# APPLICATION
# FOR TITLE V PERMIT REVISION
# NO. 3 BLEACH PLANT
# GEORGIA-PACIFIC CORPORATION
# PALATKA MILL



Prepared for::

Georgia-Pacific Corporation
North of CR 216; West of US 17
Palatka, Florida 32177

Prepared By:

Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

August 2001
0037601Y/F2

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2 Copies - Golder Associates Inc.

# 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: **Georgia-Pacific Corporation** | |
| 2. Site Name: **Palatka Mill** | |
| 3. Facility Identification Number: **1070005** [ ] Unknown | |
| 4. Facility Location: Street Address or Other Locator: **North of CR 216; West of US 17** City: **Palatka** County: **Putnam** Zip Code: **32177** | |
| 5. Relocatable Facility? [ ] Yes [ **X** ] No | 6. Existing Permitted Facility? [ **X** ] Yes [ ] No |

**Application Contact**

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

**Application Processing Information (DEP Use)**

| | |
|---|---|
| 1. Date of Receipt of Application: | |
| 2. Permit Number: | |
| 3. PSD Number (if applicable): | |
| 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: _____

[ X ] 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: **1070005-006-AC; PSD-FL-264 and 1070005-010-AC**

Operation permit number to be revised: **1070005-002-AV**

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

Operation permit number to be revised/corrected: _____

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

Operation permit number to be revised: _____

Reason for revision: _____

### Air Construction Permit Application

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

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

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

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

## Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   **Theodore D. Kennedy, Vice President, Georgia-Pacific, Palatka Operations**
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **Georgia-Pacific Corporation**
   Street Address: **P.O. Box 919**
   City: **Palatka** State: **FL** Zip Code: **32178-0919**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: **( 386 ) 325 - 2001** Fax: **(386 ) 328 - 0014**
4. Owner/Authorized Representative or Responsible Official Statement:

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

Theodore D Kennedy — Signature

8/14/01 — Date

* Attach letter of authorization if not currently on file.

## Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers:
   Telephone: **( 352 ) 336 - 5600** Fax: **( 352 ) 336 - 6603**

4. Professional Engineer Statement:

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

*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

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

David A. Buff
Signature

8/14/01
Date

(seal)

* Attach any exception to certification statement.

## Scope of Application

| Emissions Unit ID | Description of Emissions Unit | Permit Type | Processing Fee |
|---|---|---|---|
| 036 | No. 3 Bleach Plant | | |
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## Application Processing Fee

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

**Construction/Modification Information**

| |
|---|
| 1. Description of Proposed Project or Alterations: |
| 2. Projected or Actual Date of Commencement of Construction: |
| 3. Projected Date of Completion of Construction: |

**Application Comment**

| |
|---|
| |

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

**Facility Location and Type**

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

**Facility Contact**

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

## Facility Regulatory Classifications

**Check all that apply:**

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

## List of Applicable Regulations

| |
|---|
| **62-210.700(1) - Excess Emission** |
| **62-210.700(4) - Excess Emission** |
| **62-210.700(5) - Excess Emission** |
| **62-210.700(6) - Excess Emission** |
| **62-296.320(4) - General VE Limit** |
| **See Attachment GP-FI-A, Title V Core List, Effective 3/25/97** |
| |
| |
| |
| |

## B. FACILITY POLLUTANTS

**List of Pollutants Emitted**

| 1. Pollutant Emitted | 2. Pollutant Classif. | 3. Requested Emissions Cap lb/hour | 3. Requested Emissions Cap tons/year | 4. Basis for Emissions Cap | 5. Pollutant Comment |
|---|---|---|---|---|---|
| PM | A | | | | Particulate Matter – Total |
| $PM_{10}$ | A | | | | Particulate Matter – $PM_{10}$ |
| $SO_2$ | A | | | | Sulfur Dioxide |
| $NO_X$ | 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:<br>[ X ] Attached, Document ID: GP-FI-C1 [ ] Not Applicable [ ] Waiver Requested |
| 2. Facility Plot Plan:<br>[ X ] Attached, Document ID: GP-FI-C2 [ ] Not Applicable [ ] Waiver Requested |
| 3. Process Flow Diagram(s):<br>[ X ] Attached, Document ID: GP-FI-C3 [ ] Not Applicable [ ] Waiver Requested |
| 4. Precautions to Prevent Emissions of Unconfined Particulate Matter:<br>[ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested |
| 5. Fugitive Emissions Identification:<br>[ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested |
| 6. Supplemental Information for Construction Permit Application:<br>[ ] Attached, Document ID: _____ [ X ] Not Applicable |
| 7. Supplemental Requirements Comment: |

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

8. List of Proposed Insignificant Activities:
   [ ] Attached, Document ID:_____ [ X ] Not Applicable

9. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID:_____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [ X ] Not Applicable

10. Alternative Methods of Operation:
    [ ] Attached, Document ID:_____ [ X ] Not Applicable

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

12. Identification of Additional Applicable Requirements:
    [ ] Attached, Document ID:_____[ X ] Not Applicable

13. Risk Management Plan Verification:
    [X ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: GP-F1-C13 ) or previously submitted to DEP (Date and DEP Office:_____)
    [ ] Plan to be submitted to CEPPO (Date required:_____)
    [ ] Not Applicable

14. Compliance Report and Plan:
    [ ] Attached, Document ID:_____ [ X ] Not Applicable

15. Compliance Certification (Hard-copy Required):
    [ ] Attached, Document ID:_____ [ X ] Not Applicable

# ATTACHMENT GP-FI-A

# FACILITY REGULATIONS

# Title V Core List

Effective:03/25/97

[**Note:** The Title V Core List is intended to simplify the completion of the "List of Applicable Regulations" that apply facility-wide (see Subsection II.B. of DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.

Requirements that apply to emissions units must be identified in Subsection III.B. of DEP Form No. 62-210.900(1), Application for Air Permit - Long Form.

Applicants must identify all "applicable requirements" in order to claim the "permit shield" described at Rule 62-213.460, F.A.C.]

***Federal:*** ***(description)***

40 CFR 61: National Emission Standards for Hazardous Air Pollutants (NESHAP).
40 CFR 61: Subpart M: NESHAP for Asbestos.
40 CFR 64: Compliance Assurance Monitoring
40 CFR 82: Protection of Stratospheric Ozone.
40 CFR 82: Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
40 CFR 82: Subpart F: Recycling and Emissions Reduction.

***State:*** ***(description)***

**CHAPTER 62-4, F.A.C.: PERMITS**, effective 10-16-95

62-4.030, F.A.C.: General Prohibition.
62-4.040, F.A.C.: Exemptions.
62-4.050, F.A.C.: Procedure to Obtain Permits; Application
62-4.060, F.A.C.: Consultation.
62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
62-4.080, F.A.C.: Modification of Permit Conditions.
62-4.090, F.A.C.: Renewals.
62-4.100, F.A.C.: Suspension and Revocation.
62-4.110, F.A.C.: Financial Responsibility.
62-4.120, F.A.C.: Transfer of Permits.
62-4.130, F.A.C.: Plant Operation - Problems.
62-4.150, F.A.C.: Review
62-4.160, F.A.C.: Permit Conditions.
62-4.210, F.A.C.: Construction Permits.
62-4.220, F.A.C.: Operation Permit for New Sources.

**CHAPTER 62-103, F.A.C.: RULES OF ADMINISTRATIVE PROCEDURE**, effective 12-31-95

62-103.150, F.A.C.: Public Notice of Application and Proposed Agency Action.
62-103.155, F.A.C.: Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding

# Title V Core List

Effective:03/25/97

**CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS,** effective 03-21-96

62-210.300, F.A.C.: Permits Required.
62-210.300(1), F.A.C.: Air Construction Permits.
62-210.300(2), F.A.C.: Air Operation Permits.
62-210.300(3), F.A.C.: Exemptions.
62-210.300(3)(a), F.A.C.: Full Exemptions.
62-210.300(3)(b), F.A.C.: Temporary Exemption.

62-210.300(5), F.A.C.: Notification of Startup.
62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.

62-210.650, F.A.C.: Circumvention.

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1) Application for Air Permit - Long Form, Form and Instructions.
62-210.900(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.

**CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION,** effective 03-20-96

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form, Form and Instructions.

CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective 11-30-94

CHAPTER 62-257, F.A.C: ASBESTOS NOTIFICATION AND FEE, effective 03/24/96

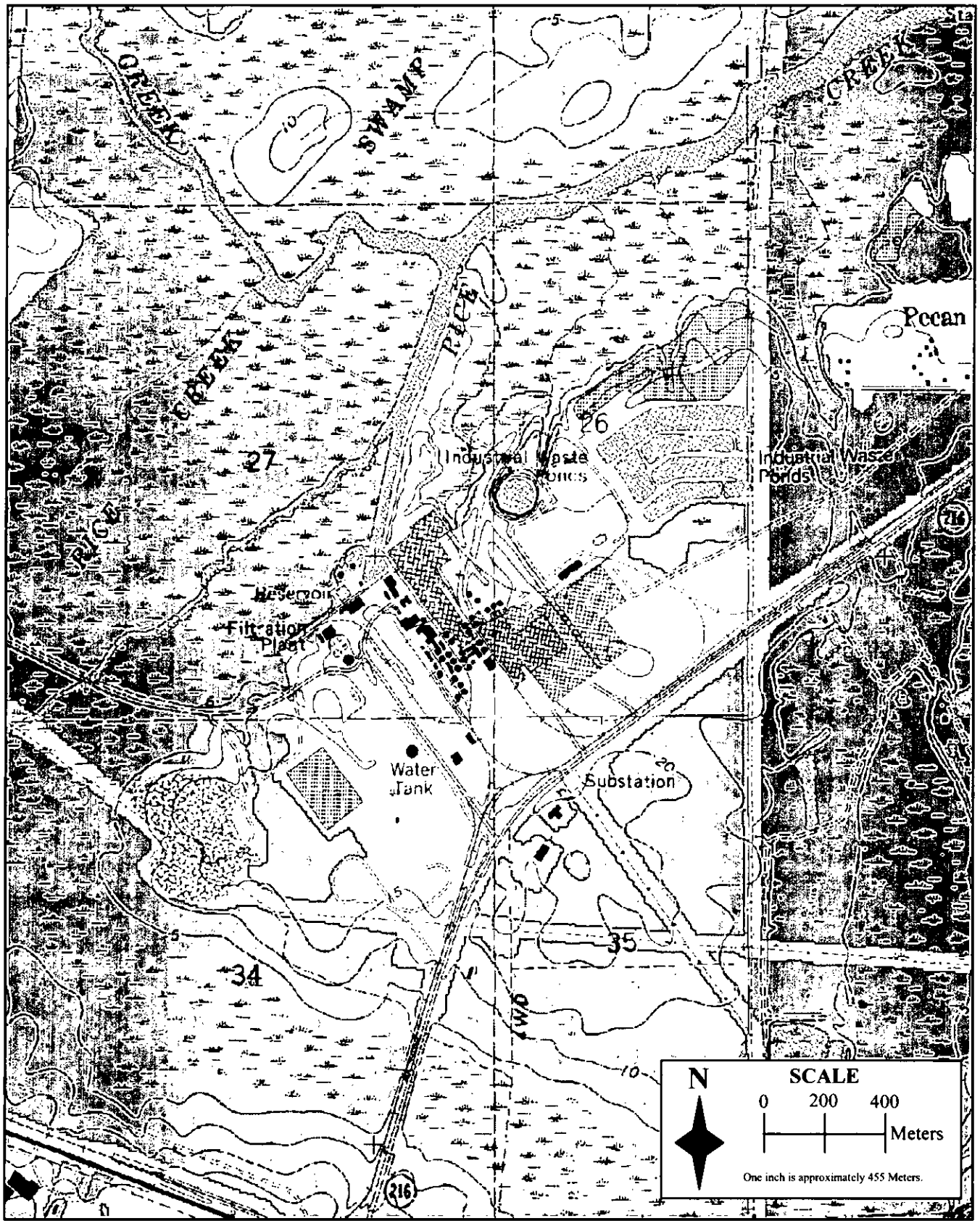
CHAPTER 62-281, F.A.C: MOTOR VEHICLE AIR CONDITIONING REFRIGERANT RECOVERY AND RECYCLING, effective 03-07-96

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-13-96

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.
62-296.320(3), F.A.C.: Industrial, Commercial, and Municipal Open Burning Prohibited
62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

# ATTACHMENT GP-FI-C1

# AREA MAP SHOWING FACILITY LOCATION



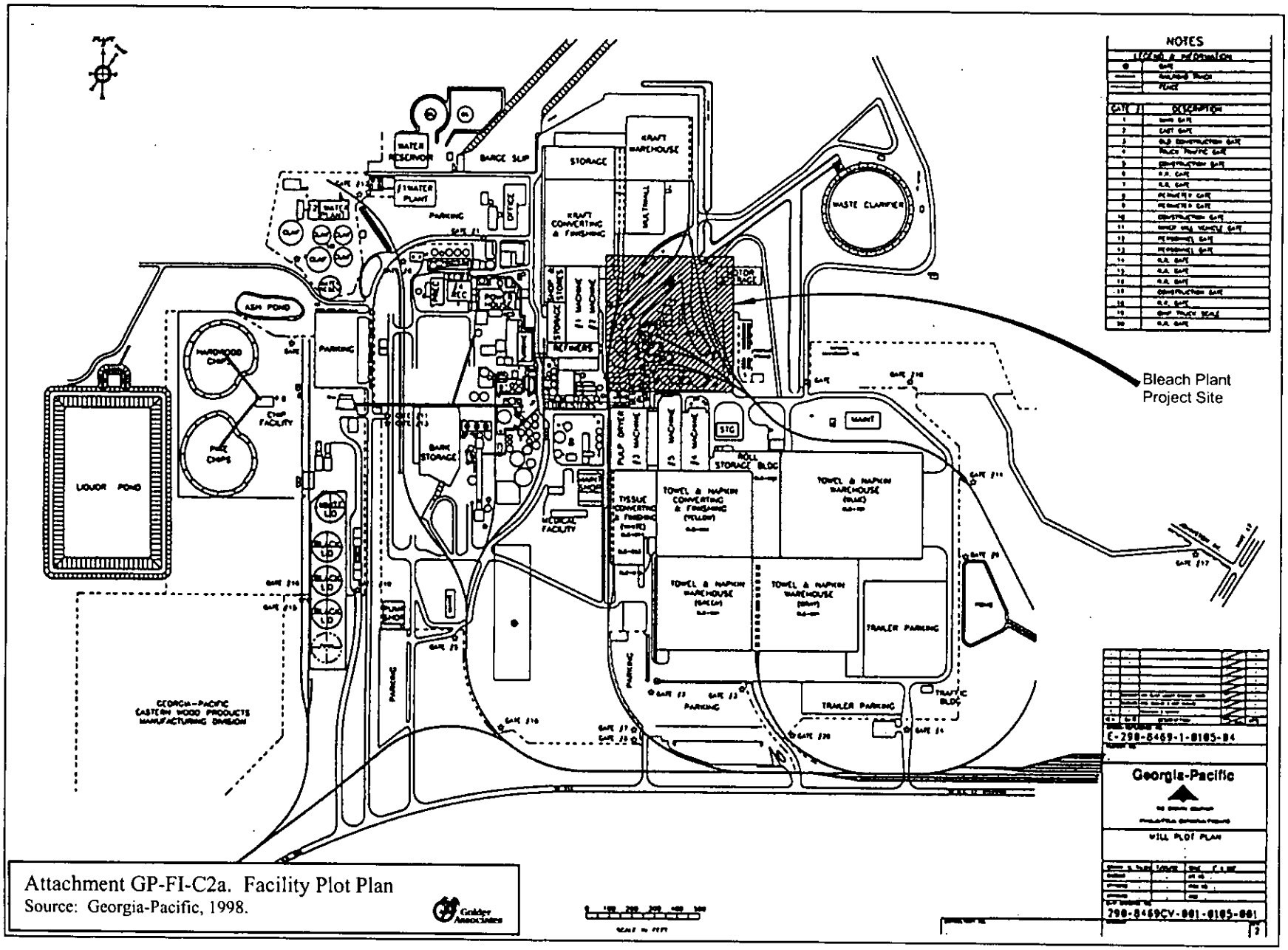

Attachment GP-FI-C1
Georgia-Pacific Corporation, Palatka Mill
Area Map

Source: Golder, 2001.

Golder Associates

# ATTACHMENT GP-FI-C2

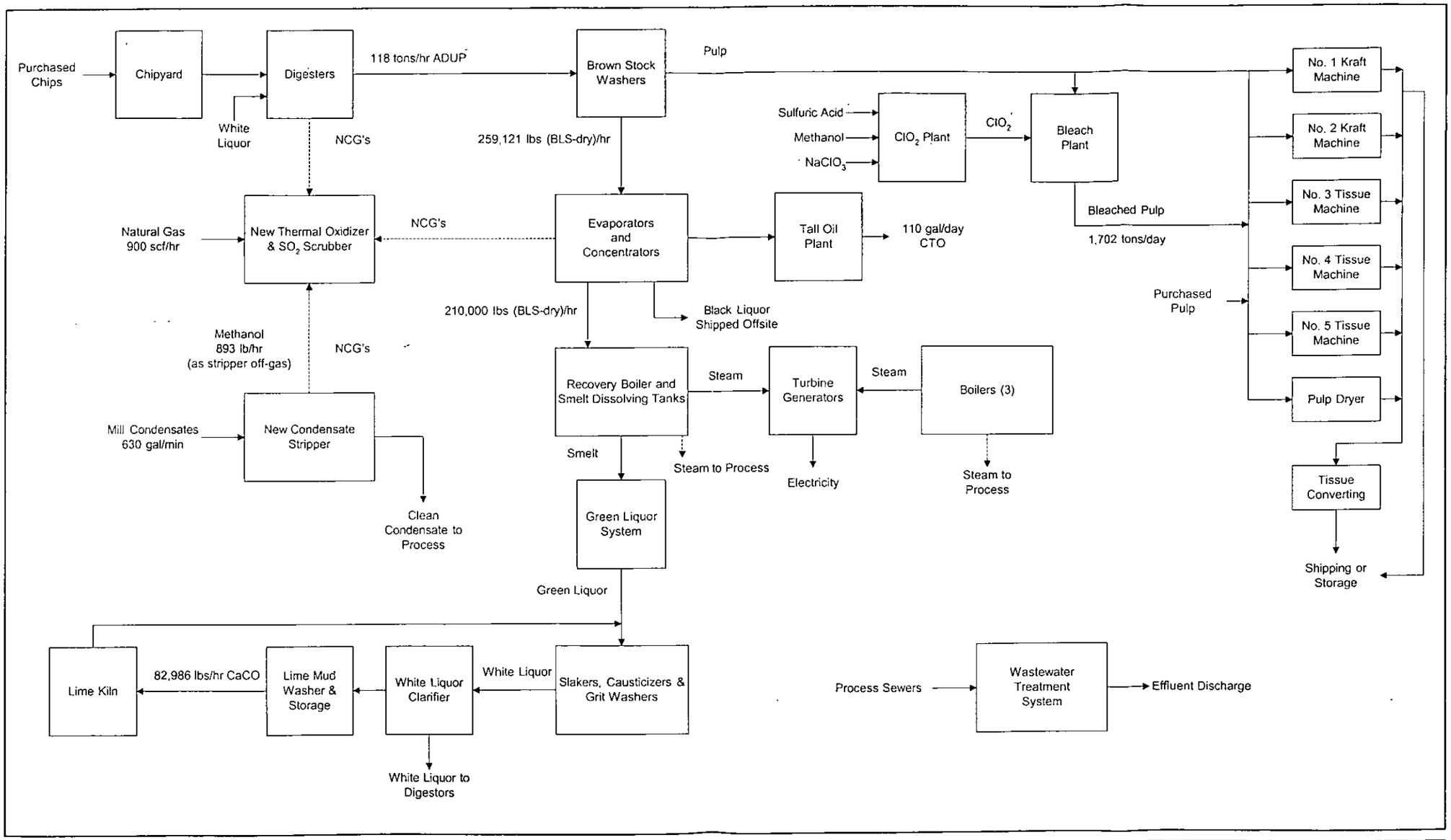
# FACILITY PLOT PLAN




Attachment GP-FI-C2a. Facility Plot Plan
Source: Georgia-Pacific, 1998.

