



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

July 19, 2006

Mr. Gregg M. Worley, Chief  
Air Permits Section  
U.S. EPA, Region 4  
61 Forsyth Street  
Atlanta, Georgia 30303-8960

RE: Georgia-Pacific Palatka Mill  
Consolidated PSD Permit Application  
1070005-038-AC, PSD-FL-380

Dear Mr. Worley:

Enclosed for your review and comment is a PSD permit application from Georgia-Pacific which consolidates previously submitted PSD applications for the Lime Kiln Shell (PSD-FL-345), the No. 4 Combination Boiler (PSD-FL-357) and the No. 4 Recovery Boiler (PSD-FL-367) at their Palatka Mill in Putnam County, Florida. This application replaces the previously submitted PSD applications which were withdrawn on July 11, 2006.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Bruce Mitchell, review engineer, at 850/413-9198.

Sincerely,

Jeffrey F. Koerner, P.E., Administrator  
North Permitting Section

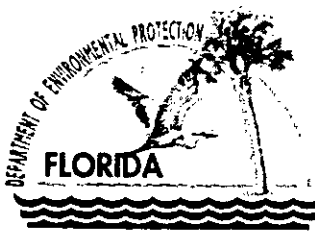
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Enclosure

cc: B. Mitchell

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# Department of Environmental Protection

Twin Towers Office Building  
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Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

July 19, 2006

Mr. John Bunyak, Chief  
Policy, Planning & Permit Review Branch  
NPS – Air Quality Division  
P. O. Box 25287  
Denver, Colorado 80225

RE: Georgia-Pacific Palatka Mill  
Consolidated PSD Permit Application  
1070005-038-AC, PSD-FL-380

Dear Mr. Bunyak:

Enclosed for your review and comment is a PSD permit application from Georgia-Pacific which consolidates previously submitted PSD applications for the Lime Kiln Shell (PSD-FL-345), the No. 4 Combination Boiler (PSD-FL-357) and the No. 4 Recovery Boiler (PSD-FL-367) at their Palatka Mill in Putnam County, Florida. This application replaces the previously submitted PSD applications which were withdrawn on July 11, 2006.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Bruce Mitchell, review engineer, at 850/413-9198.

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<b>To: NATIONAL PARK SERVICE</b> MR. JOHN BUNYAK 12795 W. ALAMEDA PARKWAY AIR DIVISION LAKEWOOD, CO 80228 UNITED STATES		<b>POSTCODE:</b> <b>80228</b> TEL: 303-966-2818	
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Description: PSD-FL-380 application vol. 1		<b>21FR</b>	
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 Phone#: 303-966-2818

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 Protection: Not Required  
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<b>To: U.S. EPA REGION 4</b> <b>MR. GREGG M. WORLEY</b> 61 FORSYTH STREET AIR PERMITS SECTION ATLANTA, GA 30303 UNITED STATES		<b>POSTCODE:</b> <b>30303</b> TEL: 404-562-9141	
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July 17, 2006

Mr. Jeffrey Koerner, P.E., Permitting North Administrator  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Division of Air Resource Management  
Twin Towers Office Building  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

**RECEIVED**

JUL 18 2006

BUREAU OF AIR REGULATION

Re: **Georgia-Pacific Palatka Mill - PSD Permit Applications – Consolidated Package**  
Lime Kiln (LK) Shell                      Project No.: 1070005-030-AC/PSD-FL-345  
#4 Combination Boiler (CB)              Project No.: 1070005-033-AC/PSD-FL-357  
#4 Recovery Boiler (RB)                  Project No.: 1070005-035-AC/PSD-FL-367

Dear Mr. Koerner:

Enclosed are 7 complete copies of the consolidated package containing the #4 Recovery Boiler / #4 Lime Kiln Shell PSD application and the #4 Combination Boiler PSD Application. This package represents the consolidation of the above referenced PSD Applications sent to your department in 2004 and 2005 and subsequently withdrawn on July 11, 2006. Also included is a letter from Mr. Dave Buff, P.E. that summarizes how the projects were aggregated and the impacts on allowable emissions. Attached to Mr. Buff's letter is the updated netting table for these projects. To aid your review and understanding of this package, attached to this letter are the introduction sections of both applications.

