



Palatka Pulp and Paper Operations  
Consumer Products Division

P.O. Box 919  
Palatka, FL 32178-0919  
(386) 325-2001

April 16, 2004

Mr. Jim Pennington  
State of Florida  
Department of Air Resource Management  
2600 Blair Stone Road MS 5505  
Tallahassee, Florida 32399-2400

RE: Georgia-Pacific Corporation, Palatka Mill  
Modification to PSD Permit PSD-FL-226

Dear Mr. Kirts:

Enclosed please find four copies and one additional copy of the Modification to PSD Permit PSD-FL-226 for the No. 4 Recovery Boiler. The purpose of the modification is to update short-term emission limits for Sulfur Dioxide.

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

Sincerely,

A handwritten signature in black ink that reads "Myra J. Carpenter".

Myra J. Carpenter  
Environmental Superintendent

tk

Enclosure

cc: W. M. Jernigan  
S. D. Matchett  
E. S. Jamro



# **GEORGIA-PACIFIC CORPORATION**

**Palatka Mill**

**Modification to PSD Permit PSD-FL-226**

**No. 4 Recovery Boiler – Update Short-Term Emission Limits  
for Sulfur Dioxide**

**Palatka (Putnam County), Florida**

**APRIL 2004**

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# 1. EXECUTIVE SUMMARY

Georgia-Pacific Corporation (G-P) operates an unbleached and bleached Kraft pulp and paper Mill in Palatka, (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, and other equipment to produce finished paper products from virgin wood.

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.

As the Florida Department of Environmental Protection is aware, the Mill has identified some inconsistencies in the sulfur dioxide permit limits that have been established in the past for the Mill's Recovery Boiler.<sup>1</sup> This permit application is being submitted for the sole purpose of reconciling and clarifying the various limits. The Mill is also requesting an increase in some of the short-term emission rates. No increase is being sought for the annual emission limit. The short-term limits that are proposed for change were most recently established in Prevention of Significant Deterioration (PSD) Permit PSD-FL-226, issued in 1995. These permit limits were established as part of a 1991 PSD permitting action and are also reflected in the Mill's Title V permit. In the PSD permitting actions in 1991 and 1995, sulfur dioxide "netted out" of PSD review. The update to these short-term limits does not impact the outcome of these prior permitting actions in any way. Furthermore, this permit application does not involve a physical change or a change in the method of operation. As such, PSD review is not required as a result of the proposed action.

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<sup>1</sup> Letter from Ms. Myra Carpenter to Mr. Christopher Kirts, November 7, 2003.

## **2. PERMIT APPLICATION FORMS**

The completed permit application forms are included in Attachment A. As described further below, the only change being sought for the Recovery Boiler is an update of the short-term emission limitations for sulfur dioxide. As such, that is the only pollutant addressed in detail in the forms.

## 3. INTRODUCTION

### 3.1 Facility Location and Description

Georgia-Pacific Corporation (G-P) operates an unbleached and bleached Kraft pulp and paper Mill in Palatka, (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, and other equipment 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 Attachment 3-1. A plot plan of the facility is included as Figure 3-2. The plot plan that is included in this submittal is the same as contained in the recent permit application for replacement of the brownstock washers and installation of the oxygen delignification system. As discussed further below, no further changes are being proposed as part of this permitting action. As such, this plot plan is still representative for the Palatka Mill.

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 tons per day ADUP 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 1070005-014-AV, issued May 30, 2003.

### 3.2 Background Information

The Mill's Recovery Boiler has been subject to a number of permitting activities in the past and the history can be traced back to permits that were issued in the early- and mid-1980s. This section summarizes the various permits and sulfur dioxide emission limits that have been imposed over time. The current permitted capacity of the Recovery Boiler is 210,000 pounds per hour (lbs/hour) of black liquor solids (BLS) as a 24-hour average, not to exceed 5.04 million lbs per day of BLS.

Air Operating Permit AO54-54072, dated June 1982, specified allowable sulfur dioxide emission rates for the Recovery Boiler of 277.5 lbs/hour and 1,189 tons per year (tpy). Subsequently, Air Operating Permit AO54-131787, dated May 1987, specified allowable sulfur dioxide emission limits of 314.97 lbs/hour and 1,375.79 tpy. Copies of these permits are provided in Attachment B.

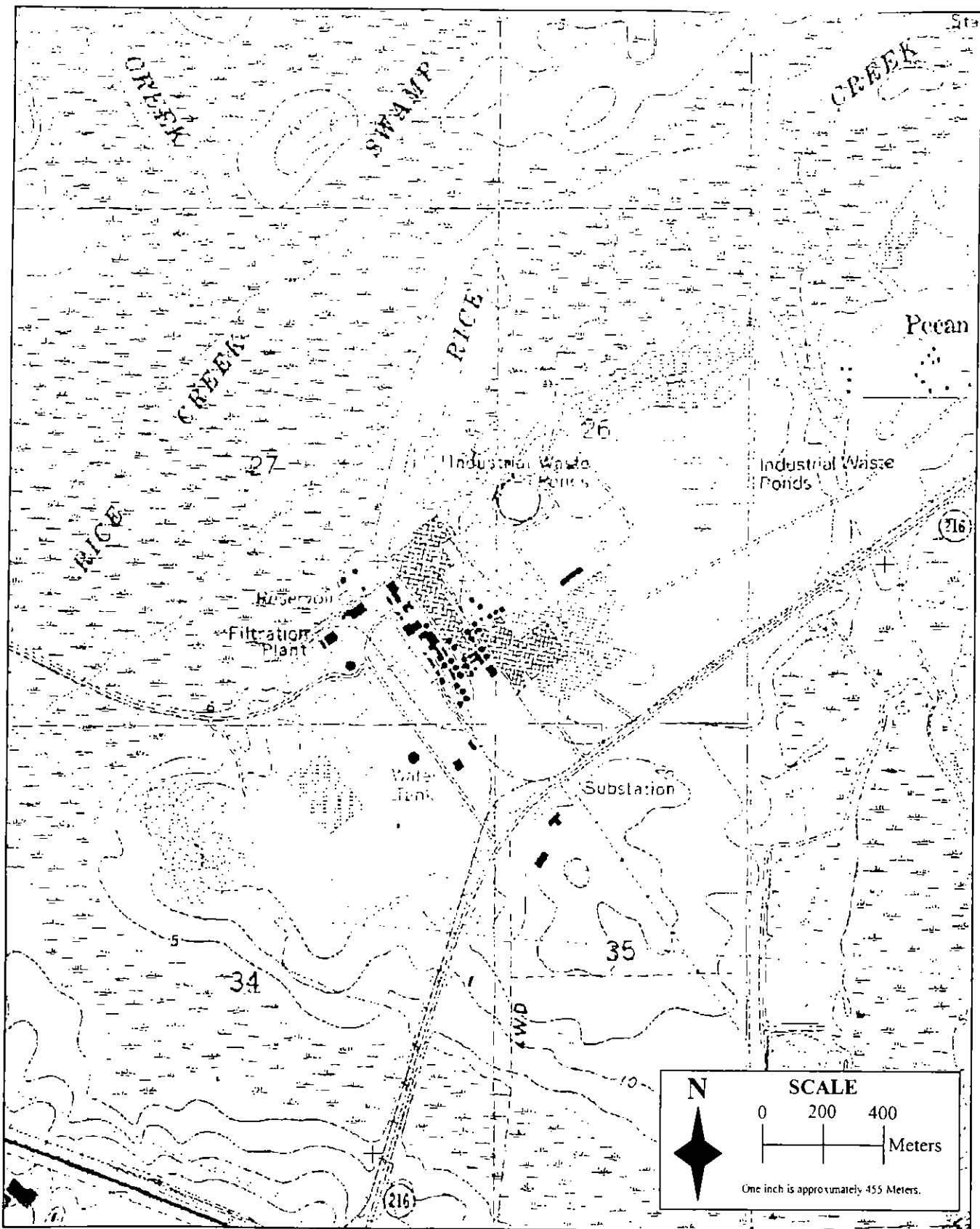


FIGURE 3-1

Area Map  
 Georgia-Pacific Corporation, Palatka Mill

Source: Golder, 2003.



As part of a PSD permitting action in 1991, the Mill demonstrated that it could net out of PSD review for sulfur dioxide based on emission limits of 219.7 lbs/hour and 962.3 tpy for the Recovery Boiler. A copy of the table containing the results of the netting analysis from the 1991 application is included in Attachment B. The rates that were proposed by the Palatka Mill were derived based on a stack gas concentration of 75 parts per million by volume on a dry basis (ppmvd), corrected to 8 percent oxygen and a gas flow rate of 210,000 dry standard cubic feet per minute (dscfm) at 2.8 percent oxygen (this also corresponds to a gas flow rate of 294,000 dscfm at 8 percent oxygen). In its technical review of the 1991 application, the Department proposed to establish limits that were approximately one-half of those proposed by the Mill, even though there were no issues with the application of Best Available Control Technology (BACT) since this pollutant had netted out of PSD review, even at the higher rates. The values proposed by the Department were 109.9 lbs/hour and 481.4 tpy, based on a concentration of 37.5 ppmvd, corrected to 8 percent oxygen. To G-P's knowledge, these lower limits had nothing to do with PSD applicability or the 75 ppmvd concentration that was provided in the permit application. Rather, the 37.5 ppmvd concentration limit was an arbitrary multiple of 3.75 times the highest annual average concentration (10 ppmvd) shown by the Mill's uncertified continuous emission monitor (CEM) in prior years.

Subsequently, in a May 1991 letter (included in Attachment B), the Mill objected to these limits. However, the Mill mistakenly asked that the short-term limit of 109.9 lbs/hour be established "as requested in our application". As discussed previously, the value that was requested in the application was actually 219.7 lbs/hour, not 109.9 lbs/hour. In the May 1991 letter, the Mill intended to ask that the 219.7 lbs/hour value be established "as requested in our application". At any rate, the 109.9 lbs/hour value was included in the final permit (Permit No. PSD-FL-171, issued June 7, 1991), although the concentration limit of 37.5 ppmvd was removed.

The most recent PSD permit issued for the Recovery Boiler (Permit No. PSD-FL-226, issued September 21, 1995) contains limits of 109.9 lbs/hour and 481.4 tpy, based on an "emission factor" of 75 ppmvd (at 8 percent oxygen). These same limits were carried forward into the Mill's Title V permit. The Palatka Mill demonstrates compliance with these limits through annual stack testing, as required by permit.

As mentioned above and as discussed with the Department in the past, the Mill operates an uncertified CEM for sulfur dioxide on the Recovery Boiler. The CEM is used strictly as an operational tool in order to optimize Boiler performance. As disclosed in recent annual compliance certifications, the Mill is aware of hourly periods when the CEM has measured sulfur dioxide concentrations in excess of both 37.5 and 75 ppmvd, corrected to 8 percent oxygen. The Mill did not construe this information as evidence that the Boiler was out of compliance, but disclosed it to the Department nonetheless. This CEM data is not conclusive as to any exceedances for several reasons. First, the CEM is not a "certified" unit. Second, the Mill does not have the necessary continuous stack gas flow data that is needed in order to make a valid comparison to the 109.9 lbs/hour mass emission limit. As an aside, this comparison is conducted annually as required by Title V Operating Permit 1070005-014-AV using information generated in a stack test. Finally, and as discussed further below, the permit(s) does not clearly establish the averaging times for the various emission limits. That is the focus of this application.