**ATTACHMENT GP-FI-C3**

**PROCESS FLOW DIAGRAM**




Attachment GP-FI-C3
Facility Process Flow Diagram
Georgia-Pacific Palatka Operations
Palatka, Florida

**Notes:**
ADUP = Air Dried Unbleached Pulp
CTO = Crude Tall Oil
Solid/Liquid ——→
Gas ----→

Filename: 0037601Y/F1/WP/GP-F1-C3.VSD
Date: 8/10/01

Golder Associates

# ATTACHMENT GP-FI-C13

# RISK MANAGEMENT PLAN VERIFICATION

ATTACHMENT 1

RMP

Facility Name: Georgia-Pacific Corporation, Palatka Operations
EPA ID: 1000 0006 4887

EPA United States Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460
OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

**Bobby R. Holt**
**David A. Spraley**
**P.O. Box 919**
**Palatka, FL 32178-0919**

**April 03, 2001**

| | |
|---|---|
| **EPA Facility ID#:** | **1000 0006 4887** |
| **Postmark Date:** | **03/30/2001** |
| **Anniversary Date:** | **03/30/2006** |

## NOTIFICATION LETTER: COMPLETE RMP

The U.S. Environmental Protection Agency (EPA) received your Risk Management Plan (RMP) dated with the above postmark date. **This letter notifies you that your RMP is "complete" according to EPA's completion check.** The completion check is a program implemented by EPA to determine whether a submitted RMP includes the minimum amount of information every RMP must provide. The completion check does not assess whether a submitted RMP should have provided additional information or whether the information it provides is accurate or appropriate. In other words, it does not indicate that the RMP meets the requirements of 40 CFR Part 68.

Please note the anniversary date indicated above. Your RMP must be revised and updated by this date or earlier as required by 40 CFR §68.190. Please also note your EPA Facility ID number as identified at the top of this letter; all future Risk Management Plan submissions, corrections and other correspondence must include this number.

Your RMP (excluding the Offsite Consequence Analysis data) can be viewed on RMP*Info™, a national database on the Internet at http://www.epa.gov/enviro.

Facility Name: Georgia-Pacific Corporation, Palatka Operations
EPA ID: 1000 0006 4887

If you have any questions, please call one of the following numbers:

(1) For RMP rule interpretation questions, call the EPCRA Hotline at (800) 424-9346 or (703) 412-9810 (in the D.C. Metro area).

(2) For RMP*Submit installation and software questions, or information on the status of your RMP, contact the RMP Reporting Center at (703) 816-4434, or write to the:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA 22116-3346

(3) For more information on the Risk Management Program, you can contact your Implementing Agency. Your Implementing Agency is **Florida Department of Community Affairs, 2555 Shumard Oak Boulevard, Tallahassee, FL, 32399, Phone: 850-413-9970.**

Thank you for your cooperation in this matter.

Sincerely,

RMP Reporting Center

Enclosure:
Risk Management Plan (if submitted on paper)

## III. EMISSIONS UNIT INFORMATION

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

### A. GENERAL EMISSIONS UNIT INFORMATION
### (All Emissions Units)

**Emissions Unit Description and Status**

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

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

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

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

2. Regulated or Unregulated Emissions Unit? (Check one)

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

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

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
**Elemental Chlorine Free (ECF) No. 3 Bleach Plant**

4. Emissions Unit Identification Number:
ID: **036**
[ ] No ID
[ ] ID Unknown

| 5. Emissions Unit Status Code: | 6. Initial Startup Date: | 7. Emissions Unit Major Group SIC Code: | 8. Acid Rain Unit? |
|---|---|---|---|
| **A** | **2/15/2001** | **26** | [ ] |

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

## Emissions Unit Control Equipment

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

**Packed-Gas Adsorption Column**

2. Control Device or Method Code(s): **050**

## Emissions Unit Details

| | | |
|---|---|---|
| 1. Package Unit: | | |
| Manufacturer: | Model Number: | |
| 2. Generator Nameplate Rating: | MW | |
| 3. Incinerator Information: | | |
| Dwell Temperature: | | °F |
| 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: | | | mmBtu/hr |
| 2. Maximum Incineration Rate: | lb/hr | | tons/day |
| 3. Maximum Process or Throughput Rate: | | | |
| 4. Maximum Production Rate: | **1,702 tons/day** | | |
| 5. Requested Maximum Operating Schedule: | | | |
| | **24** hours/day | **7** | days/week |
| | **52** weeks/year | **8,760** | hours/year |
| 6. Operating Capacity/Schedule Comment (limit to 200 characters): | | | |

**Maximum production rate refers to maximum daily permit limit for air-dried tons of bleached pulp (ADTBP). Maximum monthly average permitted rate is 1,350 ADTBP/day.**

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

**List of Applicable Regulations**

See Attachment GP-EU1-C.

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

**Emission Point Description and Type**

| | | |
|---|---|---|
| 1. Identification of Point on Plot Plan or Flow Diagram? | 2. Emission Point Type Code: **2** | |
| 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: **V** | 6. Stack Height: **118** feet | 7. Exit Diameter: **3.5** feet |
| 8. Exit Temperature: **~85** °F | 9. Actual Volumetric Flow Rate: **~15,400** acfm | 10. Water Vapor: % |
| 11. Maximum Dry Standard Flow Rate: dscfm | 12. Nonstack Emission Point Height: feet | |
| 13. Emission Point UTM Coordinates: Zone: East (km): North (km): | | |
| 14. Emission Point Comment (limit to 200 characters): **Values representative of scrubber exhaust stack. ACFM and temperature represents average from stack test. Exit Temperature and Actual Volumetric Flow Rate values are constantly changing with ambient conditions.** | | |

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

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

| | | |
|---|---|---|
| 1. Segment Description (Process/Fuel Type) (limit to 500 characters):<br>**Pulp and Paper and Wood - Sulfate (Kraft) Pulping; Industrial processes. Sulfate (Kraft) Pulping Bleaching Reactors** | | |
| 2. Source Classification Code (SCC):<br>**3-07-001-14** | 3. SCC Units:<br>**Tons of air-dried unbleached pulp produced** | |
| 4. Maximum Hourly Rate:<br>**77.1** | 5. Maximum Annual Rate:<br>**535,455** | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: |
| 10. Segment Comment (limit to 200 characters):<br>**See Attachment GP-EU1-E10. Maximum hourly rate based on 1,702 tons per day ADBP. Maximum annual rate based on 1,350 tons per day ADBP.** | | |

**Segment Description and Rate:** Segment ____ of ____

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

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

| 1. Pollutant Emitted | 2. Primary Control Device Code | 3. Secondary Control Device Code | 4. Pollutant Regulatory Code |
|---|---|---|---|
| VOC | 050 | | NS |
| HAPs | 050 | | WP |
| H115 | 050 | | NS |
| H043 | 050 | | WP |
| CO | | | EL |
| H038 | 050 | | WP |
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## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
### (Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

**Potential/Fugitive Emissions**

| | |
|---|---|
| 1. Pollutant Emitted: CO | 2. Total Percent Efficiency of Control: |
| 3. Potential Emissions: * lb/hour * tons/year | 4. Synthetically Limited? [ ] |
| 5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year | |
| 6. Emission Factor: * Reference: * | 7. Emissions Method Code: 0 |
| 8. Calculation of Emissions (limit to 600 characters): | |
| 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): * Maximum potential CO emissions (46 lb/hr and 201 TPY in Permit No. 1070005-006-AC/PSD-FL-264) are being investigated based on published literature and industry data. See Attachment A. | |

**Allowable Emissions** Allowable Emissions 1 of 1

| | |
|---|---|
| 1. Basis for Allowable Emissions Code: OTHER | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: * | 4. Equivalent Allowable Emissions: * lb/hour * tons/year |
| 5. Method of Compliance (limit to 60 characters): EPA Method 10 | |
| 6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): | |

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

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

| | |
|---|---|
| 1. Visible Emissions Subtype: **VE20** | 2. Basis for Allowable Opacity: [X] Rule [ ] Other |
| 3. Requested Allowable Opacity:<br>Normal Conditions: **20** % Exceptional Conditions: %<br>Maximum Period of Excess Opacity Allowed: min/hour | |
| 4. Method of Compliance:<br>**EPA Method 10** | |
| 5. Visible Emissions Comment (limit to 200 characters):<br>**Based on Rules 62-296.320 and 62-296.404(2)(b), F.A.C., and Permit No. 1070005-006-AC; PSD-FL-264.** | |

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

**Continuous Monitoring System:** Continuous Monitor 1 of 3

| | |
|---|---|
| 1. Parameter Code: **pH** | 2. Pollutant(s): |
| 3. CMS Requirement: | [X] Rule [ ] Other |
| 4. Monitor Information:<br>Manufacturer:<br>Model Number: Serial Number: | |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment (limit to 200 characters):<br>**40 CFR 63.453(c)(1) requires pH monitoring of the gas scrubbing medium.** | |

