

Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer
THRU: Al Linero *aa* 4/18
FROM: Syed Arif *Syed Arif*
DATE: April ¹⁰7, 2003
SUBJECT: Georgia-Pacific Palatka Mill
PSD-FL-264A; No. 3 Bleach Plant

Attached is the Public Notice and draft permit modification to increase the Carbon Monoxide (CO) emission rate and to reduce the daily maximum production rate for the No. 3 Bleach Plant. Based on initial test data from the new bleach plant, G-P believes that the CO emission limit need to be revised to adequately reflect process variability of the bleach plant.

The initial construction permit was issued on June 30, 1999. This modification will allow an increase of 123 tons per year of CO emissions, while reducing the maximum daily production rate from 1,702 to 1,440 tons per day of air-dried bleached pulp.

A Best Available Control Technology determination was required for carbon monoxide pursuant to Rule 62-212.400, F.A.C. CO emissions will be controlled through good combustion practices.

I recommend your approval and signature.

April 7, 2003 is day 31 of the 90-day time clock.

SA/a

Attachments



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

P.E. Certification Statement

Permittee:
Georgia-Pacific Corporation
Palatka Mill

DEP File No. 1070005-019-AC
Permit No. PSD-FL-264A

Project type: PSD permit modification that will allow an increase in the carbon monoxide emission rate and reduce the daily maximum production rate for the No. 3 Bleach plant. CO emissions will be minimized by good combustion practices.

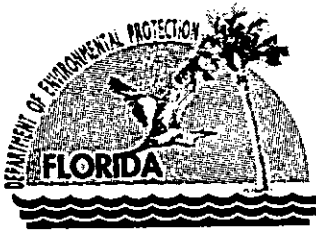
I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Syed Arif 4/7/03
Syed Arif, P.E. Date
Registration Number: 51861

Department of Environmental Protection
Bureau of Air Regulation
New Source Review Section
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Phone (850) 488-0114
Fax (850) 922-6979

"More Protection, Less Process"

Printed on recycled paper.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

April 11, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Theodore D. Kennedy
Vice President, Operations
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

Re: DEP File No. 1070005-019-AC (PSD-FL-264A)
Palatka Mill
No. 3 Bleach Plant

Dear Mr. Kennedy:

Enclosed is one copy of the Draft Permit, Technical Evaluation and Preliminary Determination, for the referenced project in Putnam County. The Department's Intent to Issue Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE" are also included.

The "Public Notice of Intent to Issue Permit" must be published as soon as possible in a newspaper of general circulation in the area affected. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section, at the above letterhead address. If you have any questions, please call Syed Arif at 850/921-9528.

Sincerely,

Trina L. Vielhauer, Chief,
Bureau of Air Regulation

TLV/sa

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an
Application for Permit Modification by:

Mr. Theodore D. Kennedy
Vice President, Operations
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32178-0919

DEP File No. 1070005-019-AC
Draft Permit No. PSD-FL-264A
Palatka Mill
No. 3 Bleach Plant
Putnam County

INTENT TO ISSUE PSD PERMIT MODIFICATION

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue a permit modification under the requirements for the Prevention of Significant Deterioration (PSD) of Air Quality (copy of Draft PSD Permit modification attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Georgia-Pacific Corporation, applied on November 1, 2002 (complete March 7, 2003) to the Department for a PSD permit modification to increase the Carbon Monoxide emission rate and to reduce the daily maximum production rate at its existing No. 3 Bleach Plant in Putnam County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a PSD Permit Modification and a determination of Best Available Control Technology for the control of carbon monoxide is required to conduct the work.

The Department intends to issue this PSD Permit Modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 921-9533). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the Final PSD Permit Modification in accordance with the conditions of the attached Draft PSD Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft PSD Permit Modification, the permitting authority shall issue a Revised Draft PSD Permit Modification and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

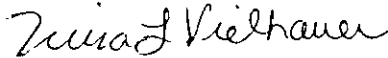
The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section

120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief
Bureau of Air Regulation


CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE PSD PERMIT MODIFICATION (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/11/03 to the person(s) listed:

Mr. Theodore D. Kennedy, Georgia-Pacific Corp.*
Mr. Chris Kirts, DEP-NED
Ms. Jeaneanne Gettle, EPA Region IV
Mr. John Bunyak, NPS
Mr. David Buff, P.E., Golder Associates

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.