### 3.3 Proposed Changes

In reviewing the uncertified CEM data for the past three years, and after removing periods of start-up, shutdown, and malfunction, measured concentrations were found to be within the following ranges (all values are corrected to 8 percent oxygen):

Annual Values	18 ppmvd
24-Hour Average Values	0 to 80 ppmvd
3-Hour Average Values	0 to 153 ppmvd

As a follow-up to a recent letter submitted to the Department and based on the data that has been collected, the Palatka Mill is proposing that the following short-term emission limits be established for the Recovery Boiler (all values are expressed at 8 percent oxygen)<sup>2</sup>:

Annual Average Permit Limit	37.5 ppmvd (481.4 tpy) (no change)
24-Hour Average Permit Limit	75 ppmvd (219.7 lbs/hour)
3-Hour Average Permit Limit	150 ppmvd (439.4 lbs/hour)

No change is being proposed for the annual rate. As such, there is no impact on past PSD applicability evaluations. The supporting calculations for the short-term mass emission rates are addressed in Section 4. The air quality analysis is discussed further in Section 6.

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<sup>2</sup> Ibid.

## 4. EMISSION RATES

The proposed hourly and annual emission rates, calculated based on the concentrations limits proposed in Section 3.3, are calculated in Attachment C. A summary of the proposed values is provided in Table 4-1.

**Table 4-1. Proposed Sulfur Dioxide Emission Limits for the Recovery Boiler**

<b>Averaging Period</b>	<b>Concentration (ppmvd at 8% oxygen)</b>	<b>Proposed Average Hourly Limit (lbs/hour)</b>	<b>Proposed Annual Limit (tpy)</b>
Annual	37.5	---	481.4
24-Hour	75	219.7	---
3-Hour	150	439.4	---

As discussed previously, there is no change being proposed for the existing annual limit of 481.4 tpy.

## **5. REGULATORY APPLICABILITY**

### **5.1 PSD Applicability**

The existing Mill, as constructed, and as operated today, is classified as a major stationary source under PSD definitions since it has the potential-to-emit more than 100 tons per year of at least one regulated air pollutant.

As discussed in more detail above, there are no physical changes or changes in the method of operation associated with this permit application. Further, the Mill is not seeking to increase the annual, permitted emission rate. Since PSD applicability is based on an increase in annual rates, the requested changes do not trigger PSD review.

Although sulfur dioxide emission limits were included in both the 1991 and 1995 PSD permits, PSD review was not actually triggered for this pollutant as a result of either of those permitting actions. In both cases, sulfur dioxide was demonstrated to “net out” of PSD review. As such, there is no impact on the prior permitting actions. However, it is necessary to update the short-term emission rates in the latest permit, Permit PSD-FL-226 (issued in 1995), to reflect the emission rates that are now being proposed. Furthermore, it will be necessary to update the Mill’s Title V permit.

### **5.2 NSPS Applicability**

As detailed in the Rule Applicability section of the Mill’s Title V permit, the Recovery Boiler was constructed prior to the effective date of any relevant New Source Performance Standards (NSPS), and the unit has not been subsequently modified or reconstructed such that the NSPS provisions would be triggered.

As discussed in more detail above, the Mill is not proposing any physical changes, changes in the method of operation, or component replacements. As such, the Recovery Boiler is not being modified, constructed, nor reconstructed within the meaning of the NSPS provisions. Furthermore, the only pollutant that is being addressed is sulfur dioxide, which is not a regulated pollutant under NSPS Subpart BB (40 CFR 60, NSPS for Kraft Pulp Mills). For these reasons, NSPS applicability will not be triggered for this unit as a result of this application.

### **5.3 NESHAP Applicability**

Section 112(d) of the Clean Air Act, as amended in November, 1990, requires that the US EPA, “promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air listed for regulation...”. These National Emission Standards for Hazardous Air Pollutants (NESHAPs), to be codified in 40 CFR 63, are to be based on the Maximum Achievable Control Technology (MACT). A final MACT rule was promulgated for recovery boilers on January 12, 2001. This Rule, promulgated as 40 CFR 63, Subpart MM, is known as the “National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semicheical Pulp Mills”. The Rule, commonly referred to as MACT II, applies to both existing and new recovery boilers.

The MACT General Provisions, at 40 CFR 63.2, define a new source as, "...any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part". The Recovery Boiler at the Palatka Mill was constructed in 1975 and started up in 1976. Under the MACT General Provisions (40 CFR 63, Subpart A), the Rule states that reconstruction, "...means the replacement of components of an affected or a previously unaffected stationary source to such an extent that...The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source..." Since there is no expenditure and no physical or operational changes associated with this application, the unit is not considered to be reconstructed for the purposes of MACT applicability.

As the Recovery Boiler currently exists, it is considered as an "existing source" for the purposes of MACT applicability. With that designation, the unit will have to be in compliance with the MACT II Rule in March 2004. None of the actions being proposed as part of this permitting action will impact the unit's designation or compliance dates.

#### 5.4 Compliance Assurance Monitoring

The Compliance Assurance Monitoring (CAM) rule is essentially a companion rule to Title V, requiring that control device operating parameters be monitored in order to demonstrate compliance with a specified emission limitation or standard. In order for the CAM Rule to apply to a specific emission unit/pollutant, the following four criteria must be met:

- 1) The emission unit must be located at a major source for which a Part 70 or Part 71 permit is required.
- 2) The emission unit must be subject to an emission limitation or standard.
- 3) The emission unit must use a control device to achieve compliance.
- 4) The emission unit must have potential, pre-controlled emissions of the pollutant of at least 100 percent of the major source threshold.

The CAM Rule defines two classes of emission units. These are "large pollutant-specific emissions units" and "other pollutant-specific emissions units". The "large" units are those, "...with the potential to emit...taking into account control devices...the applicable regulated pollutant in an amount greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source..." The "other" units are those that are not "large" units. The primary difference between the two categories is that "large" units are those that are still major (*i.e.*, greater than 100 percent of the major source threshold) after the application of controls, while the "other" units are those that are non-major (*i.e.*, less than or equal to 100 percent of the major source threshold) following the application of controls.

The federal regulations, at 40 CFR 64.5(a)(2), state the following with regard to submittal of a CAM Plan for "large pollutant-specific emissions units":

*"On or after April 20, 1998, the owner or operator shall submit information as part of an application for a significant permit revision under part 70 or 71 of this chapter, but only with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable."*

The regulations, at 40 CFR 64.5(b), state the following with regard to submittal of a CAM Plan for the "other pollutant-specific emissions units":

*"...the owner or operator shall submit the information required...as part of an application for a renewal of a part 70 or part 71 permit."*

The Recovery Boiler has an uncontrolled sulfur dioxide emission rate that exceeds 100 percent of the major source threshold. However, there is no control device in place for sulfur dioxide. As a result, a CAM plan is not required as part of this permit application submittal.

## 6. AIR QUALITY ANALYSIS

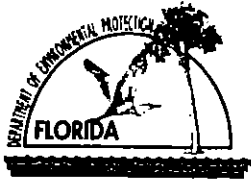
Golder Associates has conducted a dispersion modeling analysis to determine the air quality impacts associated with an increase in the short-term sulfur dioxide emission rates. Since an increase is not being proposed for the annual average rate, the impact analyses are only performed for the 3-hour and 24-hour averaging periods. The results of the modeling are provided in Attachment D.

The modeling study includes a PSD Class II significant impact analysis to estimate the maximum sulfur dioxide impacts due to the increase in emissions within the near-field vicinity of the Palatka Mill. The project's impacts are compared to the USEPA's Class II significant impact levels of 25 and 5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) for the 3-hour and 24-hour averaging periods, respectively. For this type of study, if the project's maximum impacts are not predicted to be greater than the significant impact levels in the vicinity of the Mill, then more detailed analyses to address compliance with ambient air quality standards (AAQS) and PSD Class II allowable increments are not required.

As discussed further in Golder's report, the Palatka Mill is located within 200 km of three PSD Class I areas. Since the Mill is located within 200 km of these areas, a PSD Class I significant impact analysis was performed. USEPA has proposed PSD Class I significant impact levels of 1 and  $0.2 \mu\text{g}/\text{m}^3$  for the 3-hour and 24-hour averaging periods, respectively. These values are used in this analysis. Similar to the PSD Class II significant impact analysis, if the project's maximum impacts are predicted to be less than the PSD Class I significant impact levels, then more detailed analyses to address compliance with the PSD Class I allowable increments are not required.

As detailed in Golder's report, the maximum 3-hour and 24-hour concentrations resulting from the proposed increases in the short-term sulfur dioxide emission limits for the Recovery Boiler are predicted to be less than the PSD significant impact levels. Based on these results, further air modeling analyses are not required to demonstrate compliance with the sulfur dioxide AAQS and PSD Class II increments. In addition, the increases are also predicted to be less than the proposed PSD Class I significant impact levels for all averaging periods at the PSD Class I areas. As such, a full PSD Class I increment analysis is not required.

**ATTACHMENT A**  
**Permit Application Forms**



# Department of Environmental Protection

## Division of Air Resources Management

### 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: <b>Georgia-Pacific Corporation</b>	
2. Site Name: <b>Palatka Mill</b>	
3. Facility Identification Number: <b>1070005</b> [ ] Unknown	
4. Facility Location: Street Address or Other Locator: <b>North of CR 216; West of US 17</b> City: <b>Palatka</b> County: <b>Putnam</b> Zip Code: <b>32177</b>	
5. Relocatable Facility? [ ] Yes [ <input checked="" type="checkbox"/> ] No	6. Existing Permitted Facility? [ <input checked="" type="checkbox"/> ] Yes [ ] No

##### Application Contact

1. Name and Title of Application Contact: <b>Myra Carpenter, Superintendent of Environmental Affairs</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>Georgia-Pacific Corporation</b> Street Address: <b>P.O. Box 919</b> City: <b>Palatka</b> State: <b>FL</b> Zip Code: <b>32178-0919</b>	
3. Application Contact Telephone Numbers: Telephone: <b>( 386 ) 325 - 2001</b> Fax: <b>( 386 ) 328 - 0014</b>	

##### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<i>4-19-04</i>
2. Permit Number:	<i>1070005-027-AC</i>
3. PSD Number (if applicable):	<i>PSD-FL-220A</i>
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: 1070005-014-AV (May 30, 2003)

- 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: \_\_\_\_\_

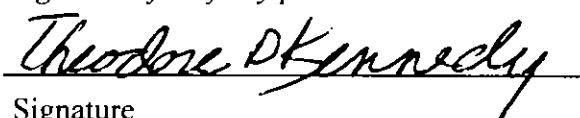

Reason for revision: \_\_\_\_\_

**Air Construction Permit Application**

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

- 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: <b>Theodore D. Kennedy, Vice President, Georgia-Pacific, Palatka Operations</b>		
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Georgia-Pacific Corporation</b> Street Address: <b>P.O. Box 919</b> City: <b>Palatka</b> State: <b>FL</b> Zip Code: <b>32178-0919</b>		
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>( 386 ) 325 - 2001</b> Fax: <b>(386 ) 328 - 0014</b>		
4. Owner/Authorized Representative or Responsible Official Statement:  <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ X ], 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.</i>   Signature _____  Date _____		

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Mark J. Aguilar</b> Registration Number: <b>52248</b>		
2. Professional Engineer Mailing Address: Organization/Firm: <b>Georgia-Pacific Corporation</b> Street Address: <b>133 Peachtree Street, NE</b> City: <b>Atlanta</b> State: <b>GA</b> Zip Code: <b>30303</b>		
3. Professional Engineer Telephone Numbers: Telephone: <b>( 404 ) 652- 4293</b> Fax: <b>( 404 ) 654 - 4706</b>		

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 [ X ] , 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.*

*Mark J. Reynolds*  
\_\_\_\_\_  
Signature

*2/18/04*  
\_\_\_\_\_  
Date

(seal)

\* Attach any exception to certification statement.

**Scope of Application**

<b>Emissions Unit ID</b>	<b>Description of Emissions Unit</b>	<b>Permit Type</b>	<b>Processing Fee</b>
018	No. 4 Recovery Boiler		

**Application Processing Fee**

Check one: [ ] Attached - Amount: \$: \_\_\_\_\_ [ X ] Not Applicable

**Construction/Modification Information**

1. Description of Proposed Project or Alterations:

To make revision to short-term sulfur dioxide permit limits contained in PSD-FL-226 and Title V Permit 1070005-014-AV.