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

**Visible Emissions Limitation:** Visible Emissions Limitation ____ of ____

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

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

**Continuous Monitoring System:** Continuous Monitor 2 of 3

| | |
|---|---|
| 1. Parameter Code: **FLOW** | 2. Pollutant(s): |
| 3. CMS Requirement: | [X] Rule [ ] Other |
| 4. Monitor Information:<br>Manufacturer:<br>Model Number: Serial Number: | |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment (limit to 200 characters):<br>**40 CFR 63.453(c)(2) requires measurement of vent gas inlet flow rate. EPA approved an alternative monitoring plan to monitor fan amperage of the bleaching system vent gas fan. See Attachment A.** | |

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

**Visible Emissions Limitation:** Visible Emissions Limitation _____ of _____

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

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

**Continuous Monitoring System:** Continuous Monitor 3 of 3

| | |
|---|---|
| 1. Parameter Code: **FLOW** | 2. Pollutant(s): |
| 3. CMS Requirement: | [X] Rule [ ] Other |
| 4. Monitor Information:<br>Manufacturer:<br>Model Number: Serial Number: | |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment (limit to 200 characters):<br>**40 CFR 63.453(c)(3) requires measurement of the gas scrubber liquid flow rate. G-P will monitor the recirculation flow, which is the actual amount of liquid introduced to the scrubber.** | |

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

**Supplemental Requirements**

| |
|---|
| 1. Process Flow Diagram<br>[ X ] Attached, Document ID: GP-EU1-J1 [ ] Not Applicable [ ] Waiver Requested |
| 2. Fuel Analysis or Specification<br>[ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested |
| 3. Detailed Description of Control Equipment<br>[ X ] Attached, Document ID: GP-EU1-J3 [ ] Not Applicable [ ] Waiver Requested |
| 4. Description of Stack Sampling Facilities<br>[ X ] Attached, Document ID: GP-EU1-J4 [ ] Not Applicable [ ] Waiver Requested |
| 5. Compliance Test Report<br>[ ] Attached, Document ID: _____<br>[ X ] Previously submitted, Date: 11 JUN 2001<br>[ ] Not Applicable |
| 6. Procedures for Startup and Shutdown<br>[ ] Attached, Document ID: _____ [ X ] Not Applicable [ ] Waiver Requested |
| 7. Operation and Maintenance Plan<br>[ X ] Attached, Document ID: GP-EU1-J7 [ ] Not Applicable [ ] Waiver Requested |
| 8. Supplemental Information for Construction Permit Application<br>[ ] Attached, Document ID: _____ [ X ] Not Applicable |
| 9. Other Information Required by Rule or Statute<br>[ X ] Attached, Document ID: Attachment A [ ] Not Applicable |
| 10. Supplemental Requirements Comment: |

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

11. Alternative Methods of Operation
[ X ] Attached, Document ID: **GP-EU1-J11** [ ] Not Applicable

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

13. Identification of Additional Applicable Requirements
[ X ] Attached, Document ID: **GP-EU1-J13** [ ] Not Applicable

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

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

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

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

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

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

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

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

[ X ] Not Applicable

# ATTACHMENT GP-EU1-C

# LIST OF APPLICABLE REGULATIONS

## ATTACHMENT GP-EU1-C

## LIST OF APPLICABLE REGULATIONS

(Page 1 of 2)

| | |
|---|---|
| 40 CFR 63.445(a)(2) | Standards for the bleaching system |
| 40 CFR 63.445(b) | Standards for the bleaching system |
| 40 CFR 63.445(c)(1) | Standards for the bleaching system |
| 40 CFR 63.445(d) | Standards for the bleaching system |
| 40 CFR 63.450(a)-(d) | Standards for enclosures and closed-vent systems |
| 40 CFR 63.453(a) | Monitoring Requirements |
| 40 CFR 63.453(c)-(d) | Monitoring Requirements |
| 40 CFR 63.453(k) | Monitoring Requirements |
| 40 CFR 63.453(n)-(o) | Monitoring Requirements |
| 40 CFR 63.454(a)-(b) | Recordkeeping Requirements |
| 40 CFR 63.454(d) | Recordkeeping Requirements |
| 40 CFR 63.455(a) | Recordkeeping Requirements |
| 40 CFR 63.454(d) | Recordkeeping Requirements |
| 40 CFR 63.457(a)-(b) | Test Methods and Procedures |
| 40 CFR 63.457(d)-(e) | Test Methods and Procedures |
| 40 CFR 63.457(h)-(i) | Test Methods and Procedures |
| 62-212.400 | PSD |
| 62-210.700 | Excess Emissions |
| 40 CFR 63.1(a)(1)-(4) | Applicability |
| 40 CFR 63.1(a)(11)-(14) | Applicability |
| 40 CFR 63.1(b)(2)-(3) | Applicability |
| 40 CFR 63.1(c)(1)-(2) | Applicability |
| 40 CFR 63.1(c)(5) | Applicability |
| 40 CFR 63.1(e) | Applicability |
| 40 CFR 63.2 | Definitions |
| 40 CFR 63.3 | Units and Abbreviations |
| 40 CFR 63.4(a)(1) | Prohibited Activities and Circumvention |
| 40 CFR 63.4(a)(3) | Prohibited Activities and Circumvention |
| 40 CFR 63.4(a)(5) | Prohibited Activities and Circumvention |
| 40 CFR 63.4(b)-(c) | Prohibited Activities and Circumvention |
| 40 CFR 63.5(a) | Construction and Reconstruction |
| 40 CFR 63.5(b)(1) | Construction and Reconstruction |
| 40 CFR 63.5(b)(3)-(6) | Construction and Reconstruction |
| 40 CFR 63.5(d)(1) | Construction and Reconstruction |
| 40 CFR 63.5(d)(3)-(4) | Construction and Reconstruction |
| 40 CFR 63.5(e) | Construction and Reconstruction |
| 40 CFR 63.5(f) | Construction and Reconstruction |
| 40 CFR 63.6(a) | Compliance with Standards and Maintenance Requirements |
| 40 CFR 63.6(e)-(g) | Compliance with Standards and Maintenance Requirements |
| 40 CFR 63.6(i)-(j) | Compliance with Standards and Maintenance Requirements |
| 40 CFR 63.8(a)(1)-(2) | Monitoring Requirements |
| 40 CFR 63.8(a)(4) | Monitoring Requirements |
| 40 CFR 63.8(b)(1) | Monitoring Requirements |
| 40 CFR 63.8(b)(3) | Monitoring Requirements |
| 40 CFR 63.8(c)(1)-(3) | Monitoring Requirements |
| 40 CFR 63.8(c)(6)-(8) | Monitoring Requirements |

## ATTACHMENT GP-EU1-C

## LIST OF APPLICABLE REGULATIONS

(Page 2 of 2)

| | |
|---|---|
| 40 CFR 63.8(d) | Monitoring Requirements |
| 40 CFR 63.8(e) | Monitoring Requirements |
| 40 CFR 63.8(f)(1)-(5) | Monitoring Requirements |
| 40 CFR 63.8(g) | Monitoring Requirements |
| 40 CFR 63.9(a)-(b) | Notification Requirements |
| 40 CFR 63.9(c) | Notification Requirements |
| 40 CFR 63.9(g)(1) | Notification Requirements |
| 40 CFR 63.9(h)-(j) | Notification Requirements |
| 40 CFR 63.10(a)-(c) | Recordkeeping and Reporting Requirements |
| 40 CFR 63.10(d)(1)-(2) | Recordkeeping and Reporting Requirements |
| 40 CFR 63.10(d)(4)-(5) | Recordkeeping and Reporting Requirements |
| 40 CFR 63.10(e)(1) | Recordkeeping and Reporting Requirements |
| 40 CFR 63.10(e)(2)(i) | Recordkeeping and Reporting Requirements |
| 40 CFR 63.10(e)(3) | Recordkeeping and Reporting Requirements |
| 40 CFR 63.10(f) | Recordkeeping and Reporting Requirements |
| 40 CFR 63.12 | State Authority and Delegation |
| 40 CFR 63.13 | Addresses of State Air Pollution Control Agencies and EPA Regional Offices |
| 40 CFR 63.14 | Incorporations by References |
| 40 CFR 63.15 | Availability of Information and Confidentiality |

**ATTACHMENT GP-EU1-E10**

**SEGMENT COMMENT**

## ATTACHMENT GP-EU1-E10
## SEGMENT COMMENT

Maximum Annual Rate based on average monthly No. 3 Bleach plant production of 1,350 Air Dried Tons of Bleached Pulp (ADTBP) per day. Maximum hourly rate based on maximum daily production of 1,702 ADTBP per day. Values converted to Air-Dried Tons Unbleached Pulp (ADTUP) using a conversion factor of Unbleached/Bleached = 1:0.92.