We are submitting this package per discussions with you and your staff. Because this submittal is to consolidate and aggregate the three projects for which application fees were paid and that have already been reviewed by the Department, no additional application fee was to be required and none is enclosed. During the past year GP and DEP had settled on several limits for the #4 Recovery Boiler and the #4 Lime Kiln. GP intended to minimize any changes contained in this package compared to previous discussions with the Department. However, with the removal of the #4 Lime Kiln Petroleum Coke (Petcoke) fuel project, several changes to emissions limits are warranted. In order to facilitate the Department's review, and to avoid misunderstandings that might delay the issuance of a final PSD Permit, the updates contained in this package are listed below.

For the Recovery Boiler Project, GP had proposed a reduction in the mill wide Sulfur-in-fuel limitation from 2.35% Sulfur to 2.1% Sulfur. The elimination of the impact of the Petcoke project has allowed GP to maintain the current 2.35%S limit. The short term (24-hour) emission limit for SO<sub>2</sub> has been changed from 37.5 ppm to 100 ppm based on the results of new ambient air modeling. During discussions between GP and DEP in early 2006, the possibility of increasing this short term limit was discussed and tentatively accepted as long as modeling supported the revised limit and the modeling results were submitted to the Department. The appropriate modeling has been completed and is included herein.



**Mr. Jeffrey Koerner, P.E.**  
**July 17, 2006 – Page 2**

For the Lime Kiln Shell Project GP in July 2005 GP had agreed to a TRS limit of 17 ppm (12-hour average). However, with revised TRS information and modeling, the current limit of 20 ppm is proposed to remain the same.

Because some of the work included in this package could be started and finished this year, we are very interested in meeting with you and your staff to resolve any issues that could delay the processing of the permit.

If you have any questions please call me at (386) 329-0918.

Sincerely,



Myra J. Carpenter  
Environmental Superintendent

cc: T. Champion, S.D. Matchett, T. Wyles, E. Jamro  
Mr. D. Buff – Golder Asso.

## 1.0 INTRODUCTION

Georgia-Pacific Corporation (GP) is proposing changes to the No. 4 Combination Boiler at its Kraft pulp and paper mill located in Palatka, Putnam County, Florida. The GP Palatka Mill consists of the following major process operations: chipyard, digester system, brownstock washing system, bleaching system, chemical recovery area, paper drying/converting/warehousing, and power/utilities area. The Mill is currently operating under Title V Permit No. 1070005-034-AV, most recently issued on December 20, 2005.

GP currently operates the No. 4 Combination Boiler, which burns bark/wood, No. 6 fuel oil and on-spec used oil, and small quantities of natural gas (during start-up) to generate steam for the various papermaking process operations. In addition, the Boiler serves as a destruction device for noncondensable gases (NCGs), stripper off-gases (SOGs), and dilute, noncondensable gases (DNCGs), which are generated by various process sources. GP is requesting changes to the No. 4 Combination Boiler in order to increase the actual amount of bark/wood fuel that can be burned in the Boiler.

The changes GP is proposing will also allow the Boiler to meet the Maximum Achievable Control Technology (MACT) standards for Industrial, Commercial and Institutional Boilers and Process heaters, promulgated under Title 40 of the Code of Federal Regulations, Part 63 (40 CFR 63), Subpart DDDDD. The compliance date for existing boilers under Subpart DDDDD is September 13, 2007.