 / April 11, 2003
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 1070005-019-AC (PSD-FL-264A)
Putnam County, Florida

The Department of Environmental Protection (Department) gives notice of its intent to issue a Prevention of Significant Deterioration (PSD) permit modification to Georgia-Pacific Corporation for the No. 3 Bleach Plant located in Putnam County, Florida. A construction permit was issued to Georgia-Pacific in June 1999 to replace two bleach plants with a new elemental chlorine-free bleach plant. The modification will allow increase of the Carbon Monoxide emission rate and reduce the daily maximum production rate for the No. 3 Bleach Plant. A Best Available Control Technology (BACT) determination was required for carbon monoxide (CO) pursuant to Rule 62-212.400, F.A.C.

The applicant's name and address are Georgia-Pacific Corporation, Post Office Box 919, Palatka, Florida 32178-0919. The Palatka Mill is located at North of CR 216 and West of US 17, Palatka, Putnam County, Florida.

The Department reviewed BACT alternatives and costs presented by Georgia-Pacific CO including regenerative thermal oxidation (RTO) and incineration in an existing boiler. The proposed (draft) BACT determination is that emissions from the new bleach plant will be limited to 100 pounds per hour by efficient bleaching operations.

The net emissions increases due to the original project and its modification are 324 tons per year of CO. An air quality impact analysis was conducted for carbon monoxide. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the Final PSD Permit Modification in accordance with the conditions of the Draft PSD Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The permitting authority has determined that a PSD Permit Modification is required.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT MODIFICATION." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/807-3233
Fax: 904/448-4363

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

May xx, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Theodore D. Kennedy
Vice President, Operations
Georgia-Pacific Corporation
P.O. Box 919
Palatka, Florida 32178-0919

Re: DEP File No. 1070005-019-AC; PSD-FL-264A
Palatka Mill
No. 3 Bleach Plant

Dear Mr. Kennedy:

The Department has reviewed your (application) request of November 1, 2002, to increase the Carbon Monoxide (CO) emission rate and to reduce the daily maximum production rate for the No. 3 Bleach Plant. Based on initial test data from the new bleach plant, G-P believes that the CO emission limit needs to be revised to adequately reflect process variability of the bleach plant. This request is acceptable to the Department. For the proposed change, greater than significant increases will occur for CO. As such, this pollutant was reviewed under the PSD permitting program.

Based on the above, the Department will modify PSD-FL-264, previously issued on June 30, 1999, as follows:

SECTION III: EMISSION UNIT(S) SPECIFIC CONDITIONS

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~~ 1,440 TPD ADBP as a daily maximum. [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 shall not exceed ~~46~~ 100 pounds per hour and ~~201~~ 324 tons per year. Initial and annual compliance tests will be conducted to demonstrate compliance with this emission limit while processing 100 percent softwood. Initial performance test shall be completed by October 31, 2003. 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 (1,440 TPD ADBP) 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. If additional physical modification is required to attain 1,440 TPD ADBP, the permittee shall submit an application for Department approval. [Rules 62-212.400 and 62-297.310, F.A.C.]

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., 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 Tallahassee, Florida.

Howard L. Rhodes, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on _____ to the person(s) listed:

Mr. Theodore D. Kennedy, G-P*
Ms. Myra Carpenter, G-P
Mr. Chris Kirts, DEP-NED
Ms. Jeaneanne Gettle, EPA Region IV
Mr. John Bunyak, NPS
Mr. David Buff, P.E., Golder Associates, Inc.

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)

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

GEORGIA-PACIFIC CORPORATION

Kraft Pulp Mill
Palatka, Putnam County

DEP File No. 1070005-019-AC
PSD-FL-264A

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

April 10, 2003

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

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

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

1.2 Reviewing and Process Schedule

11-01-02: Date of Receipt of Original Application
11-14-02: Date of Receipt of Revised Application
11-26-02: DEP Completeness Request
01-06-03: G-P's 1st response to DEP's Completeness Request of 11-26-02
01-28-03: G-P's 2nd response to DEP's Completeness Request of 11-26-02
03-07-03: G-P's submittal of additional information
03-07-03: Application complete

2. FACILITY INFORMATION

2.1 Facility Location

The Georgia-Pacific Corporation Palatka pulp and paper mill facility is located North of County Road 216 and west of US 17, near Palatka, Putnam County. This site is approximately 110 kilometers from the Okefenokee National Wilderness Refuge, a Class I PSD Area. The UTM coordinates of this facility are Zone 17; 434.0 km E; 3283.4 km N.