1,350 ADTBP ÷0.92 = 1,467 ADTUP (monthly average)

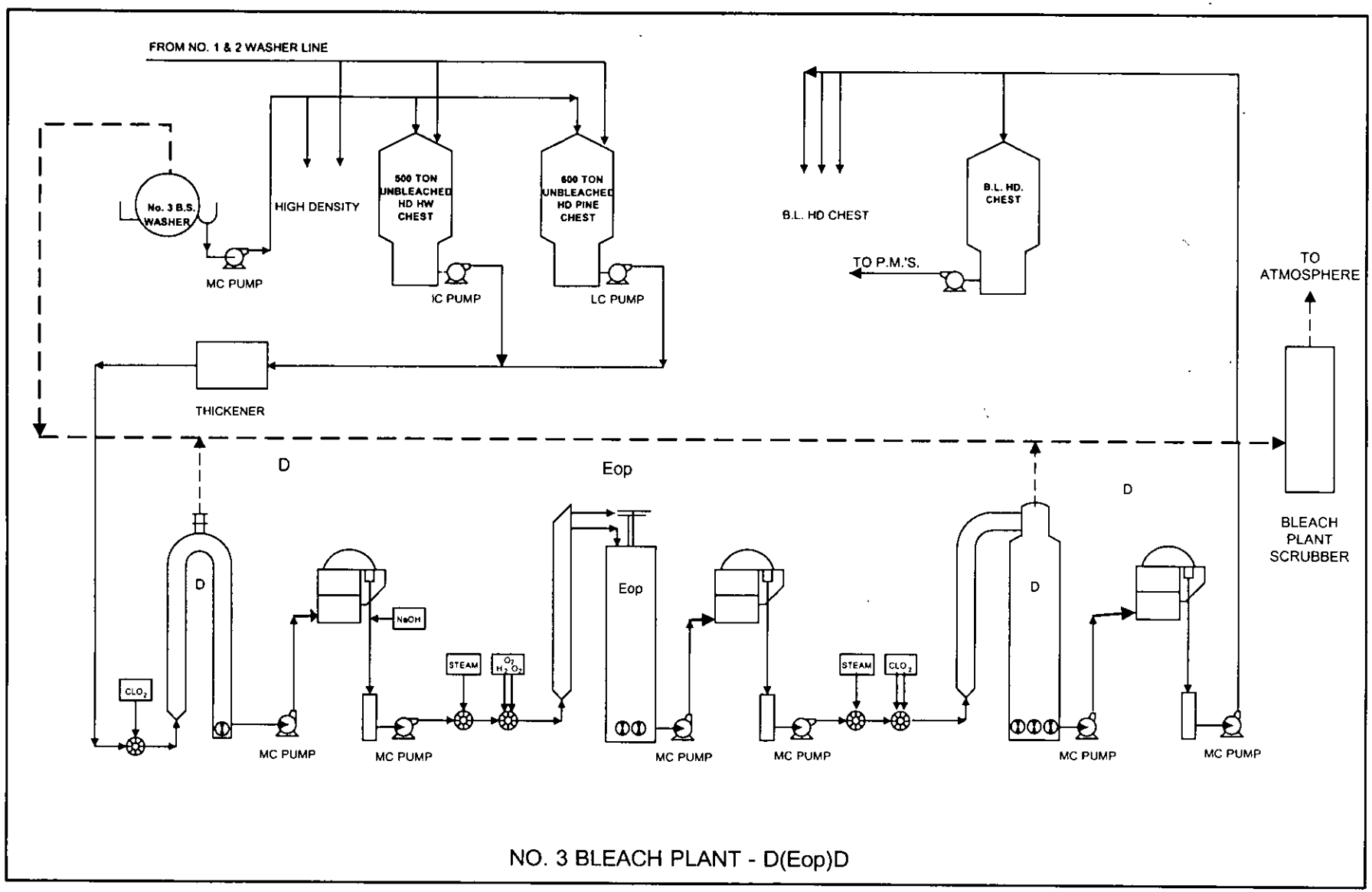
1,702 ADTBP÷0.92 = 1,850 ADTUP (maximum daily)

Maximum Hourly Rate: 1,850 ADTUP÷24 hrs/day = 77.1 ADTUP per hour, 24-hr average

Maximum Annual Rate: 1,467 ADTUP x 365 days/year = 535,455 ADTUP per year

**ATTACHMENT GP-EU1-J1**

**PROCESS FLOW DIAGRAM**




NO. 3 BLEACH PLANT - D(Eop)D

ATTACHMENT GP-EU1-J1
ECF BLEACH PLANT FLOW DIAGRAM

Source: Georgia-Pacific, 1998.

Process Flow Legend:
Solid / Liquid ——►
Gas ----------►

**Project:** 0037601Y/F2/WP
**Filename:** GP-EU1-J1.VSD
**Date:** 8/14/01

Golder Associates

# ATTACHMENT GP-EU1-J3

# DETAILED DESCRIPTION OF CONTROL EQUIPMENT

# ATTACHMENT GP-EU1-J3

## Georgia-Pacific Corporation Palatka Facility

## Chlorine Dioxide Alkaline Scrubber Equipment Design Parameters

| | |
|---|---|
| Scrubber Type | Packed Bed Wet Scrubber |
| Scrubbant | Alkaline Liquid |
| Packing Material | No. 2 Super Interlocks |
| Packing Arrangement | Two 25-ft beds |
| Outlet Gas Temp (°F) | 150 |
| Outlet Gas Flow Rate (ACFM) | 23,000 |
| Average Scrubbant pH | >7.0 |
| Scrubbant Flow Rate (gpm) | >1,200 |

# ATTACHMENT GP-EU1-J7

# OPERATION AND MAINTENANCE PLAN

# No. 3 Bleach Plant
# O & M Plan

## Plant Overview

The Georgia-Pacific Palatka Operations mill uses a Prewash-$D_0$-$E_{op}$-$D_1$ bleaching sequence.

In simple terms, the bleaching sequence is:

**Prewash Stage** - provides final washing and consistency control of the pulp before starting the bleaching process.

**$D_0$ Stage** - the first bleaching stage, where chlorine dioxide ($D_o$; $ClO_2$) followed by washing. This stage solubilizes most of the remaining lignin.

**$E_{op}$ Stage** – the second bleaching stage, where the sequential addition of caustic (E; NaOH), then hydrogen peroxide (p; $H_2O_2$) and oxygen (o; $O_2$) takes place, followed by washing. This stage dissolves the soluble lignin and removes it at the stage's wash press.

**$D_1$ Stage** – the final bleaching stage, where the true bleaching of the pulp occurs using chlorine dioxide ($D_1$; $ClO_2$), followed by washing. In this stage, the pulp is bleached to the desired brightness and the impact of impurities (wood dirt, shives) is greatly reduced.

The main objective of bleaching is to increase the brightness (whiteness) of the pulp while still maintaining good physical strength properties. The pulp is then used by the paper mill to manufacture a wide variety of consumer goods.

When bleaching pulp, there are a number of key parameters that influence the results of the chemical reactions and the effectiveness of each treatment. To obtain optimal bleaching results, specific conditions need to be met in each stage. The chemicals used in the different bleaching stages vary in their selectivity when reacting with cellulose and lignin as well as their ability to brighten the pulp.

The four key parameters for all bleaching stages are:

1) chemical dosage
2) reaction time
3) reaction temperature
4) stock pH

All bleaching chemicals react according to the same principle with a fast initial reaction phase and then a slower subsequent phase. Chlorine dioxide ($ClO_2$) is unique, however, having an almost instantaneous reaction with pulp.

In order to take advantage of this known reaction mechanism, a typical bleaching stage usually involves chemical addition, a chemical/pulp mixer, reaction in a tower to provide

retention time, followed by washing to remove the excess chemicals and reaction products.

The Palatka facility utilizes this type of equipment for the bleaching of both hardwoods and softwoods in the same and only bleach plant. The physical equipment operation is fundamentally the same for both species with different targeted values for the four key parameters mentioned above.

The following are examples of the type of instrumentation used to assure a safe, effective, and efficient bleaching process:

- Flow Indication for stock, water, effluent, chemicals, and steam.
- Consistency meters prior to each beaching sequence for chemical addition.
- Temperatures for all flows in all stages of the process.
- pH probes for stock and effluent throughout the process.
- Chemical residual analyzers for stock streams throughout process.
- Stock Kappa analyzer at each stage for chemical addition.
- Brightness instrumentation at each stage for brightness development and chemical addition.
- Fiber length analyzers for accurate species tracking and correct chemical addition.
- $ClO_2$ strength analyzer for maximizing $ClO_2$ addition on stock.
- Local and DCS gas emission alarms strategically placed throughout all levels of the operation.
- Conductivity probes in sever effluent.

Operator training consisted of the following:

- 24 hours of Computer Based Training
- 16 hours of Class Room Training
- 16 hours of in the Field Training
- 40 hours of one on one Running the Plant Training

The operating staff of this equipment utilizes sophisticated Digital Controls Systems via remote PC to monitor and make every control adjustment to the key parameters. Operators maintain a log sheet that contains critical operating data. A shift by shift equipment checklist is completed each day for equipment lubrication, vibration, noise, and temperature. A multitude of alarm limits and safety interlocks also help to assure that the four key parameters are kept in check.

In an effort to verify that the control instrumentation is correct, operating staff complete manual test verification log sheets periodically during the day. Deviations from field instrumentation are adjusted as needed and calibrations are made as soon as possible. To

minimize the need for frequent adjustments, field instrumentation is inspected, cleaned, replaced and/or calibrated on either a daily, weekly, or monthly basis.

All environmental, safety, or major pieces of equipment have written maintenance procedures and parts lists readily available to the maintenance staff. Preventative Maintenance routes are completed routinely via either vender recommendations or historical performance. All maintenance work on any piece of equipment is tracked electronically for repetitive issue resolution.

# ATTACHMENT GP-EU1-J11

# ALTERNATIVE METHODS OF OPERATION

## ATTACHMENT GP-EU1-J11

## ALTERNATIVE METHODS OF OPERATION FOR THE NO. 3 BLEACH PLANT

The No. 3 Bleach Plant has the ability to bleach either softwood or hardwood pulp. The bleach plant bleaches pulp in three stages, with a decker at the front sequence. The three stages consist of a $D_{100}$ stage (chlorine dioxide), and $E_{OP}$ stage (caustic extraction with oxygen and peroxide), and a D stage (chlorine dioxide stage), resulting in a $D_{100}$ ($E_{OP}$) D sequence. Pulp to the bleach plant is supplied from the No. 2 High Density (HD) chest for hardwood and the No. 3 HD chest for softwood.

# ATTACHMENT GP-EU1-J13

# IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS

JET
BTC
Drew Hodge

# Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

received
6-18-01

**NOTICE OF PERMIT**

June 12, 2001

**CERTIFIED-RETURN RECEIPT**

Mr. David Spraley, Vice President
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

Dear Mr. Spraley:

Putnam County - AP
Georgia-Pacific Corporation
AIRS ID 1070005 Project 010

Enclosed is Permit Number 1070005-010-AC for the subject air pollution emissions unit(s), issued pursuant to Section 403.087, Florida Statutes (FS).