2. Projected or Actual Date of Commencement of Construction: NA

3. Projected Date of Completion of Construction: NA

**Application Comment**

[Empty box for Application Comment]

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

1. Facility UTM Coordinates: Zone: <b>17</b> East (km): <b>434.0</b> North (km): <b>3283.4</b>			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): <b>29 / 41 / 0</b> Longitude (DD/MM/SS): <b>81 / 40 / 45</b>			
3. Governmental Facility Code: <b>0</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>26</b>	6. Facility SIC(s): <b>2611, 2621</b>
7. Facility Comment (limit to 500 characters):          			

#### Facility Contact

1. Name and Title of Facility Contact: <b>Myra Carpenter, Superintendent of Environmental Affairs</b>
2. Facility Contact Mailing Address: Organization/Firm: <b>Georgia-Pacific Corporation</b> Street Address: <b>P.O. Box 919</b> City: <b>Palatka</b> State: <b>FL</b> Zip Code: <b>32178-0919</b>
3. Facility Contact Telephone Numbers: Telephone: <b>(386) 325-2001</b> Fax: <b>(386) 328-0014</b>

**Facility Regulatory Classifications**

**Check all that apply:**

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
6. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7. <input checked="" type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8. <input type="checkbox"/> Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters):	

**List of Applicable Regulations**

<b>62-210.700(1) - Excess Emission</b>
<b>62-210.700(4) - Excess Emission</b>
<b>62-210.700(5) - Excess Emission</b>
<b>62-210.700(6) - Excess Emission</b>
<b>62-296.320(4) - General VE Limit</b>
<b>Title V Core List, Effective 3/1/02</b>

## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
PM	A				Particulate Matter – Total
PM <sub>10</sub>	A				Particulate Matter – PM <sub>10</sub>
SO <sub>2</sub>	A				Sulfur Dioxide
NO <sub>x</sub>	A				Nitrogen Oxides
CO	A				Carbon Monoxide
VOC	A				Volatile Organic Compounds
SAM	A				Sulfuric Acid Mist
TRS	A				Total Reduced Sulfur
HAPs	A				Total Hazardous Air Pollutants
H001	A				Acetaldehyde
H021	B				Beryllium Compounds
H043	A				Chloroform
H095	A				Formaldehyde
H106	A				Hydrochloric Acid
H115	A				Methanol



### C. FACILITY SUPPLEMENTAL INFORMATION

#### Supplemental Requirements

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>Fig. 3-1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>Fig. 3-2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input checked="" type="checkbox"/> Attached, Document ID: <u>main text of application</u> <input type="checkbox"/> Not Applicable
7. Supplemental Requirements Comment:  <b>Area Map (Figure 3-1) and Facility Plot Plan (Figure 3-2) are provided in the main text that accompanies this application. The requested change is only an update in short-term sulfur dioxide emission rates for the Recovery Boiler – there are no modifications planned. As such, prior process flow diagrams submitted for the Recovery Boiler are still accurate. The plot plan that is included in this submittal is the same as contained in the recent permit application for replacement of the brownstock washers and installation of the oxygen delignification system. No further changes are being proposed as part of this permitting action. As such, this plot plan is still representative for the Palatka Mill.</b>

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
10. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
13. Risk Management Plan Verification: <input type="checkbox"/> 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: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input checked="" type="checkbox"/> Not Applicable
14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> 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)			
<input checked="" type="checkbox"/> 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).			
<input type="checkbox"/> 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.			
<input type="checkbox"/> 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)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> 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): <b>Recovery Boiler</b>			
4. Emissions Unit Identification Number: ID: <b>018</b>		<input type="checkbox"/> No ID <input type="checkbox"/> ID Unknown	
5. Emissions Unit Status Code: <b>A</b>	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: <b>26</b>	8. Acid Rain Unit? <input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)  <b>See main text of application.</b>			

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

**Electrostatic Precipitator (ESP)**

2. Control Device or Method Code(s): **10**

**Emissions Unit Details**

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

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

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	<b>1,278</b>	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	<b>210,000 lbs BLS/hour</b>	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	<b>24</b>	hours/day
		<b>7</b> days/week
	<b>52</b>	weeks/year
	<b>8,760</b>	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
<p><b>BLS = black liquor solids</b></p> <p><b>Maximum heat input rate = 1277.8 MMBtu/hr (rounded to 1,278) based on 210,000 lbs BLS/hour and 6,184 Btu/lb BLS; Maximum process rate = 210,000 lbs BLS/hour, averaged over a 24-hour period; Maximum daily process rate = 5,040,000 lbs BLS/day</b></p>		

**C. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**List of Applicable Regulations**

- 62-296.404(1)(a)1. Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Visible Emissions  
 62-296.404(2)(a) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Particulate Matter  
 62-296.404(3)(c)1.a. Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Total Reduced Sulfur (TRS)  
 62-296.404(3)(c)3. Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Total Reduced Sulfur (TRS)  
 62-296.404(4)(a) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Test Methods and Procedures  
 62-296.404(4)(f) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Test Methods and Procedures  
 62-296.404(5)(a) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Continuous Emissions Monitoring  
 62-296.404(5)(b) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Continuous Emissions Monitoring  
 62-296.404(6)(a) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Quarterly Reporting Requirements  
 62-296.404(6)(b) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Quarterly Reporting Requirements  
 62-296.404(6)(c)1. Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Quarterly Reporting Requirements  
 62-296.404(6)(c)4. Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Quarterly Reporting Requirements  
 62-296.404(6)(d) Kraft (Sulfate) Pulp Mills and Tall Oil Plants – Quarterly Reporting Requirements  
 62-297.310 General Compliance Test Requirements  
 62.297.401 Compliance Test Methods  
 62-297.401(1)(a) Compliance Test Methods  
 62-297.401(2) EPA Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate  
 62-297.401(3) EPA Method 3 – Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight  
 62-297.401(4) EPA Method 4 – Determination of Moisture Content in Stack Gases  
 62-297.401(5) EPA Method 5 – Determination of Particulate Emissions from Stationary Sources  
 62-297.401(7) EPA Method 7 – Determination of Nitrogen Oxide Emissions from Stationary Sources  
 62-297.401(7)(e) EPA Method 7E – Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)  
 62-297.401(8) EPA Method 8 – Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources  
 62-297.401(9)(a) EPA Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources  
 62-297.401(10) EPA Method 10 – Determination of Carbon Monoxide Emissions from Stationary Sources  
 62-297.401(16) EPA Method 16 – Semicontinuous Determination of Sulfur Emissions from Stationary Sources  
 62-297.401(16)(a) EPA Method 16A – Determination of Total Reduced Sulfur Emissions from Stationary Sources (Impinger Technique)  
 62-297.401(25) EPA Method 25 – Determination of Total Gaseous Nonmethane Organic Emissions as Carbon  
 62-297.401(25)(a) EPA Method 25A – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer  
 62-297.401(34) EPA Method 103 – Beryllium Screening Method  
 62-297.401(35) EPA Method 104 – Determination of Beryllium Emissions from Stationary Sources  
 40 CFR 63 – Subpart MM – NESHAPs for Chemical Recovery Combustion Sources, Kraft, Soda, Sulfite, and Stand Alone Semi-Chemical Pulp Mills (future regulatory requirement)

**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? <b>018</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>230</b> feet	7. Exit Diameter: <b>12</b> feet	
8. Exit Temperature: <b>425</b> °F	9. Actual Volumetric Flow Rate: <b>447,000</b> acfm	10. Water Vapor: <b>21%</b>	
11. Maximum Dry Standard Flow Rate: <b>294,000 (at 8% oxygen)</b> 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):  <b>Maximum Dry Standard Flow Rate is at 8 percent oxygen.</b>			

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

**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Recovery Furnace/Indirect Contact Evaporator</b>		
2. Source Classification Code (SCC): <b>3-07-001-10</b>		3. SCC Units: <b>Tons of Air-Dried Unbleached Pulp Produced</b>
4. Maximum Hourly Rate: <b>118</b>	5. Maximum Annual Rate: <b>675,250</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):  <b>Maximum annual rate is based on average daily rate of 1,850 ADUP tons/day (monthly average).</b>		

**Segment Description and Rate:** Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>External Combustion Boilers; Industrial: Residual Oil</b>		
2. Source Classification Code (SCC): <b>1-02-004-01</b>		3. SCC Units: <b>Thousand Gallons Burned</b>
4. Maximum Hourly Rate: <b>8.52</b>	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <b>2.35</b>	8. Maximum % Ash:	9. Million Btu per SCC Unit: <b>150</b>
10. Segment Comment (limit to 200 characters):  Residual oil may include No. 6 fuel oil and on-spec used oil. Fuel used for start-up, shutdown, and malfunction only; therefore, an annual rate is inappropriate.		



**F. EMISSIONS UNIT POLLUTANTS**  
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	010		EL
PM <sub>10</sub>	010		EL
SO <sub>2</sub>			EL
NO <sub>x</sub>			EL
CO			EL
VOC			EL
SAM			EL
TRS			EL
HAPs			NS
H001			NS
H021	010		NS
H095			NS
H106			NS
H115			NS

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Pollutants Subject to Review Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>Sulfur Dioxide</b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>439.4 (3-hour); 219.7 (24-hour) lb/hour</b>	<b>481.4 tons/year</b>	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year		
6. Emission Factor: <b>150 ppmvd (8% O<sub>2</sub> 3-hour average); 75 ppmvd (8% O<sub>2</sub> 24-hour average); 37.5 ppmvd (8% O<sub>2</sub> annual average)</b> Reference: <b>Operating Experience</b>		7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters): <b>See Attachment C to main text of application for emission calculations.</b>		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):		

**Allowable Emissions** Allowable Emissions  1  of  1

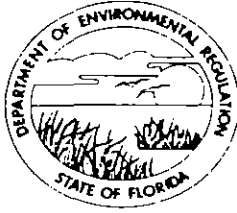
1. Basis for Allowable Emissions Code: <b>Other</b>	2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: <b>150 ppmvd (3-hour average); 75 ppmvd (24-hour average); 37.5 ppmvd (annual average) – all expressed at 8% oxygen</b>	<b>439.4 (3-hour) lb/hour</b>	<b>481.4 tons/year</b> <b>219.7 (24-hour)</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 8.</b>		
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):		

**ATTACHMENT B**  
**Permitting Documentation**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER  
SUBDISTRICT

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

G. DOUG DUTTON  
SUBDISTRICT MANAGER

June 10, 1982

Mr. Roger C. Sherwood, Technical Director  
Georgia-Pacific Corporation  
Post Office Box 919  
Palatka, Florida 32077

Dear Mr. Sherwood:

Putnam County - AP  
Georgia-Pacific Corp.  
No. 4 Recovery Boiler and SDTs

Enclosed is Permit Number A054-54072 , dated June 10, 1982 , to operate the subject pollution source, issued pursuant to Section 403.061(14), Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.201, Florida Administrative Code (see reverse side). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

If no petition is filed within the prescribed time, you will be deemed to have accepted this permit and waived your right to request an administrative hearing on this matter.

Acceptance of the permit constitutes notice and agreement that the department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement action for violation of the conditions and requirements thereof.

Sincerely,

Frank Watkins, Jr., P.E.  
Subdistrict Engineer

FW:jck

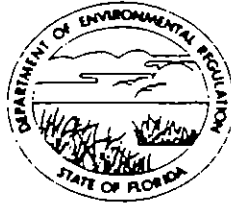
cc: Mr. David A. Buff, P.E.



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER  
SUBDISTRICT

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

G. DOUG DUTTON  
SUBDISTRICT MANAGER

APPLICANT:

Georgia-Pacific Corporation  
P.O. Box 919  
Palatka, FL 32077

PERMIT/CERTIFICATION  
NO. A054-54072

COUNTY: Putnam

PROJECT: No. 4 Recovery Boiler  
and SDTs

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2 and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

For the operation of No. 4 Recovery Boiler which is Low Odor Design with an Electrostatic Precipitator for Particulate control. Maximum Black Liquor solids input rate is 157,260 lbs/hr. Smelt Dissolving Tanks Vents are controlled by scrubbers.