GP is proposing a number of changes to the No. 4 Combination Boiler, including:

- Upgrading the bark/wood fuel delivery system by replacing worn out feed system parts, replacing the existing bark surge bin, modifying conveyors to accommodate these changes, and installing new air swept bark distributors;
- Installing a new overfire air (OFA) system;
- Installing a new mechanical dust collector to replace the existing cyclones;
- Making changes to the existing electrostatic precipitator (ESP) used to control particulate matter (PM) emissions from the Boiler, and potentially utilizing the existing No. 5 Power Boiler ESP to provide additional PM control (in this case, a new ESP will be installed for the No. 5 Power Boiler);
- Modifying the NCG piping for incorporation into the new OFA system;

- Installing new low-nitrogen oxides (NO<sub>x</sub>) burners (LNB) for fuel oil firing. The new burners will be of the same capacity and number as the existing burners; and

GP is also evaluating installing new baffles for better undergrate air distribution for the No. 4 Combination Boiler. Engineering evaluations are ongoing, and final engineering may dictate that some of these changes will be implemented, while others may not.

The project will result in an increase in the actual amount of bark/wood fuel burned in the Boiler. In addition, the current permitted maximum bark/wood heat input and burning rate will be increased as part of this project. The increase in the bark/wood burned in the Boiler will offset No. 6 fuel oil that is normally combusted.

GP is also permanently shutting down the No. 4 Power Boiler as part of this project.

Actual-to-potential emission increases for this project have been added to increases for other past and future projects, even though those projects are unrelated. GP continues to believe this process of aggregating unrelated projects, as dictated by the Florida Department of Environmental Protection (FDEP), is inconsistent with past guidance on this topic. Nevertheless, in the interest of time, the combined increases are presented in this application. Based on the comparison of past actual annual emissions to future potential annual emissions from the No. 4 Combination Boiler and other projects GP is proposing, emission increases of NO<sub>x</sub>, carbon monoxide (CO), PM, particulate matter less than or equal to 10 microns (PM<sub>10</sub>), volatile organic compounds (VOCs), and sulfuric acid mist (SAM) will trigger new source review (NSR) under the federal and State prevention of significant deterioration (PSD) regulations.

For each pollutant subject to PSD review, the following analyses are required:

1. Ambient monitoring analysis, unless the net increase in emissions due to the modification causes impacts that are below specified significant impact levels;
2. Application of best available control technology (BACT) for each new or modified emissions unit, for each pollutant subject to PSD review;
3. Air quality impact analysis, unless the net increase in emissions due to the modification causes impacts which are below specified significant impact levels; and
4. Additional impact analysis (*e.g.*, impact on soils, vegetation, visibility), including impacts on PSD Class I areas.

This PSD permit application addresses these requirements and is organized into four additional sections, followed by appendices. A description of the project, including air emission sources and pollution control equipment, is presented in Section 2.0. The regulatory applicability analysis for the proposed project is presented in Section 3.0. The required ambient air monitoring analysis is presented in Section 4.0, and the BACT analysis is presented in Section 5.0. Supporting documentation is presented in the Appendices.

The air quality impact analysis and additional impact analysis required by PSD rules is being submitted to the FDEP in a separate modeling report as Attachment C of the No. 4 Recovery Boiler/No. 4 Lime Kiln application. That application is being submitted concurrently with this No. 4 Combination Boiler application.

# 3. INTRODUCTION

## 3.1 Facility Location and Description

Georgia-Pacific Corporation (GP) operates an unbleached and bleached Kraft pulp and paper Mill in Palatka, Florida (Putnam County). Processes and systems at the Mill include a batch digester system, multiple effect evaporator (MEE) system, condensate stripper system, recovery boiler and smelt dissolving tanks, lime kiln, tall oil plant, utilities, bleach plant, chlorine dioxide plant, paper machines and converting operations used to produce finished paper products from virgin wood.

The Mill site is located north of County Road 216 and west of U.S. Highway 17. The approximate Universal Trans Mercator (UTM) coordinates are 434.0 kilometers (km) east and 3283.4 km north in Zone 17. The Mill location is shown on a United States Geological Survey (USGS) topographic map in Figure 3-1. A plot plan of the facility is included as Figure 3-2. Figure 3-3 is a simplified process flow diagram for the entire facility.