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Christopher L. Kirts, P. E.
District Air Program Administrator

CLK:RFS

cc: Myra Carpenter, Superintendent of Env. Affairs

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.
Clerk 6/14/01 Date

# Department of Environmental Protection

Jeb Bush
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

David B. Struhs
Secretary

**PERMITTEE:**
Georgia Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

| | |
|---|---|
| I.D. Number: | 1070005 |
| Permit/Cert Number: | 1070005-010-AC |
| Date of Issue: | June 12, 2001 |
| Expiration Date: | May15, 2002 |
| County: | Putnam |
| Latitude/Longitude: | 29° 41' 00" N; 81° 40' 45" W |
| UTM: | E-(17) 434.0; N-3283.4 |
| Project: | MACT I Compliance:<br>EU 036: No. 3 ECF Bleach Plant |

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-210, 62-212, 62-204, 62-296, 62-297 and 62-4. 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:

**Project 010:**

This permit for the No. 3 Elemental Chlorine-Free (ECF) Bleach Plant incorporates all terms and conditions of PSD Permit No. 1070005-006-AC/PSD-FL-264 except as noted in the Specific Conditions herein.

Located: north of County Road 216, West of U.S. Highway 17, Palatka, Putnam County, Florida.

In accordance with:
Permit No. 1070005-006-AC/PSD-FL-264
BACT Determination dated 06-29, 1999
Technical Evaluation and Preliminary Determination 05-12-99
Request for construction permit received May 24, 2001


*"More Protection, Less Process"*

**PERMITTEE:**

Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

| | |
|---|---|
| I.D. Number: | 1070005 |
| Permit/Cert Number: | 1070005-010-AC |
| Date of Issue: | June 12, 2001 |
| Expiration Date: | May 15, 2002 |
| County: | Putnam |

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.

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. Neither 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 is not 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 not title to land or water, does not constitute State recognition or acknowledgment 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 no relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and 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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

   a. Have access to and copy any record that must be kept under the conditions of the permit;

**PERMITTEE:**

Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

I.D. Number: 1070005
Permit/Cert Number: 1070005-010-AC
Date of Issue: June 12, 2001
Expiration Date: May 15, 2002
County: Putnam

**GENERAL CONDITIONS:**

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor 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 provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of non-compliance, including 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 for 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 this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards (NSPS)

**PERMITTEE:**

Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

| | |
|---|---|
| I.D. Number: | 1070005 |
| Permit/Cert Number: | 1070005-010-AC |
| Date of Issue: | June 12, 2001 |
| Expiration Date: | May 15, 2002 |
| County: | Putnam |

**GENERAL CONDITIONS:**

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained 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 measurement;
- the dates 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 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 corrected promptly.

**PERMITTEE:**

Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

I.D. Number: 1070005
Permit/Cert Number: 1070005-010-AC
Date of Issue: June 12, 2001
Expiration Date: May 15, 2002
County: Putnam

**SPECIFIC CONDITIONS:**

**The following conditions apply to Emissions Unit 036 (No. 3 ECF Bleach Plant):**

1. This permit incorporates all terms and conditions of PSD permit No. 1070005-006-AC/PSD-FL-264 including the requirements for compliance determination, reporting, and application for a permit pursuant to Chapter 62-213, F.A.C., except that this permit does not authorize any construction activity. All construction activity authorized under PSD permit No. 1070005-006-AC/PSD-FL-264 was completed on or before February 15, 2001. This permit does not authorize any violations of any of the conditions of PSD Permit No. 1070005-006-AC/PSD-FL-264, including test requirements and other compliance requirements. This permit does not remedy any past violations of any test dates or test submittal requirements of PSD Permit No. 1070005-006-AC/PSD-FL-264. This permit is issued solely to provide the facility authority to operate during the period now required to test, submit test reports, and to make application for revision to its operation permit as required by Chapter 62-213 F.A.C.

2. The permittee shall test the subject emissions unit for compliance with the control efficiency requirement stated in Specific Condition Number 7 of PSD Permit No. 1070005-006-AC/PSD-FL-264 prior to expiration of this construction permit. [Rule 62-297.310, F.A.C.]

3. The Permittee shall submit, pursuant to Specific Condition Number 17 of PSD Permit No. 1070005-006-AC/PSD-FL-264, an Operation and Maintenance (O&M) Plan which sets forth the practices which are employed to result in efficient bleaching operations. The plan shall be submitted to the Northeast District Office no later than August 15, 2001. [62-4.070(3), F.A.C]

4. The Permittee shall submit a startup, shutdown and malfunction plan for the No. 3 Bleach Plant as required under 40 CFR 63.6(e)(3) prior to the expiration of this construction permit.
[40 CFR 63.6(e)(3) and Rule 62-210.700, F.A.C.]

5. The permittee shall submit an application for a permit revision to Title V Permit Number 1070005-002-AV no later than 180 days after the No. 3 ECF Bleach Plant commenced operation (i.e., no later than August 15, 2001). [Rule 62-213.420(1)(a)5.]

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Christopher L. Kirts, P.E.
District Air Program Administrator

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

Clerk 6/14/01 Date

D.H.
BTC

**STATE OF FLORIDA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**NOTICE OF FINAL PERMIT**

In the Matter of an
Application for Permit

Mr. David Spraley
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

DEP File No. 1070005-006-AC
PSD-FL-264

Enclosed is the FINAL Permit Number PSD-FL-264 for the construction of a new elemental chlorine-free bleach plant and associated equipment at the Palatka Mill, Putnam County. This permit is issued pursuant to Chapter 403, Florida Statutes and in accordance with Rule 62-212.400., F.A.C. - Prevention of Significant Deterioration(PSD).

Any party to this order (permit) has the right to seek judicial review of the permit 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 Legal Office; 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

C.H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 6-30-94 to the person(s) listed:

Mr. David Spraley, Georgia-Pacific *
Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS
Mr. Chris Kirts, DEP

Clerk Stamp

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

(Clerk) (Date) 6-30-94

# FINAL DETERMINATION

## Georgia-Pacific Corporation

## Permit No. 1070005-006-AC, PSD-FL-264

## Palatka Mill

An Intent to Issue an air construction permit to Georgia-Pacific Corporation to construct a new elemental chlorine-free bleach plant at Palatka Mill in Putnam County, was distributed on May 12, 1999. The Notice of Intent was published in the Palatka Daily News on May 14, 1999. Copies of the draft construction permit were available for public inspection at the Department offices in Jacksonville and Tallahassee.

The National Park Service, the U.S. Environmental Protection Agency or the public submitted no comments.

As a prerequisite to issuance of the final air construction permit, the Department had required that Georgia-Pacific must demonstrate that the Palatka Mill is in compliance with all ambient air quality standards (AAQS) and Prevention of Significant Deterioration (PSD) Class I and Class II allowable increments. Based on the air modeling analyses, it was found that the existing Palatka Mill configuration resulted in the occurrence of an area of SO2 AAQS exceedance in the vicinity of the Mill's southeastern property line. Subsequent analyses of the source contributions to this area have indicated that it was mostly due to a down-washing effect on Power Boiler No. 4. Currently, Power Boiler No. 4 has a stack height of 122 feet (ft), which is in the area of influence of the 193.7-ft Recovery Boiler No. 4 building.

For the Palatka Mill to demonstrate compliance with the AAQS, it was determined that Power Boiler No. 4 would need a stack height increase to 200 ft. A 200-ft stack height is below the height that would be considered as Good Engineering Practice (GEP) for Power Boiler No. 4. The Department will add specific condition No. 19 in Section III of the permit requiring Georgia-Pacific to raise the stack height of Power Boiler No. 4 to 200 ft.

The final action of the Department is to issue the permit with the change noted above.

# Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

**PERMITTEE:**

Georgia-Pacific Corporation
North of CR 216; West of US 17
Palatka, Florida 32177

*Authorized Representative:*
Mr. David Spraley, V.P., Operations

| | |
|---|---|
| **FID No.** | 1070005 |
| **PSD No.** | PSD-FL-264 |
| **SIC No.** | 2611 |
| **Project:** | No. 3 Bleach Plant |
| **Expires:** | April 15, 2001 |

**PROJECT AND LOCATION:**

Permit for the construction of the elemental chlorine-free (ECF) No. 3 Bleach Plant at the Georgia-Pacific facility in Palatka. The new bleach plant will replace two existing bleach plants (Nos. 1 and 2 Bleach Plants). The project is being implemented to meet the MACT regulations for the Pulp and Paper industry. The project is located at CR 216 and US 17, Palatka, Putnam County. UTM coordinates are Zone 17; 434.0 km E; 3283.4 km N.

**STATEMENT OF BASIS:**

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

**Attached appendices are made a part of this permit:**

| | |
|---|---|
| Appendix BD | BACT Determination |
| Appendix GC | Construction Permit General Conditions |

Howard L. Rhodes, Director
Division of Air Resources
Management

## SECTION I. FACILITY INFORMATION

### FACILITY DESCRIPTION

Georgia-Pacific Corporation operates a Kraft pulp mill in Palatka, Putnam County, Florida. The facility produces both unbleached and bleached paper products. The company has applied for the construction of the No. 3 Bleach Plant to replace the existing Nos. 1 and 2 Bleach Plants. The No. 3 Bleach Plant will be an elemental chlorine-free (ECF) bleach plant. The two existing bleach plants currently use chlorine, sodium hypochlorite and chlorine dioxide for bleaching. The new plant will substitute chlorine dioxide for chlorine in the bleaching process. The sodium hypochlorite stage in the existing bleach plants will also be eliminated in the new plant.

The new bleach plant is being proposed in order to comply with the Maximum Achievable Control Technology (MACT) regulations for the pulp and paper industry (40 CFR 63, Subpart S) and the Best Achievable Technology (BAT) Effluent Guidelines. The final compliance date for the applicable part of these regulations is April 15, 2001. This permit will allow Georgia-Pacific to move forward to comply with the MACT regulations and the Effluent Guidelines to meet the compliance deadline.

As a result of the new bleach plant, increases in carbon monoxide (CO) and total reduced sulfur (TRS) emissions will occur. Emissions of volatile organic compounds (VOC) are expected to decrease. HAP emissions will be controlled to meet the requirements of 40 CFR 63 Subpart S.