2.2 Standard Industrial Classification Codes (SIC)

Major Group No.	26	Paper and Allied Products
Industry Group No.	2611	Pulp Mills
Industry Group No.	2621	Paper Mills

2.3 Facility Category

The Kraft pulp mill, located in Palatka, Florida and operated by G-P, consists of a batch digester system, brown stock washer system, multiple effect evaporator (MEE) system, condensate stripper system, recovery boiler and smelt tanks, lime kiln, tall oil plant, bleach plant, steam boilers, and other equipment to produce finished paper products from virgin wood.

The facility is classified as a major or Title V source of air pollution because emissions of at least one regulated air pollutant exceed 100 TPY. 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 tons per year (TPY) for at least one regulated air pollutant, the facility is classified as 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 change, greater than

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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

3. PROCESS DESCRIPTION

In 1999, G-P applied for a construction permit for the ECF three-stage bleach plant. On June 30, 1999, the Department issued a PSD permit to construct the No. 3 Bleach Plant. Construction for the No. 3 Bleach Plant was completed by February 15, 2001. Based on initial test data from the new bleach plant, G-P believes that the CO emission limit need to be revised to adequately reflect process variability of the bleach plant.

In the basic ECF pulp bleaching process, chlorine dioxide is substituted for chlorine and/or sodium hypochlorite to bleach the pulp. ECF pulp bleaching can be used to bleach either softwood or hardwood pulp. ECF bleach plants of the design installed by G-P typically bleach the pulp in three stages. The three stages consist of a D₁₀₀ stage (chlorine dioxide stage), an E_{OP} stage (caustic extraction with oxygen and peroxide), and a final D stage (chlorine dioxide stage), resulting in a D₁₀₀ (E_{OP}) D sequence. Equipment includes bleaching towers, washers, filtrate tanks, pumps, etc. Pulp to the bleach plant is usually supplied from a high-density chest or washed stock chest for either hardwood or softwood pulp. Air emissions generated from the ECF bleaching process include chlorine, carbon monoxide (CO), volatile organic compounds (VOC), and hazardous air pollutants (HAPs). Total reduced sulfur (TRS) emissions are also potentially generated. An add-on wet scrubber, typically installed on bleach plants, provides control of chlorinated HAPs and some control of VOCs and other HAPs, but does little to control CO emissions.

4. PROJECT DESCRIPTION

This permit addresses the following emissions units:

EMISSION UNIT No.	SYSTEM	EMISSION UNIT DESCRIPTION
036	Process	No. 3 Bleach Plant

The applicant proposes to revise the CO emission limit in the No. 3 Bleach Plant PSD permit, Permit No. 1070005-006-AC; PSD-FL-264. G-P is proposing to increase the CO emission limit to 100 lbs/hr and 324 TPY. This increase in emissions reflects the potential for 100 percent softwood processing on a short-term (daily) basis.

In the original PSD application, G-P estimated an average hourly CO emission rate of 63 lbs/hr. This was based on processing 65 percent softwood and 35 percent hardwood, and using the emission factors developed by National Council for Air and Stream Improvement, Inc. (NCASI) in Technical Bulletin No. 760. The NCASI data indicated that CO emissions from softwood bleaching are dependent on the rate of chlorine dioxide (ClO₂) application to the pulp, but CO emissions from hardwood bleaching are not dependent on ClO₂ application rate. The projected CO emissions from softwood bleaching were estimated as 1.03 pounds per air dried ton of bleached pulp (lbs/ADTBP) for short-term emissions and 0.91 lbs/ADTBP for long-term

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

emissions. The projected CO emissions from hardwood bleaching were estimated as 0.64 lbs/ADTBP. Maximum hourly emissions from the No. 3 Bleach Plant were based on a projected maximum pulp production rate of 1,702 ADTBP per day. Annual emissions were based on a projected daily average pulp production rate of 1,350 ADTBP per day and a processing ratio of 65 percent softwood and 35 percent hardwood.

G-P has actual operating experience with the No. 3 Bleach Plant and now believes the maximum hourly throughput that can be achieved by the No. 3 Bleach Plant is 60 ADTBP per hour (1,440 ADTBP per day). G-P believes that the average daily throughput rate, on a monthly basis, that was presented in the original application (1,350 ADTBP per day) is still representative.