Located North of S.R. 216, West of U.S. 17, North of Palatka, Putnam County, FL

UTM: E-434,000 N-3,283,400

In accordance with the application dated March 29, 1982.

Issued June 10, 1982; Expires June 10, 1987

PERMIT NO. A054-54072  
APPLICANT: Georgia-Pacific Corp.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions," and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: A054-54072 No. 4 RB and SDTs  
APPLICANT: Georgia-Pacific Corp.

**SPECIFIC CONDITIONS:**

1. Supporting documents are retained in file of office to which it was submitted and not attached as stated in the leading paragraph and General Condition No. 2. They are as follows:
  - a. Application to Operate/Construct Air Pollution Sources
  - b. March 3, 1982 test report

2. Testing of emissions must be accomplished at an input rate of at least 90% of 157,260 lbs BLS/hr to RB and 66,049 lbs smelt/hr to SDT.

3. The permitted maximum allowable emission rate for each pollutant is as follows:

<u>Pollutant</u>	<u>Emission Rate (lbs/hr)</u>	<u>Emission Rate (TPY)</u>
RB: Part	157.26	674
SO <sub>2</sub>	277.5	1189
TRS	16.0 (17.5 ppm)	69
SDT:Part	30.24	130
SO <sub>2</sub>	5.6	24

4. Test the emission for the following pollutants at intervals indicated from the date of March 15, 1982, notify us 14 days prior to testing, and submit a copy of the test report to this office within 15 days after completion of the testing:

<u>Pollutant</u>	<u>Interval</u>
RB: Part	12 mos.
TRS*	6 mos.
SDT:Part	12 mos.

\*TRS - send a copy of the continuous monitor chart covering at least 24 hrs. which also covers the entire RB particulate test period. The copy shall also be dated, show a calibration and include the chart scale.

Test and test reports shall comply with the requirements of Sections 17-2.700(6) and 17-2.700(7), Florida Administrative Code, respectively.

5. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1.



PERMIT NO.: A054-54072  
APPLICANT: Georgia-Pacific Corp.


6. Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.
7. Forms for renewal will be sent 5 months prior to June 10, 1987 and the completed forms with test results are due 90 days prior to June 10, 1987.

Expiration Date June 10, 1987

Issued this 10th day of June, 19 82

\_\_\_\_\_ Pages Attached.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

*Frank Watson*  
for 

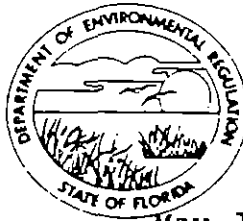
G. Doug Dutton, Signature Subdistrict Manager

PAGE 4 OF 4

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207  
904/798-4200



May 14, 1987

BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY  
ERNEST E. FREY  
DISTRICT MANAGER  
GARY L. SHAFFER  
ASSISTANT DISTRICT MANAGER

Mr. Henry Hirschman, General Manager  
Georgia-Pacific Corporation  
Post Office Box 919  
Palatka, Florida 32077

Dear Mr. Hirschman:

Putnam County - AP  
Georgia-Pacific Corporation  
Pulp and Paper  
No. 4 Recovery Boiler (RB)  
No. 4 Smelt Dissolving Tanks (SDTs)

This amendment must be attached to and shall become a part of permit No. A054-131787 for No. 4 RB and No. 4 SDTs as Specific Condition No. 13.

Specific Condition No. 13:

The No. 4 SDTs selected conceptual compliance plan<sup>1,2</sup> for complying with Florida Administrative Code (FAC) Rule 17-2.600(4) shall be implemented according to the following schedule:

- |  |          |
|--|----------|
| 1. Submit construction permit applications due             | N/A      |
| 2. Submit certification of equipment order due             | N/A      |
| 3. Submit certification of initial construction due        | N/A      |
| 4. Submit Certification of Completion of Construction due  | N/A      |
| 5. Submit list of surrogate parameters to be monitored due | 11/30/87 |
| 6. Submit certification of final compliance due            | 11/30/87 |

<sup>1</sup> In no case can the final compliance date in FAC Rule 17-2.960(1) not be complied with without a variance.

<sup>2</sup> Should it be decided later that a different means of compliance is in order, you must notify this office and the Bureau of Air Quality Management office in writing immediately. If a change is made that would result in a final compliance date that is sooner than the date in this interim operating permit, then you must meet the date for the option selected in accordance with FAC Rule 17-2.600(4).

-Attachment to be incorporated:

TRS Compliance Plan dated February 10, 1987 from W. L. Baxter

Sincerely,

*Gary Shaffer*  
Ernest E. Frey  
District Manager

EEF:jck

cc: Bruce Mitchell, BAQM, CAPS

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



**NORTHEAST DISTRICT**

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207  
904/798-4200

BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY  
ERNEST E. FREY  
DISTRICT MANAGER  
GARY L. SHAFFER  
ASSISTANT DISTRICT MANAGER

NOTICE OF PERMIT

Mr. Henry Hirschman, General Manager  
Georgia-Pacific Corporation  
Post Office Box 919  
Palatka, Florida 32077

Dear Mr. Hirschman:

Putnam County - AP  
Georgia-Pacific Corporation  
Pulp and Paper  
No. 4 Recovery Boiler & No. 4 SDTs

Enclosed is Permit Number A054-131787, dated May 14, 1987, to operate the subject air pollution source, issued pursuant to Section 403.087, Florida Statutes (F.S.).

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, F.S., to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, Florida Administrative Code (FAC), and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, F.S.. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, FAC. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Mr. Henry Hirschman  
Georgia-Pacific Corporation  
No. 4 RB and No. 4 SDTs  
Permit No. A054-131787

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

*Gary Shaffer*  
Ernest E. Frey  
District Manager

*BFM  
WPI*

*Er*

EEF:jck

Copies furnished to:

Bruce Mitchell, BAQM, CAPS

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 5/15/87 to the listed persons.

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

*[Signature]*  
Clerk 5/15/87  
Date

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207  
904/798-4200



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY  
ERNEST E. FREY  
DISTRICT MANAGER  
GARY L. SHAFFER  
ASSISTANT DISTRICT MANAGER

PERMITTEE:

Georgia-Pacific Corporation  
P.O. Box 919  
Palatka, FL 32078-0919

I.D. Number: 3LJAX54000518&19  
Permit/Certification Number: AO54-131787  
Date of Issue: May 14, 1987  
Expiration Date: June 10, 1992  
County: Putnam  
Latitude/Longitude: 29°41'00"N; 81°40'45"W  
Project: No. 4 Recovery Boiler  
No. 4 Smelt Dissolving  
Tanks  
UTM: E-(17)434.0; N-3283.4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the operation of:

No. 4 Recovery Boiler (RB) which is low odor design with an electrostatic precipitator for particulate matter emissions control; and

No. 4 Smelt Dissolving Tanks (SDTs); two tanks, each vented through a scrubber to control particulate matter emissions.

Located north of S.R. 216, west of U.S. 17, north of Palatka, Putnam County, Florida.

In accordance with:

operation permit application dated 3/29/82  
TRS addendum application dated 2/7/86  
TRS additional information received 7/14/86  
TRS additional information received 8/7/86  
permit revision request received 9/2/86  
permit revision by Order by Secretary Tschinkel dated 9/18/86  
permit revision request received 10/29/86  
permit renewal application dated 3/13/87  
additional information received 4/27/87  
additional information received 5/11/87

PERMITTEE:  
Georgia-Pacific Corporation  
No. 4 RB and SDT

Permit No.: A054-131787  
Date of Issue: May 14, 1987  
Expiration Date: June 10, 1992

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein as "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall at all times properly operate and maintain the facility and system of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

PERMITTEE:  
Georgia-Pacific Corporation  
No. 4 RB and SDT

Permit No.: A054-131787  
Date of Issue: May 14, 1987  
Expiration Date: June 10, 1992

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:
  - a. a description of and cause of noncompliance; and
  - b. the period of noncompliance, including exact dates and times; or, if not corrected the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
  - c. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes monitoring data and other information relating to the construction or operation of the permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department.
12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
13. This permit also constitutes:
  - ( ) Determination of Best Available Control Technology (BACT)
  - ( ) Determination of Prevention of Significant Deterioration (PSD)
  - ( ) Certification of Compliance with State Water Quality Standards  
(Section 401, PL 92-500)
  - ( ) Compliance with New Source Performance Standards

PERMITTEE:  
Georgia-Pacific Corporation  
No. 4 RB and SDT

Permit No.: A054-131787  
Date of Issue: May 14, 1987  
Expiration Date: June 10, 1992

14. The permittee shall comply with the following monitoring and record keeping requirements:
- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.
  - b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - the date, exact place, and time of sampling or measurements;
    - the person responsible for performing the sampling or measurements;
    - the date(s) analyses were performed;
    - the person responsible for performing the analyses;
    - the analytical techniques or methods used; and
    - the results of such analyses.
15. When requested by the Department, the permittee shall, within a reasonable period of time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.



PERMITTEE:  
 Georgia-Pacific Corporation  
 No. 4 RB and SDT

Permit No.: A054-131787  
 Date of Issue: May 14, 1987  
 Expiration Date: June 10, 1992

SPECIFIC CONDITIONS:

1. The maximum input rate (operating rate) is 189,000 lbs BLS/hr to RB and 77,280 lbs smelt/hr to SDT and shall not be exceeded without prior approval.
2. Testing of emissions must be performed at an operating rate of at least 90% of the rate in Specific Condition (SC) No.1, or SC No. 3 will become effective.
3. The operating rate shall not exceed 110% of the operating rate during the most recent test except for testing purposes, but shall not exceed the rate in SC No. 1. After testing at an operating rate greater than 110% of the last test operating rate, the operating rate shall not exceed 110% of the last (submitted) test operating rate until the test report at the higher rate has been reviewed and accepted by the Department.
4. The permitted maximum allowable emission rate for each pollutant is as follows:

<u>Pollutant</u>	<u>Rule</u>	<u>Emission Rate</u>	
		<u>lbs/hr</u>	<u>TPY</u>
From RB:			
Particulate Matter (PM)	17-2.600(4)(b)1., FAC	189.00 <sup>1</sup>	825.55
Total Reduced Sulfur (TRS)	17-2.600(4)(c)3.a.(i), FAC	21.55 <sup>2</sup>	94.12
Sulfur Dioxide (SO <sub>2</sub> )	---	314.97 <sup>3</sup>	1375.79
Visible Emissions (VE)	17-2.600(4)(a)1., FAC	45% opacity <sup>4</sup>	
VE	17-2.600(4)(a)1.a., FAC	60% opacity <sup>5</sup>	
From SDT:			
PM	17-2.610(1)(b), FAC	31.06 <sup>6</sup>	135.67
SO <sub>2</sub>	---	6.13 <sup>7</sup>	26.78
TRS (interim)	17-2.960(1)(a), FAC	342.28 <sup>8</sup>	1495.09
TRS (final)	17-2.600(4)(c)4.a., FAC	3.02 <sup>9</sup>	13.21

<sup>1</sup>Basis: 3 lbs/3000 lbs BLS; 189000 lbs BLS/hr

<sup>2</sup>Basis: 17.5 ppm (vol), dry, standard conditions, 8% O<sub>2</sub> corr.  
 as 12 hr. avg; 7.4% O<sub>2</sub>; 25% H<sub>2</sub>O(v)  
 420°F; 494141 ACFM

<sup>3</sup>Basis: 1981 model rate; ratio 189000/157260

<sup>4</sup>Basis: 6 min. avg.

<sup>5</sup>Basis: up to 60% for one 6-min. period per hr.