### REGULATORY CLASSIFICATION

The Georgia-Pacific facility is classified as a "Major or Title V Source" per Rule 62-210.200, F.A.C., because it has the potential to emit more than 100 tons per year of at least one regulated air pollutant.

This industry is included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one regulated pollutant, the facility is a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than the listed significance levels require review per the PSD rules and a determination of Best Available Control Technology (BACT) per Rule 62-212, F.A.C.

For the proposed changes, greater than significant increases will occur for CO. As such this pollutant is subject to review under the PSD permitting program.

**PERMIT SCHEDULE:**

| | |
|---|---|
| 02-09-99: | Date of Receipt of Application |
| 03-09-99: | DEP Completeness Request |
| 03-10-99: | G-P's 1st response to DEP's Completeness Request of 03-09-99 |
| 04-26-99: | G-P's 2nd response to DEP's Completeness Request of 03-09-99. |
| 04-26-99: | Application complete |

**RELEVANT DOCUMENTS:**

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Date of Receipt of Application: 02-09-99
- DEP Completeness Request: 03-09-99
- G-P's 1st response to DEP's Completeness Request: 03-10-99
- G-P's 2nd response to DEP's Completeness Request: 04-26-99
- Application complete: 04-26-99
- Technical Evaluation and Preliminary Determination 05-12-99
- Best Available Control Technology determination (issued concurrently with permit)

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

The Specific Conditions listed in this section apply to the following emission units:

| EMISSION UNIT NO. | EMISSION UNIT DESCRIPTION |
|---|---|
| 036 | No. 3 Bleach Plant |

1. Unless otherwise indicated, the construction and operation of the above emission units shall be in accordance with the capacities and specifications stated in the application or in updated submittals. **[Rule 62-210.300, F.A.C.]**
2. The subject emissions unit shall comply with all applicable provisions of the 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart S. **[Rule 62-204.800 F.A.C.]**
3. The production rate of the No. 3 Bleach Plant shall not exceed 1,350 tons per day (TPD) of air-dried bleached pulp (ADBP) as a maximum monthly average, nor 1,702 TPD ADBP as a daily maximum. **[Rule 62-210.200, F.A.C.]**
4. The subject emission unit is allowed to operate continuously (8760 hours/year). **[Rule 62-210.200, F.A.C.]**
5. Carbon monoxide emissions from the No. 3 Bleach Plant shall be minimized to the extent practicable by efficient bleaching operations. Carbon monoxide emissions from the No. 3 Bleach Plant wet scrubber stack shall not exceed 46 pounds per hour and 201 tons per year. Initial and annual compliance tests will be conducted to demonstrate compliance with this emission limit. **[Rule 62-212.410, F.A.C.]**
6. Visible emissions from the No. 3 Bleach Plant wet scrubber stack shall not exceed 20% opacity. This visible emissions limit shall only be effective if the visible emission measurement can be made without being substantially affected by plume mixing or moisture condensation. **[Rules 62-296.320 and 62-296.404(2)(b), F.A.C.]**
7. The control device used to reduce emissions of total chlorinated hazardous air pollutants (HAPs) from the No. 3 Bleach Plant shall:
   (a) Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99 percent or more by weight;
   (b) Achieve a treatment device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP; or
   (c) Achieve a treatment device outlet mass emission rate of 0.001 kg of total chlorinated HAP mass per megagram (0.002 pounds per ton) of oven-dried pulp (ODP) **[40 CFR 63.445(c)(1)]**
8. Before this construction permit expires, the subject emissions unit shall be tested for compliance with the above control efficiency requirement for total chlorinated HAPs. For the

duration of all tests the emission units shall be operating at permitted capacity. Permitted capacity is defined as at least 90 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than permitted capacity (i.e., 90% of the maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. **[Rule 62-297.310, F.A.C.]**

9. The Department's Northeast District office in Jacksonville shall be notified in writing at least 15 days prior to a compliance test. Written reports of the test results shall be submitted within 45 days of test completion. **[Rule 62-297.310, F.A.C.]**

10. The compliance test procedures shall be in accordance with EPA Reference Methods 1, 2, 3, 4, 9, 10 and 26A, as appropriate, as published in 40 CFR 60, Appendix A. 60, Appendix A. **[Rules 62-204.800 and 62-297.310(7)(c), F.A.C.]**

11. All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. **[Rule 62-4.070(3), F.A.C.]**

12. The permittee shall install, calibrate, maintain, and operate continuous monitoring devices which can be used to determine the pH or oxidation-reduction potential of the gas scrubber effluent, the gas scrubber vent gas inlet flow rate (or an option proposed by the permittee and approved by the Department prior to startup), and the gas scrubber liquid influent flow rate. The parametric monitoring values will be established during the initial compliance testing. **[40 CFR 63.453(c) and (d); 63.453(n)]**

13. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. **[Rule 62-296.320, F.A.C.]**

14. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. **[Rule 62-210.650, F.A.C.]**

15. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(4) to the Department's Northeast District office by March 1 of the following year for the previous year's operation. **[Rule 62-210.370, F.A.C.]**

16. The subject emissions unit shall be subject to the following:

    - Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. **[Rule 62-210.700, F.A.C.]**

- Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. **[Rule 62-210.700, F.A.C.]**
- Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. **[Rule 62-210.700, F.A.C.]**
- In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
- Prior to April 15, 2001, the permittee shall submit a startup, shutdown and malfunction plan for the No. 3 Bleach Plant as required under 40 CFR 63.6(e)(3).

**[40 CFR 63.6(e)(3) and Rule 62-210.700, F.A.C.]**

17. In order to document continuing compliance with Specific Condition Nos. 3, 5, 7 and 12, daily records shall be maintained. The records at a minimum shall contain the following: **[Rule 62-4.070(3), F.A.C.]**

    - Quantity of pulp processed through the No. 3 Bleach Plant, in air-dried bleached tons.
    - Scrubber parameters monitored per Specific Condition 12.
    - Within 6 months of startup of the No. 3 Bleach Plant, the permittee shall submit an Operation and Maintenance (O&M) Plan which sets forth the practices which are employed to result in efficient bleaching operations.

18. In order to reduce chloroform air emissions from the No. 3 Bleach Plant, the permittee shall meet the applicable effluent limitation guidelines and standards specified in 40 CFR Part 430, and use no chlorine or hypochlorite for bleaching in the No. 3 Bleach Plant. **[40 CFR 63.445(d)]**

19. The permittee shall increase the stack height of Power Boiler No. 4 from 122 feet to 200 feet. **[Rule 62-212.300(1)]**

**Georgia-Pacific Corporation**
**No. 3 Bleach Plant**
**PSD-FL-264 / 1070005-006-AC**
**Palatka, Putnam County**

Georgia-Pacific Corporation (G-P) has applied to install a new elemental chlorine-free (ECF) bleach plant (No. 3 Bleach Plant) to replace two existing bleach plants at its Palatka facility in Putnam County. The proposed modification will allow G-P to comply with the recently promulgated Maximum Achievable Control Technology (MACT) standards for the pulp and paper industry (commonly referred to as MACT I or the Cluster Rule) and the Best Available Technology (BAT) for Effluent Guidelines. The proposed bleach plant consists of bleaching towers, washers, tanks, and associated equipment. The proposed No. 3 Bleach Plant will be capable of bleaching up to 1,702 tons per day (TPD) of air-dried bleached pulp (ADBP) as a daily maximum and 1,350 TPD ADBP as a maximum monthly average.

The proposed project will result in an increase in carbon monoxide (CO) emissions and potential increases in total reduced sulfur (TRS) emissions, but a decrease in emissions of volatile organic compounds (VOCs) and emissions of hazardous air pollutants (HAPs). Emissions increases of TRS are below the significant emission level for TRS per Table 62-212.400-2, F.A.C. Therefore, PSD review is not required for this class of pollutants. However, PSD review is required for CO since the increase in emissions, per the application, is more than the PSD significance level.

The project is subject to Prevention of Significant Deterioration (PSD) review for CO in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). A Best Available Control Technology (BACT) determination is part of the review required by Rules 62-212.400 and 62-296, F.A.C. Air pollution control equipment will consist of efficient operation to minimize CO emissions from the No. 3 Bleach Plant.

## PROCESS EMISSIONS

The applicant proposes the following emissions:

| POLLUTANT | EXISTING EMISSIONS (Nos. 1 and 2 Bleach Plants) | PROPOSED EMISSIONS (No.3 Bleach Plant) | NET CHANGE IN EMISSIONS |
|---|---|---|---|
| CO | 48.0 TPY | 201.0 TPY | 153.0 TPY |
| VOC | 144.7 TPY | 80.7 TPY | -64.0 TPY |
| TRS | 1.2 | 9.0 TPY | 7.8 TPY |
| HAPs | 143.8 | 75.5 TPY | -68.3 TPY |

# BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

## DATE OF RECEIPT OF COMPLETE BACT APPLICATION:

April 26, 1999

## BACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212.400, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically infeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

## BACT EMISSION LIMITS PROPOSED BY APPLICANT:

| POLLUTANT | EMISSION LIMIT | LIMIT BASIS | CONTROL TECHNOLOGY |
|---|---|---|---|
| CO | Efficient bleaching operations | No actual test data; only other BACT determination for bleach plants | Efficient bleaching operations |

## BACT ANALYSIS

### CARBON MONOXIDE (CO)

CO is a byproduct that is formed from the bleaching of Kraft pulp. CO is formed in the chlorine, caustic extraction, and chlorine dioxide bleaching sequences of the bleaching process. Until recently, it was not known how much CO formation could be expected from bleaching using up to 100% $ClO_2$ substitution (NCASI TB 760, 1998). Based on studies performed by NCASI, it has been postulated that CO formation from $ClO_2$ substitution occurs as a result of the synergistic reaction between $ClO_2$ and the lignin in the pulp. The results of the studies do not show a correlation between CO formation and percent $ClO_2$ substitution. However, when using 100% $ClO_2$ substitution, CO emissions appear to increase linearly with the total percent $ClO_2$ applied on the pulp. Therefore, it would appear that when bleaching using an ECF bleaching process (*i.e.*, 100% $ClO_2$ substitution), reducing the amount of $ClO_2$ applied to the pulp could reduce CO formation. This would suggest that CO emissions from the ECF bleaching process could be "controlled" by maintaining the percentage of $ClO_2$ applied to the pulp at minimum levels that would ensure proper bleaching of the pulp. Thus, ensuring efficient use of $ClO_2$ and efficient operation of the bleaching process will minimize CO emissions.