While equipment capacities may vary throughout the Mill, the current permitted allowable production level is 118 tons per hour of air dried unbleached pulp (ADUP) and 1,850 ADUP per day as a maximum monthly average.

Putnam County has been designated by the U.S. Environmental Protection Agency (US EPA) as in attainment or unclassified for all criteria pollutants. The existing Mill is classified as a major stationary source under Prevention of Significant Deterioration (PSD) and Clean Air Act Title V definitions since it has the potential-to-emit more than 100 tons per year (tpy) of at least one regulated air pollutant. The initial Title V permit was issued to the Palatka Mill on October 30, 2000. The Mill is currently operating under Title V Permit 1070005-034-AV, issued in December 2005.

## 3.2 Project Description

### No. 4 Recovery Boiler

The No. 4 Recovery Boiler was originally constructed in 1974 and started up in 1975. The current permitted capacity of the boiler is 210,000 pounds (lbs) per hour of black liquor solids (BLS) and 5.04 million pounds (MM lbs) of BLS per day. The boiler is currently permitted to combust natural gas, No. 6 fuel oil with a sulfur content not to exceed 2.35% by weight, and on-spec used oil as start-up fuels. The recovery boiler, which is equipped with an electrostatic precipitator (ESP) for particulate matter control, has been subjected to PSD review twice in the past – once in 1991 and a second time in 1995.

In 1991, the entire bottom of the recovery boiler was replaced and modifications were made to the combustion air system. The changes to the combustion air system resulted in an increased throughput from 189,000 lbs BLS per hour to the current permitted capacity of 210,000 lbs BLS per hour.

The project in 1995 involved the addition of sixteen (16) screen tube banks in the boiler. One of the benefits from the project was a decrease in the flue gas temperature in certain sections of the boiler, which reduced tube abrasion, resulting in an improvement in performance and reduced maintenance downtime. The installation of the additional tubes also had the potential to increase BLS throughput and steam production by 4% and 30,000 pounds per hour, respectively. While

an actual throughput increase was anticipated, the Mill did not expect, nor request, an increase in the permitted capacity of the unit (210,000 lbs/hour and 5.04 MM lbs BLS/day).

The Mill is now proposing to implement several projects for the No. 4 Recovery Boiler and associated evaporators. These projects, described in more detail below, include (1) extensive replacement of tubes, (2) replacement or changes to the air system, (3) addition of a crystallizer, to increase BLS concentration and (4) miscellaneous changes (*i.e.*, baffles, heat exchanger, piping, etc.) to the concentrators.

### ***Tube Replacements***

The Mill plans to replace a large percentage of the tubes in the No. 4 Recovery Boiler. This includes tubes in the superheater, economizer, and generating banks of the boiler. This major tube work is estimated to commence in May 2007 and conclude in 2008. The total cost of this work is estimated to be in the range of \$24 million. Many of the tubes to be replaced are originals that have been in place since the boiler was constructed in the mid-1970s. Because of the scope and cost of the project, and in light of continuing uncertainty in the law as to what is "routine", GP decided not to pursue an exemption for this work as "routine maintenance, repair, and replacement." The preliminary scope for the tube replacements, although subject to change, is presented in Table 3-1.

**Table 3-1. Preliminary Scope for Tube Maintenance on No. 4 Recovery Boiler**

<b>Boiler Section</b>	<b>Approximate Number of Tubes Involved</b>	<b>Affected Area/ Total Tube Area in Boiler (Percent)</b>	<b>Comments</b>
Superheater	3,500	37.1	Most tubes are original. Three tubes have failed under pressure in the past 18 months.
Economizer	1,700	23.6	Tubes are original. Five tubes have failed under pressure in the past 26 months. Numerous tubes are plugged at both ends from previous failures.
Generating Bank	2,100	16.9	Tubes are original to boiler.
Floor	130	1.2	All but 14 tubes are original to boiler.

