x (123,750/111,000))

TABLE B-5
IP PENSACOLA MILL
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

NO. 2 SMELT DISSOLVING TANK

POLLUTANT	BASELINE EMISSIONS[a]	PTE EMISSION						PROJECT-RELATED EMISSIONS INCREASE
	1999/1998 Average (tons/yr)	Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	(tons/yr)
CO	0.00						0.00	0.00
NO_X	0.00						0.00	0.00
PM	25.80	26.4	lb/hr	Permit Limit	8,760	hours/yr	115.63	89.83
PM_{10}	25.80	26.4	lb/hr	Permit Limit	8,760	hours/yr	115.63	89.83
SO_2	1.33	0.006	lb/ton BLS	Stack Testing	61.88	ton BLS/hr	1.63	0.30
TRS	1.43	0.048	lb/3000 lb BLS	Permit Limit	123,750	lb BLS/hr	8.67	7.24
VOC	14.78	3.46	lb/hr	Stack Testing	8,760	hours/yr	15.15	0.38
H_2SO_4 Mist	NA						0.00	#VALUE!

[a] Baseline emissions were developed from the Annual Emission Inventories submitted by the mill.
[b] Existing Permit Limits for PM (26.4 lb/hr) and TRS (0.048 lb/3000 lb BLS). All other emission factors were developed from the historical mill data.
[c] Production values that have been corrected to the future scenario values.

Key Information:

Baseline Scenario

Emission Characteristics:	9,670	dscfm	2002 PM test results
	20.9	% O_2	
	0.205	lb/3000 lb BLS	
Production Characteristics:	469,559	tons BLS/yr	1999/1998 Average
	42,319	lb smelt/hr	Permitted smelt capacity
	111,000	lb BLS/hr	Permitted BLS capacity

Future Scenario

Emission Characteristics:	10,781	dscfm	Baseline Volumetric Flowrate corrected to new production rate (9,670 x (123,750/111,000))
Production Characteristics:	123,750	lb BLS/hr	Future BLS capacity based on 1650 ADBT/day and 3600 lb BLS/ADBT
	47,180	lb smelt/hr	Future smelt capacity corrected to new production rate (42,319 x (123,750/111,000))

TABLE
IP PENSACOLA MILL
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

LIME KILN/MUD DRYER

POLLUTANT		BASELINE EMISSIONS[a] 1999/1998 Average (tons/yr)	PTE EMISSION Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO		11.57	45	ppm @ 10% O2	BACT - Permit limit is more stringent than RBLC database	64,674	dscfm @ 10% O_2	55.57	44.00
NO_X		129.65	200	ppm @ 10% O_2	BACT - Permit limit is more stringent than RBLC database - 200 ppm conc.	64,674	dscfm @ 10% O_2	405.78	276.13
PM		8.69	0.033	gr/dscf @ 10% O_2	BACT - RBLC	64,674	dscfm @ 10% O_2	80.13	71.44
PM_{10}		8.69	0.033	gr/dscf @ 10% O_2	BACT - RBLC	64,674	dscfm @ 10% O_2	80.13	71.44
SO_2		2.20	6.49	lb/hr	BACT - Permit limit is more stringent than RBLC database, based on 130 lb/hr and 95% control efficiency	8,760	hr/yr	28.4	26.23
TRS		2.08	8	ppm @ 10% O2	BACT - Permit limit is more stringent than RBLC database	64,674	dscfm @ 10% O_2	5.65	3.57
VOC		2.74	104	ppm @ 10% O2	BACT - Permit limit is more stringent than RBLC database	64,674	dscfm @ 10% O_2	201.83	199.09
H_2SO_4 Mist		NA	NA	NA					
Lead	(d)	1.2E-02	160	lb/10^6 Ton CaO	NCASI TB 701, Unit LB2	24.06	Ton CaO/hr	1.7E-02	0.0045
Mercury	(d)	9.3E-03	120	lb/10^6 Ton CaO	NCASI TB 701, Unit LB2	24.06	Ton CaO/hr	1.3E-02	0.0033

[a] Baseline emissions were developed from the Annual Emission Inventories submitted by the mill (developed from 2002 testing).
[b] Existing Permit Limits for PM (10.9 lb/hr, 47.7 tpy), TRS (8 ppm @ 10% O2, 1.46 lb/hr), NOx (175 ppm or 200 ppm @ 10% O2), CO (45 ppm @ 10% O2, 6.75 lb/hr, 29.6 tpy), VOC (104 ppm @ 10% O2, 24.5 lb/hr, 107.3 tpy), and SO2 (6.49 lb/hr, 28.4 tpy). All other emission factors were developed from the RACT/BACT/LAER Clearinghouse (RBLC).
[c] Volumetric flow rate data and production data are mill values that have been corrected to the future scenario values.
[d] Pollutant not reported in EAOR. Value developed using the PTE emission factor and actual 1998/1999 production data.

Key Information:

Baseline Scenario

Emission Characteristics:

Natural Gas

		38,869 dscfm		2002 Stack Test
		5.2 % O_2		
PM	0.109 lb/ton CaO			2002 Stack Test
PM			10.9 lb/hr	Permit Limit
SO2	6.7 ppm		2.6 lb/hr	Permit Limit
NOX	44.87 ppm @ 10% O2		18.1 lb/hr	Permit Limit
CO	10.31 ppm @ 10% O2		2.5 lb/hr	Permit Limit
VOC	3.1 ppm @ 10% O2		1.2 lb/hr	Permit Limit

Oil

	40,930 dscfm		2002 Stack Test
	6.4 % O_2		
PM	0.169 lb/ton CaO		2002 Stack Test
PM		10.9 lb/hr	Permit Limit
SO2	1.0 ppm	0.4 lb/hr	Permit Limit
NOX	31.08 ppm @ 10% O2	12 lb/hr	Permit Limit
CO	7.19 ppm @ 10% O2	1.7 lb/hr	Permit Limit
VOC	0.4 ppm @ 10% O2	0.1 lb/hr	Permit Limit

Production Characteristics:

20.83	tons CaO/hr	Permitted CaO capacity
150	MMBtu/hr	Burner Heat Input based on 1992 PSD Permit Application
155,108	tons CaO/hr	1998/1999 Average

Future Scenario

Emission Characteristics:

Natural Gas

64,674 dscfm @ 10% O_2 Baseline Volumetric Flowrate corrected to new production rate

Oil

62,898 dscfm @ 10% O_2 Baseline Volumetric Flowrate corrected to

Production Characteristics:

24.06	tons CaO/hr	Future lime production based on 1650 ADBT/day and 700 lb CaO/ADBT
150	MMBtu/hr	Burner Heat Input based on vendor correspondance

TA[illegible]3-7
IP PENSACOLA MILL
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

LIME SLAKER

POLLUTANT		BASELINE EMISSIONS[a] 1999/1998 Average (tons/yr)	PTE EMISSION Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO		0.00						0.00	0.00
NO_X		0.00						0.00	0.00
PM		3.90	1.59	lb/hr	BACT - Permit Limit	8760	hours/yr	6.96	3.06
PM_{10}		3.90	1.59	lb/hr	BACT - Permit Limit	8760	hours/yr	6.96	3.06
SO_2		0.00						0.00	0.00
TRS	(d)	3.49	0.054	lb/ton CaO	BACT - NCASI TB 849 (average of 4 slaker vents) plus 20% safety factor	24.06	tons CaO/hr	5.69	2.20
VOC	(d)	3.19	0.049	lb/ton CaO	BACT - NCASI TB 676 plus 20% safety factor	24.06	tons CaO/hr	5.20	2.01
H_2SO_4 Mist								0.00	0.00

[a] Baseline emissions were developed from the Annual Emission Inventories submitted by the mill.
[b] Existing Permit Limits for PM (1.59 lb/hr). All other emission factors were developed from the historical mill data.
[c] Production values that have been corrected to the future scenario values.
[d] Pollutant not reported in EAOR. Value developed using a NCASI emission factor (as presented below) and actual 1998/1999 production data. PTE values developed represent a BACT determination. IP has included a 20% safety factor due to the limited data available and the fact that the value will be a permit limit.

Key Information:

Baseline Scenario

Emission Characteristics: NA

TRS	0.045	lb/ton CaO	NCASI TB 849
VOC	0.0411	lb/ton CaO	NCASI TB 676

Production Characteristics: 155,108 tons CaO/yr (1998/1999 Average)

Future Scenario

Emission Characteristics: 1.59 lb PM/hr Permit Limit

Production Characteristics: 24.06 tons CaO/hr Future lime production based on 1650 ADBT/day and 700 lb CaO/ADBT

TABLE B-8
IP PENSACOLA MILL
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

NEW POST O2 PRESS

POLLUTANT	BASELINE EMISSIONS[a] 1999/1998 Average (tons/yr)	PTE EMISSION Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO	0.00						0.00	0.00
NO_X	0.00						0.00	0.00
PM	0.00						0.00	0.00
PM_{10}	0.00						0.00	0.00
SO_2	0.00						0.00	0.00
TRS	0.00	0.0054	lb/ADTP	BACT - NCASI TB 849, Mill N plus 20% safety factor	940.00	ADTBP/day	0.93	0.93
VOC	0.00	0.0910	lb/ADTP	BACT - NCASI TB 675, Mill N plus a 20% safety factor	940.00	ADTBP/day	15.60	15.60
H_2SO_4 Mist							0.00	0.00

[a] Baseline emissions were developed from the Annual Emission Inventories submitted by the mill.
[b] Emission factors were developed from NCASI MACT Study testing.
[c] Production values that have been corrected to the future scenario values.

Key Information:

Baseline Scenario

Emission Characteristics: NA

Production Characteristics: 0 ADTBP/day

Future Scenario

Emission Characteristics:

Production Characteristics: 940.00 ADTBP/day Future softwood production based on capacity of unit

TABLE B-9
IP PENSACOLA MILL
PRELIMINARY EMISSIONS INVENTORY
PSD APPLICABILITY ANALYSIS

EXISTING POST O2 PRESS (CONTEMPORANEOUS PERIOD DECREASE)

POLLUTANT	BASELINE EMISSIONS[a] 1999/1998 Average (tons/yr)	PTE EMISSION Emission Factor[b]	Units	Source	Production[c]	Units	Emissions (tons/yr)	PROJECT-RELATED EMISSIONS INCREASE (tons/yr)
CO	0.00						0.00	0.00
NO_X	0.00						0.00	0.00
PM	0.00						0.00	0.00
PM_{10}	0.00						0.00	0.00
SO_2	0.00						0.00	0.00
TRS	0.61	0.0045	lb/ADTP	NCASI TB 849, Mill N	0.00	ADTP/yr	0.00	-0.61
VOC	10.20	0.075	lb/ADTP	NCASI TB 675, Mill N	0.00	ADTP/yr	0.00	-10.20
H_2SO_4 Mist							0.00	0.00

[a] Baseline emissions were developed using the PTE emission factor and actual 1998/1999 production data
[b] Emission factors were developed from NCASI MACT Study testing.
[c] Production values that have been corrected to the future scenario values.
[d] Pollutant not reported in EAOR. Value developed using the PTE emission factor and actual 1998/1999 production data.

Key Information:

Baseline Scenario

Emission Characteristics: NA

Production Characteristics: 271,985 DTBP/yr (1998/1999 Average)

Future Scenario

Emission Characteristics:

Production Characteristics: 800.00 ADTBP/day Current softwood production based on capacity of unit

TAB
AFFECTED UNITS PROJECT EMISSIONS INVENTORY

INTERNATIONAL PAPER COMPANY - PENSACOLA MILL

Emission Unit ID	*Emission Unit Description*		*Emission Unit Category*	*Pollutant*	*2001 Actual (TPY)*	*2000 Actual (TPY)*	*1999 Actual (TPY)*	*1998 Actual (TPY)*	*2000/2001 Average Baseline (TPY)*	*1998/1999 Average Baseline (TPY)*	*Potential to Emit - Post Project (lb/hr)*	*Potential to Emit - Post Project (TPY)*	*Incremental Change Associated with the Project (lb/hr)*	*Incremental Change Associated with the Project[(a)] (TPY)*	
1	TALL OIL PLANT		Affected	TRS	0.14	0.34	0.27	0.20	0.24	0.31	0.08	0.34	0.01	0.04	Tall Oil
	TALL OIL PLANT			VOC	155.48	389.57	303.01	227.30	272.53	346.29	88.50	387.62	9.44	41.34	Tall Oil
4	METHANOL STORAGE TANK 21888 GALLONS	2001/2000 AVG	Affected	VOC	2.20				2.20	#DIV/0!	0.56	2.46	0.06	0.26	Pulp
44	P5 PAPER MACHINE, STARCH SILOS 1 & 2, CLAY SILO, DUST COLLEC		Affected	PM	0.72	1.51	0.06	0.05	1.11	0.78	0.20	0.88	0.02	0.09	Pulp
	P5 PAPER MACHINE, STARCH SILOS 1 & 2, CLAY SILO, DUST COLLEC			PM10	0.72	1.51	0.06	0.05	1.11	0.78	0.20	0.88	0.02	0.09	Pulp
45	P-5 PAPER MACHINE MAKE-DOWN AREA VENT		Affected	PM			0.57	0.47	#DIV/0!	0.57	0.14	0.63	0.02	0.07	Pulp
	P-5 PAPER MACHINE MAKE-DOWN AREA VENT			PM10			0.57	0.47	#DIV/0!	0.57	0.14	0.63	0.02	0.07	Pulp
52	WOODYARD ACTIVITY		Affected	PM	19.14	19.98	21.87	4.20	19.56	20.93	5.35	23.43	0.57	2.50	Chips
	WOODYARD ACTIVITY			PM10	10.30	12.51	12.02	2.30	11.41	12.26	3.13	13.73	0.33	1.46	Chips
58	PINE CHIP THICKNESS SCREENING SYSTEM & NEW PINE LONG LOG CHIP		Affected	PM			1.79	1.70	#DIV/0!	1.79	0.46	2.00	0.05	0.21	Chips
	PINE CHIP THICKNESS SCREENING SYSTEM & NEW PINE LONG LOG CHIP			PM10			0.63	0.60	#DIV/0!	0.63	0.16	0.71	0.02	0.08	Chips

(a) - The Incremental Change Associated with the Project for the Affected Units was calculated using the 2000/2001 Baseline period and adding in the incremental change in emissions associated with the project using the following relationship: a future production rate of 1,650 ADTBP/day and the following mill-specific conversions: 1 ADTBP=700 lb CaO=3,600 lb BLS

TABLE B-11
INTERNATIONAL PAPER - PENSACOLA MILL
SUMMARY OF PHASE I ACTIVITIES
EMISSIONS INVENTORY WITH NEW PHASE II PRODUCTION RATES

		1998/1999 BASELINE EMISSIONS						FUTURE POST PHASE II EMISSIONS					PHASE II ACTIVITIES (PROJECT RELATED) EMISSIONS
E.U. NUMBER	**EMISSIONS UNIT**	**POLLUTANT**	**EMISSION FACTOR [a]**	**UNITS**	**THROUGHPUT [b]**	**UNITS**	**EMISSION RATE (TONS/YR) [c]**	**EMISSION FACTOR**	**UNITS**	**THROUGHPUT**	**UNITS**	**EMISSION RATE (TONS/YR) [d]**	**(TONS/YR) [e]**
N/A	Causticizing Operations - New Causticizer												
		VOC	0.00139	lb/ton CaO	0	tons CaO/yr	0	0.00139	lb/ton CaO	155,108	tons CaO/yr	0.11	0.11
050, 051	Bleach Plant Operations												
	A Bleach Plant Line (Softwood)	CO	0.63	lb/ODTP	245,030	ODTP/yr	77.18	0.63	lb/ODTP	341,324	ODTP/yr	107.52	30.33
	B Bleach Plant Line (Hardwood)	CO											
	A Bleach Plant Line (Softwood)	VOC	0.52	lb/hr	8,236	hr/yr	2.14	0.52	lb/hr	8,760	hr/yr	2.28	0.14
	B Bleach Plant Line (Hardwood)	VOC	0.39	lb/hr	8,327	hr/yr	1.62	0.39	lb/hr	8,327	hr/yr	1.62	0.00
063	Kamyr Digester System												
		VOC			165	vent hours/yr	3.19			88	vent hours/yr	1.98	NA
		TRS			165	vent hours/yr	8.55			88	vent hours/yr	7.34	NA

(a) - The origination of the emission factors is explained in the Section 2 narrative.
(b) - Bleach Plant ODTP/yr throughput numbers are based on 1998/1998 baseline ADTP/yr values using a conversion of 1.11 ADTP/ODTP (NCASI TB 676). Bleach Plant hours of operation are based on 1999 actual hours of operation.
(c) - Baseline emission rates are 0 tons/yr for the New Causticizer (not in operation) and baseline emission rates for the Kamyr Digester system are based on actual direct to atmosphere venting time (see 1998 and 1999 AOR) as the gases were normally routed to the Lime Kiln during the 1998/1999 time period. The vent time was combined with the uncontrolled emission factors of 5 lb/ADTUP for TRS and 1.35 lb/ADTUP for VOC to calculate emissions.
(d) - Future Post Phase I emission rates are based on the NCASI emission factor and the average 1998/1999 production rates for the New Causticizer. Emission rates for the Kamyr Digester System are based on the 40 CFR 60, Subpart S 1% allowable venting time (87.6 hours), the mill uncontrolled VOC and TRS emission factors from note (c) above, and the total 1998/1999 unbleached pulp production from the Kamyr Digester System.

(Emission Factor [lb/ADTUP])(293,744 [ADTUP/yr])((87.6 [vent hours])/(8760 [operating hours]))/(2000 [lb/ton])

(e) - Project Related emissions are based on the difference of the Future Post Phase I emission rates and the 1998/1999 baseline emission rates.

TABLE B-13
HISTORICAL PRODUCTION RATES AND DEVELOPMENT OF MILL PROCESS RELATIONSHIPS

INTERNATIONAL PAPER COMPANY - PENSACOLA MILL

Year	*Units*	*2001*	*2000*	*1999*	*1998*	*1998/1999 Average*	*2001/2000 Average*	*Ratio based on New Mill Potential and 1998/1999 Baseline Average*	
No 1 RF Gas	**MCF/yr**	64,578	67,805	60,769	23,491	42,130	66,192		
No 1 RF BLS	**Tons/yr**	443,321	459,446	480,647	463,354	472,001	451,384	1.148	
No 2 RF Gas	**MCF/yr**	57,447	40,804	38,985	37,346	38,166	49,126		
No 2 RF BLS	**Tons/yr**	450,782	453,084	469,973	469,145	469,559	451,933	1.154	
Lime Kiln Gas	**MCF/yr**	277,556	363,214	589,820	717,527	653,674	320,385		
Lime Kiln Oil	**BBL/yr**	100,030	94,503	67,078	23,515	45,297	97,267		
Lime Kiln CaO	**Ton CaO/yr**	152,703	141,433	157,710	152,506	155,108	147,068	1.359	
Batch ADTBP	**ADTBP/yr**	250,490	259,802	270,259	261,824	266,042	255,146		
Continuous ADTBP	**ADTBP/yr**	237,324	246,576	272,199	271,770	271,985	241,950		
Batch ADTUP	**ADTUP/yr**	268,024	277,988	289,177	280,152	284,664	273,006		
Continuous ADTUP	**ADTUP/yr**	256,310	266,302	293,975	293,512	293,743	261,306		
Total ADTBP	**ADTBP/yr**	487,814	506,378	542,458	533,594	538,026	497,096	1.119	
Total SW Chips	**Ton Chips/yr**	1,063,364	1,185,212	1,316,022	1,300,035	1,308,029	1,124,288		
Total HW Chips	**Ton Chips/yr**	922,046	587,892	991,857	979,823	985,840	754,969		
Tall Oil Production	**Tons TO/yr**	3,916	10,876	11,013	7,717	9,365	7,396		
Tall Oil Ratio	**Tons TO/Total ADTBP**	0.0080	0.0215	0.0203	0.0145	0.017	0.015	1.119	Using ADTP production
SW Chip Relationship	**Tons SW Chips/Ton SW ADTBP/yr**	4.148742	4.4506299	4.476647	4.429246	4.453	4.300		
HW Chip Relationship	**Tons SW Chips/Ton SW ADTBP/yr**	3.440158	2.1148096	3.429929	3.497473	3.464	2.777		
Total Chip Relationship	**Tons Chips/Ton ADTBP**	4.070014	3.5015423	4.254484	4.272645	4.264	3.786	1.119	Using ADTP production

			1650 tons/day
Mill Relationship	**ADTBP**	1	602250 ADTBP/yr
	lb CaO	700	210787.5 tons CaO/yr
	lb BLS	3600	542025 tons BLS/yr/Recovery Furnace

Incremental Increase Ratios

	BLS	1.151
	CaO	1.359
	Pulp	1.119
	Tall Oil	1.119
	Chips	1.119

APPENDIX C – RACT/BACT/LAER CLEARINGHOUSE SEARCH RESULTS

Table C-1

Particulate Matter (PM) and Particulate Matter < 10 microns (PM10)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Recovery Furnaces - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	61.88	TONS BLS/HR			0.021	GR/DSCF AT 8% O2	ESP
AL-0047	ALABAMA RIVER PULP CO.	1/22/1990	5.5	MMLB/DAY BLS			0.025	GR/DSCF AT 8% O2	ESP
AL-0048	GULF STATES PAPER	3/12/1991	3.3	MMLB/D BLS			0.025	GR/DSCF AT 8% O2	ESP
AL-0065	BOISE CASCADE CORPORATION	4/1/1992	32600	LB BLS/DAY			0.021	GR/DSCF AT 8% O2	ESP
AL-0097	MEAD COATED BOARD, INC.	10/9/1996	2.7	MMLBS BLS/ DAY			0.036	GR/DSCF @ 8% O2	ESP
AL-0116	GULF STATES PAPER CORPORATION	12/10/1997	3.94	MM LBS BLS/DAY			0.021	GR/DSCF @ 8% O2	ESP
AL-0123	U S ALLIANCE	9/25/1998	0				0.015	GR/DSCF @ 8% O2	
AL-0131	SCOTT PAPER COMPANY	6/15/1992	122500	LB/H BLS			0.025	GR/DSCF @ 8% O2	ESP
FL-0058	GEORGIA-PACIFIC CORPORATION	6/12/1991	999999.99	MMBTU/HR			0.033	GR/DSCF AT 8% O2	ESP
FL-0099	GEORGIA-PACIFIC CORPORATION	9/21/1995	118	TPH ADUP			0.03	GR/DSCF AT 8% O2	ESP - REBUILT IN 1991
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS			0.03	GR/DSCF AT 8% O2	ESP
GA-0032	RIVERWOOD INTERNATIONAL	12/21/1990	3.5	MMLB/D BLS			0.027	GR/DSCF	ESP
GA-0032	RIVERWOOD INTERNATIONAL	12/21/1990	3.5	MMLB/D BLS			0.027	GR/DSCF	ESP
KY-0067	WILLAMETTE INDUSTRIES, INC. - BLEACHED PULP MILL	9/14/1993	87500	LB/H			0.025	GR/DSCF @ 8% O2	NO CONTROLS LISTED
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	139583	LB/H BLS			0.024	GR/DSCF @ 8% O2	ESP
LA-0117	GAYLORD CONTAINER CORP - BOGALUSA MILL	3/18/1999	908	MMBTU/H	1.04	LBS/TON	78.64	LB/H	
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	71	TBLS/H			0.02	G/DSCM	ESP
ME-0030	LINCOLN PULP AND PAPER CO., INC.	6/17/1905	1.9	MMLBS BLS/DAY			0.044	GR/DSCF AT 8% O2	ESP
MI-0024	INTERNATIONAL PAPER QUINNESEC MI	1993	3.66	MMLB BLS/DAY			0.027	gr/dscf @ 8% O2	ESP
MS-0022	LEAF RIVER FOREST PRODUCTS	7/14/1992	6.4	MMLB/D BLS			0.04	GR/DSCF @ 8% O2	COMPUTER OPERATED COMBUSTION CONTROL
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	7	MM LBS/DAY			0.023	GR/DSCF @ 8% O2	ESP
NA	MEAD CHILICOTHE OHIO	10/3/1997	3.4	MMLB/D BLS			0.021	GR/DSCF AT 8% O2	ESP
NA	GEORGIA PACIFIC	Permit under review	946	MMLB BLS/YR			0.025	gr/dscf @ 8% O2	ESP
NA	GEORGIA PACIFIC	Permit under review	1366	MMLB BLS/YR			0.025	gr/dscf @ 8% O2	ESP
NA	PACKAGING CORP. COUNCE TN	1998		NA			0.027	gr/dscf @ 8% O2	ESP
PA-0090	PENNTECH PAPERS INC. SUBSIDIARY WILLAMETTE IND.	12/9/1992	630	ADT/DAY			0.027	GR/DSCF AT 8% O2	ESP
PA-0090	PENNTECH PAPERS INC. SUBSIDIARY WILLAMETTE IND.	12/9/1992	630	ADT/DAY			0.027	GR/DSCF AT 8% O2	ESP
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP			0.03	GR/DSCF AT 8% O2	ESP
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	1463	T/D ADP			0.03	DR/DSCF AT 8% O2	ESP
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	822	T/D ADP			0.036	GR/DSCF AT 8% O2	ESP
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	4	MM LB BLS/DAY			0.021	GR/DSCF	ESP
VA-0173	CHESAPEAKE CORP.	3/1/1991	62.5	T BLS/H			0.03	GR/DSCF AT 8% O2	ESP
WA-0002	LONGVIEW FIBRE CO.	6/12/1905	1100	ADT/DAY			0.027	GR/DSCF AT 8% O2	ESP
WA-0022	JAMES RIVER CORP.	9/26/1991	523	MMBTU/H			0.033	GR/DSCF AT 8% O2	ESP W/HEAT RECOVERY
WA-0022	JAMES RIVER CORP.	9/26/1991	770	MMBTU/H			0.033	GR/DSCF AT 8% O2	ESP W/HEAT RECOVERY SCRUBBER
WI-0141	MOSINEE PAPER CORPORATION	6/17/1905	250	MMBTU/H			0.027	GR/DSCF AT 8% O2	ESP
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	1375	MMBTU/H			0.012	GR/DSCF @ 8% O2	ESP

Table C-2

Nitrogen Oxides (NOx)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Recovery Furnaces - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT				EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	61.88	TONS BLS/HR			110	PPMDV @ 8% O2	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
							128.4	LB/HR (NO. 1 RECOVERY FURNACE)	
							139.4	LB/HR (NO. 2 RECOVERY FURNACE)	
							0.20	LB/MMBTU (NO. 1 RECOVERY FURNACE)	
							0.21	LB/MMBTU (NO. 2 RECOVERY FURNACE)	
AL-0047	ALABAMA RIVER PULP CO.	1/22/1990	5.5	MMLB/DAY BLS			75	PPMV AT 8% O2	
AL-0048	GULF STATES PAPER	3/12/1991	3.3	MMLB/D BLS			90	PPMV AT 8% OXYGEN	BOILER DESIGN
AL-0053	JAMES RIVER PENNINGTON	8/16/1990	5.4	MMLB/D BLS			115	PPMV AT 8% O2	COMBUSTION CONTROLS
AL-0065	BOISE CASCADE CORPORATION	4/1/1992	32600	LB BLS/DAY			0.0115	PPMV @ 8% O2	NOT DESIGNED
AL-0097	MEAD COATED BOARD, INC.	10/9/1996	2.7	MM LBS BLS PER DAY			112	PPMDV @ 8% O2	COMBUSTION CONTROL
AL-0116	GULF STATES PAPER CORPORATION	12/10/1997	3.94	MM LBS BLS/DAY			90	PPMDV @ 8% O2	PROPER DESIGN AND OPERATION
AL-0123	U S ALLIANCE	9/25/1998	0				338.5	LB/H	
AL-0131	SCOTT PAPER COMPANY	6/15/1992	122500	LB/H BLS			90	PPM @ 8% O2	
AR-0027	POTLATCH CORPORATION - CYPRESS BEND MILL	3/3/2000	2.57	MMLB BLS/D			110	PPMDV	PROPER DESIGN AND OPERATION
CA-0866	LOUISIANA PACIFIC SAMOA	4/12/1999	3	MM LB BLS/DAY			78	PPM AT 8% O2 (12hr avg)	GOOD COMBUSTION CONTROL
FL-0058	GEORGIA-PACIFIC CORPORATION	6/12/1991	999999.99	MMBTU/HR			100	PPMVD AT 8% O2	COMBUSTION CONTROL
FL-0099	GEORGIA-PACIFIC CORPORATION	9/21/1995	118	TPH ADUP			80	PPMVD AT 8% O2	COMBUSTION MODIFICATION COMBUSTION CONTROL TECHNOLOGY
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS			0.2	LB/MMBTU	
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS			0.2	LB/MMBTU	
GA-0032	RIVERWOOD INTERNATIONAL	12/21/1990	3.5	MMLB/D BLS			120	PPM	STAGED COMBUSTION
KY-0067	WILLAMETTE INDUSTRIES, INC. - BLEACHED PULP MILL	9/14/1993	87500	LB/H			150	PPM @ 8% O2	NO CONTROLS LISTED IN PERMIT
LA-0064	STONE CONTAINER CORPORATION	1/9/1990	800	TON/DAY ADP			198	LB/HR	COMBUSTION CONTROL
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1400	T ADP/D			206.1	LB/H	DESIGN & OPERATION
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	139583	LB/H BLS			137.9	LB/H	COMBUSTION CONTROL/DESIGN
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	1117	T ADP			137.9	LB/H	COMBUSTION CONTROL/DESIGN
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	71	TBLS/H			147.8	LB/H	GOOD PROCESS CONTROLS
ME-0030	LINCOLN PULP AND PAPER CO., INC.	1995	1.9	MMLBS BLS/DAY			200	PPM WET AT 8% O2	COMBUSTION CONTROL/DESIGN
MI-0024	INTERNATIONAL PAPER QUINNESEC MI	1993	3.66	MMLB BLS/DAY			120	ppmdv @ 8% O2	PROPER OPERATION
MS-0018	LEAF RIVER FOREST PRODUCTS	4/9/1991	6	MMLB/D BLS			80	PPM AT 8% O2	COMPUTER OPERATED COMBUSTION CONTROL
MS-0022	LEAF RIVER FOREST PRODUCTS	7/14/1992	6.4	MMLB/D BLS			110	PPM AT 8% O2	COMPUTER OPERATED COMBUSTION CONTROL
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	7	MM LBS/DAY			80	PPMVD @ 8% O2	STAGED COMBUSTION
NA	MEAD CHILICOTHE OHIO	10/3/1997	3.4	MMLB/D BLS			110	ppmdv @ 8% O2	DESIGN & OPERATION
NA	PACKAGING CORP. COUNCE TN	1998		NA			110	ppmdv @ 8% O2	PROPER OPERATION
NA	GEORGIA PACIFIC	Permit under review	946	MMLB BLS/YR			112	ppmdv @ 8% O2	PROPER OPERATION
NA	GEORGIA PACIFIC	Permit under review	1366	MMLB BLS/YR			112	ppmdv @ 8% O2	PROPER OPERATION
NH-0006	GROVETON PAPER BOARD, INC.	5/31/1995	16.5	GAL/MIN@50+-5% SOLID			0.85	LBS/TON BLS	
PA-0090	PENNTECH PAPERS INC. SUBSIDIARY WILLAMETTE IND.	12/9/1992	630	ADT/DAY			110	PPM AT 8% O2	GOOD BOILER DESIGN AND OPERATIONAL
PA-0145	INTERNATIONAL PAPER COMPANY	12/21/1994	139583	LB/H BLS			0.2	LB/MMBTU	
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP			150	PPM, DRY BASIS	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	1463	T/D ADP			150	PPM, DRY BASIS AT 8%	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	822	T/D ADP			200	PPM AT 8% O2	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	4	MM LB BLS/DAY			100	PPM	GOOD COMBUSTION CONTROL
VA-0173	CHESAPEAKE CORP.	3/1/1991	62.5	T BLS/H			112	PPMDV AT 8% O2	FURNACE DESIGN & OPERATION
WA-0002	LONGVIEW FIBRE CO.	1990	1100	ADT/DAY			95	PPM AT 8% O2	FURNACE DESIGN AND EFFICIENT OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	523	MMBTU/H			2.13	LB/ADUT	DESIGN & OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	770	MMBTU/H			2.44	LB/ADUT	DESIGN & OPERATION
WI-0141	MOSINEE PAPER CORPORATION	1995	250	MMBTU/H			95	PPM AT 8% O2	GOOD COMBUSTION CONTROL
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	1375	MMBTU/H			40	PPMV @ 8% O2	SELECTIVE NON-CATALYTIC REDUCTION SYSTEM (OR EQUIVALENT)

Table C-3

Sulfur Oxides (SOx)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Recovery Furnaces - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	61.88	TONS BLS/HR	152	LB/HR	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
					94	PPMDV AT 8% O2 (NO. 1 RECOVERY FURNACE)	
					86	PPMDV AT 8% O2 (NO. 2 RECOVERY FURNACE)	
AL-0047	ALABAMA RIVER PULP CO.	1/22/1990	5.5	MMLB/DAY BLS	314.2	LB/H	
AL-0048	GULF STATES PAPER	3/12/1991	3.3	MMLB/D BLS	150	PPMV AT 8% OXYGEN	BOILER DESIGN
AL-0097	MEAD COATED BOARD, INC.	10/9/1996	2.7	MMLBS BLS/DAY	144	PPMDV @ 8% O2	BOILER DESIGN AND COMBUSTION CONTROL
AL-0116	GULF STATES PAPER CORPORATION	12/10/1997	3.94	MMLB/D BLS	100	PPMDV @ 8% O2	PROPER DESIGN AND OPERATON
AL-0123	U S ALLIANCE	9/25/1998			1647.7	LB/H	
AL-0131	SCOTT PAPER COMPANY	6/15/1992	122500	LB/H BLS	150	PPM @ 8% O2	
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS	300	PPM AT 8% O2	
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS	300	PPM AT 8% O2	
GA-0032	RIVERWOOD INTERNATIONAL	12/21/1990	3.5	MMLB/D BLS	100	PPM	
KY-0067	WILLAMETTE INDUSTRIES, INC. - BLEACHED PULP MILL	9/14/1993	87500	LB/H	200	PPM @ 8% O2	PROPER COMBUSTION CONTROL
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1400	T ADP/D	229	LB/H	LOW ODOR DESIGN
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	1117	T ADP	230.3	LB/H, NOTE 3	COMBUSTION CONTROL/DESIGN
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	139583	LB/H BLS	230.3	LB/H	COMBUSTION CONTROL/DESIGN
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	71	TBLS/H	510	LB/H	GOOD PROCESS CONTROLS
ME-0030	LINCOLN PULP AND PAPER CO., INC.	1995	1.9	MMLBS BLS/DAY	100	PPM WET AT 8% O2	COMBUSTION CONTROL/DESIGN
MI-0024	INTERNATIONAL PAPER QUINNESEC MI	1993	3.66	MMLB BLS/DAY	50	ppmdv @ 8% O2	PROPER OPERATION
MS-0022	LEAF RIVER FOREST PRODUCTS	7/14/1992	6.4	MM LB/D BLS	300	PPM @ 8% O2	COMPUTER OPERATED COMBUSTION CONTROL
NA	GEORGIA PACIFIC	Permit under review	946	MMLB BLS/YR	120	ppmdv @ 8% O2	PROPER OPERATION
NA	GEORGIA PACIFIC	Permit under review	1366	MMLB BLS/YR	120	ppmdv @ 8% O2	PROPER OPERATION
NA	PACKAGING CORP. COUNCE TN	1998		NA	110	ppmdv @ 8% O2	PROPER OPERATION
PA-0090	PENNTECH PAPERS INC. SUBSIDIARY WILLAMETTE IND.	12/9/1992	630	ADT/DAY	110	PPM AT 8% O2	CONTROLLED BY DESIGN
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP	200	PPM, DRY BASIS	LOW ODOR DESIGN BOILER
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	822	T/D ADP	200	PPM AT 8% O2	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	1463	T/D ADP	200	PPMDV @ 8% O2	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	4	MM LB BLS/DAY	75	PPM	GOOD COMBUSTION CONTROL
VA-0173	CHESAPEAKE CORP.	3/1/1991	62.5	T BLS/H	145	PPMDV AT 8% O2	FURNACE DESIGN & OPERATION
WA-0002	LONGVIEW FIBRE CO.	1990	1100	ADT/DAY	120	PPM AT 8% O2	FURNACE DESIGN AND EFFICIENT OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	523	MMBTU/H	10	PPM AT 8% O2	HEAT RECOVERY SCRUBBER
WA-0022	JAMES RIVER CORP.	9/26/1991	770	MMBTU/H	10	PPM AT 8% O2	HEAT RECOVERY SCRUBBER
WI-0141	MOSINEE PAPER CORPORATION	1995	250	MMBTU/H	209.8	TPY	GOOD COMBUSTION CONTROL
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	1375	MMBTU/H	10	PPM	EFFICIENT COMBUSTION