<sup>6</sup>Basis: P = 38.64 TPH

<sup>7</sup>Basis: 1981 model rate; ratio 77280/66049

<sup>8</sup>Basis: 811 ppm; ~~93595 ACFM; 160°F~~

<sup>9</sup>Basis: 0.0480 lb as H<sub>2</sub>S per 3000 lbs BLS; 189000 lbs BLS per hr

PERMITTEE:  
Georgia-Pacific Corporation  
No. 4 RB and SDT

Permit No.: A054-131787  
Date of Issue: May 14, 1987  
Expiration Date: June 10, 1992

5. Test the emission for the following pollutant(s) at the interval(s) indicated, notify us 14 days prior to testing, and submit the test report documentation to this office within 45 days after completion of the testing:

Pollutant                      Interval from March 15, 1987

From RB:  
    PM                      12 months  
    VE                      12 months

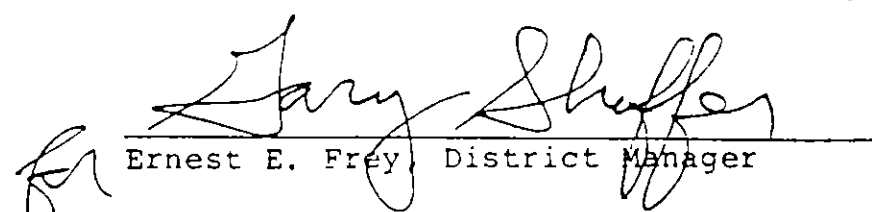
From SDT:  
    PM                      12 months

Tests and test reports shall comply with the requirements of Florida Administrative Code Rule 17-2.700(6) and (7), respectively.

6. In each test report, submit the maximum input/production rate at which this source was operated since the most recent test.
7. Recovery Boiler TRS continuous monitoring system (CMS) report shall be postmarked by the 30th day following the end of each calendar quarter and shall include the information required by Florida Administrative Code Rule 17-2.710(4).
8. SDTs record shall be maintained of operational problems with the scrubber - pressure drop, water flow rate to scrubber, and outages, and report any major emissions incident.
9. Compliance with FAC Rule 17-2.9712.(3)(b), pre-compliance monitoring, shall be accomplished by operating the scrubber in a manner to minimize TRS emissions.
10. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1.
11. Any revision(s) to a permit (and application) must be submitted and approved prior to implementing.
12. Forms for renewal will be sent 5 months prior to June 10, 1992 and the completed forms with test results are due 90 days prior to June 10, 1992.

Issued this 14 day of May, 1987

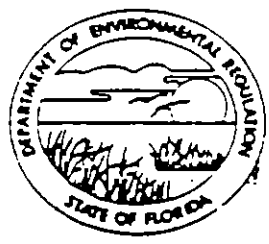
STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

  
Ernest E. Frey, District Manager

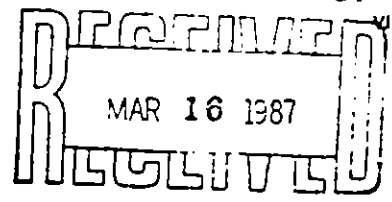
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

200 S ROAD  
JACKSONVILLE FLORIDA 32207  
355



NORTHEAST DISTRICT



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

ERNEST E. FREY  
DISTRICT MANAGER

DER-JACKSONVILLE  
APPLICATION FOR RENEWAL OF  
PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Air Pollution Renewal of DER Permit No. A054-54072

Company Name: Georgia-Pacific Corporation County: Putnam

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kila No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

No. 4 Recovery Boiler and #4 Smelt Tank Vents

Source Location: Street: Highway 216 City: Palatka

UTM: East 434.0 North 3283.4

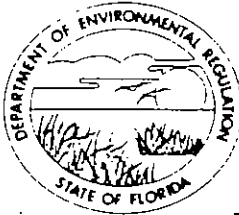
Latitude: 29° 41' 00" N. Longitude: 81° 40' 45" W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.
2. Have there been any alterations to the plant since last permitted?  Yes  No  
If minor alterations have occurred, describe on a separate sheet and attach.
3. Attach the last compliance test report required per permit conditions if not submitted previously.
4. Have previous permit conditions been adhered to?  Yes  No If no, explain on a separate sheet and attach.
5. Has there been any malfunction of the pollution control equipment during tenure of current permit?  Yes  No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department?  Yes  No
7. Has the annual operating report for the last calendar year been submitted?  Yes  No If no, please attach.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD  
JACKSONVILLE FLORIDA 32207  
904/798-4200



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY  
ERNEST E. FREY  
DISTRICT MANAGER  
GARY L. SHAFFER  
ASSISTANT DISTRICT MANAGER

May 7, 1987

Mr. Henry Hirschman, General Manager  
Georgia-Pacific Corporation  
Post Office Box 919  
Palatka, Florida 32077

Dear Mr. Hirschman:

Putnam County - AP  
Georgia-Pacific Corporation  
Pulp and Paper  
No. 4 Recovery Boiler (RB)  
No. 4 Smelt Dissolving Tank (SDT)

This amendment must be attached to and shall become a part of permit No. A054-54072 for No. 4 RB and No. 4 SDT as Specific Condition No. 14.

Specific Condition No. 14:

The No. 4 SDT selected conceptual compliance plan<sup>1,2</sup> for complying with Florida Administrative Code (FAC) Rule 17-2.600(4) shall be implemented according to the following schedule:

- |  |          |
|--|----------|
| 1. Submit construction permit applications due             | N/A      |
| 2. Submit certification of equipment order due             | N/A      |
| 3. Submit certification of initial construction due        | N/A      |
| 4. Submit Certification of Completion of Construction due  | N/A      |
| 5. Submit list of surrogate parameters to be monitored due | 11/30/87 |
| 6. Submit certification of final compliance due            | 11/30/87 |

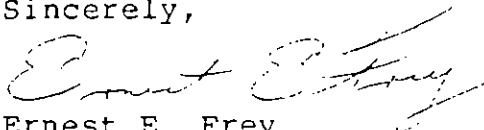
<sup>1</sup> In no case can the final compliance date in FAC Rule 17-2.960(1) not be complied with without a variance.

<sup>2</sup> Should it be decided later that a different means of compliance is in order, you must notify this office and the Bureau of Air Quality Management office in writing immediately. If a change is made that would result in a final compliance date that is sooner than the date in this interim operating permit, then you must meet the date for the option selected in accordance with FAC Rule 17-2.600(4).

Attachment to be incorporated:

TRS Compliance Plan dated February 10, 1987 from W. L. Baxter

Sincerely,

  
Ernest E. Frey  
District Manager

EEF:jck

cc: Bruce Mitchell, BAOM, CAPS  
Protecting Florida and Your Quality of Life

Table 3-4. Summary of Net Emissions Increase (Based on Future Maximum Emissions)\*

Regulated Pollutant	(A) Current Actual Emissions	(B) Future Maximum Emissions	(C) Contemporaneous Reductions <sup>b</sup>	Net Change <sup>c</sup> (B-A+C)	FSD Significant Emission Rate (TPY)
Particulate [PM(TSP)]	296.6	761.3	-	464.7	25
Particulate (PM10)	249.1	744.5	-	495.4	15
Sulfur Dioxide					
RB4	*	962.3	-971.1 <sup>c</sup>	-8.8 <sup>b</sup>	
SDT4, LK4	60.5	<u>78.1</u>	-	<u>17.6</u>	
Total		1,040.4		8.8	40
Nitrogen Oxides	826.3	1,142.7	-	516.4	40
Carbon Monoxide	2,110.1	2,277.6	-	167.5	100
Volatile Organic Compounds	246.5	316.6	-	70.1	40
Lead	0.19	0.21	-	0.02	0.6
Mercury	-	-	-	-	0.1
Beryllium	0.00012	0.00034	-	0.00022	0.0004
Fluorides	-	-	-	-	3
Sulfuric Acid Mist	12.8	14.2	-	1.4	7
Total Reduced Sulfur	17.2	151.3	-1,823.8 <sup>d</sup>	-1,689.7	10
Asbestos	-	-	-	0.0	0.007
Vinyl Chloride	-	-	-	0.0	1

Note: All figures are in tons per year (TPY).

\* For No. 4 Recovery Boiler, No. 4 Smelt Dissolving Tank, and No. 4 Lime Kiln.

<sup>b</sup> Net increase in emissions for RB4 based on old level of actual emissions and new level of allowable emissions.

<sup>c</sup> Represents old level of actual emissions from No. 4 Recovery Boiler before May 1987.

<sup>d</sup> Based on ACS4-142282; ACS4-142283; ACS4-142288; and ACS4-142291.

RB4 = No. 4 Recovery Boiler

SDT4 = No. 4 Smelt Dissolving Tank

LK4 = No. 4 Lime Kiln

FSD = prevention of significant deterioration

PM10 = Particulate matter with aerodynamic diameter of 10 µm or less

PM(TSP) = total suspended particulate matter



Georgia Pacific Corporation

RECEIVED

MAY 29 1991

Division of Air  
Resources Management

Tallahassee Division  
Southern Pulp & Paper Division  
P.O. Box 509  
Tallahassee, Florida 32308-0059  
Telephone (904) 325-2001

May 23, 1991

Certified Mail

Mr. Bruce Mitchell  
Florida Department of  
Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Mr. Mitchell:

Thank you for your efforts in regards to the draft permits concerning the #4 Recovery Boiler, #4 Smelt Dissolving Tanks, and #4 Lime Kiln. Georgia-Pacific believes that the draft permits should be modified to reflect the following two comments. The application demonstrates that we netted out of PSD for SO2 and as such the permit limit in the recovery boiler permit should be 109.9 lb/hr as requested in our application. We request that the lime kiln permit specify that the NOx and CO limits are for a 24 hour average.

If you have any questions or if I can be of further service, please call me at 904-325-2001.

Sincerely,

Vernon L. Adams  
Superintendent of  
Environmental Affairs

cc: A. Beshire  
D. Buff  
D. Hodges  
H. Hirschman  
W. R. Wilson

**ATTACHMENT C**  
**Emission Rate Calculations**

**Attachment C**  
**Emission Rate Calculations**  
**Georgia-Pacific, Palatka Operations – Recovery Boiler Sulfur Dioxide**

<b>Proposed Concentration Limits:</b>	Annual Average	37.5 ppmvd (@ 8% O <sub>2</sub> )
	24-Hour Average	75 ppmvd (@ 8% O <sub>2</sub> )
	3-Hour Average	150 ppmvd (@ 8% O <sub>2</sub> )

**Maximum Flow Rate from Boiler:** 210,000 dry standard cubic feet per minute (dscfm) at 2.8 percent oxygen (equivalent to 294,000 dscfm at 8 percent oxygen)

**Concentrations Corrected from 8 to 2.8 percent oxygen:**

$$C_{\text{Corr}} = C_{\text{Actual}} [(21-8)/(21-2.8)]$$

$$C_{\text{Corr}} = (0.714) (C_{\text{Actual}}) \text{ or } C_{\text{Actual}} = C_{\text{Corr}}/0.714 \text{ or } C_{\text{Actual}} = (1.4)(C_{\text{Corr}})$$

For 37.5 ppm (@ 8% O<sub>2</sub>):  $C_{\text{Actual}} = (1.4)(37.5) = 52.5 \text{ ppmvd (@ 2.8\% O}_2\text{)}$

For 75 ppm (@ 8% O<sub>2</sub>):  $C_{\text{Actual}} = (1.4)(75) = 105 \text{ ppmvd (@ 2.8\% O}_2\text{)}$

For 150 ppm (@ 8% O<sub>2</sub>):  $C_{\text{Actual}} = (1.4)(150) = 210 \text{ ppmvd (@ 2.8\% O}_2\text{)}$