A series of test runs were recently conducted (October 2002) to measure actual CO emissions from the No. 3 Bleach Plant when processing 100 percent softwood. Of nine test runs conducted over a three-day period, six of the runs were conducted at throughput rates approaching 50 ADTBP per hour or higher which is within 90% of 1,350 ADTBP per day (average daily throughput rate, on a monthly basis). As such, these six runs were used to calculate the average CO emission factor that would be most representative of future operating conditions. The average CO emission factor was calculated to be 1.32 lbs/ADTBP. In order to account for the limited data set, and the potential for process variation, a 95 percent confidence level (statistically corresponding to two standard deviations) was utilized in computing a final emission factor of 1.68 lbs/ADTBP for softwood. This results in a maximum hourly CO emission rate of approximately 100 lbs/hour.

The annual CO emission rate that is being proposed is based on a wood species mix of 65% softwood and 35% hardwood on an annual basis. Due to the lack of Mill-specific data for hardwood processing, NCASI emission factor of 0.64 lb/ADTBP was used. The use of these factors and assumptions results in an annual CO emission rate of 324 TPY.

No other emissions unit at the facility will be affected by the modification of the No. 3 Bleach Plant. No increase in total pulp production by the digester system at the facility will result from the proposed project.

The proposed project will result in a significant emission increase in CO per Table 62-212.400-2, F.A.C., and does require PSD review for CO. Estimated emissions from the original project and the proposed modification are shown below:

POLLUTANT	EXISTING EMISSIONS (No. 3 Bleach Plant)	PROPOSED EMISSIONS (No. 3 Bleach Plant)	NET CHANGE IN EMISSIONS
CO	201 TPY	324 TPY	123 TPY

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

5. RULE APPLICABILITY

The project is subject to the federal National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Pulp and Paper Facilities (40 CFR 63, Subpart S), incorporated by reference in Rule 62-204.800, F.A.C.

The proposed project is subject to permitting, preconstruction review, emissions limits and compliance requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Putnam County; an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for CO exceeds the significant emission rate given in Chapter 62-212, Table 62-212.400-2, F.A.C. PSD review requires an assessment of air quality impacts and a determination of Best Available Control Technology (BACT).

The emission units affected by this permit modification shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments
Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications
40 CFR 63, Subpart A	General Provisions for MACT Sources
40 CFR 63.445	Standards for Bleaching Systems
40 CFR 63.450	Standards for Enclosures and Closed-Vent Systems
40 CFR 63.453	Monitoring Requirements
40 CFR 63.454	Recordkeeping Requirements

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

40 CFR 63.455
40 CFR 63.457

Reporting Requirements
Test Methods and Procedures

6. SOURCE IMPACT ANALYSIS

6.1 Air Quality Analysis

6.1.1 Introduction

According to the application, the proposed project will increase emissions of carbon monoxide by more than PSD significant amounts. Carbon monoxide (CO) is a criteria pollutant and has national and state ambient air quality standards (AAQS) defined for it. There are no PSD increments for CO. The PSD regulations require the following air quality analyses for this project:

- A significant impact analysis for CO;
- An analysis of existing air quality for CO, if significance levels are exceeded;
- An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS (there is no PSD increment for CO). However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A discussion of the required analyses follows.

6.1.2 Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. The monitoring requirement may be satisfied by using existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific *de minimis* concentration. In addition, if EPA has not established an acceptable monitoring method for the specific pollutant, monitoring may not be required.

If preconstruction ambient monitoring is exempted, determination of background concentrations for PSD significant pollutants with established AAQS may still be necessary for use in any required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

predicted by modeling and represent the air quality impacts of sources not included in the modeling.

The table below shows that predicted CO impacts from the project is predicted to be less than the monitoring *de minimis* level. Therefore, preconstruction ambient air quality monitoring is not required for this pollutant.