Carbon Monoxide (CO)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Recovery Furnaces - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	61.88	TONS BLS/HR	500	PPMDV @ 8% O2	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
					355.4	LB/HR (NO. 1 RECOVERY FURNACE)	
					385.6	LB/HR (NO. 2 RECOVERY FURNACE)	
					10.3	LB/ADTBP (NO. 1 RECOVERY FURNACE)	
					11.2	LB/ADTBP (NO. 2 RECOVERY FURNACE)	
AL-0047	ALABAMA RIVER PULP CO.	1/22/1990	5.5	MMLB/DAY BLS	200	PPMV AT 8% O2	
AL-0048	GULF STATES PAPER	3/12/1991	3.3	MMLB/D BLS	300	PPMV AT 8% OXYGEN	BOILER DESIGN
AL-0097	MEAD COATED BOARD, INC.	10/9/1996	2.7	MM LBS BLS/ DAY	300	PPMDV @ 8% O2	BOILER DESIGN AND COMBUSTION CONTROL
AL-0116	GULF STATES PAPER CORPORATION	12/10/1997	3.94	MM LBS BLS/DAY	250	PPMDV @ 8% O2	PROPER DESIGN AND OPERATION
AL-0123	U S ALLIANCE	9/25/1998	0		200	PPM	
AL-0131	SCOTT PAPER COMPANY	6/15/1992	122500	LB/H BLS	200	PPM @ 8% O2	
AR-0027	POTLATCH CORPORATION - CYPRESS BEND MILL	3/3/2000	2.57	MMLB BLS/D	300	PPMDV	PROPER DESIGN AND OPERATION
FL-0099	GEORGIA-PACIFIC CORPORATION	9/21/1995	118	TPH ADUP	800	PPM AT 8% O2	GOOD COMBUSTION COMBUSTION
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS	480	LB/H	
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS	480	LB/H	
GA-0032	RIVERWOOD INTERNATIONAL	12/21/1990	3.5	MMLB/D BLS	146.5	LB/H	
LA-0064	STONE CONTAINER CORPORATION	1/9/1990	800	TON/DAY ADP	434.6	LB/HR	COMBUSTION CONTROL
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1400	T ADP/D	350	LB/H	DESIGN & OPERATION
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	1117	T ADP	209.9	LB/H, NOTE 5	COMBUSTION CONTROL/DESIGN
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	139583	LB/H BLS	209.9	LB/H	COMBUSTION CONTROL/DESIGN
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	71	TBLS/H	754	LB/H	GOOD PROCESS CONTROLS
ME-0030	LINCOLN PULP AND PAPER CO., INC.	1995	1.9	MMLBS BLS/DAY	500	PPM WET AT 8% O2	COMBUSTION CONTROL/DESIGN
MI-0024	INTERNATIONAL PAPER QUINNESEC MI	1993	3.66	MMLB BLS/DAY	500	ppmdv @ 8% O2	PROPER OPERATION
MS-0018	LEAF RIVER FOREST PRODUCTS	4/9/1991	6	MMLB/D BLS	300	PPM AT 8% O2	COMPUTER COMBUSTION CONTROL
MS-0022	LEAF RIVER FOREST PRODUCTS	7/14/1992	6.4	MMLB/D BLS	300	PPM AT 8% O2	COMPUTER COMBUSTION CONTROL
MS-0022	LEAF RIVER FOREST PRODUCTS	7/14/1992	6.4	MM LB/D BLS	300	PPM @ 8% O2	COMPUTER COMBUSTION CONTROL
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	7	MM LBS/DAY	300	PPMVD @ 8% O2	EFFICIENT OPERATION
NA	MEAD CHILICOTHE OHIO	10/3/1997	3.4	MMLB/D BLS	300	PPMDV AT 8% O2	DESIGN & OPERATION
NA	PACKAGING CORP. COUNCE TN	1998		NA	300	ppmdv @ 8% O2	PROPER OPERATION
NA	GEORGIA PACIFIC	Permit under review	946	MMLB BLS/YR	400	ppmdv @ 8% O2	PROPER OPERATION
NA	GEORGIA PACIFIC	Permit under review	1366	MMLB BLS/YR	400	ppmdv @ 8% O2	PROPER OPERATION
PA-0090	PENNTECH PAPERS INC. SUBSIDIARY WILLAMETTE IND.	12/9/1992	630	ADT/DAY	300	PPM AT 8% O2	GOOD COMBUSTION
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP	2	LB/T ADP	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	822	T/D ADP	8	LB/T ADP	DESIGN & GOOD COMBUSTION PRACTICES
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	1463	T/D ADP	8	LB/T ADP	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	4	MM LB BLS/DAY	200	PPM	GOOD COMBUSTION CONTROL
VA-0173	CHESAPEAKE CORP.	3/1/1991	62.5	T BLS/H	250	PPMDV AT 8% O2	FURNACE DESIGN & OPERATION
WA-0002	LONGVIEW FIBRE CO.	1990	1100	ADT/DAY	300	PPM AT 8% O2	FURNACE DESIGN AND EFFICIENT OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	770	MMBTU/H	2755	T/YR	DESIGN & OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	523	MMBTU/H	2755	T/YR	DESIGN & OPERATION
WI-0141	MOSINEE PAPER CORPORATION	1995	250	MMBTU/H	3000/1000	PPM WET AT 8% O2 1&3 H(	GOOD COMBUSTION CONTROL
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	1375	MMBTU/H	17	PPMV @ 8 % O2	CATALYTIC OXIDATION SYSTEM

Volatile Organic Compounds (VOC)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Recovery Furnaces - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT				EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	61.88	TONS BLS/HR			50	PPMDV @ 8% O2	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
							20.3076	LB/HR (NO. 1 RECOVERY FURNACE)	
							22.0344	LB/HR (NO. 2 RECOVERY FURNACE)	
							0.6	LB/ADTBP (NO. 1 RECOVERY FURNACE)	
							0.6	LB/ADTBP (NO. 2 RECOVERY FURNACE)	
							0.031	LB/MMBTU (NO. 1 RECOVERY FURNACE)	
							0.03364	LB/MMBTU (NO. 2 RECOVERY FURNACE)	
AL-0047	ALABAMA RIVER PULP CO.	1/22/1990	5.5	MMLB/DAY BLS			0.048	LB/MMBTU	
AL-0048	GULF STATES PAPER	3/12/1991	3.3	MMLB/D BLS			0.048	LB/MM BTU	BOILER DESIGN
AL-0097	MEAD COATED BOARD, INC.	10/9/1996	2.7	MM LBS BLS PER DAY			0.048	LBS/MMBTU	BOILER DESIGN AND COMBUSTION CONTROL
AL-0116	GULF STATES PAPER CORPORATION	12/10/1997	3.94	MM LBS BLS/DAY			0.03	LB/MMBTU	PROPER DESIGN AND OPERATION
CT-0128	FRISMAR, INC.	10/6/1987	0				93	% REDUCTION	MINIMUM OVERALL REDUCTION LEVEL OF 93% ACHIEVED BY USE OF RECOVERY UNIT
FL-0058	GEORGIA-PACIFIC CORPORATION	6/12/1991	999999.99	MMBTU/HR			0.52	LB/T BLS	COMBUSTION CONTROL
FL-0099	GEORGIA-PACIFIC CORPORATION	9/21/1995	118	TPH ADUP			0.3	LB/TON BLS	GOOD COMBUSTION CONTROL
LA-0064	STONE CONTAINER CORPORATION	1/9/1990	800	TON/DAY ADP			34.4	LB/HR	COMBUSTION CONTROL
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1400	T ADP/D			116.6	LB/H	DESIGN & OPERATION
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	1117	T ADP			24	LB/H, NOTE 6	COMBUSTION CONTROL/DESIGN
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	139583	LB/H BLS			24	LB/H	COMBUSTION CONTROL/DESIGN
ME-0030	LINCOLN PULP AND PAPER CO., INC.	1995	1.9	MMLBS BLS/DAY			200	PPM WET AT 8% O2	COMBUSTION CONTROL/DESIGN
MI-0024	INTERNATIONAL PAPER QUINNESEC MI	1993	3.66	MMLB BLS/DAY			50	PPMDV AT 8% O2	PROPER OPERATION
MN-0025	BOISE CASCADE CORP.	6/30/1994	571	MMBTU/HR			0.6	LB/BDT OF BLS	COMBUSTION CONTROL
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	7	MM LBS/DAY			0.6	LBS/SHORT TON OF BLS	EFFICIENT OPERATION
NA	MEAD CHILICOTHE OHIO	10/3/1997	3.4	MMLB/D BLS			50	PPMDV AT 8% O2	DESIGN & OPERATION
NA	PACKAGING CORP. COUNCE TN	1998		NA			110	PPMDV AT 8% O2	PROPER OPERATION
NA	INTERNATIONAL PAPER	1997-1998	71	T BLS/hr			112.1	ton VOC/yr	PROPER OPERATION
NA	INTERNATIONAL PAPER	1997-1998	71	T BLS/hr			112.1	ton VOC/yr	PROPER OPERATION
PA-0090	PENNTECH PAPERS INC. SUBSIDIARY WILLAMETTE IND.	12/9/1992	630	ADT/DAY			18.2	LB/HR	CONTROLLED BY DESIGN
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP			2	LB/T ADP	BOILER DESIGN & GOOD COMBUSTION PRACTICES
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	4	MM LB BLS/DAY			40	PPM	GOOD COMBUSTION CONTROL
VA-0173	CHESAPEAKE CORP.	3/1/1991	62.5	T BLS/H			0.048	LB/MMBTU	FURNACE DESIGN & OPERATION
WA-0002	LONGVIEW FIBRE CO.	1990	1100	ADT/DAY			1	TON PER DAY	FURNACE DESIGN AND EFFICIENT OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	523	MMBTU/H			219	T/YR	DESIGN & OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	770	MMBTU/H			219	T/YR	DESIGN & OPERATION
WI-0141	MOSINEE PAPER CORPORATION	1995	250	MMBTU/H			39.95	T/YR	GOOD COMBUSTION CONTROL
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	1375	MMBTU/H			41.3	LB/H	RECOVERY BOILER INCINERATION IS THE CONTROL FOR VOC EMISSIONS FROM HVLC GAS COLLECTION SYSTEM. EFFICIENT COMBUSTION

Total Reduced Sulfur (TRS)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Recovery Furnaces - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	61.88	TONS BLS/HR	5	PPMDV @ 8% O2	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
AL-0047	ALABAMA RIVER PULP CO.	1/22/1990	5.5	MMLB/DAY BLS	5	ppmv @ 8% O2	
AL-0048	GULF STATES PAPER	3/12/1991	3.3	MMLB/D BLS	5	ppmv @ 8% O2	BOILER DESIGN
AL-0116	GULF STATES PAPER	12/10/1997	3.94	MMLB/D BLS	5	ppmv @ 8% O2	DESIGN and COMBUSTION CONTROL
AL-0123	U S ALLIANCE	9/25/1998	0		5	PPM @ 8% O2	
AL-0131	SCOTT PAPER COMPANY	6/15/1992	122500	LB/H BLS	5	PPM @ 8% O2	
AL-0148	INTERNATIONAL PAPER	4/14/2000	2.8	MMLB/D BLS	20	ppm	
AL-0148	INTERNATIONAL PAPER - PRATTVILLE	4/14/2000	2.85	MMLB/D	20	PPM	
AR-0027	POTLATCH CORPORATION - CYPRESS BEND MILL	3/3/2000	2.57	MMLB BLS/D	5	PPMDV	PROPER DESIGN AND OPERATION
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS	4.74	LB/H	
GA-0028	GREAT SOUTHERN PAPER	12/8/1989	63.56	T/H BLS	4.74	LB/H	
GA-0032	RIVERWOOD INTERNATIONAL	12/21/1990	3.5	MMLB/D BLS	5	ppm	DESIGN
KY-0067	WILLAMETTE INDUSTRIES, INC. - BLEACHED PULP MILL	9/14/1993	87500	LB/H	5	PPM @ 8% O2	
LA-0064	STONE CONTAINER CORPORATION	1/9/1990	800	TON/DAY ADP	25	ppm	DESIGN and COMBUSTION CONTROL
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	1117	T ADP	5.1	lb/hr	NON CONTACT EVAPORATOR
LA-0075	INTERNATIONAL PAPER COMPANY	2/24/1991	139583	LB/H BLS	5.1	LB/H	NONCONTACT EVAPORATOR
LA-0117	GAYLORD CONTAINER CORP - BOGALUSA MILL	3/18/1999	908	MMBTU/H	5.4	LB/H	MAINTAIN BLS SULFIDITY < 25%
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	71	TBLS/H	5	PPMV	
ME-0030	LINCOLN PULP AND PAPER CO., INC.	1995	1.9	MMLBS BLS/DAY	5	ppmv @ 8% O2	COMBUSTION CONTROL/DESIGN
MI-0024	INTERNATIONAL PAPER QUINNESEC MI	1993	3.66	MMLB BLS/DAY	5	ppmdv @ 8% O2	PROPER OPERATION
MS-0022	LEAF RIVER FOREST PRODUCTS	7/14/1992	6.4	MM LB/DAY BLS	5	ppm @ 8% O2	COMBUSTION CONTROL
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	7	MM LBS/DAY	5	ppmdv @ 8% O2	EFFECTIVE OPERATION
NA	GEORGIA PACIFIC	Permit under review	946	MMLB BLS/YR	5	ppmdv @ 8% O2	PROPER OPERATION
NA	GEORGIA PACIFIC	Permit under review	1366	MMLB BLS/YR	5	ppmdv @ 8% O2	PROPER OPERATION
NA	MEAD CHILICOTHE OHIO	10/3/1997	3.4	MMLB/D BLS	5	ppmdv @ 8% O2	DESIGN & OPERATION
NA	PACKAGING CORP. COUNCE TN	1998		NA	5	ppmdv @ 8% O2	PROPER OPERATION
PA-0090	PENNTECH PAPERS INC. SUBSIDIARY WILLAMETTE IND.	12/9/1992	630	ADT/DAY	5	ppmdv @ 8% O2	CONTOLLED BY DESIGN
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP	5	PPM AT 8% O2	LOW ODOR DESIGN BOILER
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	1463	T/D ADP	5	PPM AT 8% O2	LOW ODOR DESIGN BOILER
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	822	T/D ADP	8	PPM AT 8% O2	LOW ODOR DESIGN BOILER
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	4	MM LB BLS/DAY	5	ppm @ 8% O2	GOOD COMBUSTION CONTROL
VA-0173	CHESAPEAKE CORP.	3/1/1991	62.5	T BLS/H	5	ppmdv @ 8% O2	LOW ODOR DESIGN RECOVERY BOILER
WA-0002	LONGVIEW FIBRE CO.	1990	1100	ADT/DAY	3	ppm @ 8% O2	FURNACE DESIGN AND EFFICIENT OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	523	MMBTU/H	5	ppmdv @ 8% O2	CAUSTIC LIQUOR SCRUBBER, DESIGN & OPERATION
WA-0022	JAMES RIVER CORP.	9/26/1991	770	MMBTU/H	5	ppmdv @ 8% O2	CAUSTIC LIQUOR SCRUBBER, DESIGN & OPERATION
WI-0141	MOSINEE PAPER CORPORATION	1995	250	MMBTU/H	5	ppm @ 8% O2	GOOD COMBUSTION CONTROL
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	1375	MMBTU/H	1	PPMV @ 8% O2	CATALYTIC OXIDATION SYSTEM

Sulfuric Acid Mist (H_2SO_4)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Recovery Furnaces - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	61.88	TONS BLS/HR			0.21	LB/TON	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
AL-0047	ALABAMA RIVER PULP CO.	1/22/1990	5.5	MMLB/DAY BLS	0.137	LB/TON	15.7	LB/H	
AL-0048	GULF STATES PAPER	3/12/1991	3.3	MMLB/D BLS	0.183	LB/TON	12.6	LB/H	BOILER DESIGN
AL-0097	MEAD COATED BOARD, INC.	10/9/1996	2.7	MM LBS BLS PER DAY	0.217	LB/TON	12.2	LBS/HR	BOILER DESIGN
AL-0116	GULF STATES PAPER CORPORATION	12/10/1997	3.94	MM LBS BLS/DAY	0.042	LB/TON	0.042	LB/TON BLS	
WI-0141	MOSINEE PAPER CORPORATION	1995	250	MMBTU/H	0.031824	LB/TON	0.663	LB/HR	GOOD COMBUSTION CONTROL
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	1375	MMBTU/H	0.13701818	LB/TON	15.7	LB/H	EFFICIENT COMBUSTION
Others									
AL-0099	MEAD CONTAINERBOARD	1/15/1997	1700000	LB BLS/DAY			5	PPM @ 8% O2	INCINERATION
AL-0099	MEAD CONTAINERBOARD	1/15/1997	620	MMBTU/HR			0.001	LB/MMBTU	COMBUSTION CONTROL
AL-0047	ALABAMA RIVER PULP CO.	2/18/1987	465	T/D CAO			0.9	LB/H	
AL-0047	ALABAMA RIVER PULP CO.	2/18/1987	266	MMBTU/H			4	LB/H	

Table C-8

Particulate Matter (PM) and Particulate Matter < 10 microns (PM10)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Kiln - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	577.5	TON CAO/DAY			0.033	GR/DSCF AT 10% O2	ESP
							18.29	LB/HR	
AL-0152	GULF STATES PAPER CORP.	1/31/1994	650	TONS CAO/D			22	LB/H @ 10% O2 (GAS)	BOTH GRAIN LOADING LIMITS AT 10% OXYGEN. ALSO 22 LB/H @ 10% O2 GAS, 42 LB/H OIL.
FL-0058	GEORGIA-PACIFIC CORPORATION	6/12/1991	0				0.081	GR/DSCF @ 10% O2	WET SCRUBBER
FL-0087	*CHAMPION INTERNATIONAL CORP*	*3/25/1994*	*0*				*10.9*	*LB/H*	*ESP*
FL-0111	BUCKEYE FLORIDA, L.P.	8/13/1996	750	T/D LIME			20	LB/H	ESP
GA-0064	RIVERWOOD INTERNATIONAL CORPORATION	7/11/1996	8.4	T/H CAO PER KILN			0.15	GR/DSCM	VENTURI SCRUBBER FOR EACH LIME KILN
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	142	MMBTU/H			39.2	LB/H	VENTURI SCRUBBER USING CAUSTIC SOLUTION
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	650	ADT/D			0.013	GR/DSCF @ 10% O2	WET SCRUBBER
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	504	T/D CAO			0.033	GR/DSCF @ 10% O2	ESP
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	504	T/D CAO			0.033	GR/DSCF @ 10% O2	ESP
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	220	T/D CAO			0.054	GR/DSCF AT 10% O2	ESP
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	265	T/D CAO			0.1	GR/DSCF AT 10% O2	ESP
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	450	T/D CAO			0.033	GR/DSCF	ESP
WI-0097	NEKOOSA PAPER INCORPORATED	3/9/1995	45	MMBTU/H			9.9	LB/H	ESP. ALTERNATE LIMIT IS FOR FUEL OIL (0.067 GR/DSCF), STANDARD EMISSION LIMIT IS FOR NATURAL GAS (0.05 GR/DSCF).
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	65600	LB/H			1.88	LB/H	FABRIC FILTER -MIN CONTROL EFFICIENCY OF

Table C-9

Nitrogen Oxides (NOx)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Kiln - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT				EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	577.5	TON CAO/DAY			200	PPMDV @ 10% O2 - oil firing	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
							175	PPMDV @ 10% O2 - gas firing	
							3.85	LB/T CAO - oil firing	
							3.37	LB/T CAO - gas firing	
AL-0152	GULF STATES PAPER CORP.	1/31/1994	650	TONS CAO/D			175	PPMV @ 10% O2	
FL-0058	GEORGIA-PACIFIC CORPORATION	6/12/1991	0				290	PPMVD @ 10% O2	COMBUSTION CONTROL
FL-0087	***CHAMPION INTERNATIONAL CORP***	***3/25/1994***	***0***				***200***	***PPM***	***GOOD COMBUSTION***
FL-0111	BUCKEYE FLORIDA, L.P.	8/13/1996	750	T/D LIME			68.44	LB/H	GOOD COMBUSTION/BURNER MODIFICATIONS
GA-0064	RIVERWOOD INTERNATIONAL CORPORATION	7/11/1996	8.4	T/H CAO PER KILN			3.5	LB/T CAO	LOW NOX BURNERS
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1740	ADT/D PULP			51.5	LB/H	DESIGN & OPERATION
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	30	TONS/HR			103.7	LB/H	GOOD PROCESS CONTROLS, WATER CONTENT OF LIME
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	650	ADT/D			200	PPMV @ 10% O2	PROPER KILN OPERATION
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	504	T/D CAO			300	PPMVD @3.6% O2	EFFECTIVE OPERATION OF THE KILN
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	220	T/D CAO			35	LB/H	KILN DESIGN & OPERATION
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	265	T/D CAO			0.85	LB/MMBTU	KILN DESIGN & OPERATION
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	450	T/D CAO			175	PPM	GOOD COMBUSTION CONTROL
WI-0097	NEKOOSA PAPER INCORPORATED	3/9/1995	45	MMBTU/H			21.62	LB/H	THE PERMITTEE SHALL MAINTAIN AND OPERATE THE LIME KILN UNDER EFFICIENT COMBUSTION CONDITIONS.
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	65600	LB/H			21.8	LB/H	

Table C-10

Sulfur Oxides (SOx)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Kiln - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	577.5	TON CAO/DAY			6.49	LB/HR	WET SCRUBBER
AL-0152	GULF STATES PAPER CORP.	1/31/1994	650	TONS CAO/D			44	PPM @ 10% O2	
FL-0087	*CHAMPION INTERNATIONAL CORP*	*3/25/1994*	*0*				*6.49*	*LB/H*	
GA-0064	RIVERWOOD INTERNATIONAL CORPORATION	7/11/1996	8.4	T/H CAO PER KILN			41.6	LB/H	
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1740	ADT/D PULP			22.6	LB/H	CAUSTIC SCRUBBER
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	142	MMBTU/H			8.4	LB/H	CAO AND WET SCRUBBER USING CAUSTIC SOLUTION
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	650	ADT/D			50	PPMV @ 10% O2	PROPER KILN OPERATION, LOW SULFUR OIL, WET SCRUBBER
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	504	T/D CAO			50	PPMVD @10% O2	CONTINUED USE OF LOW-SULFUR FUELS
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	220	T/D CAO			10.5	LB/H	CHEMICAL REACTION WITH LIME
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	265	T/D CAO			0.2	LB/T ADP	CHEMICAL REACTION WITH LIME
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	450	T/D CAO			30	PPM	KILN OPERATION
WI-0097	NEKOOSA PAPER INCORPORATED	3/9/1995	45	MMBTU/H			6.85	LB/H	SYNTHETIC MINOR LIMIT
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	65600	LB/H			9.1	LB/H	FABRIC FILTER

Table C-11

Carbon Monoxide (CO)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Kiln - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	**INTERNATIONAL PAPER - PENSACOLA - PROPOSED**	**NA**	**577.5**	**TON CAO/DAY**			**45**	**PPMDV @ 10% O2**	**PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS**
							12.69	**LB/HR**	
AL-0152	GULF STATES PAPER CORP.	1/31/1994	650	TONS CAO/D			80	PPMV @ 10% O2	
FL-0058	GEORGIA-PACIFIC CORPORATION	6/12/1991	0				69	PPMVD @ 10% O2	COMBUSTION CONTROL
FL-0087	***CHAMPION INTERNATIONAL CORP***	***3/25/1994***	***0***				***45***	***PPMVD @ 10%***	
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1740	ADT/D PULP	0.35	LB/TON	7	LB/H	DESIGN & OPERATION
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	142	MMBTU/H	0.014	LB/TON	2	LB/H	GOOD PROCESS CONTROLS
LA-0155	ST. FRANCISVILLE MILL	4/29/2001	12.25	T CAO/H	0.40	LB/TON	4.9	LB/H	STACK TESTS
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	650	ADT/D	0.13	LB/TON	1	LB/ADT	PROPER KILN OPERATION
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	504	T/D CAO	0.099	LB/TON	50	LB/H	EFFICIENT OPERATION OF THE KILN
NC-0070	WEYERHAEUSER - PLYMOUTH PULP AND PAPER MILL	11/25/1998	500	BDT/D	2.55	LB/TON	14.6	LB/H	NO CONTROLS LISTED
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	220	T/D CAO	0.016	LB/TON	3.5	LB/H	KILN DESIGN & OPERATION
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	265	T/D CAO	0.000	LB/TON	0.1	LB/T ADP	KILN DESIGN & OPERATION
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	450	T/D CAO			75	PPM	GOOD COMBUSTION CONTROL
WI-0097	NEKOOSA PAPER INCORPORATED	3/9/1995	45	MMBTU/H	0.34	LB/MMBtu	15.12	LB/H	SYNTHETIC MINOR LIMIT
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	65600	LB/H	0.21	LB/TON	6.9	LB/H	

Table C-12

Volatile Organic Compounds (VOC)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Kiln - Kraft Paper Mills
INTERNATIONAL PAPER - PENSACOLA, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT				EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	577.5	TON CAO/DAY			104	PPMDV @ 10% O2	PROPER DESIGN, OPERATION AND COMBUSTION CONTROLS
							46.08	LB/HR	
							1.92	LB/TON CAO	
AL-0152	GULF STATES PAPER CORP.	1/31/1994	650	TONS CAO/D			0.69	LB/T CAO	
FL-0058	GEORGIA-PACIFIC CORPORATION	6/12/1991	0				185	PPMVD @ 10% O2	COMBUSTION CONTROL
FL-0087	*CHAMPION INTERNATIONAL CORP*	*3/25/1994*	*0*				*104*	*PPMVD @ 10% O2*	
LA-0074	WILLAMETTE INDUSTRIES INC	2/4/1991	1740	ADT/D PULP			17.2	LB/H	DESIGN & OPERATION
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	142	MMBTU/H			8.3	LB/H	VENTURI SCRUBBER USING FRESH WATER
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	650	ADT/D			25	PPMV @ 10% O2	PROPER KILN OPERATION
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	504	T/D CAO			1	LB/T OF CAO	EFFICIENT OPERATION OF KILN
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	220	T/D CAO			8.8	LB/H	KILN DESIGN & OPERATION
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	265	T/D CAO			1.6	LB/T CAO	KILN DESIGN & OPERATION
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	450	T/D CAO			50	PPM	GOOD COMBUSTION CONTROL
WI-0097	NEKOOSA PAPER INCORPORATED	3/9/1995	45	MMBTU/H			6.44	LB/H	SYNTHETIC MINOR LIMIT
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	65600	LB/H			2.4	LB/H	

Table C-13

Total Reduced Sulfur (TRS)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Kiln - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	577.5	TON CAO/DAY			8	PPMDV @ 10% O2	PROPER KILN DESIGN, OPERATION AND PROCESS CONTROLS
FL-0087	*CHAMPION INTERNATIONAL CORP*	*3/25/1994*	*0*				*8*	*PPMVD @ 10% O2*	
GA-0064	RIVERWOOD INTERNATIONAL CORPORATION	7/11/1996	8.4	T/H CAO PER KILN			8	PPMV	
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	142	MMBTU/H			6.5	PPM	VENTURI SCRUBBER USING FRESH WATER
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	650	ADT/D			20	PPMV @ 10% O2	
MS-0029	WEYERHAEUSER COMPANY	9/10/1996	504	T/D CAO			8	PPMVD @10% O2	EFFICIENT LIME MUD WASHING AND EFFICIENT KILN OPERATION
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	220	T/D CAO			8	PPM AT 10% O2	PROCESS CONTROLS
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	265	T/D CAO			8	PPM AT 10% O2	PROCESS CONTROLS
SC-0045	WILLAMETTE INDUSTRIES - MARLBORO MILL	4/17/1996	450	T/D CAO			8	PPM @ 8% O2	LIME KILN
WI-0097	NEKOOSA PAPER INCORPORATED	3/9/1995	45	MMBTU/H			0.71	LB/H	SYNTHETIC MINOR LIMIT
WV-0016	APPLE GROVE PULP AND PAPER COMPANY, INC	6/17/1996	65600	LB/H			8	PPMVD @ 10% O2	COMBUSTION CONTROL.

Table C-14

Volatile Organic Compounds (VOC)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Digesters - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT				EMISSIONS LIMIT		CONTROL DESCRIPTION	CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	1650	ADTBP/DAY			NA		INCINERATION	
GA-0064	RIVERWOOD INTERNATIONAL CORPORATION	7/11/1996	1000	T/D PULP			0	LB/HR	EMISSIONS FROM THE DIGESTERS ARE COLLECTED AND ROUTED TO THE KILNS FOR INCINERATION.	
GA-0084	RAYONIER SPECIALTY PULP PRODUCTS	6/16/1997							THERMAL INCINERATION VIA D" LINE KILN AND NCG INCINERATOR AS A BACK-UP"	
LA-0117	GAYLORD CONTAINER CORP - BOGALUSA MILL	3/18/1999	18.13	T/H (SEE NOTES)			14	LB/H	NO ADDITIONAL CONTROL	
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001					1.2	LB/H (EACH)	NO ADDITIONAL CONTROL REQUIRED	Need more info

Table C-15

Total Reduced Sulfur (TRS)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Digesters - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT				EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	1650	ADTBP/DAY			NA		INCINERATION
AL-0048	GULF STATES PAPER	3/12/1991	0				0		INCINERATION
GA-0064	RIVERWOOD INTERNATIONAL CORPORATION	7/11/1996	1000	T/D PULP			5	PPMV	
LA-0117	GAYLORD CONTAINER CORP - BOGALUSA MILL	3/18/1999	18.13	T/H (SEE NOTES)			3.93	LB/H	
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001					0.13	LB/H (EACH)	NO ADDITIONAL CONTROL REQUIRED
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	25	ADT/H					COMBUSTION IN THE LIME KILNS OR NO.8 BOILER.
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	1463	T/D ADP			0		INCINERATION

Table C-16

Total Reduced Sulfur (TRS)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Evaporators - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	1650	ADTBP/DAY	NA		INCINERATION
KY-0067	WILLAMETTE INDUSTRIES, INC.	9/14/1993			8	PPM @ 10% O2	INCINERATED IN LIME KILN #2
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991	650	ADT/D			COMBUSTION IN NO.8 BOILER OR LIME KILN. NO EMISSION LIMITS, SEE EMISSION LIMITS FOR THOSE PROCESSES.
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	1463	T/D ADP	0	COMPLETE COMBUSTION	VENTED TO INCINERATOR #2/BOILER #2
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP	5	PPM, DRY BASIS	VENTED TO NCG INCINERATOR OR LIME KILN

Table C-17

Particulate Matter (PM) and Particulate Matter < 10 microns (PM10)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Slaker - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	**INTERNATIONAL PAPER - PENSACOLA - PROPOSED**	**NA**	**577.5**	**TON CAO/DAY**			**1.59**	**LB/HR**	**WET SCRUBBER**
							0.066	**LB/TON CAO**	
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	30	T/H CAO			2.1	LB/H	WET SCRUBBER
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	9.5	T/H			2	LB/H	WET SCRUBBER
SC-0016	UNION CAMP PULP AND PAPER MILL	5/1/1989	265	T/D CAO			2	LB/H	LOW ENERGY SCRUBBER
ME-0030	LINCOLN PULP AND PAPER CO.,INC	9/25/1991					0.73	LB/H	WET SCRUBBER
VA-0173	CHESAPEAKE CORP.	3/1/1991					12	LB/H	VENTURI SCRUBBER

Table C-18

Volatile Organic Compounds (VOC)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Slaker - Kraft Paper Mills
International Paper - Pensacola, FL

RBLC ID	FACILITY	PERMIT DATE	THROUGHPUT				EMISSIONS LIMIT		CONTROL DESCRIPTION
NA	INTERNATIONAL PAPER - PENSACOLA - PROPOSED	NA	577.5	TON CAO/DAY			3.8	LB/HR	WET SCRUBBER
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	30	T/H CAO			3.8	LB/H	WET SCRUBBER

Table C-19

Total Reduced Sulfur (TRS)
EPA RACT/BACT/LAER Clearinghouse (RBLC) Data
Lime Slaker - Kraft Paper Mills
International Paper - Pensacola, FL

RBLCID	FACILITY	PERMIT DATE	THROUGHPUT		EMISSIONS LIMIT				CONTROL DESCRIPTION
NA	**INTERNATIONAL PAPER - PENSACOLA - PROPOSED**	**NA**	**577.5**	**TON CAO/DAY**			**0.14**	**LB/HR**	**WET SCRUBBER**
LA-0122	INTERNATIONAL PAPER - MANSFIELD MILL	8/14/2001	30	T/H CAO	0.0047	LB/TON	0.14	LB/H	WET SCRUBBER
SC-0015	WILLAMETTE INDUSTRIES	9/29/1988	840	T/D ADP			5	PPM, DRY BASIS	VENTED TO NCG INCINERATOR OR LIME KILN

APPENDIX D – AIR QUALITY MODELING SUPPORTING DATA

Local Emissions Inventories for Florida and Alabama

And Fugitive Roadway Emissions for IP Mill

Tables D-1 thru D-13

Table D-1
20D SO_2 Summary

			North UTM (m)	East UTM (m)	Dy	Dx	Distance	Direction	20D		Potential Total
											(tpy)
0330040	SOLUTIA INC	SOLUTIA INC	3384.99	476.01	-0.8	6.8	6.9	96.9	137.2	YES	8844.2796
0330041	SACRED HEART HEALTH SYSTEM	SACRED HEART HOSPITAL	3372	480.02	-13.8	10.8	17.5	141.9	350.9	NO	8.17
0330042	INTERNATIONAL PAPER COMPANY	PENSACOLA MILL	3385.8	469	0.0	-0.2	0.2	267.4	4.0	YES	14683.99
0330043	REICHHOLD, INC.	REICHHOLD, INC.	3364.8	478.6	-21.0	9.4	23.0	155.9	460.3	NO	0.1976
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	-4.4	9.1	10.1	116.1	202.1	YES	628862.4
0330082	UNITED STATES NAVY	NAVAL AIR STATION PENSACOLA	3358.3	472.3	-27.5	3.1	27.7	173.6	553.7	NO	0.0506
0330091	SCI OF FL/GUARDIAN CHAPELS/D.B.A.	SOUTHEASTERN CREMATORY	3364.2	473.5	-21.6	4.3	22.0	168.7	440.7	NO	0.6
0330109	OLDCASTLE RETAIL INC DBA BONSAL AMERICAN	BONSAL AMERICAN PENSACOLA PLANT	3375	475.6	-10.8	6.4	12.6	149.4	251.2	NO	0.03
0330114	PENSACOLA CHRISTIAN COLLEGE, INC.	PENSACOLA CHRISTIAN COLLEGE, INC.	3371.02	477.77	-14.8	8.6	17.1	149.9	341.9	NO	0.06
0330127	PALL MEMBRANE TECHNOLOGY CENTER, INC.	PALL MEMBRANE TECHNOLOGY CENTER, INC.	3376.4	480.3	-9.4	11.1	14.6	130.3	291.0	NO	0.05
0330132	GULF SULFUR SERVICES LTD., LLP	PENSACOLA TERMINAL	3363.2	480	-22.6	10.8	25.1	154.5	501.1	NO	2.7042
0330248	SPECIALTY MINERALS, INC.	SPECIALTY MINERALS, INC.	3374.64	469.57	-11.2	0.4	11.2	178.1	223.5	NO	2.6
0330260	INTERNATIONAL PAPER COMPANY	MCDAVID SOFTWOOD CONVERTING FACILITY	3406.5	468.74	20.7	-0.5	20.7	358.7	413.9	NO	0.3
0330270	GULF COAST PET CREMATORY INC	GULF COAST PET CREMATORY	3377.77	473.25	-8.0	4.1	9.0	153.3	180.0	NO	0.44
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	-16.2	73.4	75.2	102.5	1503.4	NO	11.475
0910064	HURLBURT FIELD, USAF	HURLBURT FIELD	3364.69	529.69	-21.1	60.5	64.1	109.2	1281.4	NO	2.59
1130003	STERLING FIBERS, INC.	STERLING FIBERS, INC.	3380.2	489.2	-5.6	20.0	20.8	105.7	415.5	NO	1.254
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	-2.4	17.8	18.0	97.7	359.3	NO	12.825
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	30.2	13.7	33.2	24.3	663.6	YES	4384
1130014	PETRO OPERATING COMPANY	BLACKJACK CREEK	3412.7	488.8	26.9	19.6	33.3	36.1	665.5	NO	129
1130015	GULF COAST PAVING & GRADING	DBA SANTA ROSA ASPHALT & MATERIALS, INC.	3384	493.8	-1.8	24.6	24.7	94.2	493.4	NO	13.6
1130037	FLORIDA GAS TRANSMISSION COMPANY	COMPRESSOR STATION #12	3419.6	510.8	33.8	41.6	53.6	50.9	1071.9	NO	39.1
1130168	SANTA ROSA ENERGY LLC	SANTA ROSA ENERGY CENTER	3381.53	488.97	-4.3	19.8	20.2	102.2	404.6	NO	44.5
1130173	GULF POWER COMPANY	COGENERATION PLANT (PEA RIDGE PLANT)	3384.32	486.87	-1.5	17.7	17.7	94.8	354.7	NO	1.21
1310013	ALABAMA ELECTRIC COOPERATIVE	ALABAMA ELECTRIC COOPERATIVE	3383.5	575.1	-2.3	105.9	105.9	91.2	2118.5	NO	2
7770034	ANDERSON COLUMBIA CO INC #6	DRUM MIX ASPHALT PLANT #6	0	0	-3385.8	-469.2	3418.2	187.9	68363.3	NO	51.5
7770040	APAC-FLORIDA, INC. - N. FLORIDA DIVISION	DEFUNIAK SPRINGS PLANT #411	3400.7	577.2	14.9	108.0	109.0	82.1	2180.5	NO	65.94
7770142	APAC-FLORIDA INC.	FREEPORT PLANT #408	3375.68	578.11	-10.1	108.9	109.4	95.3	2187.6	NO	23.1
7770147	ANDERSON COLUMBIA COMPANY, INC.	ANDERSON COLUMBIA COMPANY, INC. #5	3388.88	501.98	3.1	32.8	32.9	84.6	658.5	NO	0.3045
7775008	GROUP III ASPHALT,INC.	GROUP III ASPHALT, INC.	3384.78	495.25	-1.0	26.1	26.1	92.3	521.4	NO	64.3
7775017	WHITE CONSTRUCTION COMPANY, INC.	DEFUNIAK DRUM MIX ASPHALT PLANT	3400.5	579.5	14.7	110.3	111.3	82.4	2225.5	NO	99
7775118	C W ROBERTS CONTRACTING INC	ASPHALT PLANT 3	3377.81	584.05	-8.0	114.9	115.1	94.0	2302.6	NO	90