**Sulfur Dioxide Emission Rate Calculations:**

$$\text{Rate} = 2.116.8 \text{ lb/ft}^3 \times 210,000 \text{ dscf/min} \times C_{\text{Actual}}/10^6 \times 64 \text{ lbs/lb-mole} \times \text{°R} / 1.545 \text{ ft-lb} \times 1.528 \text{ °R} \times 60 \text{ mins/hour}$$

For 37.5 ppm (annual average), Rate = 109.9 lbs/hour x 8760 hours/year x ton/2000 lbs = 481.4 tpy

For 75 ppm (24-hour average), Rate = 219.7 lbs/hour

For 150 ppm (3-hour average), Rate = 439.4 lbs/hour



**ATTACHMENT D**  
**Air Quality Analysis**

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603



January 26, 2004

023-7552

Florida Department of Environmental Protection  
Northeast District  
7825 Baymeadows Way, Suite B200  
Jacksonville, FL 32256-7590

Attention: Mr. Chris Kirts, P.E., Air Program Administrator

RE: GEORGIA-PACIFIC CORPORATION, PALATKA MILL  
REVISION OF RECOVERY BOILER SHORT-TERM SO<sub>2</sub> LIMITS  
SO<sub>2</sub> AIR QUALITY IMPACT ANALYSES FOR NO. 4 RECOVERY BOILER

Dear Mr. Kirts:

The purpose of this correspondence is to present Georgia-Pacific Corporation's (G-P's) air quality impact analyses related to the above referenced for revision of the short-term sulfur dioxide (SO<sub>2</sub>) emissions limits for the No. 4 Recovery Boiler located at the Palatka Mill. These analyses were conducted to determine the maximum sulfur dioxide (SO<sub>2</sub>) impacts due to the proposed increases in SO<sub>2</sub> emissions from the No. 4 Recovery Boiler at the Palatka Mill. The SO<sub>2</sub> emission increases are proposed for the 3-hour and 24-hour averaging periods only; the annual emissions will remain the same. As a result, the SO<sub>2</sub> impact analyses were performed for the 3-hour and 24-hour averaging periods only.

A prevention of significant deterioration (PSD) Class II significant impact analysis was performed to determine the maximum SO<sub>2</sub> impacts due to the increase in emissions within the near-field vicinity of the Palatka Mill. The project's impacts were compared to EPA's PSD Class II significant impact levels of 25 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and 5  $\mu\text{g}/\text{m}^3$  for the 3-hour and 24-hour averaging periods, respectively. If the project's maximum SO<sub>2</sub> impacts are not predicted to be greater than the significant impact levels in the vicinity of the Mill, then more detailed analyses to address compliance with ambient air quality standards (AAQS) and PSD Class II allowable increments are not required.

The G-P Palatka Mill is located within 200 km of three PSD Class I areas: the Okefenokee National Wilderness Area (NWA), the Wolf Island NWA, and the Chassahowitzka NWA. Since the Mill is located within 200 km of PSD Class I areas, a PSD Class I significant impact analysis was performed for the PSD Class I areas. EPA has proposed PSD Class I significant impact levels of 1.0 and 0.2  $\mu\text{g}/\text{m}^3$  for the 3-hour and 24-hour averaging periods, respectively. Since Okefenokee NWA and Wolf Island NWA are both north of the G-P Palatka site, and Okefenokee NWA is the closer of these two PSD Class I areas, only impacts at Okefenokee NWA were evaluated. Similar to the PSD Class II significant impact analysis, if the project's maximum SO<sub>2</sub> impacts are predicted to be less than the PSD Class I significant impact levels, then more detailed analyses to address compliance with the PSD Class I allowable increments are not required.

The following sections present a summary of the air modeling assumptions, methods, and results used in the air quality impact analyses.

### **Emission Inventory**

The maximum SO<sub>2</sub> emission increases for the No. 4 Recovery Boiler are summarized in Table 1. The stack and operating parameters and stack location for this source are presented in Table 2.

### **Building Downwash Effects**

Based on the building dimensions associated with buildings and structures at the plant, the stack for the No. 4 Recovery Boiler will comply with the good engineering practice (GEP) stack height regulations. However, this stack is less than GEP height. Therefore, the potential for building downwash to occur was considered in the air modeling analysis for this stack.

The building dimensions considered in the air modeling analysis for the G-P Palatka Mill are presented in Table 3. All direction-specific building parameters were calculated with the Building Profile Input Program (BPIP), Version 95086. The BPIP program was used to generate building data for the ISCST3 model and CALPUFF model input.

### **Model Selection**

The selection of an air quality models to determine air quality impacts for the G-P project was based on its applicability to simulate impacts in areas surrounding the project, as well as at the PSD Class I areas of the Okefenokee and Chassahowitzka NWAs. Two air quality dispersion models were selected and used in these analyses to address air quality impacts for the project. These models were:

- The Industrial Source Complex Short-Term (ISCST3) model, and
- The California Puff model (CALPUFF).

It should be noted that these models, including model assumptions, meteorological data, and receptor grids, were also used in a recent application submitted by G-P for addressing compliance with the Maximum Achievable Control Technology (MACT) regulations for the Brown Stock Washer And Oxygen Delignification System (November 2003), as well as other recent modeling analysis for the G-P Mill.

The ISCST3 dispersion model (Version 02035) was used to evaluate all pollutant impacts within 50 km of the G-P Mill. This model is currently available on the EPA's Internet web site, Support Center for Regulatory Air Models (SCRAM), within the Technical Transfer Network (TTN). The ISCST3 model is designed to calculate hourly concentrations based on hourly meteorological data (i.e., wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The ISCST3 model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. These areas are referred to as simple terrain. Since the terrain surrounding the G-P Palatka Mill is essentially flat, the modeling analysis assumed that all receptors were at the base elevation of the facility (i.e., flat terrain assumption in ISCST3).

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The ISCST3 model can run in the rural or urban land use mode, which affects stability dispersion coefficients, wind speed profiles, and mixing heights. Land use can be characterized based on a scheme recommended by EPA (Auer, 1978). If more than 50 percent of the land use within a 3-km radius circle around a facility is classified as industrial or commercial, or high-density residential, then the urban option should be selected. Otherwise, the rural option is appropriate.

Based on reviews of aerial and U.S. Geological Survey (USGS) topographical maps and a site visit, the land use within a 3-km (1.9-mile) radius of the G-P Palatka Mill site is considered to be rural (i.e., very little heavy industrial, light-moderate industrial, commercial, or compact residential land use). Therefore, the rural mode was used in the air dispersion model to predict impacts from the G-P Palatka Mill.

For predicting maximum impacts at the Class I areas, which are located more than 50 km from the G-P Mill, the CALPUFF modeling system (Version 5.7) was used. The CALPUFF model is a Lagrangian puff model that is recommended by the FDEP and the FLM to address impacts at receptors located more than 50 km from a source. This model is also available on the EPA's SCRAM web site, within the TTN.

Currently, there are several air quality modeling approaches recommended by the Interagency Workgroup on Air Quality Models (IWAQM) to perform these analyses. The IWAQM consists of EPA and Federal Land Managers (FLM) of Class I areas that are responsible for ensuring that AQRVs are not adversely impacted by new and existing sources. These recommendations have been summarized in two documents:

- *Interagency Workgroup on Air Quality Models (IWAQM). Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts* (EPA, 1998), referred to as the IWAQM Phase 2 report.
- *Federal Land Managers' Air Quality Related Values Workgroup (FLAG). Phase I Report*, USFS, NPS, USFWS (December, 2000), referred to as the FLAG document.

The methods and assumptions used in the CALPUFF model were based on the latest recommendations for a refined analysis as presented in the IWAQM Phase 2 Summary Report and the FLAG document.

#### **Meteorological Data**

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations located at the Jacksonville International Airport and Waycross, Georgia, respectively. Concentrations were predicted using the five-year period, 1984 through 1988. These data have been approved by FDEP for modeling applications in the Putnam County area. The NWS station at Jacksonville is located approximately 91 km (56 miles) north of the site and is the closest primary weather station to the study area considered to have meteorological data representative of the project site. The meteorological data from this station have been used for previous air modeling studies for the G-P Palatka Mill.

Meteorological data used in the CALPUFF model were developed for two wind field domains to cover the two PSD Class I areas. Surface, upper air, and precipitation data were processed for 1990, 1992, and 1996 based on data availability and recommendations from the FLM. In addition, the analysis used the Mesoscale Model- Generations 4 and 5 (MM4 and MM5) data to initialize the CALMET wind field. The MM4 and MM5 data are developed from a prognostic meteorological field or "guess" field for the United States and contain estimated hourly meteorological variables, such as wind, temperature, dew point depression, and geopotential height for eight standard levels and up to 15 significant levels. The MM4 and MM5 data available for 1990 and 1992, respectively, have a horizontal spacing of 80 km and are used to simulate atmospheric variables within the modeling domain. The MM5 data are also available for 1996 and have a horizontal spacing of 36 km.

For the Okefenokee NWA, a rectangular modeling domain extending 316 km in the east-west direction and 412 km in the north-south direction was used for the refined modeling analysis. The southwest corner of the domain is the origin and is located at 29.25 degrees north latitude and 84.0 degrees west longitude (east and north UTM coordinates of 208.0 and 3239.0 km, respectively, zone 17). This location is in the Gulf of Mexico approximately 110 km west of Cedar Key, Florida. For the processing of meteorological and geophysical data, the domain contains 80 grid cells in the x-direction and 104 grid cells in the y-direction. The domain grid resolution is 4 km. The air modeling analysis was performed in the UTM coordinate system.

A summary of the surface and upper air stations and their locations used for this modeling domain is presented in Table 4. The stations for which precipitation data were used are presented in Table 5.

For the Chassahowitzka NWA, a rectangular modeling domain extending 348 km in the east-west direction and 372 km in the north-south direction was used for the refined modeling analysis. The southwest corner of the domain is the origin and is located at 27 degrees north latitude and 83.5 degrees west longitude (east and north UTM coordinates of 270.0 and 2990.0 km, respectively, zone 17). This location is in the Gulf of Mexico approximately 110 km west of Venice, Florida. For the processing of meteorological and geophysical data, the domain contains 88 grid cells in the x-direction and 94 grid cells in the y-direction. The domain grid resolution is 4 km. The air modeling analysis was performed in the UTM coordinate system.

A summary of the surface and upper air stations and their locations used for this modeling domain is presented in Table 6. The stations for which precipitation data were used are presented in Table 7.

Terrain elevations for each grid cell of the modeling domain were obtained from 1-degree Digital Elevation Model (DEM) files obtained from the U.S. Geographical Survey (USGS) Internet website.

#### **Receptor Locations**

For predicting maximum concentrations due to the project only in the vicinity of the G-P Palatka Mill, a total of 683 receptors were located in a general polar grid that extended out to a distance of 7 km from the Mill. Receptors were located along 36 radials spaced at 10-degree intervals. Along each radial, receptors were located at varying distances up to 7 km from the old TRS Incinerator stack location, which is the origin (i.e., 0, 0) for the air modeling analysis.

A number of discrete polar receptors were also utilized in the modeling, including 334 receptors located along the property line of the G-P Palatka Mill. A summary of the boundary receptors at the G-P Palatka Mill is presented in Table 8.

Modeling refinements were performed as needed. At a distance of less than 575 m, the angular distance between receptors is 100 m or less and additional refinements may not be performed. At distances of 600 m and beyond, modeling refinements were performed by employing an angular spacing between radials of 2 to 3 degrees and a spacing interval along radials of 100 m.

SO<sub>2</sub> concentrations were also predicted at 161 discrete receptors located in the Okefenokee NWA Class I area and 13 discrete receptors located in the Chassahowitzka NWA Class I area.

## Model Results

### Significant Impact Analysis in Mill Vicinity

The maximum increases in SO<sub>2</sub> concentrations predicted for the No. 4 Recovery Boiler in the screening and refined analyses are presented in Table 9. As shown in Table 9, the maximum 3-hour and 24-hour average SO<sub>2</sub> impacts due to the increase in emissions from No. 4 Recovery Boiler are predicted to be less than the PSD Class II significant impact levels.