EPA's BACT Clearinghouse database shows only one BACT determination for CO emissions from a bleach plant. The determination was made by the Mississippi Department of Environmental Quality in September 1996 for Weyerhaeuser's Kraft bleach plant in Columbus (Permit No. 1680-00044, September 10, 1996). The final BACT determination was to control CO emissions by ensuring efficient operations of the bleach plant.

At the Department's request, G-P addressed additional control techniques for the reduction of bleach plant CO emissions. Specifically, G-P performed a feasibility and cost analysis for catalytic oxidation and thermal oxidation of CO.

**Regenerative Catalytic Oxidation**

Catalytic oxidation involves the use of a catalyst that reacts with pollutants in the gas stream and reduces them to compounds such as carbon dioxide and water. In order to render catalytic oxidation more effective, thermal oxidation using direct flame burners is often implemented in conjunction with catalytic methods. This also allows oxidation to occur at lower temperatures than thermal oxidation methods alone. This combination of control techniques is called a regenerative catalytic oxidizer (RCO). A cost analysis for an RCO that could be installed on the proposed No. 3 Bleach Plant wet scrubber was performed. The total estimated capital investment cost for a CO destruction efficiency of 95% is approximately $1.6 million. The total annual cost is $808,000/yr. Based on reduction of 191 TPY (201 TPY x 0.95 = 191 TPY) of CO, the total cost effectiveness is $4,200 per ton of CO removed. It is noted that this cost may be low due to the fact that this technology has not previously been applied to a bleach plant at any other paper mill in the

United States. Therefore, actual costs associated with installation and operation may be higher than estimated. The total cost effectiveness, exceeding $4,200 per ton of CO removed, is considered as economically infeasible for control of CO in this case.

In addition, since this technology has not been applied to bleach plants at other facilities, the feasibility for application of this technology is uncertain. Compounds that may be in the gas stream include TRS compounds that are not only corrosive, but can cause deposits to form on the equipment, in turn clogging and fouling the catalyst.

**Thermal Oxidation**

A thermal oxidizer is a technically feasible, although unproven, option for reducing CO emissions from bleach plant wet scrubber vent streams. The EPA background information document (BID) for the proposed Pulp and Paper Cluster Rule (EPA-453 R-93-050a; 1993) establishes that thermal oxidation is technically feasible and so an economic analysis was performed. The total annualized cost for the thermal oxidizer is estimated at $1,500,000/yr. For a CO destruction of 191 TPY, the cost effectiveness is $7,850 per ton of CO removed. Therefore, the thermal oxidizer option is considered to be economically infeasible. The EPA, in determining MACT standards for bleach plants, dismissed thermal oxidation on the basis of economic impacts as well.

**Conclusion**

Given the fact that RCO and thermal oxidation are not proven technically on bleach plants and the relatively high cost per ton of CO removed, the use of add-on control equipment to control CO emissions from the proposed bleach plant is considered economically infeasible. The Department considers the best method to control CO emissions are through the use of best operational practices. This was the control method recommended for the only other bleach plant PSD/BACT evaluation listed in the EPA's BACT/LAER Clearinghouse database.

## BACT DETERMINATION BY THE DEPARTMENT:

### CARBON MONOXIDE (CO)

Based on the information provided by the applicant and other information available to the Department, BACT is "efficient bleaching operations" as a work practice to minimize CO emissions from the proposed No. 3 Bleach Plant. The following emission limits are established for the No. 3 Bleach Plant:

| POLLUTANT | EMISSION LIMIT | LIMIT BASIS | CONTROL TECHNOLOGY |
|---|---|---|---|
| CO | 46 lb/hr and 201 TPY | Per application | Efficient bleaching operations |

## COMPLIANCE

Compliance with the work practice standard shall be demonstrated by submission and Department approval of an Operation and Maintenance (O&M) Plan for the No. 3 Bleach Plant. The O&M Plan shall set forth the practices G-P will employ to result in efficient bleaching operations. An initial and annual stack test of the No. 3 Bleach Plant wet scrubber stack for CO emissions shall be conducted in accordance with the EPA Reference Method 10 as contained in 40 CFR 60, Appendix A.

## DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Syed Arif, P.E., Permit Engineer
Department of Environmental Protection
Bureau of Air Regulation - MS 5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

for C.H. Fancy, P.E., Chief
Bureau of Air Regulation

June 29, 1999
Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

June 21, 1999
Date:

## APPENDIX GC
### GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither 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 is not a waiver 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.

G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment 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.

G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; 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.

G.6 The permittee shall properly operate and maintain the facility and systems 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.

G.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 and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

(a) Have access to and copy and records that must be kept under the conditions of the permit;
(b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
(c) Sample or monitor 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.

G.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 provide the Department with the following information:

(a) A description of and cause of non-compliance; and
(b) The period of noncompliance, including 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.

## APPENDIX GC
### GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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 for revocation of this permit.

G.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 this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extend it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

G.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.

G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.

G.13 This permit also constitutes:

(a) Determination of Best Available Control Technology (N)
(b) Determination of Prevention of Significant Deterioration (N); and
(c) Compliance with New Source Performance Standards (N).

G.14 The permittee shall comply with the following:

(a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

(b) The permittee shall hold 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) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained 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:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

G.15 When requested by the Department, the permittee shall within a reasonable 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 corrected promptly.

# ATTACHMENT A

# OTHER INFORMATION REQUIRED BY RULE OR STATE

## ATTACHMENT A

This application is being submitted to revise the Title V permit to incorporate completion of construction of the No. 3 Bleach Plant at Georgia-Pacific (G-P) Palatka.

The No. 3 Bleach Plant construction permit (No. 1070005-010-AC and No. 1070005-006-AC; PSD-FL-264) contains an hourly and annual emissions limit for carbon monoxide (CO). These emission limits were based on emission estimates derived from published NCASI studies and not site-specific data. The published data were based on very limited test data, and the bleach plants tested are not exactly like G-P Palatka's bleach plant. G-P believes the emission estimates may underestimate CO emissions from the No. 3 Bleach Plant. G-P is continuing its investigation of CO emissions from bleach plants, and based on this investigation a revision to the PSD construction permit will be requested in the near future.

Specific Condition 3 of Permit No. 1070005-010-AC requires that an Operation and Maintenance (O & M) Plan for the No. 3 Bleach Plant be submitted which sets forth the practices which are employed to result in efficient bleaching operations. The required O & M Plan is contained in Attachment GP-EU1-J7.

As per Specific Condition 12 of Permit No. 107005-010-AC, G-P operates continuous monitors for pH of the gas scrubber liquid, the gas scrubber liquid recirculation flow rate, and gas scrubber vent inlet flow rate. The monitoring of the fan loading is an alternative to the continuous monitoring of the gas scrubber vent inlet flow rate. The EPA letter of approval for use of alternative monitoring is contained in Appendix A. Monitoring fan loading insures that gas is flowing to the scrubber. Monitoring pH insures heat gas scrubber liquid is the appropriate strength to control emissions from the vent gas. Monitoring the scrubber recirculation flow ensures that scrubber liquid is actually flowing into the scrubber.

As required, G-P has established parametric monitoring values based on the compliance test conducted on the No. 3 Bleach Plant. These values are presented as follows:

- Fan loading - 85%
- pH - 9.5
- Scrubber recirculation flow rate - 1,500 gpm

G-P requests that any condition placed on the Title V permit to require minimum or maximum scrubber operating parameters state the following: "Such parameters remain valid until a compliance test demonstrates that compliance can be achieved at lower or higher values. Upon such demonstration, the lower or higher values become the new limitations for the gas scrubber."

# APPENDIX A

# EPA APPROVAL LETTER

JET

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 2 ? 2000

received
12-27-00

4APT-ARB

Myra J. Carpenter
Superintendent, Environmental Affairs
Georgia-Pacific Corporation
P. O. Box 919
Palatka, Florida 32178-0919

Dear Ms. Carpenter:

Thank you for your letter dated December 1, 2000, regarding a request from the Georgia-Pacific Corporation, Palatka, Florida, for approval of a bleach plant alternative monitoring parameter pursuant to the Pulp & Paper MACT standard. Section 63.453(c)(2) of the MACT requires subject mills to continuously monitor the gas scrubber vent gas inlet flow rate. However, the facility states that because the inlet to the gas scrubber is a very corrosive, moist environment, it is not conducive to continuous flow measurement and therefore Georgia-Pacific is seeking approval of a system to continuously monitor operation of the fan used to convey hazardous air pollutants to the bleach plant scrubber.

Based on the discussion of the alternative monitoring parameter issue in the Environmental Protection Agency's (EPA's) Q&A Document for the Pulp & Paper MACT (Volume 1, Page 8 - 10), Region 4 concurs that adequate rationale for using an alternative parameter (as required in 63.453(n)), has been demonstrated. Therefore, Region 4 concurs with the Georgia-Pacific request to substitute vent gas fan data (i.e., install, calibrate, operate and properly maintain a continuous monitoring system to monitor the fan amperage of the bleaching system vent gas fan) as an alternative monitoring parameter to 63.453(c)(2) and accordingly approves this specific request.

If further assistance is needed, please contact Lee Page of the EPA Region 4 staff at (404) 562-9131.

Sincerely,

Paul Hagen

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

cc: Howard Rhodes, FL DEP