Table D-2
Local SO_2 Sources
Meeting 20D Criteria

FACILITY ID	OWNER/COMPANY	SITE NAME	NORTH (km)	EAST (km)	EU ID	EU DESCRIPTION	EU STATUS	STACK HT (ft)	DIAM (ft)	EXIT TEMP (F)	ACFM	DSCFM	VEL (ft/s)	Potential (lb/hr)	Potential (tpy)	Allowable (lb/hr)	Allowable (tpy)	2001 Actual (tpy)	2000 Actual (tpy)
[illegible]	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	2	ADIPIC ACID SYNTHESIS, NOX THERMAL REDUCTION UNIT #1 TRU/SCR	A	60.00	4	435	71000	0	94	0.046	0.2	0	0	0	0
[illegible]	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	3	B & W BOILER #8 (STACK #1)	A	125.00	12	230	236943	0	34	0.075	0.33	0	0	0.21552	0.261081
[illegible]	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	4	B & W BOILER #7 (STACK #2)	A	125.00	12	230	236943	0	34	0.075	0.33	0	0	0.226659	0.234144
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	5	#1 DOWTHERM VAPORIZER -NAT. GAS,OR #2 OIL (COMMON STACK W #	A	125.00	2.7	311	6318	0	18	0	0	0	0	0.01524	0.021372
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	7	"2 VAPORIZER- NAT. GAS OR #2 OIL	A	125.00	2.7	311	7198	4029	20	0	0	0	0	0.00813	0.021384
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	8	#3 DOWTHERM VAPORIZER- NAT. GAS,OR #2 OIL (COM. STACK W #5)	A	125.00	2.7	311	7198	4029	20	0	0	0	0	0.01911	0.021384
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	9	#4 DOWTHERM VAPORIZER- NAT.GAS, OR #2 OIL, (COM. STACK W #1)	A	125.00	2.7	311	7198	4029	20	0	0	0	0	0.02379	0.030732
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	10	#5 DOWTHERM VAPORIZER- NAT.GAS, OR #2 OIL (COM.STACK W #3)	A	125.00	2.7	311	7198	4029	20	0	0	0	0	0.03111	0.030732
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	11	#6 DOWTHERM VAPORIZER- NAT. GAS OR #2 OIL(COMMON STACK #7)	A	125.00	2.7	311	7198	4029	20	0	0	0	0	0.02016	0.026937
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	13	#7 VAPORIZER (COMMON STACK #6)	A	125.00	2.7	311	9798	5479	28	26	9	0	0	0.03954	0.048102
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	14	CE BOILER #4 (USES STACK #5 IN COMMON WITH CE BOILER #3)	A	150.00	10	360	168664	0	35	610.83	2938.25	0	0	18.613725	0.347672
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	15	CE BOILER #5 (USES STACK #3 IN COMMON WITH CE BOILER #6)	A	150.00	10	360	168664	0	35	610.83	2938.25	0	0	811.966448	196.475876
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	16	CE BOILER #6 (USES STACK #3 IN COMMON WITH CE BOILER #5)	A	150.00	10	360	168664	0	35	610.83	2938.25	0	0	166.488442	28.230309
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	32	COGENERATION PLANT	A	100.00	15	300	799	491	75	3.19	14	0	0	10.225545	13.9722
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	38	RESEARCH & DEVELOPMENT	A	33.00	0.3	200	100	0	23	0	0	0	0	0	0
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	49	HYDROGEN GENERATION FACILITY, PLANT #1	A	90.00	4.8	393	50257	0	46	0	0	0	0	0	0
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	75	VAPORIZER NO.8	A	125.00	2.7	311	9798	5479	28	0.162	0.7096	0	0	0	0
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	76	MALEIC ANHYDRIDE (MA)PLANT-UNCONTROLLED OFF GASES	A	125	3.5	158	0	60000	0	1.132	4.96	0	0	0	0
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	84	AREA 471 ALPHOX, RAW MATERIAL AND PRODUCT TANK FLARES	A	0	0	0	0	0	0	0	0	0	0	0	0
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	85	AREA 471 ALPHOX, SYNTHESIS, REFINING, RAW MATERIAL RECOVERY	A	0	0	0	0	0	0	0	0	0	0	0	0
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	86	AREA 471 ALPHOX, ORGANIC BACK-UP DEVICE (OBUD)	A	0	0	0	0	0	0	0	0	0	0	0	0
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	87	AREA 471 ALPHOX, FUGITIVE EMISSIONS, PRESSURE RELIEF FLARE	A	0	0	0	0	0	0	0	0	0	0	0	0
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	1	Boiler #1 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	633.6	2775	633.6	2775	0.0875	0.1897
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	2	Boiler #2 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	633.6	2775	633.6	2775	0.0955	0.1663
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	3	Boiler #3 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	1089	4770	1089	4770	0.1278	0.3076
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	4	Boiler #4 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	6470.5	28341	6470.5	28341	3453.631388	3546.950726
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	4	Boiler #4 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	6470.5	28341	3015.9	13210	3453.631388	3546.950726
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	5	Boiler #5 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	6470.5	28341	3015.9	13210	3247.337945	4839.133966
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	5	Boiler #5 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	6470.5	28341	6470.5	28341	3247.337945	4839.133966
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	6	Boiler # 6 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	21858.3	87035	1965.7	8610	13019.83988	14134.84707
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	6	Boiler # 6 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	21858.3	87035	21858.32	87035.85	13019.83988	14134.84707
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	7	Boiler #7 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	37797.8	165554.2	3525.5	15441.7	17462.11997	24470.47257
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	7	Boiler #7 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	37797.8	165554.2	37797.8	165554.2	17462.11997	24470.47257
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	11	General Purpose Internal Combustion Engines	A			400								0.727	0.5867
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	34	Three Sulfur Recovery Plants (2, 3, & 4)	A	250	3	900				1001	4384	1001	4384	2148	3225
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	35	Flares	A	117	3	1832				1250				182.81	204.83
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	36	Four 1200 HP JCSWD Saturn NG fired Turbines	A	35	2.5	800	6465		22					0	
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	37	JCSWD 3600 HP NG fired Solar Centaur turbine	A	35	2.5	800	17333		58.9					0	
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	38	1000 HP Ingersol Rand Compressor engine with catalytic cnvtr	A	30	1	800	3726		79.1					2.19	
[illegible]	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	40	Jay 2, 3, & 4 Process Heaters	A	60	4									26.7	24.77
[illegible]	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	41	Jay 2, 3, and 4, stabilizer bottom heaters	A	60	3									13.34	12.38
[illegible]	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	42	Jay Plant Hot Oil Heater	A	60	2									16.49	14.92
[illegible]	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	43	Two NG fired 14,300 HP Water Flood Turbines	A	30	12.5										
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	44	Six 1,000 HP NG fired Ingersol Rand Compressor Engines	A	30	1									10.08	5.79
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	45	One 5000 HP NG fired Cooper Bessemer "A" Engine	A	22	3										
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	46	One 2500 HP NG fired Cooper-Bessemer "B" Engine	A	22	3										

Table D-3

20D PM/PM_{10} Summary

			North UTM (m)	East UTM (m)	Dy	Dx	Distance	Direction	20D		Potential Total (tpy)
0330006	ARMSTRONG WORLD INDUSTRIES, INC.	PENSACOLA PLANT	3363.5	475.9	-22.3	6.7	23.3	163.3	465.872884	NO	197.25
0330040	SOLUTIA INC	SOLUTIA INC	3385.0	478.0	-0.8	6.8	6.9	96.9	137.206762	YES	352.772
0330041	SACRED HEART HEALTH SYSTEM	SACRED HEART HOSPITAL	3372.0	480.0	-13.8	10.8	17.5	141.9	350.87648	NO	1.91
0330042	INTERNATIONAL PAPER COMPANY	PENSACOLA MILL	3385.8	469.0	0.0	-0.2	0.2	267.4	3.97817527	YES	4932.55
0330043	REICHHOLD, INC.	REICHHOLD, INC.	3364.8	478.6	-21.0	9.4	23.0	155.9	460.329322	NO	1.008
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.4	478.3	-4.4	9.1	10.1	116.1	202.07021	YES	13887
0330063	PENSACOLA READY MIX USA	ROBERTS ROAD PLANT (TWO FACILITIES)	3380.2	474.2	-5.6	5.0	7.5	138.3	150.296439	NO	0.0075
0330080	G.S.I. RECYCLING, INC.	G.S.I. RECYCLING, INC.	3366.5	475.0	-19.3	5.8	20.2	163.3	403.23105	NO	2.94
0330082	UNITED STATES NAVY	NAVAL AIR STATION PENSACOLA	3358.3	472.3	-27.5	3.1	27.7	173.6	553.663085	NO	1.0118
0330086	NAVAL HOSPITAL	NAVAL HOSPITAL	3362.3	471.2	-23.5	2.0	23.6	175.1	471.878404	NO	0.56
0330091	SCI OF FL/GUARDIAN CHAPELS/D.B.A.	SOUTHEASTERN CREMATORY	3364.2	473.5	-21.6	4.3	22.0	168.7	440.65643	NO	1.9
0330093	CEMEX CEMENT INC	SOUTHDOWN INCORPORATED	3374.9	475.5	-10.9	6.3	12.6	150.0	251.960423	NO	0.059
0330109	OLDCASTLE RETAIL INC DBA BONSAL AMERICAN	BONSAL AMERICAN PENSACOLA PLANT	3375.0	475.6	-10.8	6.4	12.6	149.4	251.243799	NO	7.4
0330114	PENSACOLA CHRISTIAN COLLEGE, INC.	PENSACOLA CHRISTIAN COLLEGE, INC.	3371.0	477.8	-14.8	8.6	17.1	149.9	341.864464	NO	0.044
0330118	HARRIS CONCRETE AND PATIO CENTER	HARRIS CONCRETE AND PATIO CENTER	3362.5	470.7	-23.3	1.5	23.3	176.4	466.307187	NO	0.54
0330121	AUTOSHRED RECYCLING, L.L.C.	AUTOSHRED RECYCLING, L.L.C.	3363.4	475.8	-22.4	6.6	23.4	163.6	467.219597	NO	8.61
0330123	MAACO AUTO PAINTING & BODYWORKS	MAACO AUTO PAINTING & BODYWORKS	3373.2	475.2	-12.6	6.0	14.0	154.5	279.284506	NO	1
0330127	PALL MEMBRANE TECHNOLOGY CENTER, INC.	PALL MEMBRANE TECHNOLOGY CENTER, INC.	3376.4	480.3	-9.4	11.1	14.6	130.3	291.043537	NO	0.79
0330132	GULF SULFUR SERVICES LTD., LLP	PENSACOLA TERMINAL	3363.2	480.0	-22.6	10.8	25.1	154.5	501.130631	NO	20.8
0330136	WEST FLORIDA GIN AND WAREHOUSE COMPANY	WEST FLORIDA COTTON GIN	3427.9	453.4	42.1	-15.8	45.0	339.4	899.262932	NO	78
0330141	ECONO AUTOPAINTING OF PENSACOLA, INC.	ECONO AUTOPAINTING OF PENSACOLA, INC.	3369.4	477.6	-16.4	8.4	18.4	152.9	368.422226	NO	0.67
0330144	FACT-O-BAKE OF PENSACOLA, INC.	FACT-O-BAKE OF PENSACOLA, INC.	3371.0	476.5	-14.9	7.3	16.6	153.8	331.116564	NO	0.44
0330248	SPECIALTY MINERALS, INC.	SPECIALTY MINERALS, INC.	3374.6	469.6	-11.2	0.4	11.2	178.1	223.501195	NO	8.3
0330254	FDC HOLDINGS, INC. DBA PENSACOLA SHIPYAR	PENSACOLA SHIPYARD	3363.6	474.6	-22.2	5.4	22.8	166.2	456.537981	NO	4.79
0330260	INTERNATIONAL PAPER COMPANY	MCDAVID SOFTWOOD CONVERTING FACILITY	3406.5	468.7	20.7	-0.5	20.7	358.7	413.923881	NO	32.2
0330265	BOC GASES	BOC GASES	3385.0	476.0	-0.8	6.8	6.8	96.8	136.98445	NO	6.24
0330270	GULF COAST PET CREMATORY INC	GULF COAST PET CREMATORY	3377.8	473.3	-8.0	4.1	9.0	153.3	180.040777	NO	1.97
0910025	CEMEX, INC.	DESTIN CONCRETE BATCH PLANT	3364.3	548.5	-21.5	79.3	82.2	105.2	1643.32918	NO	3.47
0910027	CEMEX INC	RACETRACK RD PLANT	3368.5	536.0	-17.3	66.8	69.0	104.5	1380.14637	NO	1.3
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	-16.2	73.4	75.2	102.5	1503.39316	No	3317.165
0910033	FLEMING LUMBER CO	FLEMING LUMBER CO	3402.5	534.7	16.7	65.5	67.6	75.7	1351.88937	NO	2
0910042	FUNERAL SERVICES ACQUISITION GROUP, INC.	FUNERAL SERVICES ACQUISITION GROUP	3403.6	541.7	17.8	72.5	74.7	76.2	1493.0453	NO	5
0910050	PANHANDLE ANIMAL WELFARE SOCIETY	PANHANDLE ANIMAL WELFARE SOCIETY	3365.5	530.4	-20.30889	61.20129	64.482935	108.357786	1289.6587	NO	0.84
0910061	COX BUILDING CORPORATION	COX BUILDING CORPORATION	3365.44	532.78	-20.36889	63.58129	66.7643027	107.76337	1335.28605	NO	33
0910063	MARBLE WORKS	MARBLE WORKS	3364.32	532.01	-21.48889	62.81129	66.3854694	108.886755	1327.70939	NO	0.88
0910064	HURLBURT FIELD, USAF	HURLBURT FIELD	3364.69	529.69	-21.11889	60.49129	64.0718634	109.24526	1281.43727	NO	2.78
0910091	KINDRED HEARTS	KINDRED HEARTS	0	0	-3385.8089	-469.19871	3418.16461	187.889688	68363.2921	NO	2.23
1130003	STERLING FIBERS, INC.	STERLING FIBERS, INC.	3380.2	489.2	-5.60889	20.00129	20.7728488	105.664899	415.456977	NO	269.0616
1130004	AIR PRODUCTS AND CHEMICALS, INC	AIR PRODUCTS AND CHEMICALS, INC	3383.4	487	-2.40889	17.80129	17.9635374	97.7065149	359.270748	YES	393.3546
1130015	GULF COAST PAVING & GRADING	DBA SANTA ROSA ASPHALT & MATERIALS, INC.	3384	493.8	-1.80889	24.60129	24.6677026	94.2052913	493.354052	NO	1.5
1130022	U.S. NAVY	NAVAL AIR STATION WHITING FIELD	3398.2	497.8	12.39111	28.60129	31.1700721	66.5759999	623.401443	NO	2.1
1130024	RMC EWELL, INC	MILTON FACILITY	3387.9	496.1	2.09111	26.90129	26.9824414	85.5551822	539.648828	NO	0.0011
1130026	GOLDEN GIN & WAREHOUSE	GOLDEN GIN & WAREHOUSE	3426.1	484.8	40.29111	15.60129	43.2061777	21.1671109	864.123555	NO	93.4
1130027	BURKHEAD GIN	BURKHEAD GIN	3425.8	485.3	39.99111	16.10129	43.1107924	21.9307873	862.215847	NO	76.24
1130030	CEMEX INC	CR 399 PLANT	3366.57	512.49	-19.23889	43.29129	47.3737341	113.960629	947.474681	NO	7.88
1130031	THE QUIKRETE COMPANIES	QUIKRETE OF PENSACOLA	3383.5	497.1	-2.30889	27.90129	27.9966597	94.7305669	559.933195	NO	60.3
1130032	PETRO OPERATING COMPANY	MCLELLAN FIELD	3427.8	515.2	41.99111	46.00129	62.2846048	47.6094016	1245.6921	NO	0.0089
1130037	FLORIDA GAS TRANSMISSION COMPANY	COMPRESSOR STATION #12	3419.6	510.8	33.79111	41.60129	53.5957689	50.9143867	1071.91538	NO	18.7
1130038	MOLD-EX RUBBER CO.,INC.	MILTON INDUSTRIAL PARK	3389.7	501.2	3.89111	32.00129	32.2369865	83.0673074	644.73973	NO	0.00302
1130040	ODOM FIBERGLASS, INCORPORATED	ODOM FIBERGLASS, INCORPORATED	3378.78	472.74	-7.02889	3.54129	7.87058	153.260155	157.4116	NO	0.2
1130169	LONE STAR INDUSTRIES, INC.	CEMENT TERMINAL, PENSACOLA	3383.49	494.17	-2.31889	24.97129	25.0787275	95.3053993	501.574551	NO	0.77
1130172	SANTA ROSA CO BOARD OF CO COMMISSIONERS	SANTA ROSA CO BOARD OF CO COMMISSIONERS	3382.7	494.3	-3.10889	25.10129	25.2930812	97.0603448	505.861624	NO	5
1130173	GULF POWER COMPANY	COGENERATION PLANT (PEA RIDGE PLANT)	3384.32	486.87	-1.48889	17.67129	17.7339021	94.8160665	354.678042	NO	2.23475
1310013	ALABAMA ELECTRIC COOPERATIVE	ALABAMA ELECTRIC COOPERATIVE	3383.5	575.1	-2.30889	105.90129	105.926457	91.248981	2118.52913	NO	2.4
1310019	PERDUE FARMS INCORPORATED	DEFUNIAK SPRINGS COMPLEX	3399.3	590.1	13.49111	120.90129	121.651683	83.63283	2433.03366	NO	78.9
1310252	FLORIDA TRANSFORMER, INC.	FLORIDA TRANSFORMER, INC.	3405.89	583.37	20.08111	114.17129	115.92383	80.0245168	2318.47661	NO	0.32
1310253	CEMEX, INC.	0	3373.21	581.09	-12.59889	111.89129	112.598369	96.4244096	2251.96739	NO	32.2
7770016	COUCH READY MIX USA	0	0	0	-3385.8089	-469.19871	3418.16461	187.889688	68363.2921	NO	0.36
7770034	ANDERSON COLUMBIA CO INC #6	DRUM MIX ASPHALT PLANT #6	0	0	-3385.8089	-469.19871	3418.16461	187.889688	68363.2921	NO	27
7770040	APAC-FLORIDA, INC. - N. FLORIDA DIVISION	DEFUNIAK SPRINGS PLANT #411	3400.7	577.2	14.89111	108.00129	109.023043	82.1496123	2180.46085	NO	25.45
7770142	APAC-FLORIDA INC.	FREEPORT PLANT #408	3375.68	578.11	-10.12889	108.91129	109.381276	95.3132977	2187.62552	NO	6.075
7770147	ANDERSON COLUMBIA COMPANY, INC.	ANDERSON COLUMBIA COMPANY, INC. #5	3388.88	501.98	3.07111	32.78129	32.924834	84.6478757	658.496679	NO	8
7774802	APAC-FLORIDA, INC - NORTH FL DIVISION	SHALIMAR BATCH PLANT NO. 420	3370.6	540.6	-15.20889	71.40129	73.0031133	102.024625	1460.06227	NO	0.715
7775008	GROUP III ASPHALT,INC.	GROUP III ASPHALT, INC.	3384.78	495.25	-1.02889	26.05129	26.0716	92.2617088	521.432	NO	16.3
7775017	WHITE CONSTRUCTION COMPANY, INC.	DEFUNIAK DRUM MIX ASPHALT PLANT	3400.5	579.5	14.69111	110.30129	111.275349	82.4133843	2225.50698	NO	55.9
7775043	PENSACOLA READY MIX USA	MILTON SHEAR PLANT	3383.68	494.28	-2.12889	25.08129	25.1714775	94.8516142	503.42955	NO	5
7775062	W.C. ALLOYS	NAVARRE RECYCLING CENTER	3363.02	503.17	-22.78889	33.97129	40.9069927	123.854812	818.139854	NO	2.32
7775073	APAC-FLORIDA, INC	PENSACOLA PLANT #403	3369.88	475.5	-15.92889	6.30129	17.1299677	158.416805	342.599353	NO	20.58
7775074	PANHANDLE LAND & TIMBER	PANHANDLE LAND & TIMBER PLANT #12	3386.42	470.37	0.61111	1.17129	1.32112668	62.4471048	26.4225335	NO	8.09
7775118	C W ROBERTS CONTRACTING INC	ASPHALT PLANT 3	3377.81	584.05	-7.99889	114.85129	115.129497	93.9839673	2302.58994	NO	8.2

Table D-4
Local PM Sources
Meeting 20D Criteria

FACILITY ID	OWNER/COMPANY	SITE NAME	NORTH (km)	EAST (km)	EU ID	EU DESCRIPTION	EU STATUS	STACK HT (ft)	DIAM (ft)	EXIT TEMP (F)	ACFM	DSCFM	VEL (ft/s)	Potential (lb/hr)	Potential (tpy)	Allowable (lb/hr)	Allowable (tpy)	2001 Actual (tpy)	2000 Actual (tpy)
[illegible]0	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	2	ADIPIC ACID SYNTHESIS, NOX THERMAL REDUCTION UNIT #1 TRU/SCR	A	60	4	435	71000		94	2.8	12.28				
[illegible]0	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	3	B & W BOILER #8 (STACK #1)	A	125	12	230	236943		34	0.63	2.75			2.727	
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	4	B & W BOILER #7 (STACK #2)	A	125	12	230	236943		34	0.63	2.75			6.5217	
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	5	#1 DOWTHERM VAPORIZER -NAT. GAS,OR #2 OIL (COMMON STACK W #	A	125	2.7	311	6318		18	PM					
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	7	"2 VAPORIZER- NAT. GAS OR #2 OIL	A	125	2.7	311	7198	4029	20	0.17	0.745				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	8	#3 DOWTHERM VAPORIZER- NAT. GAS,OR #2 OIL (COM. STACK W #5)	A	125	2.7	311	7198	4029	20	PM					
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	9	#4 DOWTHERM VAPORIZER- NAT.GAS, OR #2 OIL, (COM. STACK W #1)	A	125	2.7	311	7198	4029	20	0.17	0.745				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	10	#5 DOWTHERM VAPORIZER- NAT.GAS, OR #2 OIL (COM.STACK W #3)	A	125	2.7	311	7198	4029	20	0.17	0.745				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	11	#6 DOWTHERM VAPORIZER- NAT. GAS OR #2 OIL(COMMON STACK #7)	A	125	2.7	311	7198	4029	20	0.17	0.745				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	13	#7 VAPORIZER (COMMON STACK #6)	A	125	2.7	311	9798	5479	28	0.4	1.752				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	14	CE BOILER #4 (USES STACK #5 IN COMMON WITH CE BOILER #3)	A	150	10	360	168664		35	9.2	40.3				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	15	CE BOILER #5 (USES STACK #3 IN COMMON WITH CE BOILER #6)	A	150	10	360	168664		35	0.37					
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	16	CE BOILER #6 (USES STACK #3 IN COMMON WITH CE BOILER #5)	A	150	10	360	168664		35	0.3					
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	32	COGENERATION PLANT	A	100	15	300	799	491	75	3.9	17.1				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	38	RESEARCH & DEVELOPMENT	A	33	0.3	200	100		23	PM					
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	49	HYDROGEN GENERATION FACILITY, PLANT #1	A	90	4.8	393	50257		46	PM					12.60896
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	50	ADIPIC ACID-BULK LOADING #1	A	60	1	86	12000		254	14.97				6	9.77
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	60	ADIPIC ACID DRYER BUILDING 485	A	54	1	136	7000	5180	148	1.31	5.74			0.215	0.27
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	61	ADIPIC ACID DRYER A, BLDG. 405	A	25	1.4	80	9000		97	6.9	30	6.9	30	2.206	3.88
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	62	ADIPIC ACID DRYER B, BLDG. 405	A	25	1.4	80	9000		97	6.9	30	6.9	30	1.765	3.87
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	63	ADIPIC ACID DRYER A, BLDG. 465	A	25	1.4	80	9000		97	9	39	9	39	4.545	5.9
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	64	ADIPIC ACID DRYER B, BLDG. 465	A	25	1.4	80	9000		97	9	39	9	39	4.593	3.46
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	73	ABRASIVE BLAST FACILITY	A	25	3	72	19080	19080	44	27	118	4.9	21.5	1.20099	1.20099
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	75	VAPORIZER NO.8	A	125	2.7	311	9798	5479	28	PM					
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	76	MALEIC ANHYDRIDE (MA)PLANT-UNCONTROLLED OFF GASES	A	125	3.5	158		60000		1.19	5.21				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	79	DRYER	A	54	1	136		10500		1.35	5.91	1.35	5.91	0.297	0.341
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	85	AREA 471 ALPHOX, SYNTHESIS, REFINING, RAW MATERIAL RECOVERY	A							PM					
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	1	Boiler #1 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	42	230	126	230	0.4373	0.9486
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	1	Boiler #1 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	42	230	42	230	0.4373	0.9486
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	2	Boiler #2 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	42	230	42	230	0.4776	0.8313
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	2	Boiler #2 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	42	230	126	230	0.4776	0.8313
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	3	Boiler #3 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	55	301	165	301	0.6389	1.5379
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	3	Boiler #3 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	55	301	55	301	0.6389	1.5379
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	4	Boiler #4 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	109.7	600	109.67	600	46.162749	45.972368
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	4	Boiler #4 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	109.7	600	329.01	600	46.162749	45.972368
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	5	Boiler #5 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	109.7	600	329.01	600	43.541803	60.702917
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	5	Boiler #5 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	109.7	600	109.67	600	43.541803	60.702917
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	6	Boiler # 6 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	370.5	1475	370.5	1475	188.215564	177.355845
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	6	Boiler # 6 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	370.5	1475	1111.4	1475	188.215564	177.355845
[illegible]45	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	7	Boiler #7 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	640.6	3507.5	1921.9	3507.5	245.786523	306.685981
[illegible]45	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	7	Boiler #7 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	640.6	3507.5	640.6	3507.5	245.786523	306.685981
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	8	Crist Plant Fly Ash Silos(2)	A	125	23.45	100	5452		0.2	PM					
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	9	Coal and Ash Materials Handling	A							PM				207.2	207.36
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	10	Fugitive PM Sources - On-Site Vehicles	A							PM					
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	11	General Purpose Internal Combustion Engines	A			400				PM				0.7806	0.63
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	13	Fugitive PM Sources - Sandblasting Operations	A							PM				0.452	0.452
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	6	2 boilers at Bldg. 2825. Rated cap. each = 15 MM Btu/hr	A	59	2	77				0.4	1.76			0.12	0.24
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	7	2 boilers at Bldg. 438. Rated cap. each = 11.716 MM Btu/hr.	A	59	2	77				PM				0	0.15
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	30	Unregulated Emission Sources	A							PM				3061.07	3567
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	33	750 BHP (31.4 MMBtu/hr) gas-fired Cleaver-Brooks boiler	A	14	2	385	9750	6118	51.7	0.314	1.37				
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	36	Internal Combustion Engines (generators, etc.)	A							PM					
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	37	Small Unregulated Boilers	A							PM					

Table D-5
20D NO_X Summary

			North UTM (m)	East UTM (m)	Dy	Dx	Distance	Direction	20D		Potential Total (tpy)
0330006	ARMSTRONG WORLD INDUSTRIES, INC.	PENSACOLA PLANT	3363.5	475.9	-22.3	6.7	23.3	163.3	465.9	NO	46.1
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	-0.8	6.8	6.9	96.9	137.2	YES	2214.6
0330041	SACRED HEART HEALTH SYSTEM	SACRED HEART HOSPITAL	3372	480.02	-13.8	10.8	17.5	141.9	350.9	NO	26.7
0330042	INTERNATIONAL PAPER COMPANY	PENSACOLA MILL	3385.8	469	0.0	-0.2	0.2	267.4	4.0	YES	11441.1
0330043	REICHHOLD, INC.	REICHHOLD, INC.	3364.8	478.6	-21.0	9.4	23.0	155.9	460.3	NO	86.1
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	-4.4	9.1	10.1	116.1	202.1	YES	28175.8
0330060	COASTAL FUELS MARKETING, INC.	COASTAL FUELS MARKETING, INC.	3363.4	479.6	-22.4	10.4	24.7	155.1	494.1	NO	4.1
0330082	UNITED STATES NAVY	NAVAL AIR STATION PENSACOLA	3358.3	472.3	-27.5	3.1	27.7	173.6	553.7	NO	11.0
0330086	NAVAL HOSPITAL	NAVAL HOSPITAL	3362.3	471.2	-23.5	2.0	23.6	175.1	471.9	NO	0.2
0330089	NITROUS OXIDE CORPORATION	PENSACOLA FACILITY	3384.6	475.8	-1.2	6.6	6.7	100.4	134.2	NO	2.8
0330091	SCI OF FL/GUARDIAN CHAPELS/D.B.A.	SOUTHEASTERN CREMATORY	3364.2	473.5	-21.6	4.3	22.0	168.7	440.7	NO	0.6
0330108	CEREX ADVANCED FABRICS	CEREX ADVANCED FABRICS	3384.5	476.7	-1.3	7.5	7.6	99.9	152.3	NO	0.3
0330109	OLDCASTLE RETAIL INC DBA BONSAL AMERICAN	BONSAL AMERICAN PENSACOLA PLANT	3375	475.6	-10.8	6.4	12.6	149.4	251.2	NO	5.0
0330114	PENSACOLA CHRISTIAN COLLEGE, INC.	PENSACOLA CHRISTIAN COLLEGE, INC.	3371.02	477.77	-14.8	8.6	17.1	149.9	341.9	NO	294.0
0330126	ARIZONA CHEMICAL - DIV OF IPCO	ARIZONA CHEMICAL - DIV OF IPCO	3363.9	476.6	-21.9	7.4	23.1	161.3	462.5	NO	0.4
0330127	PALL MEMBRANE TECHNOLOGY CENTER, INC.	PALL MEMBRANE TECHNOLOGY CENTER, INC.	3376.4	480.3	-9.4	11.1	14.6	130.3	291.0	NO	8.6
0330139	TRANSMONTAIGNE PRODUCT SERVICES INC.	PENSACOLA TERMINAL	3363.41	478.38	-22.4	9.2	24.2	157.7	484.2	NO	6.2
0330246	ESCAMBIA COUNTY BOCC	PERDIDO LANDFILL	3382.72	462.48	-3.1	-6.7	7.4	245.3	147.9	NO	0.1
0330248	SPECIALTY MINERALS, INC.	SPECIALTY MINERALS, INC.	3374.64	469.57	-11.2	0.4	11.2	178.1	223.5	NO	99.9
0330260	INTERNATIONAL PAPER COMPANY	MCDAVID SOFTWOOD CONVERTING FACILITY	3406.5	468.74	20.7	-0.5	20.7	358.7	413.9	NO	63.1
0330265	BOC GASES	BOC GASES	3385	476	-0.8	6.8	6.8	96.8	137.0	NO	41.6
0330270	GULF COAST PET CREMATORY INC	GULF COAST PET CREMATORY	3377.77	473.25	-8.0	4.1	9.0	153.3	180.0	NO	3.3
0910031	UNITED STATES AIR FORCE	EGLIN AIR FORCE BASE	3369.6	542.6	-16.2	73.4	75.2	102.5	1503.4	NO	945.0
0910033	FLEMING LUMBER CO	FLEMING LUMBER CO	3402.5	534.7	16.7	65.5	67.6	75.7	1351.9	NO	9.4
0330265	BOC GASES	BOC GASES	3385	476	-0.8	6.8	6.8	96.8	137.0	NO	41.6
0910064	HURLBURT FIELD, USAF	HURLBURT FIELD	3364.69	529.69	-21.1	60.5	64.1	109.2	1281.4	NO	46.6
0910091	KINDRED HEARTS	KINDRED HEARTS	0	0	-3385.8	-469.2	3418.2	187.9	68363.3	NO	3.9
1130003	STERLING FIBERS, INC.	STERLING FIBERS, INC.	3380.2	489.2	-5.6	20.0	20.8	105.7	415.5	YES	615.0
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	-2.4	17.8	18.0	97.7	359.3	YES	3072.4
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	30.2	13.7	33.2	24.3	663.6	YES	1767.3
1130014	PETRO OPERATING COMPANY	BLACKJACK CREEK	3412.7	488.8	26.9	19.6	33.3	36.1	665.5	NO	237.0
1130015	GULF COAST PAVING & GRADING	DBA SANTA ROSA ASPHALT & MATERIALS, INC.	3384	493.8	-1.8	24.6	24.7	94.2	493.4	NO	2.8
1130027	BURKHEAD GIN	BURKHEAD GIN	3425.8	485.3	40.0	16.1	43.1	21.9	862.2	NO	1.4
1130031	THE QUIKRETE COMPANIES	QUIKRETE OF PENSACOLA	3383.5	497.1	-2.3	27.9	28.0	94.7	559.9	NO	1.5
1130032	PETRO OPERATING COMPANY	MCLELLAN FIELD	3427.8	515.2	42.0	46.0	62.3	47.6	1245.7	NO	44.2
1130037	FLORIDA GAS TRANSMISSION COMPANY	COMPRESSOR STATION #12	3419.6	510.8	33.8	41.6	53.6	50.9	1071.9	NO	1029.5
1130168	SANTA ROSA ENERGY LLC	SANTA ROSA ENERGY CENTER	3381.53	488.97	-4.3	19.8	20.2	102.2	404.6	YES	842.3
1130173	GULF POWER COMPANY	COGENERATION PLANT (PEA RIDGE PLANT)	3384.32	486.87	-1.5	17.7	17.7	94.8	354.7	YES	561.3
1310013	ALABAMA ELECTRIC COOPERATIVE	ALABAMA ELECTRIC COOPERATIVE	3383.5	575.1	-2.3	105.9	105.9	91.2	2118.5	NO	28.0
1310023	MURPHY OIL USA, INC.	MURPHY OIL USA, INC. FREEPORT TERMINAL	3373.33	581.88	-12.5	112.7	113.4	96.3	2267.4	NO	0.3
7770034	ANDERSON COLUMBIA CO INC #6	DRUM MIX ASPHALT PLANT #6	0	0	-3385.8	-469.2	3418.2	187.9	68363.3	NO	8.9
7770142	APAC-FLORIDA INC.	FREEPORT PLANT #408	3375.68	578.11	-10.1	108.9	109.4	95.3	2187.6	NO	6.3
7770147	ANDERSON COLUMBIA COMPANY, INC.	ANDERSON COLUMBIA COMPANY, INC. #5	3388.88	501.98	3.1	32.8	32.9	84.6	658.5	NO	44.0
7774802	APAC-FLORIDA, INC - NORTH FL DIVISION	SHALIMAR BATCH PLANT NO. 420	3370.6	540.6	-15.2	71.4	73.0	102.0	1460.1	NO	2.0
7775008	GROUP III ASPHALT,INC.	GROUP III ASPHALT, INC.	3384.78	495.25	-1.0	26.1	26.1	92.3	521.4	NO	31.2
7775017	WHITE CONSTRUCTION COMPANY, INC.	DEFUNIAK DRUM MIX ASPHALT PLANT	3400.5	579.5	14.7	110.3	111.3	82.4	2225.5	NO	25.1
7775062	W.C. ALLOYS	NAVARRE RECYCLING CENTER	3363.02	503.17	-22.8	34.0	40.9	123.9	818.1	NO	0.2
7775073	APAC-FLORIDA, INC	PENSACOLA PLANT #403	3369.88	475.5	-15.9	6.3	17.1	158.4	342.6	NO	7.9
7775118	C W ROBERTS CONTRACTING INC	ASPHALT PLANT 3	3377.81	584.05	-8.0	114.9	115.1	94.0	2302.6	NO	18.8