### ***Combustion Air System***

Although still in the preliminary engineering phase, the Mill is also considering replacement of, or changes to, the combustion air system for the boiler. The objective of this part of the project is to lower peak furnace exit gas temperature and velocity into the superheater in an effort to reduce the potential for erosion and pluggage of the superheater in the future. The new air system is also expected to reduce carry over and fouling in the boiler convection banks. Through the staging of air, it is anticipated that emissions of some pollutants (*e.g.*, total reduced sulfur (TRS) compounds

and carbon monoxide (CO)) will be more consistently controlled and/or reduced). At the same time, by reducing CO and increasing boiler efficiency, nitrogen oxide (NO<sub>x</sub>) emissions are expected to increase slightly. To avoid the slight increase in NO<sub>x</sub> emissions, the Mill plans to install a fourth level of combustion air to the boiler. The Mill is in the process of receiving vendor quotations for this work, including suggested scope. As such, the exact scope of this work is not available at this time. The current cost estimate is less than \$2 million.

### *Crystallizer*

A third project involves a change to the black liquor evaporation system (No. 4 Evaporator Set). This change will increase the solids concentration of the black liquor to the recovery boiler from 65 percent solids to approximately 75 percent solids. When the new system is operational, the liquor from the concentrator will pass through a crystallizer vessel to raise the temperature of the liquor. The liquor will then enter a storage/flash tank at lower pressure where the moisture will "flash off". The "flash" vapors will then be routed to the existing evaporator system and collected as part of the existing non-condensable gas (NCG) collection system. The purpose of the project is to increase boiler efficiency by reducing the amount of water entering the boiler with the liquor solids. The increase in solids will improve the efficiency of the boiler for steam production per pound of BLS, thus reducing the amount of steam produced from oil firing in the other boilers. The estimated cost of this work is in the range of \$5 to \$6 million.

### *Concentrators*

Finally, the Mill is considering the removal of some internal baffles and resizing some downcomer piping in the existing concentrators. The unit currently has scaling problems, leading to frequent "boil outs". The proposed changes will improve liquor circulation and increase velocity through the tubes, which should reduce scaling and fouling. This will increase the time between "boil outs". In addition, an external heat exchanger will be added to the existing concentrators to preheat the liquor with steam prior to entry into the concentrators. This will allow for increased evaporation, providing for a capability that more closely matches the capacity of the recovery boiler.

### No. 4 Lime Kiln

The No. 4 Lime Kiln was constructed in 1975 and started up in 1976. The permitted input capacity of this unit is 82,986 pounds per hour of calcium carbonate and inert materials (24-hr block average). This equates to 19.44 tons per hour of calcium oxide produced by the kiln. The kiln uses a venturi scrubber to control particulate matter emissions. This unit fires No. 6 fuel oil with a maximum sulfur content of 2.35% (by weight).

The Mill needs to replace a major section of the No. 4 Lime Kiln shell. In November 2003, the Mill experienced a near catastrophic failure of the kiln shell. The kiln had cracks all the way through the shell in several different areas of the "hot end". The failure occurred due to metal fatigue and crystallization, cooler design, and shell age. The failure occurred underneath the cooler tubes, which is causing excessive stress on the kiln shell. The original metal thickness was 1 7/8". The repairs made were for temporary use only since the only material available at the time of failure was 1" thick steel plate. The kiln also has a history of limited brick life due to shell deformation in the same area. The November 2003 outage resulted in an unbudgeted expenditure of \$639,200 for maintenance repairs and purchased chemicals.