Based on these results, further air modeling analyses are not required to demonstrate compliance with the SO<sub>2</sub> AAQS and PSD Class II increments.

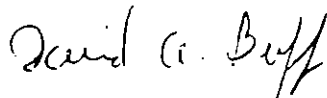
### PSD Class I Areas

The maximum increases in SO<sub>2</sub> concentrations predicted for the No. 4 Recovery Boiler at the Okefenokee NWA and Chassahowitzka NWA are presented in Table 10. As shown in this table, the maximum 3-hour and 24-hour average SO<sub>2</sub> impacts due to the increase in emissions from the No. 4 Recovery Boiler are predicted to be less than the proposed PSD Class I significant impact levels for all averaging periods at these PSD Class I areas. Since the maximum impacts predicted for the boiler at Okefenokee NWA were less than the proposed significant impact levels, impacts at Wolf Island NWA were also assumed to be insignificant. As a result, a full PSD Class I increment analysis is not required for this project. Therefore, the project's impacts will comply with the SO<sub>2</sub> PSD Class I allowable increments.

Please call me at (352) 336-5600 if you have any questions concerning this report.

Sincerely yours,

GOLDER ASSOCIATES, INC.



David A. Buff, P.E., Q.E.P.  
Principal Engineer  
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DB/jej

Enclosures

cc: M. Carpenter, G-P  
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Table 1. Current and Proposed SO<sub>2</sub> Emissions for the No. 4 Recovery Boiler. Georgia-Pacific Corporation, Palatka Mill

Emission Unit	Unit ID	Averaging Period	SO <sub>2</sub> Emissions					
			Current		Future		Change	
			(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)
No. 4 Recovery Boiler	RB4	3-Hour	109.8	33.5	439.4	133.9	329.6	100.5
		24-Hour	109.8	33.5	219.7	67.0	109.9	33.5

Table 2. Stack and Operating Parameters and Locations for No. 4 Recovery Boiler Used in the Modeling Analysis for Georgia-Pacific Corporation, Palatka Mill

Emission Unit	Unit ID	Relative Location <sup>a</sup>				Stack Parameters				Operating Parameters				
		X		Y		Height		Diameter		Temperature		Flow Rate	Velocity	
		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(°F)	(K)	(acfm)	(ft/s)	(m/s)
No. 4 Recovery Boiler	RB4	-630	-192	300	91	230	70.1	12.00	3.66	425	491	447,000	65.9	20.08

<sup>a</sup> Relative to old IRS Incinerator stack location and true north



Table 3. Structure Dimensions Used in the Modeling Analysis, Georgia-Pacific, Palatka

Structure	Height		Length		Width	
	(ft)	(m)	(ft)	(m)	(ft)	(m)
RB4 Precipitator	85	25.9	130	39.6	59	18.0
RB4 Boiler Building	193.7	59.0	104	31.7	90	27.4
Power Plant Building	107.6	32.8	92	28.0	92	28.0
Pulp Dryer No. 3	84.5	25.8	263	80.2	147	44.8
Pulp Dryer No. 5	70.5	21.5	306	93.3	95	29.0
Pulp Dryer No. 4	73	22.3	242	73.8	127	38.7
Warehouse Complex 1	62.67	19.1	1,382	421.2	411	125.3
Warehouse Complex 2	46.8	14.3	852	259.7	370	112.8
Nos. 1 and 2 Machines, Storage	71.16	21.7	232	70.7	412	125.6
Kraft Converting and Storing	60.75	18.5	264	80.5	516	157.3
Kraft Warehouse and Multi-Wall	56.7	17.3	274	83.5	507	154.5
Digester	62.2	19.0	264	80.5	32	9.8

Table 4. Surface and Upper Air Stations Used in the CALPUFF Analysis. Okefenokee NWA PSD Class I Area

Station Name	Station Symbol	WBAN Number	UTM Coordinates			Anemometer Height (m)
			Easting (km)	Northing (km)	Zone	
<b>Surface Stations</b>						
Tampa, FL	TPA	12842	349.17	3094.25	17	6.7
Jacksonville, FL	JAX	13889	432.82	3374.19	17	6.1
Daytona Beach, FL	DAB	12834	495.14	3228.09	17	9.1
Tallahassee, FL	TLH	93805	173.04 <sup>1</sup>	3363.99	16	7.6
Columbus, GA	COL	93842	112.57 <sup>1</sup>	3599.35	16	9.1
Macon, GA	MCN	3813	251.58	3620.93	17	7.0
Savannah, GA	SAV	3822	481.13	3555.03	17	9.1
Gainesville, FL	GNV	12816	377.43	3284.16	17	6.7
Augusta, GA	AGS	3820	410.25	3692.49	17	6.1
Athens, GA	AHN	13873	284.98	3758.67	17	7.6
Atlanta, GA	ATL	13874	158.65 <sup>1</sup>	3725.04	16	6.1
<b>Sea Surface Stations</b>						
NOAA Buoy 41008	41008	-	490.42	3396.12	17	4.0
Folly Island (SC) C-Man	FBIS1	-	603.15	3618.33	17	6.7
Savannah Light (GA) C-Man	SVLS1	-	528.37	3540.27	17	10.0
<b>Upper Air Stations</b>						
Ruskin, FL	TBW	12842	361.95	3064.55	17	NA
Waycross, GA	AYS	13861	366.68	3457.95	17	NA
Athens, GA	AHN	13873	285.91	3758.83	17	NA
Charleston, SC	CHS	13880	590.42	3640.42	17	NA
Apalachicola, FL	AQQ	12832	110.22 <sup>1</sup>	3290.65	16	NA
Tallahassee, FL	TLH	93805	173.04 <sup>2</sup>	3363.99	17	NA
Jacksonville, FL	JAX	13889	459.61	3351.92	17	NA
Peachtree, GA	FFC	53819	188.65 <sup>2</sup>	3679.35	16	na

<sup>1</sup> Equivalent coordinate for Zone 17.

Table 5. Hourly Precipitation Stations Used in the CALPUFF Analysis, Okefenokee NWA  
PSD Class I Area

Station Name	Station Number	UTM Coordinate		
		Easting (km)	Northing (km)	Zone
<b>Florida</b>				
Branford	80975	315.61	3315.96	17
Bristol	81020	113.72 <sup>a</sup>	3366.47	16
Brooksville 7 SSW	81048	358.03	3149.55	17
Cross city 2 WNW	82008	290.27	3281.75	17
Daytona Beach WSO AP	82158	495.14	3228.09	17
Deland 1 SSE	82229	470.78	3209.66	17
Dowling Park 1 W	82391	283.51	3348.42	17
Gainesville 11 WNW	83322	354.85	3284.43	17
Inglis 3 E	84273	342.63	3211.65	17
Jacksonville WSO AP	84358	434.27	3372.40	17
Lakeland	84797	409.87	3099.18	17
Lisbon	85076	423.59	3193.26	17
Lynne	85237	409.26	3230.30	17
Marineland	85391	479.19	3282.03	17
Melbourne WSO	85612	534.38	3109.97	17
Monticello 3 W	85879	220.17	3381.29	17
Orlando WSO McCoy	86628	468.99	3146.88	17
Panacea 3 s	86828	172.45 <sup>a</sup>	3319.61	16
Raiford State Prison	87440	385.93	3326.55	17
Saint Leo	87851	376.48	3135.09	17
Tallahassee WSO AP	88758	173.04 <sup>a</sup>	3363.99	16
Woodruff Dam	89795	124.29 <sup>a</sup>	3399.94	16
<b>Georgia</b>				
Abbeville 4 S	90010	281.84	3535.69	17
Bainbridge Intl Paper Co	90586	144.85 <sup>a</sup>	3409.59	16
Brunswick	91340	452.34	3447.98	17
Coolidge	92238	226.34	3434.77	17
Doles	92728	226.73	3510.59	17
Edison	93028	135.13 <sup>a</sup>	3494.43	16
Fargo	93312	349.92	3395.35	17
Folkston 3 SW	93460	401.13	3407.69	17
Hazlehurst	94204	348.49	3526.08	17
Jesup	94671	416.21	3498.08	17
Pearson	96879	325.50	3464.09	17
Richmond Hill	97468	468.92	3535.69	17
Valdosta 4 NW	98974	276.90	3416.95	17
Claxton	91973	415.05	3559.19	17
Dublin 2	92844	321.61	3603.71	17
Lizella	95249	235.94	3633.39	17
Macon Middle Ga Regional	95443	251.13	3619.58	17
Savannah WSO Airport	97847	480.92	3553.43	17
Sylvania 2 SSE	98517	442.11	3621.57	17

<sup>a</sup> Equivalent coordinate for Zone 17.

Table 6. Surface and Upper Air Stations Used in the CALPUFF Analysis, Chassahowitzka NWA PSD Class I Area

Station Name	Station Symbol	WBAN Number	UTM Coordinates			Anemometer Height (m)
			Easting (km)	Northing (km)	Zone	
<b><u>Surface Stations</u></b>						
Tampa	TPA	12842	349.20	3094.25	17	6.7
Daytona Beach	DAB	12834	495.14	3228.05	17	9.1
Orlando	ORL	12815	468.96	3146.88	17	10.1
Gainesville	GNV	12816	377.40	3284.12	17	6.7
Vero Beach	VER	12843	557.52	3058.36	17	6.7
Fort Myers	FMY	12835	413.65	2940.38	17	6.1
Venice Sea Surface	VENF1	--	356.2 <sup>a</sup>	2994.8 <sup>a</sup>	17	6.1
<b><u>Upper Air Stations</u></b>						
Ruskin	TBW	12842	349.20	3094.28	17	NA
West Palm Beach	PBI	12844	587.87	2951.42	17	NA
Apalachicola	AQQ	12832	110.00 <sup>a</sup>	3296.00	16	NA
Tallahassee	TLH	93805	173.04 <sup>a</sup>	3363.99	17	NA
Jacksonville	JAX	13809	459.61	3351.92	17	NA
Ft. Lauderdale	MFL	92803	562.18	2847.98	17	NA

<sup>a</sup> Equivalent coordinate for Zone 17; Zone 16 coordinate is 690.22 km.