Table D-6
Local NO_X Sources
Meeting 20D Criteria

FACILITY ID	OWNER/COMPANY	SITE NAME	NORTH (km)	EAST (km)	EU ID	EU DESCRIPTION	EU STATUS	STACK HT (ft)	DIAM (ft)	EXIT TEMP (F)	ACFM	DSCFM	VEL (ft/s)	Potential (lb/hr)	Potential (tpy)	Allowable (lb/hr)	Allowable (tpy)	2001 Actual (tpy)	2000 Actual (tpy)
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	2	ADIPIC ACID SYNTHESIS, NOX THERMAL REDUCTION UNIT #1 TRU/SCR	A	60	4	435	71000		94	32.74	143.4			309.36	279.3
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	3	B & W BOILER #8 (STACK #1)	A	125	12	230	236943		34	22.5	98.55	22.5	98.55	17.660918	14.511182
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	4	B & W BOILER #7 (STACK #2)	A	125	12	230	236943		34	22.5	98.55	22.5	98.55	13.211452	14.841612
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	5	#1 DOWTHERM VAPORIZER -NAT. GAS,OR #2 OIL (COMMON STACK W #	A	125	2.7	311	6318		18	1.96	8.58			3.556	4.9351
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	7	"2 VAPORIZER- NAT. GAS OR #2 OIL	A	125	2.7	311	7198	4029	20	1.96	8.58			1.897	4.9379
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	8	#3 DOWTHERM VAPORIZER- NAT. GAS,OR #2 OIL (COM. STACK W #5)	A	125	2.7	311	7198	4029	20	1.96	8.58			4.459	4.9379
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	9	#4 DOWTHERM VAPORIZER- NAT.GAS, OR #2 OIL, (COM. STACK W #1)	A	125	2.7	311	7198	4029	20	1.96	8.58			5.551	7.1191
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	10	#5 DOWTHERM VAPORIZER- NAT.GAS, OR #2 OIL (COM.STACK W #3)	A	125	2.7	311	7198	4029	20	1.96	8.58			7.259	7.1191
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	11	#6 DOWTHERM VAPORIZER- NAT. GAS OR #2 OIL(COMMON STACK #7)	A	125	2.7	311	7198	4029	20	1.96	8.58			4.704	6.2336
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	13	#7 VAPORIZER (COMMON STACK #6)	A	125	2.7	311	9798	5479	28	3.75	16.4			9.226	11.1721
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	14	CE BOILER #4 (USES STACK #5 IN COMMON WITH CE BOILER #3)	A	150	10	360	168664		35	132.55	577.5	132.55	577.5	342.43535	383.970069
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	15	CE BOILER #5 (USES STACK #3 IN COMMON WITH CE BOILER #6)	A	150	10	360	168664		35	66.7				231.716945	308.063921
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	16	CE BOILER #6 (USES STACK #3 IN COMMON WITH CE BOILER #5)	A	150	10	360	168664		35	54.6				222.114305	351.680947
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	32	COGENERATION PLANT	A	100	15	300	799	491	75	106.6	467.1	106.6	467.1	191.355528	204.190168
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	38	RESEARCH & DEVELOPMENT	A	33	0.3	200	100		23						
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	42	NITRIC ACID PLANT E	A	120	4.5	312	107540		112	170	360	187.5	360	265.8	300.2
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	49	HYDROGEN GENERATION FACILITY, PLANT #1	A	90	4.8	393	50257		46		63.1		63.1	26.222907	50.88616
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	75	VAPORIZER NO.8	A	125	2.7	311	9798	5479	28	3.08	13.5			7.819	8.6401
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	76	MALEIC ANHYDRIDE (MA)PLANT-UNCONTROLLED OFF GASES	A	125	3.5	158		60000		44.98	197.02				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	84	AREA 471 ALPHOX, RAW MATERIAL AND PRODUCT TANK FLARES	A												
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	85	AREA 471 ALPHOX, SYNTHESIS, REFINING, RAW MATERIAL RECOVERY	A												
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	86	AREA 471 ALPHOX, ORGANIC BACK-UP DEVICE (OBUD)	A							310	128				
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	87	AREA 471 ALPHOX, FUGITIVE EMISSIONS, PRESSURE RELIEF FLARE	A												
0330040	SOLUTIA INC.	SOLUTIA INC.	3384.99	476.01	88	AREA 480 K/A EXPANSION, BACKUP VOC CONTROL FLARE	A	65	4.6									7.5805	
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	1	Boiler #1 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	176	770.88			80.1708	173.9128
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	2	Boiler #2 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	176	770.88			87.56	152.4078
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	3	Boiler #3 (Phase II Acid Rain Unit)	A	450	18	290	802500		52	302.5	1324.95			117.139	281.9438
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	4	Boiler #4 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	570.28	2497.84	570.28	2497.84	829.533036	860.049544
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	5	Boiler #5 (Phase I & II Acid Rain Unit)	A	450	18	290	802500		52	658.02	2882.13	658.02	2882.13	748.300061	1145.941766
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	6	Boiler # 6 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	1667.16	7302.16	1667.16	7302.16	3906.31128	3986.499043
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	7	Boiler #7 (Phase I Acid Rain Unit)	A	450	23.2	320	2462700		97	2882.88	12627	2882.88	12627	4970.846236	6914.585989
0330045	GULF POWER COMPANY	CRIST ELECTRIC GENERATING PLANT	3381.36	478.27	11	General Purpose Internal Combustion Engines	A			400								10.9277	8.8195
0330114	PENSACOLA CHRISTIAN COLLEGE, INC.	PENSACOLA CHRISTIAN COLLEGE, INC.	3371.02	477.77	3	Internal Combustion Engine #3	A	37	1.3	1000	7500		94.2	34	145		145	0.06	0.34
0330114	PENSACOLA CHRISTIAN COLLEGE, INC.	PENSACOLA CHRISTIAN COLLEGE, INC.	3371.02	477.77	5	Internal Combustion Engines #1 and #2	A	37	1.1	1000	7500		131.5	68	298	34	149	0.27	11
0330114	PENSACOLA CHRISTIAN COLLEGE, INC.	PENSACOLA CHRISTIAN COLLEGE, INC.	3371.02	477.77	6	Hot Water Generators	A	10	0.25									7.52	5.9
1130003	STERLING FIBERS, INC.	STERLING FIBERS, INC.	3380.2	489.2	4	BOILER #8	A	50	5	365	51000		43.3	46	220			38	210.6
1130003	STERLING FIBERS, INC.	STERLING FIBERS, INC.	3380.2	489.2	5	BOILER #7	A	50	5	365	51000		43.3	45	191			62.1	138.6
1130003	STERLING FIBERS, INC.	STERLING FIBERS, INC.	3380.2	489.2	9	BOILER #9	A	50	5	340	60000		50.9	48.6	204			109.8	289.8
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	1	RILEY STOKER BOILER	A	41	6.2	250	48100		26	39.8	174.4			40.303013	37.359175
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	3	B & W BOILER	A	40	5	750	42000		35	65.23	285.7			54.1198	56.6958
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	5	AMINES PLANTS FLARE	A	36	0.8	700	1963		65.1	8.8	38.5			3.632762	3.660997
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	6	METHYLAMINES PLANT NO.1 GAS FIRED HEATER	A	25	0.8	557	90		2		6.69			1.7647	
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	7	HIGHER AMINES PLANT GAS-FIRED HEATER	A	25	2.8	1300	745		2	1.574	6.895				
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	8	AMMONIA PLANT PRIMARY REFORMER	A	82	3.7	450	62750		97	69.77	305.6			214.9875	250.9461
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	10	METHANOL - TWO REFORMERS	A	90	7.5	325	344003		129	28.0068	122.675			209.049277	241.785682
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	11	METHANOL PLANT -THREE(3) NAT. GAS ENGINES	A	25	2.5	350	18400		62	224.2	981.9			915.6935	1038.965
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	22	NITRIC ACID PLANT No.1 Catalytic Combustor	A	71	3	350	41612		98	45.625	199.8			79.3866	11.607225
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	23	NITRIC ACID PLANT No.2 Catalytic Combustor	A	94	2.5	340	29797		101	33.13	145.1			53.84452	95.204
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	26	AMMONIA PLANT - FOUR(4) NAT. GAS ENGINES	A	20	1.7	900	18400		135	179	785.2			601.7875	656.0995
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	27	PDL INCINERATOR	A	15	0.25	100	50		17	1.62	7.1				
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	60	METHYLAMINES PLANT NO.4 GAS-FIRED HEATER	A	25	0.8	557	186	79	6.2						
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	62	FACILITY-WIDE FUGITIVES	A												
1130004	AIR PRODUCTS AND CHEMICALS, INC.	AIR PRODUCTS AND CHEMICALS, INC.	3383.4	487	65	STORAGE TANKS (4)	A							2.9	12.8				
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	34	Three Sulfur Recovery Plants (2, 3, & 4)	A	250	3	900									
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	36	Four 1200 HP JCSWD Saturn NG fired Turbines	A	35	2.5	800	6465		22						
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	37	JCSWD 3600 HP NG fired Solar Centaur turbine	A	35	2.5	800	17333		58.9	12	52.6	12		11.18	1.66
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	38	1000 HP Ingersol Rand Compressor engine with catalytic cnvtr	A	30	1	800	3726		79.1	5	21.9			21.14	12.42
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	40	Jay 2, 3, & 4 Process Heaters	A	60	4									66.48	66.48
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	41	Jay 2, 3, and 4, stabilizer bottom heaters	A	60	3									33.2	33.2
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	42	Jay Plant Hot Oil Heater	A	60	2									32.59	32.59
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	43	Two NG fired 14,300 HP Water Flood Turbines	A	30	12.5									333.46	361.71
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	44	Six 1,000 HP NG fired Ingersol Rand Compressor Engines	A	30	1									488.66	449.17
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	45	One 5000 HP NG fired Cooper Bessemer "A" Engine	A	22	3									510.78	464.04
1130005	EXXONMOBIL PRODUCTION COMPANY	ST REGIS TREATING FAC AND JAY GAS PLANT	3416.04	482.87	46	One 2500 HP NG fired Cooper-Bessemer "B" Engine	A	22	3									260.82	252.33
1130168	SANTA ROSA ENERGY LLC	SANTA ROSA ENERGY CENTER	3381.53	488.97	1	167MW Gas Combustion Turbine (Phase II Acid Rain Unit)	A	200	19	205	1073204		63.1	64.1	280.75	106	464.28		
1130168	SANTA ROSA ENERGY LLC	SANTA ROSA ENERGY CENTER	3381.53	488.97	1	167MW Gas Combustion Turbine (Phase II Acid Rain Unit)	A	200	19	205	1073204		63.1	64.1	280.75	42.4	185.71		
1130168	SANTA ROSA ENERGY LLC	SANTA ROSA ENERGY CENTER	3381.53	488.97	1	167MW Gas Combustion Turbine (Phase II Acid Rain Unit)	A	200	19	205	1073204		63.1	64.1	280.75	64.1	280.75		
1130173	GULF POWER COMPANY	COGENERATION PLANT (PEA RIDGE PLANT)	3384.32	486.87	1	COGENERATION UNITS A,B AND C.	A	60	4	325	41058		54.5	60	187.1		187	64.56	110.5755
1130173	GULF POWER COMPANY	COGENERATION PLANT (PEA RIDGE PLANT)	3384.32	486.87	1	COGENERATION UNITS A,B AND C.	A	60	4	325	41058		54.5	60	187.1		187	64.56	110.5755
1130173	GULF POWER COMPANY	COGENERATION PLANT (PEA RIDGE PLANT)	3384.32	486.87	1	COGENERATION UNITS A,B AND C.	A	60	4	325	41058		54.5	60	187.1		187	64.56	110.5755

Table D-7

SO_2 Emission Inventory for Alabama Sources

Facility No.	Unit Description	Stack No.	Type	UTM Coordinates East	North	Increment Type	Allowable (g/s)	Actual (g/s)	Base Elev. (m)	Stack Height (m)	GEP (m)	Stack Diameter (m)	Exit Temp (K)	Flowrate (ACMM)	Velocity (m/s)
502-0001	No. 2 Lime Kiln	005	V	489.5	3437.80	Baseline Source	0.20	0.15	30.78	22.86		1.01	345.93	639.96	13.18
502-0001	No. 1 Lime Kiln	004	V	489.5	3437.80	Baseline Source	0.20	0.15	30.78	22.86		1.01	347.04	620.14	12.77
502-0001	No. 3 Power Boiler	015E	V	489.50	3437.80	Increment Consumer	38.71	0.68	30.78	76.20	64.92	2.29	500.93	3887.90	15.79
502-0001	No. 3 Power Boiler	015W	V	489.50	3437.80	Increment Consumer	38.71	0.68	30.78	76.20	64.92	2.29	500.93	3887.90	15.79
502-0001	No. 3 Recovery Furnace	003S	V	489.50	3437.80	Baseline Source	8.08	6.56	30.78	73.46	64.92	2.38	487.59	3114.85	11.66
502-0001	Merged Units	001	V	489.50	3437.80	Baseline Source	139.53	8.08	30.78	76.20	64.92	3.66	424.82	12247.04	19.43
502-0001	Merged Units	002	V	489.50	3437.80	Baseline Source	205.18	8.06	30.78	76.20	64.92	3.66	412.59	6208.16	9.85
502-0001	Merged Units	001	V	489.50	3437.80	Increment Consumer	11.51	11.51	30.78	76.20	64.92	3.66	424.82	12247.04	19.43
502-0001	No. 3 Recovery Furnace	003N	V	489.50	3437.80	Baseline Source	8.08	6.56	30.78	73.46	64.92	2.38	487.59	3114.85	11.66
502-0005	1000 Bhp Gas Turbine Engine (Solar) Inlet Comp. No. A	304A	V	475.00	3432.50	Increment Consumer	0.83	0.83	71.63	9.75		0.46	722.04	123.26	12.51
502-0005	1000 Bhp Gas Turbine Engine (Solar) Inlet Comp. No. B	304B	V	475.00	3432.50	Increment Consumer	0.83	0.00	71.63	9.75		0.46	722.04	123.26	12.51
502-0005	1000 Bhp Gas Turbine Engine (Solar) Inlet Comp. No.C	304C	V	475.00	3432.50	Increment Consumer	0.83	0.00	71.63	9.75		0.46	722.04	123.26	12.51
502-0005	Sulfur Recovery & Thermal oxidizer	F501	V	475.00	3432.50	Baseline Source	288.54	65.36	71.63	76.20	64.92	1.93	727.59	813.54	4.64
502-0005	Facility Flare	FL01	V	475.00	3432.50	Baseline Source	25.20	1.61	71.63	29.26		0.36	1255.37	730.66	121.92
502-0005	243 MMBtu/Hr Power Boiler	PB1	V	475.00	3432.50	Baseline Source	7.40	0.03	71.63	10.97		1.58	644.26	2073.44	17.52
502-0007	97 MMBtu/Hr - South Boiler #1 (B0301A)	001	V	465.30	3436.40	Baseline Source	48.89	48.89	79.25	9.14		0.46	574.82	141.58	14.37
502-0007	97 MMBtu/Hr - South Boiler #2 (B01301A)	002	V	465.30	3436.40	Increment Consumer	48.89	48.89	79.25	9.14		0.46	574.82	141.58	14.37
502-0007	97 MMBtu/Hr - North Boiler #1 (B0301B)	003	V	465.30	3436.40	Baseline Source	48.89	48.89	79.25	9.14		0.46	574.82	141.58	14.37
502-0007	97 MMBtu/Hr - North Boiler #2 (B01301B)	004	V	465.30	3436.40	Increment Consumer	48.89	48.89	79.25	9.14		0.46	574.82	141.58	14.37
502-0007	Sulfur Recovery unit No. 1 Thermal Oxidizer	009	V	465.30	3436.40	Increment Expander	0.00	318.78	79.25	85.34	64.92	1.60	455.37	2054.59	17.03
502-0007	Sulfur recovery Unit No. 2 Thermal oxidizer (S1201/2)	010	V	465.30	3436.40	Increment Consumer	1607.76	431.83	79.25	86.87	64.92	1.68	449.64	5380.20	40.63

Code ** Stack Type Key (Last character in Stack no.)

D	A stack discharging downword, or nearly downward.
F	Fugative emissions, no stack exists.
H	A stack discharging in a horizonal direction.
P	A process vent, not otherwised classified.
R	A building roof vent.
V	A stack with an unobstructed opening discharging in a vertical, or nearly vertical direction.
W	A vertical Stack with a weather cap or similar obstruction in the exhaust stream.

Table D-8

PM_{10} Emission Inventory for Alabama Sources

Facility No	Unit Description	Stack No	Stack Type	UTM Coordinates East	UTM Coordinates North	Increment Type	Allowable (g/sec)	Actual (g/sec)	Base Elev (m)	Stack Height (m)	GER (m)	Stack Diameter (m)	Exit Temp °K	Flowrate (ACMM)	Velocity (m/sec)
502-0001	No. 3 Recovery Furnace	003S	V	489.50	3437.80	Baseline Source	7.70	2.84	30.78	73.46	64.92	2.38	487.59	3115.26	11.67
502-0001	Merged Units	002	V	489.50	3437.80	Baseline Source	29.46	6.23	30.78	76.20	64.92	3.66	412.59	6208.98	9.85
502-0001	Merged Units	001	V	489.50	3437.80	Increment Consumer	1.35	1.30	30.78	76.20	64.92	3.66	424.82	12248.65	19.43
502-0001	Merged Units	001	V	489.50	3437.80	Baseline Source	11.23	1.38	30.78	76.20	64.92	3.66	424.82	12248.65	19.43
502-0001	No. 3 Recovery Furnace	003N	V	489.50	3437.80	Baseline Source	7.70	2.84	30.78	73.46	64.92	2.38	487.59	3115.26	11.67
502-0001	No. 3 Smelt Tank	033	V	489.50	3437.80	Baseline Source	1.93	0.45	30.78	73.46	64.92	1.52	332.59	628.72	5.74
502-0001	No. 1 Lime Kiln	004	V	489.50	3437.80	Baseline Source	3.44	0.53	30.78	22.86		1.01	347.04	620.22	12.78
502-0001	No. 2 Lime Kiln	005	V	489.50	3437.80	Baseline Source	3.44	0.48	30.78	22.86		1.01	345.93	640.05	13.18
502-0001	No. 1 Smelt Tank	006	V	489.50	3437.80	Baseline Source	1.36	0.36	30.78	33.53		0.76	340.37	620.22	22.67
502-0001	No. 2 Smelt Tank	007	V	489.50	3437.80	Baseline Source	1.39	0.37	30.78	33.53		1.07	350.93	525.46	9.80
502-0001	No. 3 Power Boiler	015E	V	489.50	3437.80	Increment Consumer	3.83	2.31	30.78	76.20	64.92	2.29	500.93	3888.42	15.79
502-0001	No. 3 Power Boiler	015W	V	489.50	3437.80	Increment Consumer	3.83	2.31	30.78	76.20	64.92	2.29	500.93	3888.42	15.79

Code ** Stack Type Key (Last character in Stack no.)

D A stack discharging downward, or nearly downward.
F Fugative emissions, no stack exists.
H A stack discharging in a horizonal direction.
P A process vent, not otherwised classified.
R A building roof vent.
V A stack with an unobstructed opening discharging in a vertical, or nearly vertical direction.
W A vertical Stack with a weather cap or similar obstruction in the exhaust stream.

Table D-9
NO_2 Emission Inventory for Alabama Sources

Facility No.	Unit Description	Stack No.	Type	UTM Coordinates East	North	Increment Type	Allowable (g/sec)	Actual (g/sec)	Base Elev. (m)	Stack Height (m)	GEP (m)	Stack Diameter (m)	Exit Temp K	Flowrate (ACMM)	Velocity (m/sec)
502-0001	No. 3 Power Boiler (West Stack)	015W	V	489.50	3437.80	Baseline Source	11.49	3.98	30.78	76.20	64.92	2.29	500.93	3888.42	15.79
502-0001	No. 3 Power Boiler (East Stack)	015E	V	489.50	3437.80	Baseline Source	11.49	3.98	30.78	76.20	64.92	2.29	500.93	3888.42	15.79
502-0001	No. 2 Lime Kiln	005	V	489.50	3437.80	Baseline Source	1.89	1.46	30.78	22.86		1.01	345.93	640.05	13.18
502-0001	No. 1 Lime Kiln	004	V	489.50	3437.80	Baseline Source	1.89	1.47	30.78	22.86		1.01	347.04	620.22	12.78
502-0001	No. 3 Recovery Furnace (South Stack)	003S	V	489.50	3437.80	Baseline Source	4.47	3.35	30.78	73.46	64.92	2.38	487.59	3115.26	11.67
502-0001	No. 3 Recovery Furnace (North Stack)	003N	V	489.50	3437.80	Baseline Source	4.47	3.35	30.78	73.46	64.92	2.38	487.59	3115.26	11.67
502-0001	No. 1 Recovery Furnace, No. 1 Power Boiler, Package Boiler, Thermal Oxidizer	001	V	489.50	3437.80	Increment Consumer	10.07	9.57	30.78	76.20	64.92	3.66	424.82	12248.65	19.43
502-0001	No. 2 Recovery Furnace, No. 2 Power Boiler	002	V	489.50	3437.80	Baseline Source	27.39	16.62	30.78	76.20	64.92	3.66	412.59	6208.98	9.85
502-0001	No. 1 Recovery Furnace, No. 1 Power Boiler, Package Boiler, Thermal Oxidizer	001	V	489.50	3437.80	Baseline Source	22.91	10.16	30.78	76.20	64.92	3.66	424.82	12248.65	19.43

Code **	Stack Type Key (Last character in Stack no.)
D	A stack discharging downward, or nearly downward.
F	Fugative emissions, no stack exists.
H	A stack discharging in a horizonal direction.
P	A process vent, not otherwised classified.
R	A building roof vent.
V	A stack with an unobstructed opening discharging in a vertical, or nearly vertical direction.
W	A vertical Stack with a weather cap or similar obstruction in the exhaust stream.

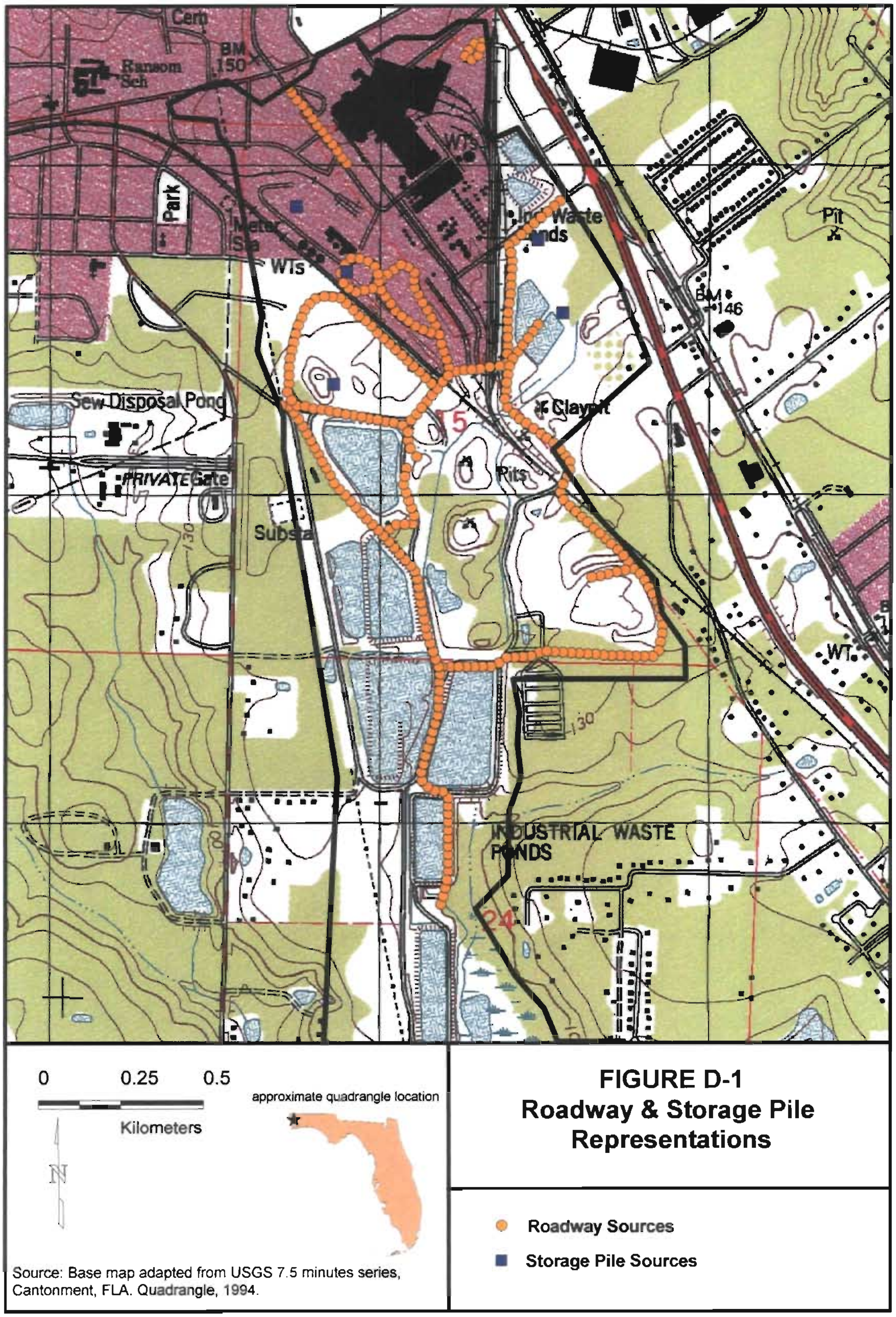


FIGURE D-1
Roadway & Storage Pile Representations

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Table D-10
Summary of Baseline Fugitive PM_{10} Emissions from Paved and Unpaved Roads
IP Mill
Pensacola, FL

Baseline Conditions																
						Segment	A	B	C	D	E	F	G	H	I	J
			GVWT (lb)			Seg Length (ft)	959.376	323.664	445.104	397.056	257.136	667.392	1763.52	353.76	1021.68	586.08
Route	Length (mi)	Trips	Empty	Full	Average	Trips*Wgt										
1	0.182	3	20,000	85,000	52,500	157,500	1									
2	0.923	78	30,000	80,000	55,000	4,290,000			1		1		1			
3	0.923	46	30,000	85,000	57,500	2,645,000			1		1		1			
4	0.839	76	30,000	80,000	55,000	4,180,000			1		1		1	1	1	1
5	0.728	149	30,000	85,000	57,500	8,567,500			1		1		1	1	1	
6	0.061	32	35,000	80,000	57,500	1,840,000		1								
7	0.671	8	40,000	60,000	50,000	400,000										
8	0.634	3	20,000	65,000	42,500	127,500						1	1			
9	1.316	10	40,000	60,000	50,000	500,000										
10	0.296	8	30,000	85,000	57,500	460,000										
11	0.296	4	40,000	75,000	57,500	230,000										
12	1.110	8	40,000	60,000	50,000	400,000										
13	0.534	5	40,000	60,000	50,000	250,000										
Total RT VMT		648.344			W =	Mean GVWT (lb)	52,500	57,500	56,397		56,397	42,500	56,278	56,656	56,656	55,000
						Total VMT/day	1.09	3.92	58.84		33.99	0.76	235.14	30.15	87.08	16.87
						Grand Total VMT	649									
						E (lb/hr) $_{PM10}$	0.00	0.01	0.10		0.05	0.00	0.38	0.05	0.14	0.03
						E (ton/yr) $_{PM10}$	0.01	0.03	0.42		0.24	0.00	1.66	0.21	0.62	0.11
						E (lb/hr) $_{PM30}$	0.01	0.03	0.49		0.28	0.00	1.94	0.25	0.73	0.13
Paved		$E = k(sL/2)^{0.65} (W/3)^{1.5} [1-(P/(4(N)))]$				E (ton/yr) $_{PM30}$	0.04	0.15	2.13		1.23	0.02	8.50	1.10	3.18	0.59
		k_{PM10} =	0.016	lb/VMT												
		k_{PM30} =	0.082	lb/VMT												
		sL =site specific segment silt loadings (g/m2)														
		P	110													
		N - Annua	365													
Segments A-P																
						Segment Silt Loading(g/m2)	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02
						Values from non IP Mill	4.213E-02	4.213E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02
						Mean GVWT (lb)										
Unpaved		$E=k(s/12)^a (W/3)^b /(M/0.2)^c [(365 - p)/365]$				Total VMT/day										
						Grand Total VMT										
		k_{PM10}	2.6	lb/VMT		E (lb/hr) $_{PM10}$										
		k_{PM30} =	10	lb/VMT		E (ton/yr) $_{PM10}$										
		s=	8.4	% (Lumber sawmills)		E (lb/hr) $_{PM30}$										
		p=	110			E (ton/yr) $_{PM30}$										
		M=	0.2	(default)												
	PM10	a	0.8													
		b	0.4			unpaved (g/s) $_{PM10}$										
		c	0.3			paved (g/s) $_{PM10}$	0.000199	0.000821	0.011974		0.006917	0.000101	0.047701	0.006178	0.017844	0.003306
	PM30	a	0.8		Volume Receptors Per Segment		13	7	5		4	8	20	4	23	13
		b	0.5		(g/s) $_{PM10}$ for each Volume Receptor		**0.00001533**	**0.00011732**	**0.00239486**		**0.00172930**	**0.00001265**	**0.00238506**	**0.00154451**	**0.00077581**	**0.00025434**
		c	0.4		(g/s) $_{PM10}$ for each Volume Receptor		**1.53E-05**	**1.17E-04**	**2.39E-03**		**1.73E-03**	**1.26E-05**	**2.39E-03**	**1.54E-03**	**7.76E-04**	**2.54E-04**
Segments Q-W																

Segment	K	L	M	N	O	P	Q	R	S	T	U	V	W		
Seg Length (ft)	205.92	454.08	546.48	1198.56	258.72	105.6	1716	997.92	1483.68	2555.52	3168	475.2	3067.68		
Trips*Wgt															
157,500															
4,290,000	1	1	1	1											
2,645,000	1	1	1	1											
4,180,000															
8,567,500															
1,840,000															
400,000												1	1		
127,500	1	1			1										
500,000						1	1		1		1	1			
460,000				1	1	1									
230,000				1	1	1									
400,000						1	1		1	1					
250,000						1	1	1							
Mean GVWT (lb)	55,610	55,610	55,927	56,066	54,500	52,571	50,000	50,000	50,000	50,000	50,000	50,000	50,000		
Total VMT/day	9.91	21.84	25.67	61.74	1.47	1.4	14.95	1.89	10.12	7.74	12	3.24	9.3		
Grand Total VMT														*Total*	
E (lb/hr) $_{PM10}$	0.02	0.03	0.04	0.10	0.00	0.00								*0.95*	*lb/hr PM_{10}*
E (ton/yr) $_{PM10}$	0.07	0.15	0.18	0.43	0.01	0.01								*4.15*	*ton/yr PM_{10}*
E (lb/hr) $_{PM30}$	0.08	0.18	0.21	0.51	0.01	0.01								*4.86*	*lb/hr PM_{30}*
E (ton/yr) $_{PM30}$	0.35	0.78	0.92	2.22	0.05	0.05								*21.29*	*ton/yr PM_{30}*
Segment Silt Loading(g/m2)	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02									
Values from non IP Mill	9.368E-02	1.889E+00	1.889E+00	1.889E+00	1.889E+00	1.889E+00	1.889E+00	4.213E-02	4.213E-02	4.213E-02	1.889E+00	4.213E-02	9.368E-02		
Mean GVWT (lb)							50,000	50,000	50,000	50,000	50,000	50,000	50,000		
Total VMT/day							14.95	1.89	10.12	7.74	12	3.24	9.3		
Grand Total VMT															
E (lb/hr) $_{PM10}$							1.99	0.25	1.34	1.03	1.59	0.43	1.24	7.87	*lb/hr PM_{10}*
E (ton/yr) $_{PM10}$							8.70	1.10	5.89	4.50	6.98	1.89	5.41	34.48	*ton/yr PM_{10}*
E (lb/hr) $_{PM30}$							9.44	1.19	6.39	4.89	7.58	2.05	5.87	37.42	*lb/hr PM_{30}*
E (ton/yr) $_{PM30}$							41.37	5.23	28.00	21.42	33.20	8.96	25.73	163.91	*ton/yr PM_{30}*
unpaved (g/s) $_{PM10}$							0.2502805	0.0316408	0.1694207	0.1295767	0.2008941	0.0542414	0.1556929		
paved (g/s) $_{PM10}$	0.001975	0.004352	0.005159	0.012454	0.000284	0.000256									
Volume Receptors Per Segment	2	6	32	15	4	2	20	11	18	31	39	5	38	320	
(g/s) $_{PM10}$ for each Volume Receptor	**0.00098734**	**0.00072531**	**0.00016121**	**0.00083027**	**0.00007105**	**0.00012821**	**0.01251403**	**0.00287644**	**0.00941226**	**0.00417989**	**0.00515113**	**0.01084828**	**0.00409718**		
(g/s) $_{PM10}$ for each Volume Receptor	**9.87E-04**	**7.25E-04**	**1.61E-04**	**8.30E-04**	**7.10E-05**	**1.28E-04**	**1.25E-02**	**2.88E-03**	**9.41E-03**	**4.18E-03**	**5.15E-03**	**1.08E-02**	**4.10E-03**		

Table D-11
Summary of Post Project Fugitive PM_{10} Emissions from Paved and Unpaved Roads
IP Mill
Pensacola, FL

						Segment	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W		
				GVWT (lb)		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		
Route	Length (m	Trips	Empty	Full	Average	Trips*Wgt																									
1	0.182	4	20,000	85,000	52,500	210,000	1																								
2	0.923	85	30,000	80,000	55,000	4,675,000			1		1		1				1	1	1	1											
3	0.923	51	30,000	85,000	57,500	2,932,500			1		1		1				1	1	1	1											
4	0.839	84	30,000	80,000	55,000	4,620,000			1		1		1	1	1	1															
5	0.728	164	30,000	85,000	57,500	9,430,000			1		1		1	1	1																
6	0.061	35	35,000	80,000	57,500	2,012,500		1																							
7	0.671	9	40,000	60,000	50,000	450,000																						1	1		
8	0.634	4	20,000	65,000	42,500	170,000						1	1				1	1			1										
9	1.316	11	40,000	60,000	50,000	550,000																1	1		1		1	1			
10	0.296	9	30,000	85,000	57,500	517,500														1	1	1									
11	0.296	5	40,000	75,000	57,500	287,500														1	1	1									
12	1.110	9	40,000	60,000	50,000	450,000																1	1		1	1					
13	0.534	6	40,000	60,000	50,000	300,000																1	1	1							
Total RT VMT		715.84			W =	Mean GVWT (lb)	52,500	57,500	56,400		56,400	42,500	56,256	56,653	56,653	55,000	55,554	55,554	55,938	56,083	54,167	52,625	50,000	50,000	50,000	50,000	50,000	50,000	50,000		
						Total VMT/day	1.45	4.29	64.74		37.4	1.01	259.18	33.23	95.98	18.65	10.92	24.08	28.15	68.1	1.76	1.6	16.9	2.27	11.24	8.71	13.2	3.6	10.46		
						Grand Total VMT	717																							*Total*	
						E (lb/hr) $_{PM10}$	0.00	0.01	0.10		0.06	0.00	0.42	0.05	0.16	0.03	0.02	0.04	0.04	0.11	0.00	0.00								***1.05***	*lb/hr PM_{10}*
						E (ton/yr) $_{PM10}$	0.01	0.03	0.46		0.26	0.00	1.83	0.24	0.68	0.13	0.08	0.17	0.20	0.48	0.01	0.01								***4.58***	*ton/yr PM_{10}*
						E (lb/hr) $_{PM30}$	0.01	0.04	0.54		0.31	0.01	2.14	0.28	0.80	0.15	0.09	0.19	0.23	0.56	0.01	0.01								***5.36***	*lb/hr PM_{30}*
Paved		$E = k(sL/2)^{0.65} (W/3)^{1.5} [1-(P/(4(N)))]$				E (ton/yr) $_{PM30}$	0.05	0.16	2.35		1.36	0.02	9.36	1.21	3.50	0.65	0.39	0.85	1.01	2.45	0.06	0.05								***23.47***	*ton/yr PM_{30}*
		k_{PM10} =	0.016	lb/VMT																											
		k_{PM30} =	0.082	lb/VMT																											
		sL =site specific segment silt loadings (g/m2)																													
		P	110																												
		N - Annua	365																												
Segments A-P																															
						Segment Silt Loading(g/m2)	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02	5.000E-02									
						Values from non IP Mill	4.213E-02	4.213E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	9.368E-02	1.889E+00	1.889E+00	1.889E+00	1.889E+00	1.889E+00	1.889E+00	4.213E-02	4.213E-02	4.213E-02	1.889E+00	4.213E-02	9.368E-02		
						Mean GVWT (lb)																	50,000	50,000	50,000	50,000	50,000	50,000	50,000		
Unpaved		$E=k(s/12)^{a} (W/3)^{b} /(M/0.2)^{c} [(365 - p)/365]$				Total VMT/day																	16.9	2.27	11.24	8.71	13.2	3.6	10.46		
						Grand Total VMT																									
		k_{PM10}	2.6	lb/VMT		E (lb/hr) $_{PM10}$																	2.25	0.30	1.49	1.16	1.75	0.48	1.39	8.82	*lb/hr PM_{10}*
		k_{PM30} =	10	lb/VMT		E (ton/yr) $_{PM10}$																	9.84	1.32	6.54	5.07	7.68	2.10	6.09	38.63	*ton/yr PM_{10}*
		s=	8.4	% (Lumber sawmills)		E (lb/hr) $_{PM30}$																	10.68	1.43	7.10	5.50	8.34	2.27	6.61	41.93	*lb/hr PM_{30}*
		p=	110			E (ton/yr) $_{PM30}$																	46.76	6.28	31.10	24.10	36.52	9.96	28.94	183.67	*ton/yr PM_{30}*
		M=	0.2	(default)																											
	PM10	a	0.8																												
		b	0.4			unpaved (g/s) $_{PM10}$																	0.2829258	0.0380025	0.1881708	0.1458156	0.2209835	0.0602682	0.1751127		
		c	0.3			paved (g/s) $_{PM10}$	0.000265	0.000899	0.013176		0.007612	0.000134	0.052547	0.006809	0.019666	0.003655	0.002173	0.004791	0.005659	0.013743	0.000337	0.000293									
	PM30	a	0.8		Volume Receptors Per Segment		13	7	5		4	8	20	4	23	13	2	6	32	15	4	2	20	11	18	31	39	5	38	320	
		b	0.5		(g/s) $_{PM10}$ for each Volume Receptor		**0.00002039**	**0.00012840**	**0.00263521**		**0.00190294**	**0.00001681**	**0.00262736**	**0.00170215**	**0.00085503**	**0.00028117**	**0.00108633**	**0.00079850**	**0.00017684**	**0.00091621**	**0.00008428**	**0.00014675**	**0.01414629**	**0.00345477**	**0.01045393**	**0.00470373**	**0.00566624**	**0.01205365**	**0.00460823**		
		c	0.4		(g/s) $_{PM10}$ for each Volume Receptor		**2.04E-05**	**1.28E-04**	**2.64E-03**		**1.90E-03**	**1.68E-05**	**2.63E-03**	**1.70E-03**	**8.55E-04**	**2.81E-04**	**1.09E-03**	**7.98E-04**	**1.77E-04**	**9.16E-04**	**8.43E-05**	**1.47E-04**	**1.41E-02**	**3.45E-03**	**1.05E-02**	**4.70E-03**	**5.67E-03**	**1.21E-02**	**4.61E-03**		
Segments Q-W																															