In February 2006, a similar failure occurred in the same location on the lime kiln shell. The crack completely penetrated the shell and ran continuously around 70% of the circumference. The resulting 10-day emergency shutdown and repair cost \$2.5 million. Based on testing and evaluation from the original equipment manufacturer, the failure is expected to recur sometime in the future. The shell must be capable of handling in excess of 95,000 pounds from Pier #1 to the end of the shell (55,000 pounds of weight from the dam and lining; 4,000 pounds for each of the ten (10) cooler tubes). The current hot end shell thickness is inadequate to reliably handle this weight load.

An equipment vendor has recommended that the Mill replace 61 feet of the "hot end" kiln shell and refractory and all ten (10) coolers. The new coolers will have an improved mounting bracket design that will eliminate future stress cracking underneath the coolers. The total cost of this project is estimated at approximately \$2 million, with approximately 75 percent of this total going toward the labor costs needed to complete the project. The Mill plans to complete this work during their spring outage in 2007.

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July 14, 2006



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JUL 18 2006

Florida Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

BUREAU OF AIR REGULATION

Attention: Mr. Jeffrey Koerner, PE – Permitting North Administrator

**RE: GEORGIA-PACIFIC CORPORATION, PALATKA MILL  
FACILITY I.D. NO. 1070005  
PSD APPLICATION FOR NO. 4 RECOVERY BOILER, NO. 4 LIME KILN, AND  
NO. 4 COMBINATION BOILER PROJECTS**

Dear Mr. Koerner:

Georgia-Pacific Corporation (GP) operates an unbleached and bleached Kraft pulp and paper Mill in Palatka, Florida (Putnam County). In November 2005, the Mill submitted prevention of significant deterioration (PSD) applications for projects at the No. 4 Recovery Boiler and No. 4 Lime Kiln. The No. 4 Recovery Boiler application also reflected emission changes due to a planned project to allow the burning of petroleum coke in the Lime Kiln, as well as a project planned for the No. 4 Combination Boiler. The application was submitted using the past actual-to-future potential accounting methodology.

In light of the Mill's decision not to pursue the petroleum coke project at this time, Mr. Jeff Koerner of the Florida Department of Environmental Protection (FDEP) advised the Mill, in an email dated June 22, 2006, to withdraw these PSD applications and resubmit them, without the petroleum coke project, but along with an application for projects proposed for the No. 4 Combination Boiler. Accordingly, this PSD application is being submitted to cover the previously proposed projects for the No. 4 Recovery Boiler and the No. 4 Lime Kiln. In addition, the PSD application also covers projects being proposed for the No. 4 Combination Boiler. The PSD application information for the No. 4 Recovery Boiler and No. 4 Lime Kiln are contained in one volume, prepared by GP. The PSD application information for the No. 4 Combination Boiler is contained in a separate volume, prepared by Golder Associates Inc. (Golder).

As directed by the FDEP, emission increases for all three of these projects have been added to increases for other past and future projects, even though those projects are unrelated. In the interest of time and in order to avoid additional recordkeeping requirements that would be triggered if it were determined that there is a "reasonable possibility" that a PSD-significant increase will occur, GP has continued to conduct the PSD applicability analysis using the past actual-to-future potential accounting methodology.

GP continues to believe that this process of aggregating unrelated projects is inconsistent with past EPA guidance on this topic. For example, while actual emissions are expected to increase for the No. 4 Recovery Boiler, that is clearly not the case for the Lime Kiln. The Lime Kiln project, if reviewed on its own merit using a past actual-to-projected actual accounting methodology, would not trigger PSD review. Yet, GP has been forced to include it in this application, and the increases from the other projects cause this one to go through PSD review as well. GP does not consider the processing history of these applications to have established a precedent for future applications.

A summary table of the netting analysis is contained in Table 1 attached. The netting analysis includes the emission changes due to the Bark Handling System project (permit issued in November 2004). Also included are the contemporaneous emission increase and decreases occurring at the Mill in the last 5 years.