Table 7. Hourly Precipitation Stations Used in the CALPUFF Analysis, Chassahowitzka NWA  
PSD Class I Area

Station Name	Station Number	UTM Coordinate		Zone
		Easting (km)	Northing (km)	
Belle Glade Hrcn Gt 4	80616	528.190	2953.034	17
Branford	80975	315.606	3315.955	17
Brooksville 7 SSW	81048	358.029	3149.545	17
Canal Point Gate 5	81271	536.428	2971.514	17
Daytona Beach WSO AP	82158	494.165	3227.413	17
Deland 1 SSE	82229	470.780	3209.660	17
Fort Myers FAA/AP	83186	413.992	2940.710	17
Gamesville 11 WNW	83322	355.411	3284.205	17
Inglis 3 E	84273	342.631	3211.652	17
Lakeland	84797	409.871	3099.178	17
Lisbon	85076	423.594	3193.256	17
Lynne	85237	409.255	3230.295	17
Marneland	85391	479.193	3282.030	17
Melbourne WSO	85612	534.381	3109.967	17
Moore Haven Lock 1	85895	491.608	2967.803	17
Orlando Wso Mccoy	86628	468.169	3145.102	17
Ortona Lock 2	86657	470.174	2962.267	17
Parrish	86880	366.986	3054.394	17
Port Mayaca S L Canal	87293	538.044	2984.440	17
Saint Leo	87851	376.483	3135.086	17
St Lucie New Lock 1	87859	571.042	2999.353	17
St Petersburg	87886	339.608	3071.991	17
Tampa Wscmo AP	88788	348.478	3093.670	17
Venice	89176	357.593	2998.178	17
Venus	89184	467.266	3001.224	17
Vero Beach 4 W	89219	554.268	3056.498	17
West Palm Beach Int AP	89525	589.611	2951.627	17

Table 8 Property Boundary Receptors Used in the Modeling Analysis, Georgia-Pacific, Palatka

Coordinates (m)		Coordinates (m)		Coordinates (m)		Coordinates (m)		Coordinates (m)		Coordinates (m)		Coordinates (m)		Coordinates (m)	
X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
-311.0	-1781.0	-3231.4	-279.6	-4162.2	2413.6	-3944.5	3977.0	-1217.8	4808.0	1914.3	4492.0	1574.6	2851.9	1248.5	842.0
-402.0	-1739.6	-3331.4	-276.3	-4168.3	2513.4	-4044.5	3977.0	-1117.8	4808.6	1911.6	4392.0	1527.7	2763.6	1348.5	842.0
-493.1	-1698.2	-3431.3	-273.0	-4174.5	2613.3	-4144.5	3977.0	-1017.8	4809.3	1908.9	4292.0	1480.8	2675.3	1448.5	842.0
-584.1	-1656.9	-3531.3	-269.7	-4180.6	2713.1	-4185.0	4036.5	-917.8	4809.9	1906.3	4192.1	1433.9	2587.0	1548.5	842.0
-675.1	-1615.5	-3631.2	-266.4	-4186.8	2812.9	-4185.0	4136.5	-817.8	4810.5	1903.6	4092.1	1341.7	2574.0	1648.5	842.0
-766.2	-1574.1	-3731.1	-263.1	-4193.0	2912.7	-4185.0	4236.5	-717.8	4811.2	1826.1	4069.0	1241.7	2574.0	1740.2	832.5
-857.2	-1532.7	-3831.1	-259.8	-4199.1	3012.5	-4161.5	4313.4	-617.8	4811.8	1739.0	4081.9	1141.7	2574.0	1737.6	740.0
-948.3	-1491.3	-3931.0	-256.5	-4205.3	3112.3	-4061.5	4315.0	-517.8	4812.5	1739.0	4181.9	1116.1	2482.6	1657.5	680.0
-1039.3	-1450.0	-3894.6	-190.3	-4211.4	3212.1	-3961.5	4316.6	-417.8	4813.1	1739.0	4281.9	1095.9	2384.7	1577.5	620.1
-1130.3	-1408.6	-3832.3	-112.1	-4217.6	3311.9	-3861.6	4318.3	-317.8	4813.7	1739.0	4381.9	1075.6	2286.8	1497.4	560.2
-1221.4	-1367.2	-3769.9	-33.9	-4176.6	3360.5	-3761.6	4319.9	-217.8	4814.4	1739.0	4481.9	1055.4	2188.8	1417.4	500.2
-1312.4	-1325.8	-3707.6	44.3	-4077.7	3346.0	-3661.6	4321.5	-117.8	4815.0	1739.0	4581.9	1035.1	2090.9	1337.3	440.3
-1403.4	-1284.4	-3651.2	125.9	-3978.8	3331.6	-3561.6	4323.2	-17.9	4815.7	1739.0	4681.9	1033.7	2027.3	1257.3	380.4
-1494.5	-1243.1	-3613.9	218.7	-3879.8	3317.1	-3461.6	4324.8	82.1	4816.3	1642.1	4685.0	1105.3	2097.0	1177.2	320.4
-1585.5	-1201.7	-3576.7	311.5	-3780.9	3302.6	-3361.6	4326.4	182.1	4816.9	1542.1	4685.0	1177.0	2166.7	1097.2	260.5
-1676.5	-1160.3	-3562.9	403.3	-3681.9	3288.1	-3261.6	4328.1	282.1	4817.6	1442.1	4685.0	1248.7	2236.4	1017.1	200.6
-1767.6	-1118.9	-3608.6	492.2	-3583.0	3273.7	-3161.6	4329.7	382.1	4818.2	1410.0	4624.5	1320.4	2306.2	937.1	140.6
-1858.6	-1077.5	-3654.2	581.2	-3484.0	3259.2	-3087.4	4349.2	482.1	4818.9	1421.4	4525.2	1392.1	2375.9	857.0	80.7
-1949.7	-1036.2	-3732.9	616.0	-3385.1	3244.7	-3120.8	4443.5	582.1	4819.5	1432.8	4425.8	1466.0	2440.6	777.0	20.7
-2040.7	-994.8	-3832.9	616.0	-3286.1	3230.2	-3154.1	4537.8	682.1	4820.1	1444.3	4326.5	1565.7	2448.5	696.9	-39.2
-2131.7	-953.4	-3924.1	634.0	-3187.2	3215.8	-3187.4	4632.1	782.1	4820.8	1455.7	4227.1	1615.7	2396.7	616.9	-99.1
-2222.8	-912.0	-3985.8	712.8	-3088.2	3201.3	-3220.7	4726.4	882.1	4821.4	1467.2	4127.8	1625.9	2297.2	536.8	-159.1
-2313.8	-870.6	-4039.0	789.7	-2989.3	3186.8	-3217.8	4795.2	982.1	4822.1	1478.6	4028.4	1636.0	2197.8	456.8	-219.0
-2404.8	-829.3	-3951.2	837.5	-2890.3	3172.3	-3117.8	4795.8	1082.1	4822.7	1490.0	3929.1	1646.2	2098.3	376.7	-278.9
-2495.9	-787.9	-3863.4	885.4	-2806.0	3174.8	-3017.8	4796.5	1182.1	4823.3	1551.6	3886.0	1656.4	1998.8	296.7	-338.9
-2586.9	-746.5	-3831.0	966.1	-2806.0	3274.8	-2917.8	4797.1	1282.1	4824.0	1651.6	3886.0	1666.6	1899.3	216.6	-398.8
-2678.0	-705.1	-3831.0	1066.1	-2806.0	3374.8	-2817.8	4797.7	1382.1	4824.6	1751.6	3886.0	1676.8	1799.8	169.7	-483.4
-2769.0	-663.7	-3899.1	1098.0	-2806.0	3474.8	-2717.8	4798.4	1482.1	4825.3	1851.6	3886.0	1687.0	1700.4	134.9	-577.2
-2860.0	-622.4	-3999.1	1098.0	-2806.0	3574.8	-2617.8	4799.0	1582.1	4825.9	1951.6	3886.0	1625.4	1642.7	100.2	-671.0
-2940.6	-573.9	-4082.1	1116.1	-2806.0	3674.8	-2517.8	4799.7	1682.1	4826.5	2051.6	3886.0	1537.4	1600.6	65.5	-764.7
-2945.1	-474.0	-4088.3	1215.9	-2806.0	3774.8	-2417.8	4800.3	1782.1	4827.2	2076.0	3837.1	1549.7	1501.3	30.7	-858.5
-2949.7	-374.1	-4094.4	1315.7	-2860.4	3831.0	-2317.8	4800.9	1882.1	4827.8	2034.9	3745.9	1562.0	1402.1	-4.0	-952.3
-2954.3	-274.2	-4100.6	1415.5	-2958.1	3852.7	-2217.8	4801.6	1982.1	4828.5	1993.9	3654.8	1617.3	1369.0	-38.8	-1046.1
-2958.8	-174.3	-4106.8	1515.3	-3055.7	3874.3	-2117.8	4802.2	2082.1	4829.1	1952.8	3563.6	1696.5	1367.8	-73.5	-1139.8
-2963.4	-74.4	-4112.9	1615.2	-3153.4	3895.9	-2017.8	4802.9	2182.1	4829.7	1911.7	3472.4	1723.6	1271.6	-108.2	-1233.6
-2968.0	25.5	-4119.1	1715.0	-3251.0	3917.5	-1917.8	4803.5	2282.1	4830.4	1940.0	3383.5	1611.3	1229.4	-143.0	-1327.4
-3004.4	92.0	-4125.2	1814.8	-3348.6	3939.1	-1817.8	4804.1	2376.0	4830.1	1924.8	3291.7	1548.4	1192.5	-177.7	-1421.1
-3104.4	92.0	-4131.4	1914.6	-3446.3	3960.7	-1717.8	4804.8	2280.4	4801.0	1875.8	3209.6	1457.8	1152.2	-212.4	-1514.9
-3190.0	77.6	-4137.5	2014.4	-3544.5	3977.0	-1617.8	4805.4	2184.7	4771.8	1787.8	3162.1	1389.9	1078.8	-247.2	-1608.7
-3190.0	-22.4	-4143.7	2114.2	-3644.5	3977.0	-1517.8	4806.1	2107.3	4712.3	1699.8	3114.6	1322.0	1005.4	-281.9	-1702.5
-3190.0	-122.4	-4149.9	2214.0	-3744.5	3977.0	-1417.8	4806.7	2036.6	4641.6	1654.9	3033.7	1254.1	931.9		
-3190.0	-222.4	-4156.0	2313.8	-3844.5	3977.0	-1317.8	4807.3	1965.9	4570.9	1621.5	2940.2	1186.2	858.5		

Note: All coordinates are relative to old TRS incinerator stack location

Table 9. Maximum Change in SO<sub>2</sub> Concentrations Predicted for No. 4 Recovery Boiler  
Significant Impact Analysis-Screening and Refined Analyses

Averaging Time	Concentration <sup>a</sup> (µg/m <sup>3</sup> )	Receptor Location <sup>b</sup>		Time Period (YYMMDDHH)	EPA Significant Impact Level (µg/m <sup>3</sup> )
		Direction (deg)	Distance (m)		
<u>Screening Analysis</u>					
24-hour	1.84	100.0	3,000.0	84022924	5
	2.52	100.0	3,000.0	85021224	
	1.75	262.8	2,973.3	86082524	
	1.75	252.5	2,617.3	87071724	
	1.85	36.7	2,739.9	88050424	
3-hour	21.8	90.0	2,000.0	84022815	25
	17.9	100.0	3,000.0	85021206	
	20.5	80.0	1,500.0	86060812	
	19.7	253.9	2,692.5	87071712	
	18.2	262.8	2,973.3	88042012	
<u>Refined Analysis</u>					
24-hour	2.53	101.0	3,000.0	85021224	5
3-hour	22.0	89.0	1,700.0	84022815	25
	20.8	79.0	1,600.0	86060812	

Note. YY = Year, MM = Month, DD = Day, HH = Hour

<sup>a</sup> Concentrations are based on highest concentrations predicted using five years of surface and upper air from the National Weather Service stations at Jacksonville and Waycross, respectively

No. 4 Recovery Boiler SO<sub>2</sub> emissions:

Future	439.4 lb/hr. 3-hour
	219.7 lb/hr. 24-hour
Existing	109.8 lb/hr

<sup>b</sup> Coordinates are relative to old TRS incinerator stack location

Table 10. Maximum Change in SO<sub>2</sub> Concentrations Predicted for No. 4 Recovery Boiler  
PSD Class I Significant Impact Analysis at the Okefenokee NWA

Averaging Time	Concentration <sup>a</sup> (µg/m <sup>3</sup> )	Receptor UTM Location (km)		Time Period (Year, Julian Day, Ending Hour)			Proposed EPA Class I Significant Impact Level (µg/m <sup>3</sup> )
		East	North	Year	Julian Day	Ending Hour	
24-hour	0.059	376.3	3381.6	1990	123	2300	0.2
	0.081	384.4	3380.0	1992	329	2300	
	0.105	360.9	3384.2	1996	88	0	
3-hour	0.71	384.4	3380.0	1990	364	800	1.0
	0.96	385.7	3379.7	1992	329	500	
	0.97	369.9	3380.5	1996	87	600	

Note: UTM = Universal Transverse Mercator.

<sup>a</sup> Based on the CALPUFF model using 1990, 1992, and 1996 surface and upper air meteorological data developed with the CALMET program. UTM coordinates relative to Zone 17.

No. 4 Recovery Boiler SO<sub>2</sub> emissions:

Future	439.4	lb/hr.	3-hour
	219.7	lb/hr.	24-hour
Existing	109.8	lb/hr.	