Table D-12

Summary of Roadway Segment Characteristics

International Paper Company

Pensacola, Florida

Route	Use	Segments Included (in order of travel)	Vehicle Weight (lbs)	Length (mi)	Distance (mi)	Current Round-Trips per Day
1	Chmical Trucks	A	52,500	0.182	0.364	4
2	Wood Trucks to Hardwood Chips	C E G K L N M	55,000	0.923	1.846	85
3	Wood Trucks to Hardwood Logs	C E G K L N M	57,500	0.923	1.846	51
4	Wood Trucks to Softwood Chips	C E G H I J	55,000	0.839	1.678	84
5	Wood Trucks to Softwood Logs	C E G H I	57,500	0.728	1.456	164
6	Finished Product	B	57,500	0.061	0.122	35
7	Ash ponds to Ash Pile	W V	50,000	0.671	1.342	9
8	Kiln to Lime Pile	F G K L O	42,500	0.634	1.268	4
9	Ash to Perdido, N. of P2 between shack and decants	V U S Q P	50,000	1.316	2.632	11
10	Leachate E. side of SB to N of SB	P N O	57,500	0.296	0.592	9
11	Dregs and waste lime, S of Bl to N of SB	P N O	57,500	0.296	0.592	5
12	Sludge, P3 & P4 to between P1 & P2 to W of SB	P Q S T	50,000	1.110	2.220	9
13	Misc	R Q P	50,000	0.534	1.068	6

Table D-13
Summary of Roadway Emissions
International Paper Company
Pensacola, Florida

Segment	Segment Length (ft)	Total Daily VMT (mi)	Mean Truck Weight (lb)	Project PM_{10} Emissions (lb/hr)	Modeled Sources	g/s
A	959.376	1.45	52,500	2.103E-03	13	2.039E-05
B	323.664	4.29	57,500	7.133E-03	7	1.284E-04
C	445.104	64.74	56,400	1.046E-01	5	2.635E-03
D	397.056	0.00	0	0.000E+00	0	#DIV/0!
E	257.136	37.40	56,400	6.041E-02	4	1.903E-03
F	667.392	1.01	42,500	1.067E-03	8	1.681E-05
G	1763.52	259.18	56,256	4.170E-01	20	2.627E-03
H	353.76	33.23	56,653	5.404E-02	4	1.702E-03
I	1021.68	95.98	56,653	1.561E-01	23	8.550E-04
J	586.08	18.65	55,000	2.901E-02	13	2.812E-04
K	205.92	10.92	55,554	1.724E-02	2	1.086E-03
L	454.08	24.08	55,554	3.802E-02	6	7.985E-04
M	546.48	28.15	55,938	4.491E-02	32	1.768E-04
N	1198.56	68.10	56,083	1.091E-01	15	9.162E-04
O	258.72	1.76	54,167	2.676E-03	4	8.428E-05
P	105.6	1.60	52,625	2.329E-03	2	1.467E-04
Q	1716	16.90	50,000	2.245E+00	20	1.415E-02
R	997.92	2.27	50,000	3.016E-01	11	3.455E-03
S	1483.68	11.24	50,000	1.493E+00	18	1.045E-02
T	2555.52	8.71	50,000	1.157E+00	31	4.704E-03
U	3168	13.20	50,000	1.754E+00	39	5.666E-03
V	475.2	3.60	50,000	4.783E-01	5	1.205E-02
W	3067.68	10.46	50,000	1.390E+00	38	4.608E-03

SO_2, PM_{10}, NO_X, and Ozone Ambient Air Monitoring Data

2000, 2001, 2002

Escambia County

U.S. Environmental Protection Agency

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Monitor Values Report

Geographic Area: Escambia Co, FL
Pollutant: Sulfur Dioxide
Year: 2000, 2001, 2002

EPA Air Quality Standards:
Sulfur Dioxide: 0.5 ppm (3-hour average), 0.14 ppm (24-hour average), 0.030 ppm (annual mean)

ppm = parts per million

6 Rows
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	SO2 (ppm)																		
	1-Hour Values			3-Hour Values			24-Hour Values			Annual									
Row #	# Obs	1st Max	2nd Max	1st Max	2nd Max	# Exceed	1st Max	2nd Max	# Exceed	Mean	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	State	R
SORT																			
1	8,668	0.159	0.147	0.093	0.076	0	0.023	0.022	0	0.004	0	1	2000	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	0
2	8,722	0.172	0.152	0.076	0.076	0	0.024	0.021	0	0.003	0	1	2001	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	0
3	8,714	0.200	0.091	0.082	0.080	0	0.020	0.019	0	0.003	0	1	2002	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	0
4	8,460	0.240	0.161	0.116	0.099	0	0.046	0.032	0	0.005	0	1	2000	120330022	11000 University	Pensacola	Escambia Co	FL	0

	SO2 (ppm)																		
	1-Hour Values		3-Hour Values			24-Hour Values			Annual										
Row #	# Obs	1st Max	2nd Max	1st Max	2nd Max	# Exceed	1st Max	2nd Max	# Exceed	Mean	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	State	R
SORT																			
															Parkway, Univ Of W. Fla				
5	8,539	0.228	0.183	0.118	0.114	0	0.039	0.029	0	0.004	0	1	2001	120330022	11000 University Parkway, Univ Of W. Fla	Pensacola	Escambia Co	FL	0
6	8,064	0.161	0.137	0.082	0.078	0	0.029	0.022	0	0.003	0	1	2002	120330022	11000 University Parkway, Univ Of W. Fla	Pensacola	Escambia Co	FL	0
Grand Total						0			0		0		2000						
						0			0		0		2001						
						0			0		0		2002						

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Monitor Values Report

Geographic Area: Escambia Co, FL
Pollutant: Nitrogen Dioxide
Year: 2000, 2001, 2002

EPA Air Quality Standards:
Nitrogen Dioxide: 0.053 ppm (annual mean)

ppm = parts per million

3 Rows
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	NO2 (ppm)												
	1-Hour Values			Annual									
Row #	# Obs	1st Max	2nd Max	Mean	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	State	EPA Region
SORT													
1	8,617	0.097	0.060	0.010	0	1	2000	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04
2	8,649	0.059	0.055	0.009	0	1	2001	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04
3	8,378	0.050	0.047	0.008	0	1	2002	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04
Grand Total					0		2000						
					0		2001						
					0		2002						

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Monitor Values Report

Geographic Area: Escambia Co, FL
Pollutant: Particulate (size < 10 micrometers)
Year: 2000, 2001, 2002

EPA Air Quality Standards:
Particulate (diameter < 10 micrometers): 150 µg/m3 (24-hour average), 50 µg/m3 (annual mean)

µg/m3 = micrograms per cubic meter

6 Rows
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	PM10 (µg/m3)																
	24-Hour Values							Annual									
Row #	# Obs	1st Max	2nd Max	3rd Max	4th Max	99th Pct	# Exceed	Mean	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	State	EPA Region
SORT																	
1	57	41	38	37	36	41	0	23	0	1	2000	120330003	Champion International Golf Course	Pensacola	Escambia Co	FL	04
2	55	57	39	34	34	57	0	23	0	1	2001	120330003	Champion International Golf Course	Pensacola	Escambia Co	FL	04
3	61	47	39	33	32	47	0	19	0	1	2002	120330003	Champion International Golf Course	Pensacola	Escambia Co	FL	04
4	61	37	34	34	34	37	0	21	0	1	2000	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04

	PM10 (µg/m3)																	
	24-Hour Values							Annual										
Row #	# Obs	1st Max	2nd Max	3rd Max	4th Max	99th Pct	# Exceed	Mean	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	State	EPA Region
SORT																	
5	55	51	37	29	29	51	0	19	0	1	2001	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04
6	61	34	32	31	27	34	0	16	0	1	2002	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04
Grand Total							0		0		2000						
							0		0		2001						
							0		0		2002						

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Monitor Values Report

Geographic Area: Escambia Co, FL
Pollutant: Ozone
Year: 2001, 2002

EPA Air Quality Standards:
Ozone: 0.12 ppm (1-hour average), 0.08 ppm (8-hour average)

ppm = parts per million

6 Rows
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	O3 (ppm)																										
	1-Hour Values										8-Hour Values																
Row #	1st Max	2nd Max	3rd Max	4th Max	Actual # Exceed	Est. # Exceed	Required Days	# Days	% Days	Missing Days	1st Max	2nd Max	3rd Max	4th Max	Days > Std	Required Days	# Days	% Days	Monitor Number	Year	Site ID	Site Address	City	County	State	EF Reg
SORT																										
1	0.104	0.088	0.086	0.084	0	0.0	245	244	100	1	0.082	0.079	0.075	0.075	0	245	244	100	1	2001	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04
2	0.102	0.089	0.086	0.084	0	0.0	245	245	100	0	0.085	0.075	0.073	0.071	1	245	245	100	1	2002	120330004	Ellyson Industrial Park-Copter Road	Pensacola	Escambia Co	FL	04
3	0.106	0.098	0.097	0.096	0	0.0	245	242	99	0	0.090	0.086	0.084	0.082	2	245	242	99	1	2001	120330018	Nas Pensacola	Pensacola	Escambia Co	FL	04
4	0.092	0.090	0.086	0.086	0	0.0	245	241	98	2	0.078	0.077	0.076	0.075	0	245	241	98	1	2002	120330018	Nas	Pensacola	Escambia	FL	04

																						Pensacola		Co		
5	0.092	0.090	0.090	0.089	0	0.0	245	244	100	1	0.083	0.082	0.080	0.078	0	245	244	100	1	2001	120330024	220 N. Navy Blvd	Pensacola	Escambia Co	FL	04
6	0.098	0.090	0.087	0.085	0	0.0	245	236	96	1	0.079	0.075	0.075	0.074	0	245	236	96	1	2002	120330024	220 N. Navy Blvd	Pensacola	Escambia Co	FL	04
Grand Total					0	0.0									2					2001						
					0	0.0									1					2002						

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Mill Plot Plan

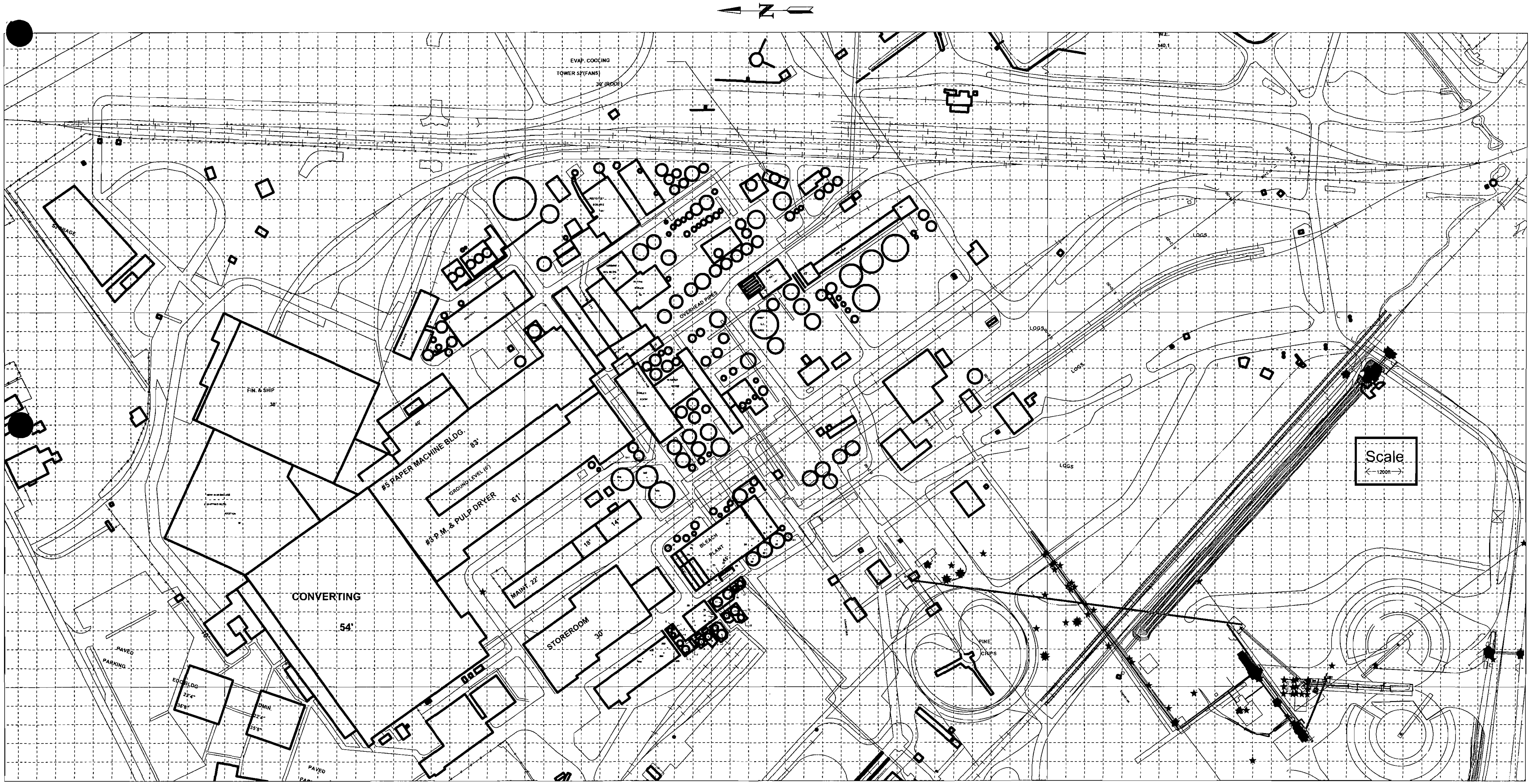


Figure D-2
IP Pensacola Mill
Facility Plot Plan

c:\client files\ip pensacola\psd application\figure D-2.wor

Historical USGS Topographical Maps and Ortho-Quad

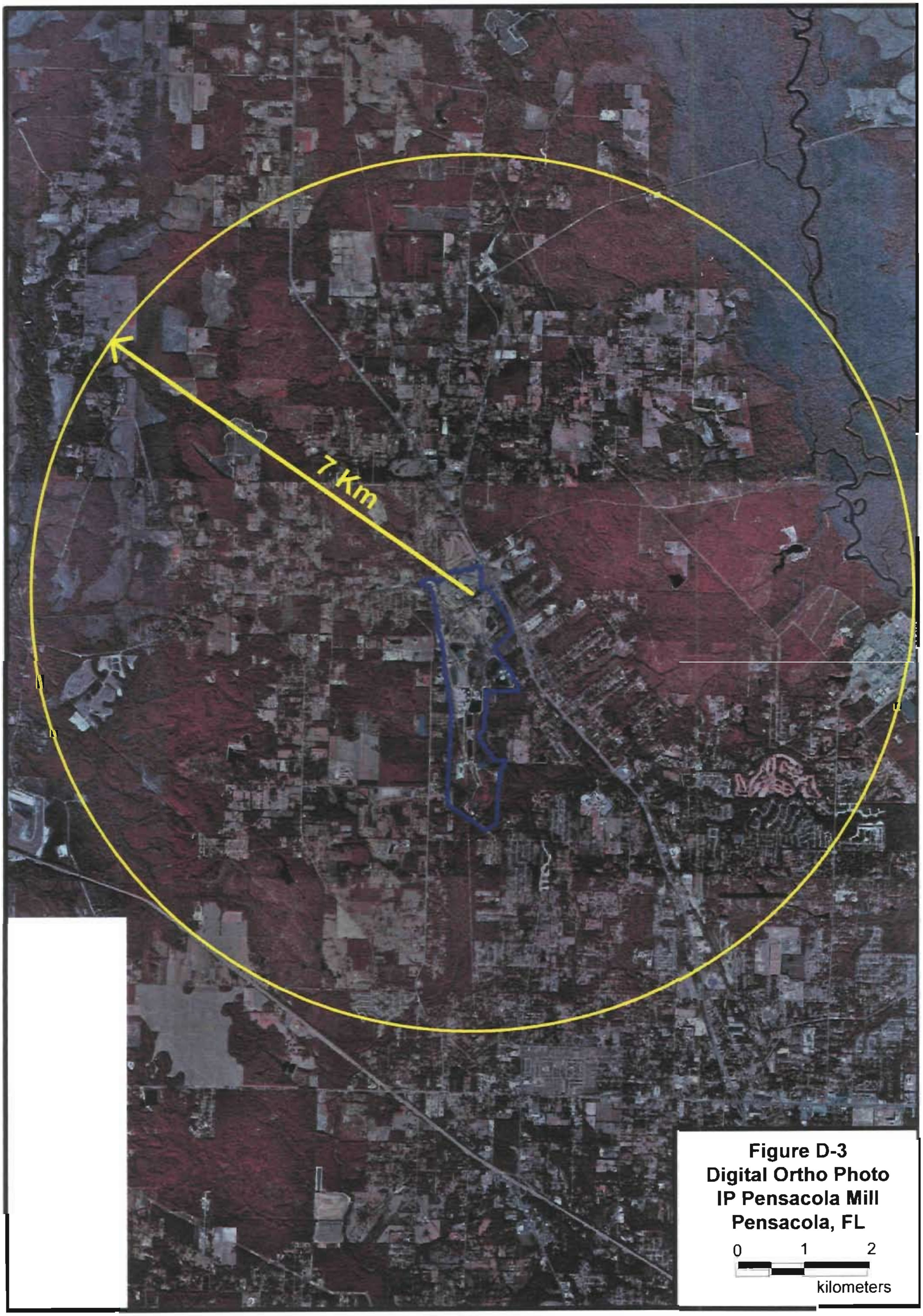
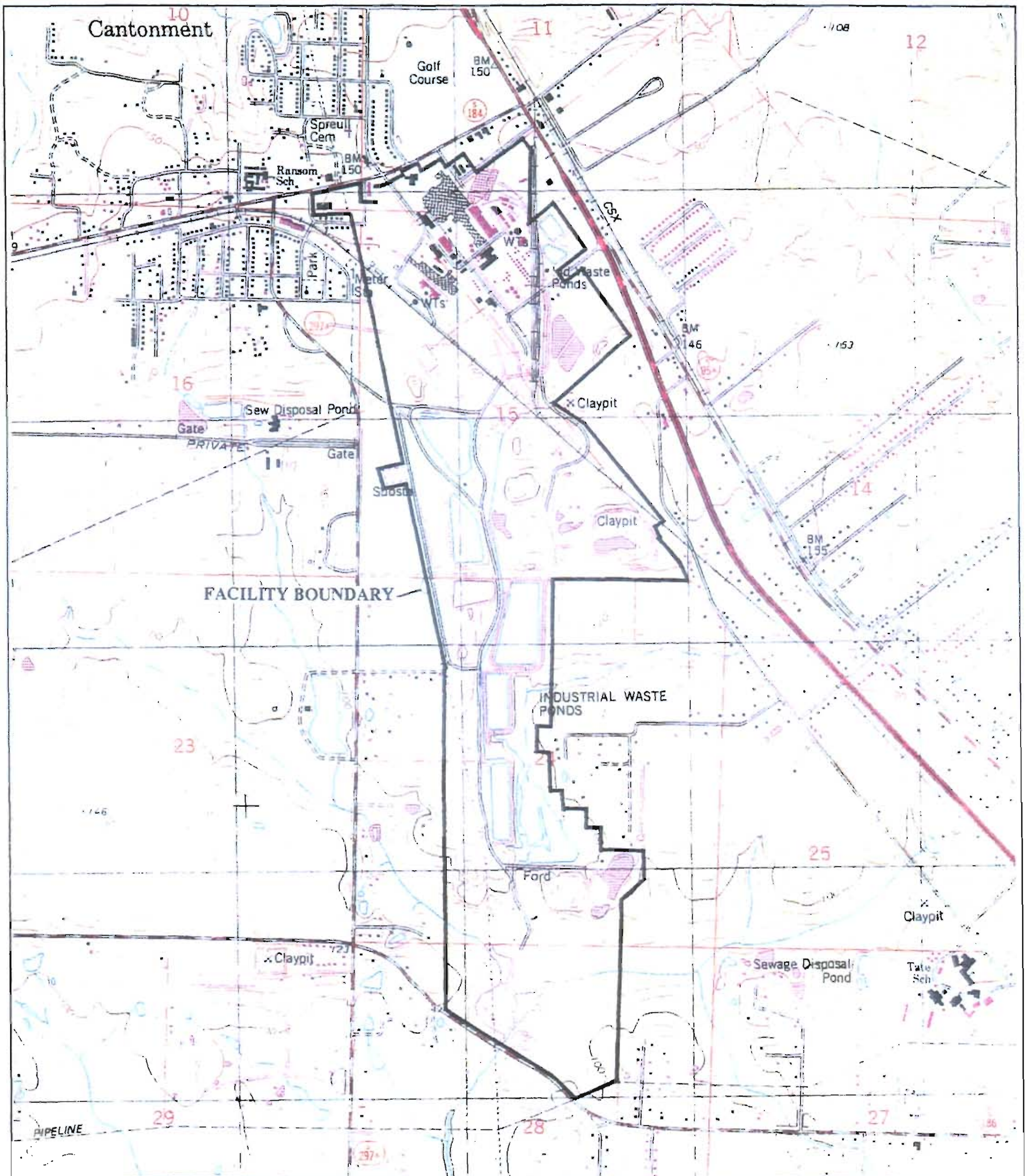


Figure D-3
Digital Ortho Photo
IP Pensacola Mill
Pensacola, FL

c:\client files\ip pensacola\figures\figure d-3.wor



NORTH

0 1000 2000 4000

SCALE IN FEET

SOURCE: BASE MAP ADAPTED FROM USGS 7.5 MINUTE SERIES, CANTONMENT, FLA. QUADRANGLE, 1978, PHOTOREVISED 1987.