Following the more conservative accounting methodology, as discussed above, and taking into account net emission changes that have occurred during the last five years, PSD review is triggered for particulate matter (both total suspended particulate matter and particulate matter less than 10 micrometers in aerodynamic diameter), nitrogen oxides, carbon monoxide, sulfuric acid mist, and ozone (based on a significant increase in volatile organic compound emissions).

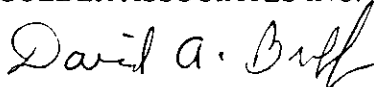
PSD review is not triggered for sulfur dioxide (SO<sub>2</sub>), lead, total reduced sulfur (TRS) compounds, fluorides or mercury. The Mill is requesting voluntary, federally-enforceable restrictions for SO<sub>2</sub> and TRS in order to avoid PSD review for these pollutants.

The PSD permit application includes completed permit application forms, detailed emission calculations, and Best Available Control Technology (BACT) reviews. The air quality analysis is included in the application volume which addresses the No. 4 Recovery Boiler and the No. 4 Lime Kiln, as Attachment C.

GP understands that, based on correspondence with you, a single PSD permit will be issued by the Florida DEP to cover all three projects. GP also anticipates, given the fact that numerous requests for additional information (RAIs) have already been answered by GP on the Recovery Boiler and Lime Kiln applications and emission limits have been discussed extensively, that any additional questions concerning modifications to these sources should be minimal. If you have any questions regarding this matter, please contact Ms. Myra Carpenter at (386) 329-0918.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E., Q.E.P.  
Principal Engineer

Enclosures

DB/nav

cc: Myra J. Carpenter, GP  
Ed Jamro, GP  
Tammy Wyles, GP  
Wayne Galler, GP  
Scott Matchett, GP  
C. Booth, Golder Associates Inc.

**TABLE 1**  
**CONTEMPORANEOUS AND DEBOTTLENECKING EMISSIONS ANALYSIS AND PSD APPLICABILITY**  
**NO. 4 COMBINATION BOILER, GP PALATKA**

Source Description	Pollutant Emission Rate (TPY)										
	SO <sub>2</sub>	NO <sub>x</sub>	CO	PM	PM <sub>10</sub>	VOC	TRS	SAM	Lead	Mercury	Fluoride
<b>Future Potential Emissions<sup>a</sup></b>											
No. 4 Combination Boiler - 2.35% S	1,023.7	496.5	1,010.5	80.8	59.8	34.4	--	45.0	0.097	0.0071	0.095
No. 4 Lime Kiln: annual: 20 ppmvd TRS	40.0	297.4	71.5	130.2	128.0	41.4	25.1	1.8	0.25	--	--
No. 4 Recovery Boiler	153.9	738.1	2,245.6	331.1	248.3	92.0	34.2	15.9	0.014	8.3E-05	--
No. 4 Smelt Dissolving Tank <sup>b</sup>	33.7	69.6	11.4	55.2	49.7	115.0	14.9	--	0.013	8.3E-05	--
Black Liquor/Green Liquor Tanks <sup>b</sup>	--	--	--	--	--	14.0	3.7	--	--	--	--
Caustic Area <sup>b</sup>	--	--	--	2.6	2.6	18.9	5.8	--	--	--	--
<b>Other Projects</b>											
Bark Handling System <sup>c</sup>	--	--	--	22.8	13.9	475.8	--	--	--	--	--

<sup>b</sup> Sources will potentially be "affected" as part of the No. 4 Recovery Boiler tube replacement project.

<sup>c</sup> As estimated by FDEP in Technical Evaluation and Preliminary Determination for Bark Hog Replacement PSD, November 2004.

<sup>d</sup> For No. 4 Combination Boiler, based on actual emissions for 2004 and 2005 from Table 2-1 (without NCGs, SOG, DNCGs). For all other sources, based on Table 2-3 and Appendix C.

<sup>e</sup> Pollution Control Projects (PCP) approved for G-P Palatka Mill; excluded from PSD review.

<sup>f</sup> Since project increase does not exceed PSD significant emission rate, netting is not performed for this pollutant.