CHAMPION INTERNATIONAL CORPORATION
PENSACOLA FACILITY
CANTONMENT, ESCAMBIA COUNTY
FLORIDA

FIGURE 2-1
LOCATION MAP OF THE PENSACOLA FACILITY

Summary of

Air Quality Modeling Results

```
CO TITLEONE IP PENSACOLA | SO2 | 1990 | 07/18/03 Updated Gulf Power Data
CO TITLETWO NAAQS SO2 EXISTING PERMIT CONDITIONS NaSO90N.ECL 29.2 Background FINAL RUN

HIGHEST CONCENTRATIONS
PERIOD AVERAGES
SOURCE GROUP #1
ALL      1ST HIGHEST VALUE IS     40.90209 AT (  469183.00,  3386229.00,    48.09,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     39.77192 AT (  468963.00,  3386129.00,    49.51,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     34.76716 AT (  469521.00,  3384929.00,    45.56,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     36.67633 AT (  468963.00,  3386129.00,    49.51,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     40.47376 AT (  469383.00,  3386229.00,    45.46,     0.00)  DC     NA
SOURCE GROUP #2
IP       1ST HIGHEST VALUE IS     18.09303 AT (  468783.00,  3386079.00,    47.28,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS     18.62210 AT (  468963.00,  3386129.00,    49.51,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS     16.68885 AT (  469521.00,  3384929.00,    45.56,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS     16.49796 AT (  469521.00,  3384929.00,    45.56,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS     23.25523 AT (  469383.00,  3386229.00,    45.46,     0.00)  DC     NA
SOURCE GROUP #3
SOLUTIA  1ST HIGHEST VALUE IS      9.71077 AT (  472683.00,  3386829.00,    46.71,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS      9.20813 AT (  472683.00,  3386829.00,    46.71,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS      8.51683 AT (  476183.00,  3379829.00,    45.74,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS     10.03495 AT (  476183.00,  3379829.00,    45.74,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS     11.09680 AT (  476183.00,  3379829.00,    45.74,     0.00)  DC     NA
SOURCE GROUP #4
GPC      1ST HIGHEST VALUE IS     14.44140 AT (  470083.00,  3386129.00,    57.41,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS     11.64206 AT (  473683.00,  3386829.00,    26.54,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS     11.36368 AT (  478183.00,  3385829.00,    15.81,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS     12.49131 AT (  474183.00,  3384829.00,    45.26,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS     16.97856 AT (  480183.00,  3386829.00,    14.59,     0.00)  DC     NA
SOURCE GROUP #5
EXXON    1ST HIGHEST VALUE IS      6.90447 AT (  483183.00,  3400829.00,    59.01,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      6.89757 AT (  483183.00,  3400829.00,    59.01,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      6.91017 AT (  483183.00,  3400829.00,    59.01,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      7.82391 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      8.62308 AT (  483183.00,  3400829.00,    59.01,     0.00)  DC     NA
SOURCE GROUP #6
ADEM1    1ST HIGHEST VALUE IS      1.10694 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
ADEM1    1ST HIGHEST VALUE IS      1.18182 AT (  483183.00,  3400829.00,    59.01,     0.00)  DC     NA
ADEM1    1ST HIGHEST VALUE IS      1.23929 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
ADEM1    1ST HIGHEST VALUE IS      1.54710 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
ADEM1    1ST HIGHEST VALUE IS      1.62651 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
SOURCE GROUP #7
ADEM2    1ST HIGHEST VALUE IS      1.56323 AT (  481183.00,  3400829.00,    59.48,     0.00)  DC     NA
ADEM2    1ST HIGHEST VALUE IS      1.66176 AT (  481183.00,  3400829.00,    59.48,     0.00)  DC     NA
ADEM2    1ST HIGHEST VALUE IS      1.62385 AT (  483183.00,  3400829.00,    59.01,     0.00)  DC     NA
ADEM2    1ST HIGHEST VALUE IS      1.88572 AT (  478183.00,  3400829.00,    62.67,     0.00)  DC     NA
ADEM2    1ST HIGHEST VALUE IS      1.65754 AT (  477183.00,  3400829.00,    43.56,     0.00)  DC     NA
SOURCE GROUP #8
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ADEM3     1ST HIGHEST VALUE IS      8.15986 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3     1ST HIGHEST VALUE IS      8.30195 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3     1ST HIGHEST VALUE IS      7.82858 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3     1ST HIGHEST VALUE IS      9.19669 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3     1ST HIGHEST VALUE IS     10.18837 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA

3-HOUR AVERAGES
SOURCE GROUP #1
ALL       HIGH  1ST HIGH VALUE IS     975.49127  ON 90051415: AT (  475183.00,  3385829.00,     14.23,      0.00)  DC      NA
ALL       HIGH  1ST HIGH VALUE IS     947.18561  ON 91042012: AT (  480183.00,  3376829.00,     41.23,      0.00)  DC      NA
ALL       HIGH  1ST HIGH VALUE IS    1110.80786  ON 92080212: AT (  478183.00,  3382829.00,      9.01,      0.00)  DC      NA
ALL       HIGH  1ST HIGH VALUE IS    1382.56848  ON 93072712: AT (  479183.00,  3379829.00,     31.61,      0.00)  DC      NA
ALL       HIGH  1ST HIGH VALUE IS    1156.70081  ON 94072912: AT (  477183.00,  3379829.00,     29.54,      0.00)  DC      NA
SOURCE GROUP #2
IP        HIGH  1ST HIGH VALUE IS     542.73016  ON 90083003: AT (  469783.00,  3385829.00,     47.54,      0.00)  DC      NA
IP        HIGH  1ST HIGH VALUE IS     470.68991  ON 91091321: AT (  469583.00,  3385729.00,     42.64,      0.00)  DC      NA
IP        HIGH  1ST HIGH VALUE IS     494.82825  ON 92022906: AT (  469683.00,  3385829.00,     45.25,      0.00)  DC      NA
IP        HIGH  1ST HIGH VALUE IS     506.92947  ON 93030406: AT (  469683.00,  3385829.00,     45.25,      0.00)  DC      NA
IP        HIGH  1ST HIGH VALUE IS     470.57101c ON 94110321: AT (  468568.00,  3385729.00,     46.02,      0.00)  DC      NA
SOURCE GROUP #3
SOLUTIA   HIGH  1ST HIGH VALUE IS     327.00528  ON 90011621: AT (  469983.00,  3386029.00,     55.61,      0.00)  DC      NA
SOLUTIA   HIGH  1ST HIGH VALUE IS     420.01761  ON 91082324: AT (  472183.00,  3383229.00,     57.52,      0.00)  DC      NA
SOLUTIA   HIGH  1ST HIGH VALUE IS     364.39819  ON 92091321: AT (  469983.00,  3383429.00,     59.55,      0.00)  DC      NA
SOLUTIA   HIGH  1ST HIGH VALUE IS     362.43619  ON 93112306: AT (  473183.00,  3381829.00,     53.54,      0.00)  DC      NA
SOLUTIA   HIGH  1ST HIGH VALUE IS     399.81467c ON 94110321: AT (  470583.00,  3385029.00,     59.70,      0.00)  DC      NA
SOURCE GROUP #4
GPC       HIGH  1ST HIGH VALUE IS     974.84198  ON 90071012: AT (  477183.00,  3381829.00,     13.75,      0.00)  DC      NA
GPC       HIGH  1ST HIGH VALUE IS     917.77100  ON 91042012: AT (  480183.00,  3376829.00,     41.23,      0.00)  DC      NA
GPC       HIGH  1ST HIGH VALUE IS    1110.80786  ON 92080212: AT (  478183.00,  3382829.00,      9.01,      0.00)  DC      NA
GPC       HIGH  1ST HIGH VALUE IS    1363.18909  ON 93072712: AT (  479183.00,  3379829.00,     31.61,      0.00)  DC      NA
GPC       HIGH  1ST HIGH VALUE IS    1156.69812  ON 94072912: AT (  477183.00,  3379829.00,     29.54,      0.00)  DC      NA
SOURCE GROUP #5
EXXON     HIGH  1ST HIGH VALUE IS     286.40875  ON 90041303: AT (  479183.00,  3399829.00,     64.62,      0.00)  DC      NA
EXXON     HIGH  1ST HIGH VALUE IS     307.41763  ON 91121603: AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
EXXON     HIGH  1ST HIGH VALUE IS     282.13602  ON 92032724: AT (  481183.00,  3400829.00,     59.48,      0.00)  DC      NA
EXXON     HIGH  1ST HIGH VALUE IS     327.31387  ON 93092924: AT (  482183.00,  3399829.00,     57.41,      0.00)  DC      NA
EXXON     HIGH  1ST HIGH VALUE IS     290.68417c ON 94082903: AT (  479183.00,  3399829.00,     64.62,      0.00)  DC      NA
SOURCE GROUP #6
ADEM1     HIGH  1ST HIGH VALUE IS     100.71402  ON 90041303: AT (  481183.00,  3398829.00,     64.09,      0.00)  DC      NA
ADEM1     HIGH  1ST HIGH VALUE IS     101.96220  ON 91112621: AT (  466183.00,  3399829.00,     67.03,      0.00)  DC      NA
ADEM1     HIGH  1ST HIGH VALUE IS      81.48658  ON 92120821: AT (  480183.00,  3399829.00,     61.87,      0.00)  DC      NA
ADEM1     HIGH  1ST HIGH VALUE IS      77.10931  ON 93100424: AT (  484183.00,  3395829.00,     60.39,      0.00)  DC      NA
ADEM1     HIGH  1ST HIGH VALUE IS      90.24915c ON 94082903: AT (  481183.00,  3400829.00,     59.48,      0.00)  DC      NA
SOURCE GROUP #7
ADEM2     HIGH  1ST HIGH VALUE IS      64.20036c ON 90052903: AT (  481183.00,  3398829.00,     64.09,      0.00)  DC      NA
ADEM2     HIGH  1ST HIGH VALUE IS      71.55193  ON 91111224: AT (  482183.00,  3397829.00,     63.30,      0.00)  DC      NA
ADEM2     HIGH  1ST HIGH VALUE IS      92.96069  ON 92122815: AT (  477183.00,  3400829.00,     43.56,      0.00)  DC      NA
ADEM2     HIGH  1ST HIGH VALUE IS      68.84866  ON 93041709: AT (  459183.00,  3400829.00,     40.82,      0.00)  DC      NA
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ADEM2    HIGH  1ST HIGH VALUE IS     76.17146  ON 94092609: AT (  479183.00,  3400829.00,    49.84,     0.00)  DC    NA
SOURCE GROUP #8
ADEM3    HIGH  1ST HIGH VALUE IS    418.60501  ON 90102903: AT (  466183.00,  3400829.00,    68.31,     0.00)  DC    NA
ADEM3    HIGH  1ST HIGH VALUE IS    438.29492  ON 91121603: AT (  466183.00,  3400829.00,    68.31,     0.00)  DC    NA
ADEM3    HIGH  1ST HIGH VALUE IS    360.57751  ON 92052003: AT (  465183.00,  3400829.00,    68.30,     0.00)  DC    NA
ADEM3    HIGH  1ST HIGH VALUE IS    547.72852  ON 93092924: AT (  464183.00,  3400829.00,    63.86,     0.00)  DC    NA
ADEM3    HIGH  1ST HIGH VALUE IS    428.42941  ON 94091903: AT (  465183.00,  3400829.00,    68.30,     0.00)  DC    NA

24-HOUR AVERAGES
SOURCE GROUP #1
ALL      HIGH  1ST HIGH VALUE IS    238.58372  ON 90051424: AT (  475183.00,  3385829.00,    14.23,     0.00)  DC    NA
ALL      HIGH  1ST HIGH VALUE IS    278.22018  ON 91111824: AT (  468633.00,  3385979.00,    43.75,     0.00)  DC    NA
ALL      HIGH  1ST HIGH VALUE IS    303.40378  ON 92041824: AT (  468698.00,  3386029.00,    42.34,     0.00)  DC    NA
ALL      HIGH  1ST HIGH VALUE IS    254.85045  ON 93073024: AT (  478183.00,  3377829.00,    22.38,     0.00)  DC    NA
ALL      HIGH  1ST HIGH VALUE IS    283.32767c ON 94080124: AT (  479183.00,  3384829.00,    14.98,     0.00)  DC    NA
SOURCE GROUP #2
IP       HIGH  1ST HIGH VALUE IS    196.91541  ON 90051624: AT (  469158.00,  3386179.00,    47.63,     0.00)  DC    NA
IP       HIGH  1ST HIGH VALUE IS    156.57713c ON 91032024: AT (  468483.00,  3386129.00,    46.65,     0.00)  DC    NA
IP       HIGH  1ST HIGH VALUE IS    175.15247  ON 92041824: AT (  468698.00,  3386029.00,    42.34,     0.00)  DC    NA
IP       HIGH  1ST HIGH VALUE IS    190.46767  ON 93042424: AT (  468783.00,  3386079.00,    47.28,     0.00)  DC    NA
IP       HIGH  1ST HIGH VALUE IS    204.82491c ON 94083124: AT (  469483.00,  3386329.00,    46.02,     0.00)  DC    NA
SOURCE GROUP #3
SOLUTIA  HIGH  1ST HIGH VALUE IS    101.63085  ON 90021424: AT (  471983.00,  3386429.00,    46.72,     0.00)  DC    NA
SOLUTIA  HIGH  1ST HIGH VALUE IS    131.65041c ON 91012624: AT (  471783.00,  3383229.00,    53.61,     0.00)  DC    NA
SOLUTIA  HIGH  1ST HIGH VALUE IS    124.57041  ON 92041824: AT (  472683.00,  3386829.00,    46.71,     0.00)  DC    NA
SOLUTIA  HIGH  1ST HIGH VALUE IS    102.28048  ON 93042424: AT (  473683.00,  3386829.00,    26.54,     0.00)  DC    NA
SOLUTIA  HIGH  1ST HIGH VALUE IS    137.84563  ON 94091524: AT (  474183.00,  3384829.00,    45.26,     0.00)  DC    NA
SOURCE GROUP #4
GPC      HIGH  1ST HIGH VALUE IS    204.99205  ON 90051424: AT (  476183.00,  3384829.00,    14.84,     0.00)  DC    NA
GPC      HIGH  1ST HIGH VALUE IS    186.46629c ON 91073124: AT (  474183.00,  3378829.00,    38.78,     0.00)  DC    NA
GPC      HIGH  1ST HIGH VALUE IS    186.55148c ON 92080224: AT (  478183.00,  3382829.00,     9.01,     0.00)  DC    NA
GPC      HIGH  1ST HIGH VALUE IS    233.05055  ON 93073024: AT (  478183.00,  3377829.00,    22.38,     0.00)  DC    NA
GPC      HIGH  1ST HIGH VALUE IS    265.17358c ON 94080124: AT (  479183.00,  3383829.00,     9.15,     0.00)  DC    NA
SOURCE GROUP #5
EXXON    HIGH  1ST HIGH VALUE IS     72.37224  ON 90102924: AT (  483183.00,  3400829.00,    59.01,     0.00)  DC    NA
EXXON    HIGH  1ST HIGH VALUE IS     72.68420c ON 91121624: AT (  483183.00,  3400829.00,    59.01,     0.00)  DC    NA
EXXON    HIGH  1ST HIGH VALUE IS     62.58680  ON 92101124: AT (  483183.00,  3400829.00,    59.01,     0.00)  DC    NA
EXXON    HIGH  1ST HIGH VALUE IS     70.99998  ON 93092924: AT (  482183.00,  3400829.00,    55.43,     0.00)  DC    NA
EXXON    HIGH  1ST HIGH VALUE IS     70.05810  ON 94111724: AT (  482183.00,  3400829.00,    55.43,     0.00)  DC    NA
SOURCE GROUP #6
ADEM1    HIGH  1ST HIGH VALUE IS     20.79103  ON 90111324: AT (  480183.00,  3399829.00,    61.87,     0.00)  DC    NA
ADEM1    HIGH  1ST HIGH VALUE IS     16.11985c ON 91112624: AT (  466183.00,  3399829.00,    67.03,     0.00)  DC    NA
ADEM1    HIGH  1ST HIGH VALUE IS     12.49030c ON 92111824: AT (  462183.00,  3399829.00,    60.08,     0.00)  DC    NA
ADEM1    HIGH  1ST HIGH VALUE IS     16.80530c ON 93100624: AT (  482183.00,  3399829.00,    57.41,     0.00)  DC    NA
ADEM1    HIGH  1ST HIGH VALUE IS     16.12783c ON 94071424: AT (  462183.00,  3399829.00,    60.08,     0.00)  DC    NA
SOURCE GROUP #7
ADEM2    HIGH  1ST HIGH VALUE IS     19.20815  ON 90110724: AT (  481183.00,  3400829.00,    59.48,     0.00)  DC    NA
ADEM2    HIGH  1ST HIGH VALUE IS     17.29386  ON 91111224: AT (  482183.00,  3397829.00,    63.30,     0.00)  DC    NA
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ADEM2     HIGH  1ST HIGH VALUE IS      17.68752  ON 92082924: AT (  481183.00,  3400829.00,     59.48,     0.00)  DC      NA
ADEM2     HIGH  1ST HIGH VALUE IS      16.49062c ON 93122224: AT (  470183.00,  3400829.00,     15.59,     0.00)  DC      NA
ADEM2     HIGH  1ST HIGH VALUE IS      15.16256  ON 94111824: AT (  482183.00,  3400829.00,     55.43,     0.00)  DC      NA
SOURCE GROUP #8
ADEM3     HIGH  1ST HIGH VALUE IS     101.09462c ON 90120524: AT (  462183.00,  3399829.00,     60.08,     0.00)  DC      NA
ADEM3     HIGH  1ST HIGH VALUE IS      88.71323c ON 91121624: AT (  466183.00,  3400829.00,     68.31,     0.00)  DC      NA
ADEM3     HIGH  1ST HIGH VALUE IS      82.45238  ON 92101124: AT (  466183.00,  3400829.00,     68.31,     0.00)  DC      NA
ADEM3     HIGH  1ST HIGH VALUE IS      93.14099  ON 93092924: AT (  464183.00,  3400829.00,     63.86,     0.00)  DC      NA
ADEM3     HIGH  1ST HIGH VALUE IS      91.35959  ON 94111724: AT (  463183.00,  3400829.00,     57.24,     0.00)  DC      NA
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CO TITLEONE IP PENSACOLA | SO2 | 1990 | 07/18/03 Updated Gulf Power Data
CO TITLETWO NAAQS SO2 EXISTING PERMIT CONDITIONS NaS090N.ECL 29.2 Background FINAL RUN

HIGHEST, 2ND HIGHEST CONCENTRATIONS

3-HOUR AVERAGES

SOURCE GROUP #1										
ALL	HIGH 2ND HIGH VALUE IS	803.13409	ON 90081612: AT (	476183.00,	3382829.00,	17.98,	0.00)	DC	NA
ALL	HIGH 2ND HIGH VALUE IS	853.00128	ON 91051715: AT (	475183.00,	3385829.00,	14.23,	0.00)	DC	NA
ALL	HIGH 2ND HIGH VALUE IS	864.92969	ON 92062812: AT (	478183.00,	3382829.00,	9.01,	0.00)	DC	NA
ALL	HIGH 2ND HIGH VALUE IS	841.02057	ON 93060812: AT (	475183.00,	3384829.00,	18.80,	0.00)	DC	NA
ALL	HIGH 2ND HIGH VALUE IS	842.47809	ON 94052512: AT (	478183.00,	3379829.00,	21.43,	0.00)	DC	NA
SOURCE GROUP #2										
IP	HIGH 2ND HIGH VALUE IS	386.26965	ON 90073103: AT (	469783.00,	3385729.00,	43.93,	0.00)	DC	NA
IP	HIGH 2ND HIGH VALUE IS	449.38815	ON 91071324: AT (	469583.00,	3385729.00,	42.64,	0.00)	DC	NA
IP	HIGH 2ND HIGH VALUE IS	395.68845	ON 92042424: AT (	469683.00,	3385829.00,	45.25,	0.00)	DC	NA
IP	HIGH 2ND HIGH VALUE IS	384.76151	ON 93030524: AT (	469683.00,	3385829.00,	45.25,	0.00)	DC	NA
IP	HIGH 2ND HIGH VALUE IS	395.45700	ON 94091515: AT (	468568.00,	3385729.00,	46.02,	0.00)	DC	NA
SOURCE GROUP #3										
SOLUTIA	HIGH 2ND HIGH VALUE IS	268.19424	ON 90031003: AT (	470583.00,	3385029.00,	59.70,	0.00)	DC	NA
SOLUTIA	HIGH 2ND HIGH VALUE IS	318.70996	ON 91102524: AT (	472183.00,	3383229.00,	57.52,	0.00)	DC	NA
SOLUTIA	HIGH 2ND HIGH VALUE IS	270.40643	ON 92072403: AT (	470583.00,	3384829.00,	55.71,	0.00)	DC	NA
SOLUTIA	HIGH 2ND HIGH VALUE IS	289.35739c	ON 93042824: AT (	473183.00,	3381829.00,	53.54,	0.00)	DC	NA
SOLUTIA	HIGH 2ND HIGH VALUE IS	331.59030	ON 94110306: AT (	472183.00,	3383229.00,	57.52,	0.00)	DC	NA
SOURCE GROUP #4										
GPC	HIGH 2ND HIGH VALUE IS	803.13409	ON 90081612: AT (	476183.00,	3382829.00,	17.98,	0.00)	DC	NA
GPC	HIGH 2ND HIGH VALUE IS	687.44629	ON 91090415: AT (	474183.00,	3386829.00,	16.21,	0.00)	DC	NA
GPC	HIGH 2ND HIGH VALUE IS	864.92969	ON 92062812: AT (	478183.00,	3382829.00,	9.01,	0.00)	DC	NA
GPC	HIGH 2ND HIGH VALUE IS	841.02057	ON 93060812: AT (	475183.00,	3384829.00,	18.80,	0.00)	DC	NA
GPC	HIGH 2ND HIGH VALUE IS	834.02393	ON 94052512: AT (	478183.00,	3379829.00,	21.43,	0.00)	DC	NA
SOURCE GROUP #5										
EXXON	HIGH 2ND HIGH VALUE IS	234.83165	ON 90100803: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	HIGH 2ND HIGH VALUE IS	288.18808	ON 91100721: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	HIGH 2ND HIGH VALUE IS	214.00531	ON 92102224: AT (	479183.00,	3400829.00,	49.84,	0.00)	DC	NA
EXXON	HIGH 2ND HIGH VALUE IS	261.43433	ON 93052203: AT (	482183.00,	3400829.00,	55.43,	0.00)	DC	NA
EXXON	HIGH 2ND HIGH VALUE IS	229.24495	ON 94081103: AT (	479183.00,	3399829.00,	64.62,	0.00)	DC	NA
SOURCE GROUP #6										
ADEM1	HIGH 2ND HIGH VALUE IS	59.65654	ON 90101724: AT (	484183.00,	3395829.00,	60.39,	0.00)	DC	NA
ADEM1	HIGH 2ND HIGH VALUE IS	64.91035	ON 91112621: AT (	466183.00,	3397829.00,	59.55,	0.00)	DC	NA
ADEM1	HIGH 2ND HIGH VALUE IS	67.65600	ON 92021103: AT (	480183.00,	3399829.00,	61.87,	0.00)	DC	NA
ADEM1	HIGH 2ND HIGH VALUE IS	74.07668	ON 93012209: AT (	484183.00,	3395829.00,	60.39,	0.00)	DC	NA
ADEM1	HIGH 2ND HIGH VALUE IS	65.50261	ON 94072006: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
SOURCE GROUP #7										
ADEM2	HIGH 2ND HIGH VALUE IS	54.64557	ON 90110724: AT (	482183.00,	3400829.00,	55.43,	0.00)	DC	NA
ADEM2	HIGH 2ND HIGH VALUE IS	60.01619	ON 91122509: AT (	481183.00,	3400829.00,	59.48,	0.00)	DC	NA
ADEM2	HIGH 2ND HIGH VALUE IS	63.64128	ON 92053124: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA

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ADEM2     HIGH  2ND HIGH VALUE IS      59.61891  ON 93100424: AT (  470183.00,  3393829.00,     62.27,      0.00)  DC      NA
ADEM2     HIGH  2ND HIGH VALUE IS      57.76796  ON 94080924: AT (  479183.00,  3399829.00,     64.62,      0.00)  DC      NA
SOURCE GROUP #8
ADEM3     HIGH  2ND HIGH VALUE IS     284.17612  ON 90111724: AT (  465183.00,  3400829.00,     68.30,      0.00)  DC      NA
ADEM3     HIGH  2ND HIGH VALUE IS     415.46561  ON 91100721: AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3     HIGH  2ND HIGH VALUE IS     337.45493  ON 92052003: AT (  464183.00,  3400829.00,     63.86,      0.00)  DC      NA
ADEM3     HIGH  2ND HIGH VALUE IS     396.67392  ON 93052203: AT (  464183.00,  3400829.00,     63.86,      0.00)  DC      NA
ADEM3     HIGH  2ND HIGH VALUE IS     346.63974c ON 94073106: AT (  464183.00,  3400829.00,     63.86,      0.00)  DC      NA

24-HOUR AVERAGES
SOURCE GROUP #1
ALL       HIGH  2ND HIGH VALUE IS     201.84698  ON 90021524: AT (  468698.00,  3386029.00,     42.34,      0.00)  DC      NA
ALL       HIGH  2ND HIGH VALUE IS     225.91444c ON 91032024: AT (  468583.00,  3386029.00,     43.89,      0.00)  DC      NA
ALL       HIGH  2ND HIGH VALUE IS     213.93459  ON 92041924: AT (  468783.00,  3386079.00,     47.28,      0.00)  DC      NA
ALL       HIGH  2ND HIGH VALUE IS     199.35791  ON 93073024: AT (  478183.00,  3374829.00,     42.25,      0.00)  DC      NA
ALL       HIGH  2ND HIGH VALUE IS     233.12566c ON 94080424: AT (  480183.00,  3386829.00,     14.59,      0.00)  DC      NA
SOURCE GROUP #2
IP        HIGH  2ND HIGH VALUE IS     136.53621  ON 90020424: AT (  469658.00,  3385067.50,     48.75,      0.00)  DC      NA
IP        HIGH  2ND HIGH VALUE IS     147.03175c ON 91052924: AT (  468963.00,  3386129.00,     49.51,      0.00)  DC      NA
IP        HIGH  2ND HIGH VALUE IS     157.38989c ON 92061724: AT (  469183.00,  3386229.00,     48.09,      0.00)  DC      NA
IP        HIGH  2ND HIGH VALUE IS     143.75119c ON 93052424: AT (  468783.00,  3386129.00,     46.64,      0.00)  DC      NA
IP        HIGH  2ND HIGH VALUE IS     194.11214c ON 94083124: AT (  469483.00,  3386429.00,     46.94,      0.00)  DC      NA
SOURCE GROUP #3
SOLUTIA   HIGH  2ND HIGH VALUE IS      88.00710  ON 90021424: AT (  471983.00,  3386629.00,     51.93,      0.00)  DC      NA
SOLUTIA   HIGH  2ND HIGH VALUE IS     100.04401  ON 91111924: AT (  472683.00,  3386829.00,     46.71,      0.00)  DC      NA
SOLUTIA   HIGH  2ND HIGH VALUE IS      78.96230  ON 92012724: AT (  472683.00,  3382829.00,     47.85,      0.00)  DC      NA
SOLUTIA   HIGH  2ND HIGH VALUE IS      80.59998  ON 93100724: AT (  472683.00,  3382829.00,     47.85,      0.00)  DC      NA
SOLUTIA   HIGH  2ND HIGH VALUE IS      86.62457  ON 94122124: AT (  472183.00,  3383429.00,     51.57,      0.00)  DC      NA
SOURCE GROUP #4
GPC       HIGH  2ND HIGH VALUE IS     161.88266c ON 90062424: AT (  478183.00,  3375829.00,     42.25,      0.00)  DC      NA
GPC       HIGH  2ND HIGH VALUE IS     149.04822c ON 91011724: AT (  481183.00,  3374829.00,     43.47,      0.00)  DC      NA
GPC       HIGH  2ND HIGH VALUE IS     158.83466  ON 92041824: AT (  470083.00,  3386129.00,     57.41,      0.00)  DC      NA
GPC       HIGH  2ND HIGH VALUE IS     160.05614c ON 93051424: AT (  480183.00,  3377829.00,     47.01,      0.00)  DC      NA
GPC       HIGH  2ND HIGH VALUE IS     226.47784c ON 94080124: AT (  480183.00,  3387829.00,     16.63,      0.00)  DC      NA
SOURCE GROUP #5
EXXON     HIGH  2ND HIGH VALUE IS      66.90788c ON 90120524: AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
EXXON     HIGH  2ND HIGH VALUE IS      56.71891  ON 91100724: AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
EXXON     HIGH  2ND HIGH VALUE IS      48.46003c ON 92090924: AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
EXXON     HIGH  2ND HIGH VALUE IS      58.12947c ON 93121824: AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
EXXON     HIGH  2ND HIGH VALUE IS      58.36893  ON 94101424: AT (  482183.00,  3400829.00,     55.43,      0.00)  DC      NA
SOURCE GROUP #6
ADEM1     HIGH  2ND HIGH VALUE IS      14.38787c ON 90041324: AT (  481183.00,  3398829.00,     64.09,      0.00)  DC      NA
ADEM1     HIGH  2ND HIGH VALUE IS      13.03930  ON 91010224: AT (  484183.00,  3390829.00,     50.39,      0.00)  DC      NA
ADEM1     HIGH  2ND HIGH VALUE IS      12.05730  ON 92093024: AT (  484183.00,  3395829.00,     60.39,      0.00)  DC      NA
ADEM1     HIGH  2ND HIGH VALUE IS      14.60185c ON 93012224: AT (  484183.00,  3395829.00,     60.39,      0.00)  DC      NA
ADEM1     HIGH  2ND HIGH VALUE IS      14.60476c ON 94122724: AT (  463183.00,  3400829.00,     57.24,      0.00)  DC      NA
SOURCE GROUP #7
ADEM2     HIGH  2ND HIGH VALUE IS      15.29974c ON 90111124: AT (  480183.00,  3399829.00,     61.87,      0.00)  DC      NA
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ADEM2    HIGH  2ND HIGH VALUE IS      14.69287c ON 91012824: AT (  471183.00,  3400829.00,     13.35,      0.00)  DC       NA
ADEM2    HIGH  2ND HIGH VALUE IS      15.78332c ON 92042624: AT (  481183.00,  3400829.00,     59.48,      0.00)  DC       NA
ADEM2    HIGH  2ND HIGH VALUE IS      14.80742c ON 93121824: AT (  478183.00,  3400829.00,     62.67,      0.00)  DC       NA
ADEM2    HIGH  2ND HIGH VALUE IS      12.74636  ON 94021324: AT (  480183.00,  3399829.00,     61.87,      0.00)  DC       NA
SOURCE GROUP #8
ADEM3    HIGH  2ND HIGH VALUE IS      85.15848c ON 90120524: AT (  466183.00,  3400829.00,     68.31,      0.00)  DC       NA
ADEM3    HIGH  2ND HIGH VALUE IS      75.41839  ON 91010224: AT (  462183.00,  3399829.00,     60.08,      0.00)  DC       NA
ADEM3    HIGH  2ND HIGH VALUE IS      71.74575c ON 92090924: AT (  466183.00,  3400829.00,     68.31,      0.00)  DC       NA
ADEM3    HIGH  2ND HIGH VALUE IS      74.38600c ON 93012224: AT (  461183.00,  3397829.00,     55.46,      0.00)  DC       NA
ADEM3    HIGH  2ND HIGH VALUE IS      80.40954  ON 94112224: AT (  463183.00,  3400829.00,     57.24,      0.00)  DC       NA
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CO TITLEONE IP PENSACOLA | SO2 ANALYSIS | 1990 | 07/20/03
CO TITLETWO PSD SO2 Actual Emissions PSDSO90e.isc FINAL RUN

HIGHEST CONCENTRATIONS
PERIOD AVERAGES

SOURCE GROUP #1								
ALL	1ST HIGHEST VALUE IS	11.39803 AT (	468583.00,	3386129.00,	45.67,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	10.78131 AT (	468963.00,	3386129.00,	49.51,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	9.98516 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	10.33488 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	12.41763 AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #2								
IP	1ST HIGHEST VALUE IS	7.66189 AT (	468583.00,	3386129.00,	45.67,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	7.15713 AT (	468963.00,	3386129.00,	49.51,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	6.93099 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	6.91388 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	9.54013 AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #3								
SOLUTIA	1ST HIGHEST VALUE IS	1.59753 AT (	474183.00,	3385829.00,	24.47,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	1.74347 AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	1.55662 AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	1.62389 AT (	476183.00,	3379829.00,	45.74,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	1.78882 AT (	476183.00,	3379829.00,	45.74,	0.00)	DC	NA
SOURCE GROUP #4								
GPC	1ST HIGHEST VALUE IS	2.55514 AT (	470083.00,	3386129.00,	57.41,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	2.05993 AT (	473683.00,	3386829.00,	26.54,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	2.01056 AT (	478183.00,	3385829.00,	15.81,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	2.21008 AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	3.00445 AT (	480183.00,	3386829.00,	14.59,	0.00)	DC	NA
SOURCE GROUP #5								
EXXON	1ST HIGHEST VALUE IS	1.77408 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	1.77926 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	1.72761 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	1.99305 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	2.26772 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
SOURCE GROUP #6								
ADEM1	1ST HIGHEST VALUE IS	0.02884 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
ADEM1	1ST HIGHEST VALUE IS	0.03055 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
ADEM1	1ST HIGHEST VALUE IS	0.03181 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
ADEM1	1ST HIGHEST VALUE IS	0.03977 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
ADEM1	1ST HIGHEST VALUE IS	0.04235 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
SOURCE GROUP #7								
ADEM2	1ST HIGHEST VALUE IS	0.01386 AT (	481183.00,	3400829.00,	59.48,	0.00)	DC	NA
ADEM2	1ST HIGHEST VALUE IS	0.01308 AT (	481183.00,	3400829.00,	59.48,	0.00)	DC	NA
ADEM2	1ST HIGHEST VALUE IS	0.01484 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
ADEM2	1ST HIGHEST VALUE IS	0.01605 AT (	478183.00,	3400829.00,	62.67,	0.00)	DC	NA
ADEM2	1ST HIGHEST VALUE IS	0.01411 AT (	476183.00,	3398829.00,	36.32,	0.00)	DC	NA
SOURCE GROUP #8								

*** ISCST3 - VERSION 02035 *** *** IP PENSACOLA | SO2 | 1994 | 07/18/03 Updated Gulf Power Data *** 07/18/03
*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN *** 19:52:33
**MODELOPTs: PAGE1326
CONC RURAL ELEV DFAULT

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): BOILER3 , BOILER4 , LMUDDRY , RECVRY1 , RECVRY2 , SMELT1 , SMELT2 ,
INCIN , BOILER5 , BOILER6 , SOL2 , SOL3_4 , SOL5 , SOL7_13 , SOL14_16, SOL32 , SOL75 , SOL76 , GPC1_5 ,
GPC6_7 , EXM34 , EXM35 , EXM38_44, 502005 , 502004 , 50215E , 50215W , 50203S , 502001 , 502002 , . . . ,

** CONC OF SO2 IN (MICROGRAMS/CUBIC-METER) **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	283.32767c	(94080124)	AT	(479183.00, 3384829.00)	DC	26.	216.75816	(94041024)	AT	(468183.00, 3386329.00)	DC
2.	275.13129c	(94080124)	AT	(479183.00, 3383829.00)	DC	27.	216.17094	(94041024)	AT	(467983.00, 3386429.00)	DC
3.	253.49434c	(94080124)	AT	(480183.00, 3386829.00)	DC	28.	214.78154	(94041024)	AT	(468783.00, 3386129.00)	DC
4.	247.66872	(94041024)	AT	(468483.00, 3386129.00)	DC	29.	214.06017	(94041024)	AT	(468583.00, 3386329.00)	DC
5.	245.09285	(94041024)	AT	(468583.00, 3386029.00)	DC	30.	213.25481	(94041024)	AT	(468683.00, 3386129.00)	DC
6.	242.15955	(94041024)	AT	(468533.00, 3386049.00)	DC	31.	213.01375	(94041024)	AT	(467783.00, 3386429.00)	DC
7.	238.99306	(94041024)	AT	(468698.00, 3386029.00)	DC	32.	212.32390	(94041024)	AT	(468283.00, 3386329.00)	DC
8.	238.99306	(94041024)	AT	(468698.00, 3386029.00)	DC	33.	211.92964c	(94082924)	AT	(480183.00, 3386829.00)	DC
9.	237.64294	(94041024)	AT	(468683.00, 3386029.00)	DC	34.	206.72029c	(94080424)	AT	(479183.00, 3384829.00)	DC
10.	237.31474	(94041024)	AT	(468783.00, 3386079.00)	DC	35.	206.56599	(94091524)	AT	(468568.00, 3385729.00)	DC
11.	236.07933	(94041024)	AT	(468383.00, 3386129.00)	DC	36.	206.03004	(94041024)	AT	(468683.00, 3386229.00)	DC
12.	234.89261c	(94072924)	AT	(477183.00, 3379829.00)	DC	37.	206.02080	(94041024)	AT	(468583.00, 3386229.00)	DC
13.	233.92664	(94041024)	AT	(468283.00, 3386229.00)	DC	38.	204.82491c	(94083124)	AT	(469483.00, 3386329.00)	DC
14.	233.20781c	(94080124)	AT	(480183.00, 3387829.00)	DC	39.	203.52931	(94041024)	AT	(468483.00, 3386329.00)	DC
15.	233.12566c	(94080424)	AT	(480183.00, 3386829.00)	DC	40.	202.66260	(94111824)	AT	(478183.00, 3374829.00)	DC
~~16~~.	231.67206	(94041024)	AT	(468633.00, 3385979.00)	DC	41.	202.18909	(94041024)	AT	(467583.00, 3386629.00)	DC
~~17~~.	231.02020c	(94080124)	AT	(480183.00, 3385829.00)	DC	42.	201.96960	(94041024)	AT	(468483.00, 3386429.00)	DC
~~18~~.	229.83650c	(94080124)	AT	(479183.00, 3385829.00)	DC	43.	201.67355c	(94082924)	AT	(481183.00, 3390829.00)	DC
~~19~~.	227.90802	(94041024)	AT	(468183.00, 3386229.00)	DC	44.	201.56720	(94041024)	AT	(468806.00, 3386129.00)	DC
20.	227.67928c	(94082924)	AT	(480183.00, 3387829.00)	DC	45.	201.56647	(94041024)	AT	(468383.00, 3386329.00)	DC
21.	225.22189c	(94080424)	AT	(480183.00, 3387829.00)	DC	46.	201.39261c	(94082924)	AT	(481183.00, 3389829.00)	DC
22.	225.17476	(94041024)	AT	(468283.00, 3386129.00)	DC	47.	200.33026c	(94082924)	AT	(469483.00, 3386429.00)	DC
23.	222.37744	(94041024)	AT	(468583.00, 3386129.00)	DC	48.	198.98567c	(94080424)	AT	(481183.00, 3390829.00)	DC
24.	218.30742	(94041024)	AT	(468383.00, 3386229.00)	DC	49.	197.46844c	(94080124)	AT	(480183.00, 3388829.00)	DC
25.	217.22987	(94111824)	AT	(478183.00, 3375829.00)	DC	50.	195.60379c	(94082924)	AT	(469383.00, 3386229.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

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  *** ISCST3 - VERSION 02035 ***    *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03       ***        07/20/03
                                   *** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN ***       12:43:31
**MODELOPTs:                                                                                                          PAGE   1
CONC                        RURAL ELEV          DFAULT

                                            ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates  2 Short Term Average(s) of:   3-HR  24-HR
    and Calculates ANNUAL Averages

**This Run Includes:    39 Source(s);      8 Source Group(s); and      50 Event(s)

**The Model Assumes A Pollutant Type of:  SO2

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Anem. Hgt. (m) =     6.70 ;    Decay Coef. =    0.000      ;   Rot. Angle =     0.0
                 Emission Units = (GRAMS/SEC)                               ;  Emission Rate Unit Factor =   0.10000E+07
```

Output Units = (MICROGRAMS/CUBIC-METER)

**Input Runstream File: naso94n.evf
**Output Print File: naso94n.src
**Detailed Error/Message File: ERRORS.ERR

*** ISCST3 - VERSION 02035 *** *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 *** 07/20/03
*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaSO94N.ECL 29.2 Background FIN *** 12:43:31
PAGE 2

**MODELOPTs:
CONC RURAL ELEV DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
BOILER3	0	0.25043E+02	469182.1	3385726.0	42.7	65.00	335.80	7.62	2.44	YES	
BOILER4	0	0.37838E+02	469236.4	3385714.8	42.7	67.36	335.20	10.21	3.66	YES	
LMUDDRY	0	0.81770E+00	469280.1	3385515.0	42.7	41.45	342.30	10.12	1.98	YES	
RECVRY1	0	0.19026E+02	469323.2	3385736.3	42.7	55.41	516.30	27.18	2.74	YES	
RECVRY2	0	0.19026E+02	469302.5	3385720.8	42.7	55.41	499.70	27.18	2.74	YES	
SMELT1	0	0.46600E-01	469306.7	3385758.3	42.7	52.40	349.70	10.98	1.22	YES	
SMELT2	0	0.46600E-01	469285.9	3385742.8	42.7	52.40	355.20	10.60	1.22	YES	
INCIN	0	0.71820E+00	469294.4	3385689.0	42.7	30.48	319.30	8.13	0.91	YES	
BOILER5	0	0.14700E-01	469198.7	3385809.0	42.7	14.33	533.00	26.27	1.22	YES	
BOILER6	0	0.63300E-01	469147.9	3385726.0	42.7	38.10	449.80	14.42	2.59	YES	
SOL2	0	0.60000E-02	476010.0	3384990.0	14.8	18.29	497.04	28.65	1.22	NO	
SOL3_4	0	0.19000E-01	476010.0	3384990.0	14.8	38.10	383.15	10.36	3.66	NO	
SOL5	0	0.60000E-03	476010.0	3384990.0	14.8	38.10	428.15	5.49	0.82	NO	
SOL7_13	0	0.32800E+01	476010.0	3384990.0	14.8	38.10	428.15	6.10	0.82	NO	
SOL14_16	0	0.23090E+03	476010.0	3384990.0	14.8	45.72	455.37	10.67	3.05	NO	
SOL32	0	0.40200E+00	476010.0	3384990.0	14.8	30.48	422.04	22.86	4.57	NO	
SOL75	0	0.20000E-01	476010.0	3384990.0	14.8	38.10	428.15	8.53	0.82	NO	
SOL76	0	0.14300E+00	476010.0	3384990.0	14.8	38.10	343.15	31.68	1.07	NO	
GPC1_5	0	0.13661E+04	478261.0	3381360.0	2.4	130.53	416.00	16.00	5.49	NO	
GPC6_7	0	0.62691E+04	478270.0	3381360.0	2.4	137.16	433.00	29.60	7.07	NO	
EXM34	0	0.12613E+03	482870.0	3416040.0	2.4	76.20	755.37	15.00	0.91	NO	
EXM35	0	0.15750E+03	482870.0	3416040.0	2.4	35.66	1273.15	40.00	0.91	NO	
EXM38_44	0	0.19800E+01	482870.0	3416040.0	2.4	9.14	699.82	24.11	0.31	NO	
502005	0	0.20000E+00	489500.0	3437800.0	30.8	22.86	345.93	13.18	1.01	NO	
502004	0	0.20000E+00	489500.0	3437800.0	30.8	22.86	347.04	12.78	1.01	NO	
50215E	0	0.38710E+02	489500.0	3437800.0	30.8	64.92	500.93	15.79	2.29	NO	
50215W	0	0.38710E+02	489500.0	3437800.0	30.8	64.92	500.93	15.79	2.29	NO	
50203S	0	0.80800E+01	489500.0	3437800.0	30.8	64.92	487.59	11.67	2.38	NO	
502001	0	0.13953E+03	489500.0	3437800.0	30.8	64.92	424.82	19.43	3.66	NO	
502002	0	0.20518E+03	489500.0	3437800.0	30.8	64.92	412.59	9.85	3.66	NO	
50203N	0	0.80800E+01	489500.0	3437800.0	30.8	64.92	487.59	11.67	2.38	NO	
502304A	0	0.83000E+00	475000.0	3432500.0	71.6	9.75	722.04	12.52	0.46	NO	
502304B	0	0.83000E+00	475000.0	3432500.0	71.6	9.75	722.04	12.52	0.46	NO	
502304C	0	0.83000E+00	475000.0	3432500.0	71.6	9.75	722.04	12.52	0.46	NO	
502F501	0	0.28854E+03	475000.0	3432500.0	71.6	64.92	722.04	4.64	1.93	NO	
502FL01	0	0.25200E+02	475000.0	3432500.0	71.6	29.26	1255.37	121.94	0.36	NO	

```
  502PB1        0   0.74000E+01  475000.0 3432500.0     71.6     10.97    644.26     17.52      1.58       NO
  50271_4       0   0.19556E+03  465300.0 3436400.0     79.3      9.14    574.82     14.38      0.46       NO
  5027010       0   0.16078E+04  465300.0 3436400.0     79.3     64.92    449.82     40.63      1.68       NO
  *** ISCST3 - VERSION 02035 ***    *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03         ***        07/20/03
                                   *** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN ***        12:43:31
**MODELOPTs:                                                                                                            PAGE   3
CONC                      RURAL ELEV         DFAULT


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID                                                        SOURCE IDs


 ALL        BOILER3 , BOILER4 , LMUDDRY , RECVRY1 , RECVRY2 , SMELT1  , SMELT2  , INCIN   , BOILER5 , BOILER6 , SOL2    , SOL3_4  ,

            SOL5    , SOL7_13 , SOL14_16, SOL32   , SOL75   , SOL76   , GPC1_5  , GPC6_7  , EXM34   , EXM35   , EXM38_44, 502005  ,

            502004  , 50215E  , 50215W  , 50203S  , 502001  , 502002  , 50203N  , 502304A , 502304B , 502304C , 502F501 , 502FL01 ,

            502PB1  , 50271_4 , 5027010 ,


 IP         BOILER3 , BOILER4 , LMUDDRY , RECVRY1 , RECVRY2 , SMELT1  , SMELT2  , INCIN   , BOILER5 , BOILER6 ,


 SOLUTIA    SOL2    , SOL3_4  , SOL5    , SOL7_13 , SOL14_16, SOL32   , SOL75   , SOL76   ,


 GPC        GPC1_5  , GPC6_7  ,


 EXXON      EXM34   , EXM35   , EXM38_44,


 ADEM1      502005  , 502004  , 50215E  , 50215W  , 50203S  , 502001  , 502002  , 50203N  ,


 ADEM2      502304A , 502304B , 502304C , 502F501 , 502FL01 , 502PB1  ,


 ADEM3      50271_4 , 5027010 ,
  *** ISCST3 - VERSION 02035 ***    *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03         ***        07/20/03
                                   *** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN ***        12:43:31
**MODELOPTs:                                                                                                            PAGE   4
CONC                      RURAL ELEV         DFAULT

                                         *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


SOURCE ID: BOILER3
 IFV    BH      BW  WAK  IFV    BH      BW  WAK  IFV    BH      BW  WAK  IFV    BH      BW  WAK  IFV    BH      BW  WAK  IFV    BH      BW  WAK
   1  45.7, 104.0, 0       2  45.7,  95.2, 0       3  45.7,  83.6, 0       4  45.7,  69.4, 0       5  39.6,  30.3, 0       6  39.6,  27.1, 0
   7  32.0,  58.3, 0       8  49.1,  43.6, 0       9  49.1,  44.1, 0      10  45.7,  62.7, 0      11  45.7,  75.8, 0      12  45.7,  86.7, 0
```

13	44.8,	110.7,	0	14	44.8,	117.9,	0	15	44.8,	125.4,	0	16	44.8,	130.7,	0	17	44.8,	132.0,	0	18	44.8,	129.3,	0
19	45.7,	104.0,	0	20	45.7,	95.2,	0	21	45.7,	83.6,	0	22	45.7,	69.4,	0	23	49.1,	38.9,	0	24	49.1,	39.7,	0
25	49.1,	42.3,	0	26	49.1,	43.6,	0	27	49.1,	44.1,	0	28	45.7,	62.7,	0	29	45.7,	75.8,	0	30	45.7,	86.7,	0
31	44.8,	110.7,	0	32	44.8,	117.9,	0	33	44.8,	125.4,	0	34	44.8,	130.7,	0	35	44.8,	132.0,	0	36	44.8,	129.3,	0

SOURCE ID: BOILER4

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	49.1,	48.7,	0	2	49.1,	48.7,	0	3	49.1,	47.9,	0	4	49.1,	44.1,	0	5	49.1,	38.9,	0	6	49.1,	39.7,	0
7	49.1,	42.3,	0	8	49.1,	43.6,	0	9	49.1,	46.7,	0	10	45.7,	62.7,	0	11	45.7,	75.8,	0	12	45.7,	86.7,	0
13	45.7,	94.8,	0	14	45.7,	100.1,	0	15	45.7,	106.3,	0	16	45.7,	110.8,	0	17	45.7,	111.9,	0	18	45.7,	109.6,	0
19	49.1,	48.7,	0	20	49.1,	48.7,	0	21	49.1,	47.9,	0	22	49.1,	44.1,	0	23	49.1,	38.9,	0	24	49.1,	39.7,	0
25	49.1,	42.3,	0	26	49.1,	43.6,	0	27	49.1,	46.7,	0	28	45.7,	62.7,	0	29	45.7,	75.8,	0	30	45.7,	86.7,	0
31	45.7,	94.8,	0	32	45.7,	100.1,	0	33	45.7,	106.3,	0	34	45.7,	110.8,	0	35	45.7,	111.9,	0	36	45.7,	109.6,	0

SOURCE ID: LMUDDRY

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	17.4,	26.6,	0	2	17.4,	25.3,	0	3	17.4,	23.2,	0	4	17.4,	20.4,	0	5	17.4,	17.0,	0	6	17.4,	17.0,	0
7	17.4,	18.3,	0	8	17.4,	19.0,	0	9	17.4,	19.1,	0	10	17.4,	18.8,	0	11	17.4,	20.6,	0	12	17.4,	21.8,	0
13	17.4,	22.3,	0	14	17.4,	22.2,	0	15	30.8,	20.4,	0	16	45.7,	110.8,	0	17	45.7,	111.9,	0	18	49.1,	53.0,	0
19	49.1,	51.2,	0	20	17.4,	25.3,	0	21	17.4,	23.2,	0	22	17.4,	20.4,	0	23	17.4,	17.0,	0	24	17.4,	17.0,	0
25	17.4,	18.3,	0	26	17.4,	19.0,	0	27	17.4,	19.1,	0	28	17.4,	18.8,	0	29	17.4,	20.6,	0	30	17.4,	21.8,	0
31	17.4,	22.3,	0	32	17.4,	22.2,	0	33	17.4,	23.7,	0	34	17.4,	25.6,	0	35	17.4,	26.8,	0	36	17.4,	27.1,	0

SOURCE ID: RECVRY1

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	49.1,	51.2,	0	2	49.1,	50.2,	0	3	49.1,	47.9,	0	4	30.5,	70.8,	0	5	30.5,	66.6,	0	6	30.5,	66.8,	0
7	49.1,	42.3,	0	8	49.1,	43.6,	0	9	49.1,	46.7,	0	10	49.1,	49.8,	0	11	49.1,	51.4,	0	12	49.1,	51.4,	0
13	49.1,	49.9,	0	14	49.1,	46.9,	0	15	49.1,	48.7,	0	16	49.1,	51.7,	0	17	49.1,	53.2,	0	18	49.1,	53.0,	0
19	49.1,	51.2,	0	20	49.1,	50.2,	0	21	49.1,	47.9,	0	22	30.5,	70.8,	0	23	30.5,	66.6,	0	24	30.5,	66.8,	0
25	49.1,	42.3,	0	26	49.1,	43.6,	0	27	49.1,	46.7,	0	28	49.1,	49.8,	0	29	49.1,	51.4,	0	30	49.1,	51.4,	0
31	49.1,	49.9,	0	32	49.1,	46.9,	0	33	49.1,	48.7,	0	34	49.1,	51.7,	0	35	49.1,	53.2,	0	36	49.1,	53.0,	0

*** ISCST3 - VERSION 02035 ***   *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 ***   07/20/03
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**MODELOPTs: PAGE 5
CONC   RURAL ELEV   DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: RECVRY2

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	49.1,	51.2,	0	2	49.1,	50.2,	0	3	49.1,	47.9,	0	4	49.1,	44.1,	0	5	30.5,	66.6,	0	6	30.5,	66.8,	0
7	32.0,	44.9,	0	8	49.1,	43.6,	0	9	49.1,	46.7,	0	10	49.1,	49.8,	0	11	49.1,	51.4,	0	12	49.1,	51.4,	0
13	49.1,	49.9,	0	14	49.1,	46.9,	0	15	49.1,	48.7,	0	16	49.1,	51.7,	0	17	49.1,	53.2,	0	18	49.1,	53.0,	0
19	49.1,	51.2,	0	20	49.1,	50.2,	0	21	49.1,	47.9,	0	22	49.1,	44.1,	0	23	30.5,	66.6,	0	24	30.5,	66.8,	0
25	32.0,	58.3,	0	26	49.1,	43.6,	0	27	49.1,	46.7,	0	28	49.1,	49.8,	0	29	49.1,	51.4,	0	30	49.1,	51.4,	0
31	49.1,	49.9,	0	32	49.1,	46.9,	0	33	49.1,	48.7,	0	34	49.1,	51.7,	0	35	49.1,	53.2,	0	36	49.1,	53.0,	0

SOURCE ID: SMELT1

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	49.1,	51.2,	0	2	49.1,	50.2,	0	3	49.1,	47.9,	0	4	49.1,	44.1,	0	5	49.1,	38.9,	0	6	49.1,	39.7,	0
7	49.1,	42.3,	0	8	49.1,	43.6,	0	9	49.1,	46.7,	0	10	49.1,	49.8,	0	11	49.1,	51.4,	0	12	49.1,	51.4,	0
13	49.1,	49.9,	0	14	49.1,	46.9,	0	15	49.1,	48.7,	0	16	49.1,	51.7,	0	17	49.1,	53.2,	0	18	49.1,	53.0,	0
19	49.1,	51.2,	0	20	49.1,	50.2,	0	21	49.1,	47.9,	0	22	49.1,	44.1,	0	23	49.1,	38.9,	0	24	49.1,	39.7,	0
25	49.1,	42.3,	0	26	49.1,	43.6,	0	27	49.1,	46.7,	0	28	49.1,	49.8,	0	29	49.1,	51.4,	0	30	49.1,	51.4,	0
31	49.1,	49.9,	0	32	49.1,	46.9,	0	33	49.1,	48.7,	0	34	49.1,	51.7,	0	35	49.1,	53.2,	0	36	49.1,	53.0,	0

SOURCE ID: SMELT2

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	49.1,	51.2,	0	2	49.1,	50.2,	0	3	49.1,	47.9,	0	4	49.1,	44.1,	0	5	49.1,	38.9,	0	6	49.1,	39.7,	0
7	49.1,	42.3,	0	8	49.1,	43.6,	0	9	49.1,	46.7,	0	10	49.1,	49.8,	0	11	49.1,	51.4,	0	12	49.1,	51.4,	0
13	49.1,	49.9,	0	14	49.1,	46.9,	0	15	49.1,	48.7,	0	16	49.1,	51.7,	0	17	49.1,	53.2,	0	18	49.1,	53.0,	0
19	49.1,	51.2,	0	20	49.1,	50.2,	0	21	49.1,	47.9,	0	22	49.1,	44.1,	0	23	49.1,	38.9,	0	24	49.1,	39.7,	0
25	49.1,	42.3,	0	26	49.1,	43.6,	0	27	49.1,	46.7,	0	28	49.1,	49.8,	0	29	49.1,	51.4,	0	30	49.1,	51.4,	0
31	49.1,	49.9,	0	32	49.1,	46.9,	0	33	49.1,	48.7,	0	34	49.1,	51.7,	0	35	49.1,	53.2,	0	36	49.1,	53.0,	0

SOURCE ID: INCIN

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	17.4,	26.6,	0	2	17.4,	25.3,	0	3	0.0,	0.0,	0	4	0.0,	0.0,	0	5	0.0,	0.0,	0	6	0.0,	0.0,	0
7	0.0,	0.0,	0	8	0.0,	0.0,	0	9	0.0,	0.0,	0	10	0.0,	0.0,	0	11	15.2,	17.9,	0	12	30.5,	76.6,	0
13	30.5,	79.6,	0	14	30.5,	80.2,	0	15	45.7,	106.3,	0	16	45.7,	110.8,	0	17	49.1,	53.2,	0	18	49.1,	53.0,	0
19	49.1,	51.2,	0	20	17.4,	25.3,	0	21	0.0,	0.0,	0	22	0.0,	0.0,	0	23	0.0,	0.0,	0	24	0.0,	0.0,	0
25	0.0,	0.0,	0	26	0.0,	0.0,	0	27	0.0,	0.0,	0	28	0.0,	0.0,	0	29	0.0,	0.0,	0	30	0.0,	0.0,	0
31	0.0,	0.0,	0	32	0.0,	0.0,	0	33	17.4,	23.7,	0	34	17.4,	25.6,	0	35	17.4,	26.8,	0	36	17.4,	27.1,	0

*** ISCST3 - VERSION 02035 *** *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 *** 07/20/03
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**MODELOPTs: PAGE 6
CONC RURAL ELEV DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: BOILER5

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	45.7,	104.0,	0	2	44.8,	112.3,	0	3	32.0,	38.6,	0	4	29.3,	36.1,	0	5	29.3,	34.3,	0	6	25.3,	174.9,	0
7	25.3,	175.1,	0	8	25.3,	169.9,	0	9	25.3,	159.5,	0	10	49.1,	49.8,	0	11	49.1,	51.4,	0	12	49.1,	51.4,	0
13	49.1,	49.9,	0	14	49.1,	46.9,	0	15	45.7,	106.3,	0	16	45.7,	110.8,	0	17	45.7,	111.9,	0	18	45.7,	109.6,	0
19	45.7,	104.0,	0	20	44.8,	112.3,	0	21	32.0,	47.6,	0	22	29.3,	36.1,	0	23	29.3,	34.3,	0	24	25.3,	174.9,	0
25	25.3,	175.1,	0	26	25.3,	169.9,	0	27	25.3,	159.5,	0	28	49.1,	49.8,	0	29	49.1,	51.4,	0	30	49.1,	51.4,	0
31	49.1,	49.9,	0	32	49.1,	46.9,	0	33	45.7,	106.3,	0	34	45.7,	110.8,	0	35	45.7,	111.9,	0	36	45.7,	109.6,	0

SOURCE ID: BOILER6

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	32.0,	60.3,	0	2	32.0,	50.2,	0	3	32.0,	38.6,	0	4	29.3,	36.1,	0	5	29.3,	34.3,	0	6	39.6,	27.1,	0

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  7  32.0,  58.3, 0    8  45.7,  43.6, 0    9  45.7,  47.7, 0   10  45.7,  62.7, 0   11  44.8,  86.5, 0   12  32.0,  76.6, 0
 13  32.0,  79.6, 0   14  32.0,  80.2, 0   15  32.0,  80.3, 0   16  32.0,  78.7, 0   17  32.0,  74.8, 0   18  32.0,  68.6, 0
 19  32.0,  60.3, 0   20  32.0,  50.2, 0   21  32.0,  38.6, 0   22  29.3,  36.1, 0   23  29.3,  34.3, 0   24  49.1,  39.7, 0
 25  49.1,  42.3, 0   26  49.1,  43.6, 0   27  49.1,  44.8, 0   28  45.7,  62.7, 0   29  44.8,  86.5, 0   30  32.0,  76.6, 0
 31  32.0,  79.6, 0   32  32.0,  80.2, 0   33  32.0,  80.3, 0   34  32.0,  78.7, 0   35  32.0,  74.8, 0   36  32.0,  68.6, 0
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 *** ISCST3 - VERSION 02035 ***    *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03       ***        07/20/03
                                  *** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN ***        12:43:31
**MODELOPTs:                                                                                                          PAGE   7
CONC                     RURAL ELEV          DFAULT
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*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 1 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 1
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 1 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 1 0 0 0 0 0
1 0 0 0 0 0 0 0 0 1   0 1 1 0 0 1 0 0 0 0   1 0 1 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   1 0 1 0 0 0 0 0 0 0
0 0 0 0 0 0 0 1 0 0   0 1 0 0 0 0 0 0 1 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 1 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 1 0 0 0   0 0 0 0 0 0 0 0 0 0   1 1 0 0 0 1 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 1 0 0 0 0 0   1 0 0 0 0 0
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 1994 2 13 0
AND END DATE: 1994 12 27 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY   WIND SPEED CATEGORY

CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** ISCST3 - VERSION 02035 *** *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 *** 07/20/03
*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN *** 12:43:31
**MODELOPTs: PAGE 8
CONC RURAL ELEV DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: Pensa94R.dat
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 13899 UPPER AIR STATION NO.: 53813
NAME: PENSACOLA NAME: MOBILE
YEAR: 1994 YEAR: 1994

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
94	01	01	01	251.0	3.08	279.3	5	150.0	160.0	0.0000	0.0	0.0000	0	0.00
94	01	01	02	208.0	3.08	278.8	5	150.0	160.0	0.0000	0.0	0.0000	0	0.00
94	01	01	03	254.0	3.62	279.9	4	150.0	150.0	0.0000	0.0	0.0000	0	0.00
94	01	01	04	253.0	3.62	279.3	4	150.0	150.0	0.0000	0.0	0.0000	0	0.00
94	01	01	05	253.0	3.62	279.9	4	150.0	150.0	0.0000	0.0	0.0000	0	0.00
94	01	01	06	242.0	2.59	279.9	5	150.0	160.0	0.0000	0.0	0.0000	0	0.00
94	01	01	07	175.0	2.10	279.9	4	3.1	159.8	0.0000	0.0	0.0000	0	0.00
94	01	01	08	193.0	2.59	280.9	4	24.1	158.4	0.0000	0.0	0.0000	0	0.00
94	01	01	09	197.0	3.62	281.4	4	45.1	157.0	0.0000	0.0	0.0000	0	0.00
94	01	01	10	191.0	3.08	281.4	4	66.1	155.6	0.0000	0.0	0.0000	0	0.00
94	01	01	11	164.0	3.62	282.5	4	87.0	154.2	0.0000	0.0	0.0000	0	0.00
94	01	01	12	246.0	4.11	281.4	4	108.0	152.8	0.0000	0.0	0.0000	0	0.00
94	01	01	13	283.0	2.59	282.5	4	129.0	151.4	0.0000	0.0	0.0000	0	0.00
94	01	01	14	239.0	2.10	282.5	4	150.0	150.0	0.0000	0.0	0.0000	0	0.00
94	01	01	15	192.0	2.10	282.5	4	150.0	150.0	0.0000	0.0	0.0000	0	0.00
94	01	01	16	254.0	2.59	283.2	4	150.0	150.0	0.0000	0.0	0.0000	0	0.00
94	01	01	17	241.0	2.10	283.2	4	151.5	151.5	0.0000	0.0	0.0000	0	0.00
94	01	01	18	197.0	2.10	282.5	4	167.0	167.0	0.0000	0.0	0.0000	0	0.00
94	01	01	19	194.0	4.11	283.2	4	182.6	182.6	0.0000	0.0	0.0000	0	0.00
94	01	01	20	227.0	2.10	283.2	4	198.1	198.1	0.0000	0.0	0.0000	0	0.00
94	01	01	21	230.0	3.08	283.2	4	213.7	213.7	0.0000	0.0	0.0000	0	0.00
94	01	01	22	252.0	2.10	282.5	5	229.2	312.3	0.0000	0.0	0.0000	0	0.00
94	01	01	23	290.0	2.10	283.2	5	244.8	344.1	0.0000	0.0	0.0000	0	0.00
94	01	01	24	290.0	2.10	283.2	5	260.3	376.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** ISCST3 - VERSION 02035 *** *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 *** 07/20/03

*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN *** 12:43:31
**MODELOPTs: PAGE 117
CONC RURAL ELEV DFAULT

*** SOURCE CONTRIBUTIONS FOR EVENT: TH240017 ***

---> AVE. PER.: 24 HRS; END DATE: 94080424; LOCATION (XR,YR,ZELEV,ZFLAG): 480183.00 3386829.00 14.59 0.00 (M)

HOUR	GROUP:ALL OF	BOILER3	BOILER4	LMUDDRY	RECVRY1	RECVRY2	SMELT1	SMELT2	INCIN
1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	29.76487	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3	56.49755	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
4	24.07655	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
6	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
7	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
8	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
10	217.15121	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11	715.18939	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
12	62.29266	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
13	789.09253	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
14	748.89526	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
15	635.21631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
16	694.29102	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
17	735.40546	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
18	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23	187.76598	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
24	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AVER:	233.12564	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

** METEOROLOGICAL DATA FOR THE EVENT **-->

YEAR	MONTH	DAY	HOUR	AFV	UREF	TEMP	KST	ZI
94	08	04	01	216.0	2.10	297.0	6	1227.8
94	08	04	02	189.0	2.10	297.0	6	1230.0
94	08	04	03	187.0	2.59	296.4	6	1232.1
94	08	04	04	188.0	2.59	296.4	6	1234.3
94	08	04	05	189.0	0.00	296.4	7	1236.5
94	08	04	06	222.0	1.52	296.4	6	113.1
94	08	04	07	217.0	2.59	299.3	5	255.9
94	08	04	08	333.0	2.59	300.9	4	398.8
94	08	04	09	338.0	2.59	302.5	3	541.7
94	08	04	10	14.0	3.08	303.8	2	684.5
94	08	04	11	17.0	5.10	304.3	3	827.4
94	08	04	12	8.0	5.10	304.3	3	970.3
94	08	04	13	19.0	5.10	304.3	3	1113.1
94	08	04	14	17.0	3.08	304.9	2	1256.0
94	08	04	15	23.0	3.62	304.3	2	1256.0
94	08	04	16	18.0	4.11	304.9	3	1256.0
94	08	04	17	18.0	4.60	304.3	3	1256.0
94	08	04	18	42.0	3.62	302.5	4	1256.0
94	08	04	19	32.0	2.59	300.9	5	1257.6
94	08	04	20	42.0	2.10	300.4	6	1262.2
94	08	04	21	45.0	0.00	299.9	7	1266.8

94	08	04	22	45.0	0.00	298.8	7	1271.4
94	08	04	23	163.0	2.10	298.8	6	1276.0
94	08	04	24	129.0	1.52	298.2	7	1280.6

*** ISCST3 - VERSION 02035 *** *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 *** 07/20/03
*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN *** 12:43:31
**MODELOPTs: PAGE 118
CONC RURAL ELEV DFAULT

*** SOURCE CONTRIBUTIONS FOR EVENT: TH240017 ***
---> AVE. PER.: 24 HRS; END DATE: 94080424; LOCATION (XR,YR,ZELEV,ZFLAG): 480183.00 3386829.00 14.59 0.00 (M)

HOUR	GROUP:ALL OF	BOILER5	BOILER6	SOL2	SOL3_4	SOL5	SOL7_13	SOL14_16	SOL32
1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	29.76487	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3	56.49755	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
4	24.07655	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
6	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
7	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
8	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
10	217.15121	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11	715.18939	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
12	62.29266	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
13	789.09253	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
14	748.89526	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
15	635.21631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
16	694.29102	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
17	735.40546	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
18	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23	187.76598	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
24	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AVER:	233.12564	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

*** ISCST3 - VERSION 02035 *** *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 *** 07/20/03
*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN *** 12:43:31
**MODELOPTs: PAGE 119
CONC RURAL ELEV DFAULT

*** SOURCE CONTRIBUTIONS FOR EVENT: TH240017 ***
---> AVE. PER.: 24 HRS; END DATE: 94080424; LOCATION (XR,YR,ZELEV,ZFLAG): 480183.00 3386829.00 14.59 0.00 (M)

HOUR	GROUP:ALL OF	SOL75	SOL76	GPC1_5	GPC6_7	EXM34	EXM35	EXM38_44	502005
1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	29.76487	0.00000	0.00000	0.00000	0.00000	0.91946	2.39980	0.88632	0.06815
3	56.49755	0.00000	0.00000	0.00000	0.00000	14.56665	38.60307	2.08164	0.00306
4	24.07655	0.00000	0.00000	0.00000	0.00000	4.40283	11.67403	0.72595	0.01787
5	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
6	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
7	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
8	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

10	217.15121	0.00000	0.00000	217.15121	0.00000	0.00000	0.00000	0.00000	0.00000
11	715.18939	0.00000	0.00000	228.23985	486.94952	0.00000	0.00000	0.00000	0.00000
12	62.29266	0.00000	0.00000	18.71189	43.58076	0.00000	0.00000	0.00000	0.00000
13	789.09253	0.00000	0.00000	254.23965	534.85284	0.00000	0.00000	0.00000	0.00000
14	748.89526	0.00000	0.00000	169.51541	579.37988	0.00000	0.00000	0.00000	0.00000
15	635.21631	0.00000	0.00000	138.90544	496.31088	0.00000	0.00000	0.00000	0.00000
16	694.29102	0.00000	0.00000	264.39151	429.89954	0.00000	0.00000	0.00000	0.00000
17	735.40546	0.00000	0.00000	255.53343	479.87201	0.00000	0.00000	0.00000	0.00000
18	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00004	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23	187.76598	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
24	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AVER:	233.12564	0.00000	0.00000	73.65182	145.27835	0.94709	2.50842	0.17590	0.00424

*** ISCST3 - VERSION 02035 ***   *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 ***   07/20/03
*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN ***   12:43:31
**MODELOPTs: PAGE 120
CONC   RURAL ELEV   DFAULT

*** SOURCE CONTRIBUTIONS FOR EVENT: TH240017 ***
---> AVE. PER.: 24 HRS; END DATE: 94080424; LOCATION (XR,YR,ZELEV,ZFLAG): 480183.00 3386829.00 14.59 0.00 (M)

HOUR	GROUP:ALL OF	502004	50215E	50215W	50203S	502001	502002	50203N	502304A
1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	29.76487	0.06822	2.48731	2.48731	0.56820	6.26023	13.05167	0.56820	0.00000
3	56.49755	0.00306	0.11803	0.11803	0.02729	0.30557	0.64385	0.02729	0.00000
4	24.07655	0.01788	0.68894	0.68894	0.15927	1.78350	3.75807	0.15927	0.00000
5	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
6	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
7	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
8	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
10	217.15121	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11	715.18939	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
12	62.29266	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
13	789.09253	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
14	748.89526	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
15	635.21631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
16	694.29102	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
17	735.40546	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
18	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23	187.76598	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
24	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AVER:	233.12564	0.00425	0.15687	0.15687	0.03594	0.39759	0.83112	0.03594	0.00000

*** ISCST3 - VERSION 02035 ***   *** IP PENSACOLA SO2 1994 07/18/03 Updated Gulf Power Data 7/20/03 ***   07/20/03
*** NAAQS SO2 EXISTING PERMIT CONDITIONS NaS094N.ECL 29.2 Background FIN ***   12:43:31
**MODELOPTs: PAGE 121
CONC   RURAL ELEV   DFAULT

*** SOURCE CONTRIBUTIONS FOR EVENT: TH240017 ***

---> AVE. PER.: 24 HRS; END DATE: 94080424; LOCATION (XR,YR,ZELEV,ZFLAG): 480183.00 3386829.00 14.59 0.00 (M)

HOUR	GROUP:ALL OF	502304B	502304C	502F501	502FL01	502PB1	50271_4	5027010
1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	29.76487	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3	56.49755	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
4	24.07655	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
6	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
7	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
8	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
10	217.15121	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
11	715.18939	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
12	62.29266	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
13	789.09253	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
14	748.89526	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
15	635.21631	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
16	694.29102	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
17	735.40546	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
18	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23	187.76598	0.00000	0.00000	0.00000	0.00000	0.00000	136.30467	51.46131
24	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AVER:	233.12564	0.00000	0.00000	0.00000	0.00000	0.00000	6.49070	2.45054

*** Message Summary : ISCST3 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 92 Informational Message(s)

A Total of 83 Calm Hours Identified

A Total of 9 Cases Identified with HE > ZI

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
SO W320 91 PPARM :Input Parameter May Be Out-of-Range for Parameter VS

****
*** ISCST3 Finishes Successfully ***

```
ADEM3    1ST HIGHEST VALUE IS       1.68751 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3    1ST HIGHEST VALUE IS       1.68902 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3    1ST HIGHEST VALUE IS       1.65503 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3    1ST HIGHEST VALUE IS       1.95077 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3    1ST HIGHEST VALUE IS       2.06769 AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA

3-HOUR AVERAGES
SOURCE GROUP #1
ALL      HIGH  1ST HIGH VALUE IS    206.84209  ON 90011621: AT (  468546.00,  3385829.00,     44.99,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS    212.34810  ON 91112621: AT (  468583.00,  3384729.00,     54.62,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS    243.02254  ON 92062312: AT (  468633.00,  3385979.00,     43.75,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS    244.10231  ON 93072712: AT (  479183.00,  3379829.00,     31.61,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS    204.78241  ON 94072912: AT (  477183.00,  3379829.00,     29.54,      0.00)  DC      NA
SOURCE GROUP #2
IP       HIGH  1ST HIGH VALUE IS    204.85645  ON 90100403: AT (  468963.00,  3386129.00,     49.51,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS    210.65269  ON 91112621: AT (  468583.00,  3384729.00,     54.62,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS    191.74437  ON 92092124: AT (  469183.00,  3386229.00,     48.09,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS    203.89256  ON 93030406: AT (  469583.00,  3385829.00,     45.11,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS    195.34375c ON 94110321: AT (  468568.00,  3385729.00,     46.02,      0.00)  DC      NA
SOURCE GROUP #3
SOLUTIA  HIGH  1ST HIGH VALUE IS     55.76104  ON 90030703: AT (  473183.00,  3381829.00,     53.54,      0.00)  DC      NA
SOLUTIA  HIGH  1ST HIGH VALUE IS     75.07848  ON 91082324: AT (  472183.00,  3383229.00,     57.52,      0.00)  DC      NA
SOLUTIA  HIGH  1ST HIGH VALUE IS     57.90384  ON 92091321: AT (  469983.00,  3383429.00,     59.55,      0.00)  DC      NA
SOLUTIA  HIGH  1ST HIGH VALUE IS     60.19213  ON 93112306: AT (  473183.00,  3381829.00,     53.54,      0.00)  DC      NA
SOLUTIA  HIGH  1ST HIGH VALUE IS     70.95436  ON 94121921: AT (  472183.00,  3382329.00,     53.18,      0.00)  DC      NA
SOURCE GROUP #4
GPC      HIGH  1ST HIGH VALUE IS    172.52379  ON 90071012: AT (  477183.00,  3381829.00,     13.75,      0.00)  DC      NA
GPC      HIGH  1ST HIGH VALUE IS    162.42897  ON 91042012: AT (  480183.00,  3376829.00,     41.23,      0.00)  DC      NA
GPC      HIGH  1ST HIGH VALUE IS    196.61684  ON 92080212: AT (  478183.00,  3382829.00,      9.01,      0.00)  DC      NA
GPC      HIGH  1ST HIGH VALUE IS    241.33199  ON 93072712: AT (  479183.00,  3379829.00,     31.61,      0.00)  DC      NA
GPC      HIGH  1ST HIGH VALUE IS    204.78204  ON 94072912: AT (  477183.00,  3379829.00,     29.54,      0.00)  DC      NA
SOURCE GROUP #5
EXXON    HIGH  1ST HIGH VALUE IS     85.93803  ON 90041303: AT (  479183.00,  3399829.00,     64.62,      0.00)  DC      NA
EXXON    HIGH  1ST HIGH VALUE IS     88.07330  ON 91121603: AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
EXXON    HIGH  1ST HIGH VALUE IS     85.76575  ON 92032724: AT (  481183.00,  3400829.00,     59.48,      0.00)  DC      NA
EXXON    HIGH  1ST HIGH VALUE IS     99.19144  ON 93092924: AT (  482183.00,  3397829.00,     63.30,      0.00)  DC      NA
EXXON    HIGH  1ST HIGH VALUE IS     90.66699c ON 94082903: AT (  479183.00,  3399829.00,     64.62,      0.00)  DC      NA
SOURCE GROUP #6
ADEM1    HIGH  1ST HIGH VALUE IS      2.49172  ON 90041303: AT (  481183.00,  3398829.00,     64.09,      0.00)  DC      NA
ADEM1    HIGH  1ST HIGH VALUE IS      2.53481  ON 91112621: AT (  466183.00,  3399829.00,     67.03,      0.00)  DC      NA
ADEM1    HIGH  1ST HIGH VALUE IS      2.00035  ON 92120821: AT (  480183.00,  3399829.00,     61.87,      0.00)  DC      NA
ADEM1    HIGH  1ST HIGH VALUE IS      1.96867  ON 93012209: AT (  484183.00,  3397829.00,     58.28,      0.00)  DC      NA
ADEM1    HIGH  1ST HIGH VALUE IS      2.18646c ON 94082903: AT (  481183.00,  3400829.00,     59.48,      0.00)  DC      NA
SOURCE GROUP #7
ADEM2    HIGH  1ST HIGH VALUE IS      1.11506c ON 90052903: AT (  481183.00,  3398829.00,     64.09,      0.00)  DC      NA
ADEM2    HIGH  1ST HIGH VALUE IS      1.27870  ON 91111224: AT (  482183.00,  3398829.00,     58.20,      0.00)  DC      NA
ADEM2    HIGH  1ST HIGH VALUE IS      1.34953  ON 92053124: AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
ADEM2    HIGH  1ST HIGH VALUE IS      1.05637  ON 93092924: AT (  474183.00,  3399829.00,     24.62,      0.00)  DC      NA
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ADEM2	HIGH	1ST HIGH VALUE IS	1.26778c	ON 94082903: AT (	467183.00,	3398829.00,	58.04,	0.00)	DC	NA
SOURCE GROUP #8										
ADEM3	HIGH	1ST HIGH VALUE IS	117.30563	ON 90102903: AT (	466183.00,	3400829.00,	68.31,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	147.87914	ON 91100721: AT (	467183.00,	3400829.00,	53.66,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	117.18240	ON 92052003: AT (	465183.00,	3400829.00,	68.30,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	177.75635	ON 93092924: AT (	464183.00,	3400829.00,	63.86,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	134.68971	ON 94091903: AT (	465183.00,	3400829.00,	68.30,	0.00)	DC	NA
24-HOUR AVERAGES										
SOURCE GROUP #1										
ALL	HIGH	1ST HIGH VALUE IS	78.88768	ON 90051624: AT (	469158.00,	3386179.00,	47.63,	0.00)	DC	NA
ALL	HIGH	1ST HIGH VALUE IS	92.69355c	ON 91032024: AT (	468483.00,	3386129.00,	46.65,	0.00)	DC	NA
ALL	HIGH	1ST HIGH VALUE IS	91.11642	ON 92041824: AT (	468483.00,	3386129.00,	46.65,	0.00)	DC	NA
ALL	HIGH	1ST HIGH VALUE IS	83.30612	ON 93042424: AT (	468783.00,	3386079.00,	47.28,	0.00)	DC	NA
ALL	HIGH	1ST HIGH VALUE IS	93.63523c	ON 94081824: AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #2										
IP	HIGH	1ST HIGH VALUE IS	78.88768	ON 90051624: AT (	469158.00,	3386179.00,	47.63,	0.00)	DC	NA
IP	HIGH	1ST HIGH VALUE IS	75.53467c	ON 91032024: AT (	468483.00,	3386129.00,	46.65,	0.00)	DC	NA
IP	HIGH	1ST HIGH VALUE IS	73.05756	ON 92092124: AT (	469183.00,	3386229.00,	48.09,	0.00)	DC	NA
IP	HIGH	1ST HIGH VALUE IS	82.55149	ON 93042424: AT (	468783.00,	3386079.00,	47.28,	0.00)	DC	NA
IP	HIGH	1ST HIGH VALUE IS	93.63523c	ON 94081824: AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #3										
SOLUTIA	HIGH	1ST HIGH VALUE IS	15.10503	ON 90021424: AT (	471983.00,	3386429.00,	46.72,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	23.56057c	ON 91012624: AT (	471783.00,	3383229.00,	53.61,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	18.60841	ON 92041824: AT (	472683.00,	3386829.00,	46.71,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	16.26516	ON 93120124: AT (	472183.00,	3382829.00,	54.03,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	24.52212	ON 94091524: AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
SOURCE GROUP #4										
GPC	HIGH	1ST HIGH VALUE IS	36.27828	ON 90051424: AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	32.99422c	ON 91073124: AT (	474183.00,	3378829.00,	38.78,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	33.01978c	ON 92080224: AT (	478183.00,	3382829.00,	9.01,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	41.24550	ON 93073024: AT (	478183.00,	3377829.00,	22.38,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	46.92418c	ON 94080124: AT (	479183.00,	3383829.00,	9.15,	0.00)	DC	NA
SOURCE GROUP #5										
EXXON	HIGH	1ST HIGH VALUE IS	21.22755	ON 90102924: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	HIGH	1ST HIGH VALUE IS	20.45860c	ON 91121624: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	HIGH	1ST HIGH VALUE IS	17.57423	ON 92101124: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	HIGH	1ST HIGH VALUE IS	18.61577	ON 93092824: AT (	481183.00,	3400829.00,	59.48,	0.00)	DC	NA
EXXON	HIGH	1ST HIGH VALUE IS	18.47332	ON 94111724: AT (	482183.00,	3400829.00,	55.43,	0.00)	DC	NA
SOURCE GROUP #6										
ADEM1	HIGH	1ST HIGH VALUE IS	0.52600	ON 90111324: AT (	480183.00,	3399829.00,	61.87,	0.00)	DC	NA
ADEM1	HIGH	1ST HIGH VALUE IS	0.40071c	ON 91112624: AT (	466183.00,	3399829.00,	67.03,	0.00)	DC	NA
ADEM1	HIGH	1ST HIGH VALUE IS	0.32887	ON 92093024: AT (	484183.00,	3395829.00,	60.39,	0.00)	DC	NA
ADEM1	HIGH	1ST HIGH VALUE IS	0.41940	ON 93092824: AT (	484183.00,	3397829.00,	58.28,	0.00)	DC	NA
ADEM1	HIGH	1ST HIGH VALUE IS	0.42066c	ON 94071424: AT (	462183.00,	3399829.00,	60.08,	0.00)	DC	NA
SOURCE GROUP #7										
ADEM2	HIGH	1ST HIGH VALUE IS	0.22832	ON 90110724: AT (	481183.00,	3400829.00,	59.48,	0.00)	DC	NA
ADEM2	HIGH	1ST HIGH VALUE IS	0.29172	ON 91111224: AT (	482183.00,	3399829.00,	57.41,	0.00)	DC	NA

ADEM2	HIGH	1ST HIGH VALUE IS	0.22525	ON	92082924:	AT (	481183.00,	3400829.00,	59.48,	0.00)	DC	NA
ADEM2	HIGH	1ST HIGH VALUE IS	0.26020c	ON	93121824:	AT (	478183.00,	3400829.00,	62.67,	0.00)	DC	NA
ADEM2	HIGH	1ST HIGH VALUE IS	0.19001	ON	94092524:	AT (	482183.00,	3399829.00,	57.41,	0.00)	DC	NA
SOURCE GROUP #8												
ADEM3	HIGH	1ST HIGH VALUE IS	26.29865	ON	90102924:	AT (	466183.00,	3400829.00,	68.31,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	25.44681c	ON	91112624:	AT (	462183.00,	3399829.00,	60.08,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	24.44106	ON	92101124:	AT (	466183.00,	3400829.00,	68.31,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	28.60194	ON	93092924:	AT (	464183.00,	3400829.00,	63.86,	0.00)	DC	NA
ADEM3	HIGH	1ST HIGH VALUE IS	24.80978	ON	94111724:	AT (	463183.00,	3400829.00,	57.24,	0.00)	DC	NA

CO TITLEONE IP PENSACOLA | SO2 ANALYSIS | 1990 | 07/20/03
CO TITLETWO PSD SO2 Actual Emissions PSDSO90e.isc FINAL RUN

HIGHEST, 2ND HIGHEST CONCENTRATIONS

3-HOUR AVERAGES

SOURCE GROUP #1									
ALL	HIGH	2ND HIGH VALUE IS	198.55780	ON 90040918: AT (	468533.00,	3386049.00,	44.68,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	170.90521	ON 91081615: AT (	468583.00,	3386029.00,	43.89,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	183.12550	ON 92021421: AT (	468963.00,	3386129.00,	49.51,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	215.13208	ON 93061712: AT (	468583.00,	3386029.00,	43.89,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	177.66368	ON 94081406: AT (	468583.00,	3384929.00,	53.73,	0.00)	DC	NA
SOURCE GROUP #2									
IP	HIGH	2ND HIGH VALUE IS	168.17284	ON 90111624: AT (	469666.00,	3385529.00,	41.92,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	154.96275	ON 91032815: AT (	469043.00,	3386179.00,	45.67,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	183.12550	ON 92021421: AT (	468963.00,	3386129.00,	49.51,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	173.88055	ON 93061918: AT (	468963.00,	3386129.00,	49.51,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	177.66368	ON 94081406: AT (	468583.00,	3384929.00,	53.73,	0.00)	DC	NA
SOURCE GROUP #3									
SOLUTIA	HIGH	2ND HIGH VALUE IS	50.27217	ON 90110321: AT (	473183.00,	3381829.00,	53.54,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	54.03426	ON 91102524: AT (	472183.00,	3383229.00,	57.52,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	48.17018	ON 92101606: AT (	471783.00,	3386429.00,	47.93,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	56.50876c	ON 93042824: AT (	473183.00,	3381829.00,	53.54,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	56.64150	ON 94102509: AT (	473183.00,	3381829.00,	53.54,	0.00)	DC	NA
SOURCE GROUP #4									
GPC	HIGH	2ND HIGH VALUE IS	142.15517	ON 90081612: AT (	476183.00,	3382829.00,	17.98,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	121.68152	ON 91090415: AT (	474183.00,	3386829.00,	16.21,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	153.09129	ON 92062812: AT (	478183.00,	3382829.00,	9.01,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	148.84784	ON 93060812: AT (	475183.00,	3384829.00,	18.80,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	147.65584	ON 94052512: AT (	478183.00,	3379829.00,	21.43,	0.00)	DC	NA
SOURCE GROUP #5									
EXXON	HIGH	2ND HIGH VALUE IS	64.16854	ON 90100803: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	HIGH	2ND HIGH VALUE IS	85.83816	ON 91100721: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
EXXON	HIGH	2ND HIGH VALUE IS	62.20072	ON 92052003: AT (	482183.00,	3397829.00,	63.30,	0.00)	DC	NA
EXXON	HIGH	2ND HIGH VALUE IS	76.10229	ON 93052203: AT (	482183.00,	3397829.00,	63.30,	0.00)	DC	NA
EXXON	HIGH	2ND HIGH VALUE IS	71.53888	ON 94122809: AT (	479183.00,	3399829.00,	64.62,	0.00)	DC	NA
SOURCE GROUP #6									
ADEM1	HIGH	2ND HIGH VALUE IS	1.54485	ON 90101724: AT (	484183.00,	3395829.00,	60.39,	0.00)	DC	NA
ADEM1	HIGH	2ND HIGH VALUE IS	1.60605	ON 91112621: AT (	466183.00,	3397829.00,	59.55,	0.00)	DC	NA
ADEM1	HIGH	2ND HIGH VALUE IS	1.66662	ON 92021103: AT (	480183.00,	3399829.00,	61.87,	0.00)	DC	NA
ADEM1	HIGH	2ND HIGH VALUE IS	1.90586	ON 93100424: AT (	484183.00,	3395829.00,	60.39,	0.00)	DC	NA
ADEM1	HIGH	2ND HIGH VALUE IS	1.67885	ON 94072006: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
SOURCE GROUP #7									
ADEM2	HIGH	2ND HIGH VALUE IS	0.87862c	ON 90052903: AT (	481183.00,	3400829.00,	59.48,	0.00)	DC	NA
ADEM2	HIGH	2ND HIGH VALUE IS	1.05164	ON 91091724: AT (	482183.00,	3397829.00,	63.30,	0.00)	DC	NA
ADEM2	HIGH	2ND HIGH VALUE IS	1.03788	ON 92072021: AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA

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ADEM2     HIGH  2ND HIGH VALUE IS      0.90081  ON 93102706: AT (  482183.00,  3400829.00,     55.43,     0.00)  DC     NA
ADEM2     HIGH  2ND HIGH VALUE IS      1.04123  ON 94122809: AT (  467183.00,  3398829.00,     58.04,     0.00)  DC     NA
SOURCE GROUP #8
ADEM3     HIGH  2ND HIGH VALUE IS     98.64631  ON 90020509: AT (  466183.00,  3400829.00,     68.31,     0.00)  DC     NA
ADEM3     HIGH  2ND HIGH VALUE IS    135.30089  ON 91100721: AT (  466183.00,  3400829.00,     68.31,     0.00)  DC     NA
ADEM3     HIGH  2ND HIGH VALUE IS    111.96027  ON 92052003: AT (  464183.00,  3400829.00,     63.86,     0.00)  DC     NA
ADEM3     HIGH  2ND HIGH VALUE IS    129.58752  ON 93052203: AT (  464183.00,  3400829.00,     63.86,     0.00)  DC     NA
ADEM3     HIGH  2ND HIGH VALUE IS    108.17440  ON 94100424: AT (  467183.00,  3400829.00,     53.66,     0.00)  DC     NA

24-HOUR AVERAGES
SOURCE GROUP #1
ALL       HIGH  2ND HIGH VALUE IS    69.45014   ON 90021424: AT (  468496.00,  3385929.00,     44.48,     0.00)  DC     NA
ALL       HIGH  2ND HIGH VALUE IS    72.73709   ON 91111824: AT (  468533.00,  3386049.00,     44.68,     0.00)  DC     NA
ALL       HIGH  2ND HIGH VALUE IS    73.05756   ON 92092124: AT (  469183.00,  3386229.00,     48.09,     0.00)  DC     NA
ALL       HIGH  2ND HIGH VALUE IS    63.84298c  ON 93052424: AT (  468783.00,  3386079.00,     47.28,     0.00)  DC     NA
ALL       HIGH  2ND HIGH VALUE IS    90.91624c  ON 94082924: AT (  469383.00,  3386229.00,     45.46,     0.00)  DC     NA
SOURCE GROUP #2
IP        HIGH  2ND HIGH VALUE IS    56.99263   ON 90122324: AT (  469183.00,  3386229.00,     48.09,     0.00)  DC     NA
IP        HIGH  2ND HIGH VALUE IS    62.57181c  ON 91120124: AT (  468963.00,  3386129.00,     49.51,     0.00)  DC     NA
IP        HIGH  2ND HIGH VALUE IS    68.13791c  ON 92061724: AT (  469183.00,  3386229.00,     48.09,     0.00)  DC     NA
IP        HIGH  2ND HIGH VALUE IS    61.26865   ON 93042424: AT (  468783.00,  3386129.00,     46.64,     0.00)  DC     NA
IP        HIGH  2ND HIGH VALUE IS    90.91622c  ON 94082924: AT (  469383.00,  3386229.00,     45.46,     0.00)  DC     NA
SOURCE GROUP #3
SOLUTIA   HIGH  2ND HIGH VALUE IS    14.53430   ON 90011624: AT (  474183.00,  3385329.00,     34.41,     0.00)  DC     NA
SOLUTIA   HIGH  2ND HIGH VALUE IS    14.71193c  ON 91100324: AT (  474183.00,  3384829.00,     45.26,     0.00)  DC     NA
SOLUTIA   HIGH  2ND HIGH VALUE IS    15.36983   ON 92121424: AT (  474183.00,  3384829.00,     45.26,     0.00)  DC     NA
SOLUTIA   HIGH  2ND HIGH VALUE IS    13.85498   ON 93100724: AT (  472683.00,  3382829.00,     47.85,     0.00)  DC     NA
SOLUTIA   HIGH  2ND HIGH VALUE IS    14.82972   ON 94081124: AT (  473183.00,  3381829.00,     53.54,     0.00)  DC     NA
SOURCE GROUP #4
GPC       HIGH  2ND HIGH VALUE IS    28.65598c  ON 90062424: AT (  478183.00,  3375829.00,     42.25,     0.00)  DC     NA
GPC       HIGH  2ND HIGH VALUE IS    26.37731c  ON 91011724: AT (  481183.00,  3374829.00,     43.47,     0.00)  DC     NA
GPC       HIGH  2ND HIGH VALUE IS    28.10336   ON 92041824: AT (  470083.00,  3386129.00,     57.41,     0.00)  DC     NA
GPC       HIGH  2ND HIGH VALUE IS    28.32151c  ON 93051424: AT (  480183.00,  3377829.00,     47.01,     0.00)  DC     NA
GPC       HIGH  2ND HIGH VALUE IS    40.09079c  ON 94080124: AT (  480183.00,  3387829.00,     16.63,     0.00)  DC     NA
SOURCE GROUP #5
EXXON     HIGH  2ND HIGH VALUE IS    16.55260c  ON 90120524: AT (  483183.00,  3400829.00,     59.01,     0.00)  DC     NA
EXXON     HIGH  2ND HIGH VALUE IS    15.88554   ON 91100724: AT (  483183.00,  3400829.00,     59.01,     0.00)  DC     NA
EXXON     HIGH  2ND HIGH VALUE IS    14.24214c  ON 92090924: AT (  483183.00,  3400829.00,     59.01,     0.00)  DC     NA
EXXON     HIGH  2ND HIGH VALUE IS    18.16889c  ON 93012224: AT (  481183.00,  3400829.00,     59.48,     0.00)  DC     NA
EXXON     HIGH  2ND HIGH VALUE IS    17.06620   ON 94101424: AT (  482183.00,  3400829.00,     55.43,     0.00)  DC     NA
SOURCE GROUP #6
ADEM1     HIGH  2ND HIGH VALUE IS     0.36259   ON 90111324: AT (  484183.00,  3400829.00,     57.58,     0.00)  DC     NA
ADEM1     HIGH  2ND HIGH VALUE IS     0.32620   ON 91010224: AT (  484183.00,  3390829.00,     50.39,     0.00)  DC     NA
ADEM1     HIGH  2ND HIGH VALUE IS     0.30838   ON 92020924: AT (  484183.00,  3395829.00,     60.39,     0.00)  DC     NA
ADEM1     HIGH  2ND HIGH VALUE IS     0.38696c  ON 93012224: AT (  484183.00,  3395829.00,     60.39,     0.00)  DC     NA
ADEM1     HIGH  2ND HIGH VALUE IS     0.36707c  ON 94122724: AT (  463183.00,  3400829.00,     57.24,     0.00)  DC     NA
SOURCE GROUP #7
ADEM2     HIGH  2ND HIGH VALUE IS     0.16616   ON 90032624: AT (  482183.00,  3399829.00,     57.41,     0.00)  DC     NA
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ADEM2    HIGH  2ND HIGH VALUE IS      0.16495c ON 91121624: AT (  476183.00,  3398829.00,     36.32,      0.00)  DC      NA
ADEM2    HIGH  2ND HIGH VALUE IS      0.16971  ON 92053124: AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
ADEM2    HIGH  2ND HIGH VALUE IS      0.19850c ON 93110724: AT (  478183.00,  3400829.00,     62.67,      0.00)  DC      NA
ADEM2    HIGH  2ND HIGH VALUE IS      0.16973c ON 94082924: AT (  467183.00,  3399829.00,     54.71,      0.00)  DC      NA
SOURCE GROUP #8
ADEM3    HIGH  2ND HIGH VALUE IS     20.84098c ON 90120524: AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3    HIGH  2ND HIGH VALUE IS     20.07849  ON 91100724: AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3    HIGH  2ND HIGH VALUE IS     22.98374c ON 92090924: AT (  466183.00,  3400829.00,     68.31,      0.00)  DC      NA
ADEM3    HIGH  2ND HIGH VALUE IS     20.07527c ON 93012824: AT (  481183.00,  3397829.00,     61.51,      0.00)  DC      NA
ADEM3    HIGH  2ND HIGH VALUE IS     18.13994  ON 94012124: AT (  467183.00,  3400829.00,     53.66,      0.00)  DC      NA
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CO TITLEONE IP PENSACOLA | NOx ANALYSIS | 1990 | 7/18/03 Updated Local EI
CO TITLETWO NAAQS NO2 EXISTING PERMIT CONDITIONS NaIPN90e.ECL FINAL RUN

HIGHEST CONCENTRATIONS
PERIOD AVERAGES

SOURCE GROUP #1								
ALL	1ST HIGHEST VALUE IS	29.95934 AT (	468783.00,	3386079.00,	47.28,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	30.94742 AT (	468963.00,	3386129.00,	49.51,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	29.37074 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	29.40075 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
ALL	1ST HIGHEST VALUE IS	34.26250 AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #2								
IP	1ST HIGHEST VALUE IS	23.63893 AT (	468783.00,	3386079.00,	47.28,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	24.92616 AT (	468963.00,	3386129.00,	49.51,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	23.81178 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	23.79194 AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
IP	1ST HIGHEST VALUE IS	29.57817 AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #3								
SOLUTIA	1ST HIGHEST VALUE IS	5.53862 AT (	476183.00,	3379829.00,	45.74,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	6.51801 AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	5.79642 AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	6.18198 AT (	476183.00,	3379829.00,	45.74,	0.00)	DC	NA
SOLUTIA	1ST HIGHEST VALUE IS	6.75750 AT (	476183.00,	3379829.00,	45.74,	0.00)	DC	NA
SOURCE GROUP #4								
GPC	1ST HIGHEST VALUE IS	1.82876 AT (	474183.00,	3383829.00,	33.02,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	1.48335 AT (	470583.00,	3385029.00,	59.70,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	1.43145 AT (	478183.00,	3385829.00,	15.81,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	1.56062 AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
GPC	1ST HIGHEST VALUE IS	2.04788 AT (	480183.00,	3386829.00,	14.59,	0.00)	DC	NA
SOURCE GROUP #5								
STERLING	1ST HIGHEST VALUE IS	1.17830 AT (	484183.00,	3374829.00,	24.98,	0.00)	DC	NA
STERLING	1ST HIGHEST VALUE IS	1.38379 AT (	482183.00,	3376829.00,	34.78,	0.00)	DC	NA
STERLING	1ST HIGHEST VALUE IS	1.30820 AT (	483183.00,	3375829.00,	23.90,	0.00)	DC	NA
STERLING	1ST HIGHEST VALUE IS	1.36847 AT (	484183.00,	3374829.00,	24.98,	0.00)	DC	NA
STERLING	1ST HIGHEST VALUE IS	1.78312 AT (	484183.00,	3374829.00,	24.98,	0.00)	DC	NA
SOURCE GROUP #6								
AIRPROD	1ST HIGHEST VALUE IS	20.24806 AT (	484183.00,	3383829.00,	15.15,	0.00)	DC	NA
AIRPROD	1ST HIGHEST VALUE IS	23.51112 AT (	484183.00,	3382829.00,	0.00,	0.00)	DC	NA
AIRPROD	1ST HIGHEST VALUE IS	16.63581 AT (	484183.00,	3382829.00,	0.00,	0.00)	DC	NA
AIRPROD	1ST HIGHEST VALUE IS	19.13879 AT (	484183.00,	3381829.00,	0.00,	0.00)	DC	NA
AIRPROD	1ST HIGHEST VALUE IS	22.39474 AT (	484183.00,	3382829.00,	0.00,	0.00)	DC	NA
SOURCE GROUP #7								
EXXON	1ST HIGHEST VALUE IS	2.43838 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	2.46509 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	2.70202 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	2.87184 AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
EXXON	1ST HIGHEST VALUE IS	2.99084 AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
SOURCE GROUP #8								

SANTAROS 1ST HIGHEST VALUE IS	0.21191	AT (	484183.00,	3384829.00,	17.27,	0.00)	DC	NA
SANTAROS 1ST HIGHEST VALUE IS	0.20753	AT (	484183.00,	3387829.00,	45.75,	0.00)	DC	NA
SANTAROS 1ST HIGHEST VALUE IS	0.14655	AT (	484183.00,	3384829.00,	17.27,	0.00)	DC	NA
SANTAROS 1ST HIGHEST VALUE IS	0.17254	AT (	484183.00,	3384829.00,	17.27,	0.00)	DC	NA
SANTAROS 1ST HIGHEST VALUE IS	0.17194	AT (	482183.00,	3372829.00,	42.64,	0.00)	DC	NA
SOURCE GROUP #9								
GCPPEARI 1ST HIGHEST VALUE IS	4.15307	AT (	484183.00,	3385829.00,	30.53,	0.00)	DC	NA
GCPPEARI 1ST HIGHEST VALUE IS	3.81819	AT (	484183.00,	3385829.00,	30.53,	0.00)	DC	NA
GCPPEARI 1ST HIGHEST VALUE IS	2.84715	AT (	484183.00,	3385829.00,	30.53,	0.00)	DC	NA
GCPPEARI 1ST HIGHEST VALUE IS	3.27241	AT (	484183.00,	3385829.00,	30.53,	0.00)	DC	NA
GCPPEARI 1ST HIGHEST VALUE IS	2.61852	AT (	484183.00,	3383829.00,	15.15,	0.00)	DC	NA
SOURCE GROUP #10								
ADEM1 1ST HIGHEST VALUE IS	0.25237	AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
ADEM1 1ST HIGHEST VALUE IS	0.26044	AT (	483183.00,	3400829.00,	59.01,	0.00)	DC	NA
ADEM1 1ST HIGHEST VALUE IS	0.27845	AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
ADEM1 1ST HIGHEST VALUE IS	0.34873	AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
ADEM1 1ST HIGHEST VALUE IS	0.36743	AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA

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CO TITLEONE IP PENSACOLA | NOx  ANALYSIS | 1990 | 07/18/03
CO TITLETWO PSD NO2 EXISTING Actuals PSDNO90B.ECL FINAL RUN

HIGHEST CONCENTRATIONS
PERIOD AVERAGES
SOURCE GROUP #1
ALL      1ST HIGHEST VALUE IS     18.88531 AT (  484183.00,  3383829.00,    15.15,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     21.84682 AT (  484183.00,  3382829.00,     0.00,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     15.90329 AT (  484183.00,  3382829.00,     0.00,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     18.18567 AT (  484183.00,  3381829.00,     0.00,     0.00)  DC     NA
ALL      1ST HIGHEST VALUE IS     20.63275 AT (  484183.00,  3382829.00,     0.00,     0.00)  DC     NA
SOURCE GROUP #2
IP       1ST HIGHEST VALUE IS      5.26463 AT (  469521.00,  3384929.00,    45.56,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS      5.08526 AT (  469521.00,  3384929.00,    45.56,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS      5.41064 AT (  469521.00,  3384929.00,    45.56,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS      5.54573 AT (  469521.00,  3384929.00,    45.56,     0.00)  DC     NA
IP       1ST HIGHEST VALUE IS      5.66043 AT (  469383.00,  3385929.00,    41.06,     0.00)  DC     NA
SOURCE GROUP #3
SOLUTIA  1ST HIGHEST VALUE IS      3.98924 AT (  476183.00,  3379829.00,    45.74,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS      4.46780 AT (  474183.00,  3384829.00,    45.26,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS      3.98165 AT (  474183.00,  3384829.00,    45.26,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS      4.44556 AT (  476183.00,  3379829.00,    45.74,     0.00)  DC     NA
SOLUTIA  1ST HIGHEST VALUE IS      4.84919 AT (  476183.00,  3379829.00,    45.74,     0.00)  DC     NA
SOURCE GROUP #4
GPC      1ST HIGHEST VALUE IS      0.75574 AT (  470083.00,  3386129.00,    57.41,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS      0.61020 AT (  474183.00,  3385829.00,    24.47,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS      0.59567 AT (  478183.00,  3385829.00,    15.81,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS      0.65112 AT (  474183.00,  3384829.00,    45.26,     0.00)  DC     NA
GPC      1ST HIGHEST VALUE IS      0.87904 AT (  480183.00,  3386829.00,    14.59,     0.00)  DC     NA
SOURCE GROUP #5
STERLING 1ST HIGHEST VALUE IS      1.07438 AT (  484183.00,  3374829.00,    24.98,     0.00)  DC     NA
STERLING 1ST HIGHEST VALUE IS      1.26174 AT (  482183.00,  3376829.00,    34.78,     0.00)  DC     NA
STERLING 1ST HIGHEST VALUE IS      1.19282 AT (  483183.00,  3375829.00,    23.90,     0.00)  DC     NA
STERLING 1ST HIGHEST VALUE IS      1.24778 AT (  484183.00,  3374829.00,    24.98,     0.00)  DC     NA
STERLING 1ST HIGHEST VALUE IS      1.62586 AT (  484183.00,  3374829.00,    24.98,     0.00)  DC     NA
SOURCE GROUP #6
AIRPROD  1ST HIGHEST VALUE IS     15.26281 AT (  484183.00,  3383829.00,    15.15,     0.00)  DC     NA
AIRPROD  1ST HIGHEST VALUE IS     18.71824 AT (  484183.00,  3382829.00,     0.00,     0.00)  DC     NA
AIRPROD  1ST HIGHEST VALUE IS     13.16074 AT (  484183.00,  3382829.00,     0.00,     0.00)  DC     NA
AIRPROD  1ST HIGHEST VALUE IS     15.37615 AT (  484183.00,  3381829.00,     0.00,     0.00)  DC     NA
AIRPROD  1ST HIGHEST VALUE IS     17.84655 AT (  484183.00,  3382829.00,     0.00,     0.00)  DC     NA
SOURCE GROUP #7
EXXON    1ST HIGHEST VALUE IS      2.38816 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      2.41311 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      2.64357 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      2.80820 AT (  484183.00,  3400829.00,    57.58,     0.00)  DC     NA
EXXON    1ST HIGHEST VALUE IS      2.92825 AT (  483183.00,  3400829.00,    59.01,     0.00)  DC     NA
SOURCE GROUP #8
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CO TITLEONE IP PENSACOLA | PM10  ANALYSIS | 1990 | 07/18/03
CO TITLETWO NAAQS | PM10 | EXISTING PERMIT CONDITIONS | NAAQSPMC.ECL

HIGHEST CONCENTRATIONS
PERIOD AVERAGES
SOURCE GROUP #1
ALL      1ST HIGHEST VALUE IS      25.03156 AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS      26.13358 AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS      25.05854 AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS      24.71695 AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS      24.74818 AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA

24-HOUR AVERAGES
SOURCE GROUP #1
ALL      HIGH  6TH HIGH VALUE IS      81.37530c ON 90031024: AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      HIGH  6TH HIGH VALUE IS      89.27265c ON 90112524: AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      HIGH  6TH HIGH VALUE IS      90.15588  ON 91040424: AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      HIGH  6TH HIGH VALUE IS      93.42941  ON 93101924: AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA
ALL      HIGH  6TH HIGH VALUE IS      93.62503c ON 94110224: AT (  468704.00,  3385029.00,     43.88,      0.00)  DC      NA

CO TITLEONE IP PENSACOLA | PM10  ANALYSIS | 1990 | 07/18/03
CO TITLETWO NAAQS | PM10 | EXISTING PERMIT CONDITIONS | NAAQSPMC.ECL

HIGHEST, 6TH HIGHEST CONCENTRATIONS
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SANTAROS 1ST HIGHEST VALUE IS       0.21191 AT (  484183.00,  3384829.00,     17.27,      0.00)  DC      NA
SANTAROS 1ST HIGHEST VALUE IS       0.20753 AT (  484183.00,  3387829.00,     45.75,      0.00)  DC      NA
SANTAROS 1ST HIGHEST VALUE IS       0.14655 AT (  484183.00,  3384829.00,     17.27,      0.00)  DC      NA
SANTAROS 1ST HIGHEST VALUE IS       0.17254 AT (  484183.00,  3384829.00,     17.27,      0.00)  DC      NA
SANTAROS 1ST HIGHEST VALUE IS       0.17194 AT (  482183.00,  3372829.00,     42.64,      0.00)  DC      NA
SOURCE GROUP #9
GCPPEARI 1ST HIGHEST VALUE IS       1.74748 AT (  484183.00,  3385829.00,     30.53,      0.00)  DC      NA
GCPPEARI 1ST HIGHEST VALUE IS       1.60657 AT (  484183.00,  3385829.00,     30.53,      0.00)  DC      NA
GCPPEARI 1ST HIGHEST VALUE IS       1.19799 AT (  484183.00,  3385829.00,     30.53,      0.00)  DC      NA
GCPPEARI 1ST HIGHEST VALUE IS       1.37692 AT (  484183.00,  3385829.00,     30.53,      0.00)  DC      NA
GCPPEARI 1ST HIGHEST VALUE IS       1.10179 AT (  484183.00,  3383829.00,     15.15,      0.00)  DC      NA
SOURCE GROUP #10
ADEM1    1ST HIGHEST VALUE IS       0.02097 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
ADEM1    1ST HIGHEST VALUE IS       0.02214 AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
ADEM1    1ST HIGHEST VALUE IS       0.02304 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
ADEM1    1ST HIGHEST VALUE IS       0.02880 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
ADEM1    1ST HIGHEST VALUE IS       0.03069 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
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CO TITLEONE IP PENSACOLA | PM10  ANALYSIS | 1990 | 07/21/03
CO TITLETWO PSD | PM10 | Baseline and Actuals | PSDPM90J.isc   FINAL RUN

HIGHEST CONCENTRATIONS
PERIOD AVERAGES
SOURCE GROUP #1
ALL      1ST HIGHEST VALUE IS       2.95238 AT (  469521.00,  3384929.00,     45.56,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS       3.01550 AT (  469521.00,  3384929.00,     45.56,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS       3.28329 AT (  469333.00,  3385869.00,     43.32,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS       3.15287 AT (  469521.00,  3384929.00,     45.56,      0.00)  DC      NA
ALL      1ST HIGHEST VALUE IS       3.03101 AT (  469383.00,  3386229.00,     45.46,      0.00)  DC      NA
SOURCE GROUP #2
IP       1ST HIGHEST VALUE IS       2.98429 AT (  469333.00,  3385869.00,     43.32,      0.00)  DC      NA
IP       1ST HIGHEST VALUE IS       2.92943 AT (  469521.00,  3384929.00,     45.56,      0.00)  DC      NA
IP       1ST HIGHEST VALUE IS       3.05506 AT (  469333.00,  3385869.00,     43.32,      0.00)  DC      NA
IP       1ST HIGHEST VALUE IS       2.87549 AT (  469521.00,  3384929.00,     45.56,      0.00)  DC      NA
IP       1ST HIGHEST VALUE IS       2.81580 AT (  469383.00,  3386229.00,     45.46,      0.00)  DC      NA
SOURCE GROUP #3
SOLUTIA  1ST HIGHEST VALUE IS       0.55417 AT (  476183.00,  3383829.00,     11.89,      0.00)  DC      NA
SOLUTIA  1ST HIGHEST VALUE IS       0.59796 AT (  474183.00,  3384829.00,     45.26,      0.00)  DC      NA
SOLUTIA  1ST HIGHEST VALUE IS       0.54583 AT (  476183.00,  3384829.00,     14.84,      0.00)  DC      NA
SOLUTIA  1ST HIGHEST VALUE IS       0.61026 AT (  476183.00,  3383829.00,     11.89,      0.00)  DC      NA
SOLUTIA  1ST HIGHEST VALUE IS       0.61859 AT (  476183.00,  3379829.00,     45.74,      0.00)  DC      NA
SOURCE GROUP #4
GPC      1ST HIGHEST VALUE IS       0.02085 AT (  470083.00,  3386129.00,     57.41,      0.00)  DC      NA
GPC      1ST HIGHEST VALUE IS       0.01684 AT (  474183.00,  3385829.00,     24.47,      0.00)  DC      NA
GPC      1ST HIGHEST VALUE IS       0.01643 AT (  478183.00,  3385829.00,     15.81,      0.00)  DC      NA
GPC      1ST HIGHEST VALUE IS       0.01796 AT (  474183.00,  3384829.00,     45.26,      0.00)  DC      NA
GPC      1ST HIGHEST VALUE IS       0.02433 AT (  480183.00,  3386829.00,     14.59,      0.00)  DC      NA
SOURCE GROUP #5
AIRPROD  1ST HIGHEST VALUE IS       0.28287 AT (  484183.00,  3384829.00,     17.27,      0.00)  DC      NA
AIRPROD  1ST HIGHEST VALUE IS       0.25788 AT (  484183.00,  3384829.00,     17.27,      0.00)  DC      NA
AIRPROD  1ST HIGHEST VALUE IS       0.19643 AT (  484183.00,  3384829.00,     17.27,      0.00)  DC      NA
AIRPROD  1ST HIGHEST VALUE IS       0.21966 AT (  484183.00,  3384829.00,     17.27,      0.00)  DC      NA
AIRPROD  1ST HIGHEST VALUE IS       0.19533 AT (  484183.00,  3382829.00,      0.00,      0.00)  DC      NA
SOURCE GROUP #6
ADEM     1ST HIGHEST VALUE IS       0.00345 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
ADEM     1ST HIGHEST VALUE IS       0.00370 AT (  483183.00,  3400829.00,     59.01,      0.00)  DC      NA
ADEM     1ST HIGHEST VALUE IS       0.00389 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
ADEM     1ST HIGHEST VALUE IS       0.00485 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA
ADEM     1ST HIGHEST VALUE IS       0.00504 AT (  484183.00,  3400829.00,     57.58,      0.00)  DC      NA

24-HOUR AVERAGES
SOURCE GROUP #1
ALL      HIGH  1ST HIGH VALUE IS      24.49230  ON 90051624: AT (  469158.00,  3386179.00,     47.63,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS      23.42444  ON 91120324: AT (  476183.00,  3384829.00,     14.84,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS      21.64473c ON 92032024: AT (  476183.00,  3384829.00,     14.84,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS      23.05828  ON 93031324: AT (  476183.00,  3384829.00,     14.84,      0.00)  DC      NA
ALL      HIGH  1ST HIGH VALUE IS      26.76826c ON 94082924: AT (  469383.00,  3386229.00,     45.46,      0.00)  DC      NA
SOURCE GROUP #2
IP       HIGH  1ST HIGH VALUE IS      27.25566  ON 90051624: AT (  469158.00,  3386179.00,     47.63,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS      23.82816c ON 91052924: AT (  468963.00,  3386129.00,     49.51,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS      21.21590c ON 92070924: AT (  469483.00,  3386129.00,     48.22,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS      20.52857  ON 93031324: AT (  469760.00,  3385329.00,     44.97,      0.00)  DC      NA
IP       HIGH  1ST HIGH VALUE IS      26.76826c ON 94082924: AT (  469383.00,  3386229.00,     45.46,      0.00)  DC      NA
SOURCE GROUP #3
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SOLUTIA	HIGH	1ST HIGH VALUE IS	6.49997c	ON 90072424:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	7.03482c	ON 91012624:	AT (	472183.00,	3383429.00,	51.57,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	6.38962	ON 92013024:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	5.16609	ON 93012024:	AT (	474183.00,	3385329.00,	34.41,	0.00)	DC	NA
SOLUTIA	HIGH	1ST HIGH VALUE IS	7.35122	ON 94091524:	AT (	474183.00,	3384829.00,	45.26,	0.00)	DC	NA
SOURCE GROUP #4											
GPC	HIGH	1ST HIGH VALUE IS	0.29051	ON 90051424:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	0.26750c	ON 91073124:	AT (	474183.00,	3378829.00,	38.78,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	0.26612c	ON 92061724:	AT (	478183.00,	3384829.00,	14.51,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	0.33136	ON 93073024:	AT (	478183.00,	3377829.00,	22.38,	0.00)	DC	NA
GPC	HIGH	1ST HIGH VALUE IS	0.38284c	ON 94080124:	AT (	479183.00,	3384829.00,	14.98,	0.00)	DC	NA
SOURCE GROUP #5											
AIRPROD	HIGH	1ST HIGH VALUE IS	3.38581c	ON 90010524:	AT (	484183.00,	3384829.00,	17.27,	0.00)	DC	NA
AIRPROD	HIGH	1ST HIGH VALUE IS	3.77145c	ON 91102724:	AT (	484183.00,	3383829.00,	15.15,	0.00)	DC	NA
AIRPROD	HIGH	1ST HIGH VALUE IS	2.86028	ON 92121424:	AT (	484183.00,	3382829.00,	0.00,	0.00)	DC	NA
AIRPROD	HIGH	1ST HIGH VALUE IS	3.17936c	ON 93091624:	AT (	484183.00,	3380829.00,	0.00,	0.00)	DC	NA
AIRPROD	HIGH	1ST HIGH VALUE IS	2.70558	ON 94080824:	AT (	484183.00,	3379829.00,	0.00,	0.00)	DC	NA
SOURCE GROUP #6											
ADEM	HIGH	1ST HIGH VALUE IS	0.06593	ON 90111324:	AT (	480183.00,	3399829.00,	61.87,	0.00)	DC	NA
ADEM	HIGH	1ST HIGH VALUE IS	0.05099c	ON 91112624:	AT (	466183.00,	3399829.00,	67.03,	0.00)	DC	NA
ADEM	HIGH	1ST HIGH VALUE IS	0.03966c	ON 92111824:	AT (	462183.00,	3399829.00,	60.08,	0.00)	DC	NA
ADEM	HIGH	1ST HIGH VALUE IS	0.05671c	ON 93100624:	AT (	482183.00,	3400829.00,	55.43,	0.00)	DC	NA
ADEM	HIGH	1ST HIGH VALUE IS	0.05016c	ON 94071424:	AT (	462183.00,	3399829.00,	60.08,	0.00)	DC	NA

CO TITLEONE IP PENSACOLA | PM10 ANALYSIS | 1990 | 07/21/03
CO TITLETWO PSD | PM10 | Baseline and Actuals | PSDPM90J.isc FINAL RUN

HIGHEST, 2ND HIGHEST CONCENTRATIONS

24-HOUR AVERAGES

SOURCE GROUP #1											
ALL	HIGH	2ND HIGH VALUE IS	21.46011	ON 90052824:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	20.82433	ON 91122924:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	19.05389	ON 92013024:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	18.70672	ON 93112724:	AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
ALL	HIGH	2ND HIGH VALUE IS	26.39421c	ON 94081824:	AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #2											
IP	HIGH	2ND HIGH VALUE IS	19.96906c	ON 90050224:	AT (	469183.00,	3386229.00,	48.09,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	21.84453	ON 91031824:	AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	18.49207c	ON 92070924:	AT (	469316.00,	3385929.00,	40.40,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	18.70672	ON 93112724:	AT (	469521.00,	3384929.00,	45.56,	0.00)	DC	NA
IP	HIGH	2ND HIGH VALUE IS	26.39421c	ON 94081824:	AT (	469383.00,	3386229.00,	45.46,	0.00)	DC	NA
SOURCE GROUP #3											
SOLUTIA	HIGH	2ND HIGH VALUE IS	5.89784	ON 90052824:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	6.30071	ON 91012024:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	4.85555c	ON 92032024:	AT (	476183.00,	3384829.00,	14.84,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	4.80183c	ON 93110824:	AT (	474183.00,	3383829.00,	33.02,	0.00)	DC	NA
SOLUTIA	HIGH	2ND HIGH VALUE IS	4.71724	ON 94052024:	AT (	475183.00,	3383829.00,	29.89,	0.00)	DC	NA
SOURCE GROUP #4											
GPC	HIGH	2ND HIGH VALUE IS	0.23694c	ON 90062424:	AT (	478183.00,	3375829.00,	42.25,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	0.21372c	ON 91011724:	AT (	481183.00,	3374829.00,	43.47,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	0.22775c	ON 92041424:	AT (	469983.00,	3386029.00,	55.61,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	0.22731c	ON 93051424:	AT (	480183.00,	3377829.00,	47.01,	0.00)	DC	NA
GPC	HIGH	2ND HIGH VALUE IS	0.32332c	ON 94080124:	AT (	480183.00,	3387829.00,	16.63,	0.00)	DC	NA
SOURCE GROUP #5											

AIRPROD	HIGH	2ND HIGH VALUE IS	3.10508c	ON 90112524:	AT (	484183.00,	3383829.00,	15.15,	0.00)	DC	NA
AIRPROD	HIGH	2ND HIGH VALUE IS	3.29142c	ON 91072624:	AT (	484183.00,	3383829.00,	15.15,	0.00)	DC	NA
AIRPROD	HIGH	2ND HIGH VALUE IS	1.83983	ON 92112124:	AT (	484183.00,	3384829.00,	17.27,	0.00)	DC	NA
AIRPROD	HIGH	2ND HIGH VALUE IS	2.23379c	ON 93120224:	AT (	484183.00,	3381829.00,	0.00,	0.00)	DC	NA
AIRPROD	HIGH	2ND HIGH VALUE IS	2.03020c	ON 94073124:	AT (	484183.00,	3379829.00,	0.00,	0.00)	DC	NA
SOURCE GROUP #6											
ADEM	HIGH	2ND HIGH VALUE IS	0.04614c	ON 90041324:	AT (	481183.00,	3398829.00,	64.09,	0.00)	DC	NA
ADEM	HIGH	2ND HIGH VALUE IS	0.04193c	ON 91012824:	AT (	484183.00,	3400829.00,	57.58,	0.00)	DC	NA
ADEM	HIGH	2ND HIGH VALUE IS	0.03702	ON 92093024:	AT (	484183.00,	3395829.00,	60.39,	0.00)	DC	NA
ADEM	HIGH	2ND HIGH VALUE IS	0.04509c	ON 93012224:	AT (	484183.00,	3395829.00,	60.39,	0.00)	DC	NA
ADEM	HIGH	2ND HIGH VALUE IS	0.04585c	ON 94122724:	AT (	463183.00,	3400829.00,	57.24,	0.00)	DC	NA

CD-ROM Containing Air Quality Modeling Files

and Input Data


INTERNATIONAL PAPER
Pensacola, Florida
Air Quality Modeling Files
July 2003
all4 inc.
www.all4inc.com

The CD-ROM contains the air quality modeling files that were used to prepare the July 2003 PSD permit application for the International Paper Company Pensacola, Florida Mill. The Mill contact is Mr. Jim Sphar 850-968-2121 ext 3833. The air quality modeling contact is Mr. Dan Holland of All4 Inc. 610-933-5246 ext 15.

The following information is contained on this CD-ROM. The years associated with the study are 1990 through 1994

- ISCST3 Meteorological Data
- CALPUFF Screening Meteorological Data
- BPIP Building Downwash Input and Output Files
- ISCST3 Air Quality Input and Output Files
- CALPUFF Input and Output Files
- CALPOST Input and Output Files

CALLong
CALPUFF Long-Term modeling files
NBret^^lt.inp NO2 CALPOST input file by year
NBret^^lt.lst NO2 CALPOST outputfile by year
PBret^^lt.inp PM10 CALPOST input file by year
PBret^^lt.lst PM10 CALPOST outputfile by year
SBret^^lt.inp SO2 CALPOST input file by year
SBret^^lt.lst SO2 CALPOST outputfile by year
LBret^^C.lst list of CALPUFF input file by year
LBret^^C.dat CALPUFF concentration file by year
C1Pen^^c.inp CALPUFF input file by year

CALST
CALPUFF Short-Term modeling files
PBret^^st.inp PM10 CALPOST input file by year
PBret^^st.lst PM10 CALPOST outputfile by year
SBret^^st.inp SO2 CALPOST input file by year
SBret^^st.lst SO2 CALPOST outputfile by year
BRET^^.lst list of CALPUFF input file by year
BRET^^c.lst CALPUFF concentration file by year
BRET^^v.lst CALPUFF visibility file by year
C1Pen^^a.inp CALPUFF input file by year

CALVIS
VBret^^c.inp Visibility CALPOST input file by year
VBret^^.lst Visibility CALPOST output file by year

METDATA
PENSA^^r.dat CALPUFF and ISCST3 meteorological data by year

BUILDING DOWNWASH
This folder contains the BPIP input and output files. The BPIP input file contains all of the sources while there are three BPIP output files.
BPIP.inp
BPIPa.out
BPIPb.out
BPIPc.out

PM10
This folder contains the PM10 SIA, NAAQS, and PSD Increment analyses.
The ISCST3 input and output files are included.
Significant Impact Area Analyses
Anpm^^c.inp (Annual Emissions Scenario)
Anpm^^c.out (Annual Emissions Scenario)

CO
This folder contains the CO analysis.
The ISCST3 input and output files are included.
Significant Impact Area Analyses
NACO^^a.inp (Short-Term Emissions Scenario)

NACO^^a.out (Short-Term Emissions Scenario)

NOX
This folder contains the NOX SIA, NAAQS, and PSD Increment analyses.
The ISCST3 input and output files are included.
Significant Impact Area Analyses by year
SIANO^^b.isc
SIANO^^b.out
NAAQS Analyses by year
Naipn^^e.ecl
Naipn^^e.out
PSD Increment Analyses by year
PSDNO^^b.ecl
PSDNO^^b.out

SO2
This folder contains the SO2 SIA, NAAQS, and PSD Increment analyses.
The ISCST3 input and output files are included.
Significant Impact Area Analyses by year
SIASO^^b.isc
SIASO^^b.out
NAAQS Analyses by year
NaSO^^n.inp
NaSO^^n.out
PSD Increment Analyses by year
PSDSO^^e.isc
PSDSO^^e.out