**Maximum Project Air Quality Impacts for Comparison
to the Monitoring de Minimis Levels.**

Pollutant	Avg. Time	Max Predicted Impact (ug/m ³)	De Minimis Level (ug/m ³)	Impact Greater Than de Minimis?
CO	8-hour	293	575	No

6.1.3 Models and Meteorological Data Used in the Air Quality Impact Analysis

The applicant and the Department used the EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model to evaluate the pollutant emissions from the proposed project. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms, such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a consecutive 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Jacksonville International Airport, Florida (surface data) and Waycross, Georgia (upper air data). The 5-year period of meteorological data was from 1984 through 1988. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

Since five years of data were used in ISCST3, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate AAQS. For determining the project's significant impact area in the vicinity of the facility and if there are significant impacts from the project on any PSD Class I area, the highest short-term predicted concentration were compared to the significant impact level.

6.1.4 Significant Impact Analysis

Initially, the applicant conducts modeling using only the proposed project's emissions changes. If this modeling shows significant impacts, further modeling is required to determine the project's

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

impacts on the AAQS. The G-P facility is located in a PSD Class II area. Polar grids were mainly used for placing receptors. These receptors, comprised of 36 radials spaced at 10-degree intervals, began at the plant property and extended out to a distance of 5.5 kilometers (km). An additional 334 Cartesian grid receptors, spaced at 100 meter (m) intervals, were used to predict impacts along the fence line areas.

In addition, eleven discrete receptors were used to predict CO impacts at the two closest PSD Class I areas. Ten of the eleven receptors were located along the southern and eastern boundaries of the Okefenokee National Wilderness Refuge (ONWR) located approximately 111 km north-northwest of the facility. One additional receptor was located at the Wolf Island National Wilderness Refuge (WINWR), located approximately 150 km north of the facility.

For each pollutant subject to PSD and also subject to AAQS analyses, this modeling compared maximum predicted impacts due to the project with significant impact levels to determine whether significant impacts due to the project are predicted in the vicinity of the facility. The tables below summarize the results of this modeling. The results of the significant impact modeling indicate that there are no significant impacts predicted from the increase in emissions from this project. Therefore, no further modeling to demonstrate compliance with the AAQS was required.

Maximum Project Air Quality Impacts for Comparison to the PSD Significant Impact Levels

Pollutant	Averaging Time	Maximum Predicted Impact (ug/m ³)	Significant Impact Level (ug/m ³)	Significant Impact?
CO	8-hour	293	500	No
	1-hour	1096	2,000	No

Because allowable PSD increments do not exist for CO, the Class I modeling analysis was performed only for the Air Quality Related Value (AQRV) assessment. The Class I modeling predicts very low CO impacts upon the Class I areas.

6.2 Additional Impacts Analysis

6.2.1 Impact Analysis Impacts On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur from CO emissions as a result of the proposed project are predicted to be insignificant. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area near the G-P facility. An AQRV analysis was performed by the applicant for the Class I area by identifying the AQRV's for the

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Class I areas, and assessing potential impacts due to the project.. Predicted CO impacts upon the Class I areas are very small, and no significant impacts on these areas are expected.

6.2.2 Impact On Visibility

A regional haze analysis is used to assess the potential for a significant increase in regional haze in the Class I areas due to this source's projected increase in emissions. Since the visibility criteria is not dependent upon CO emissions, the proposed project is predicted to have no adverse effects on visibility in the Class I area.

6.2.3 Growth-Related Air Quality Impacts

The proposed modification will not significantly change employment, population, housing or commercial/industrial development in the area to the extent that a significant air quality impact will result.

7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project will comply with all applicable State of Florida and federal air pollution regulations, provided the Department's BACT determination is implemented.

Syed Arif, P.E.
Cleve Holladay, Meteorologist

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Georgia-Pacific Corporation
No. 3 Bleach Plant
PSD-FL-264A / 1070005-019-AC
Palatka, Putnam County

In 1999, G-P applied for a construction permit for the elemental chlorine-free (ECF) three-stage bleach plant. On June 30, 1999, the Department issued a PSD permit to construct the No. 3 Bleach Plant. The No. 3 Bleach Plant was constructed to replace the No. 1 and the No. 2 Bleach Plants and to aid G-P in meeting the Maximum Achievable Control Technology (MACT) Standards promulgated for the pulp and paper industry (40 CFR Part 63) by converting the bleaching system to a totally elemental chlorine-free (ECF) process. Construction for the No. 3 Bleach Plant was completed by February 15, 2001. Based on initial test data from the new bleach plant, G-P believes that the CO emission limit needs to be revised to adequately reflect process variability of the bleach plant.

The bleach plant consists of bleaching towers, washers, tanks, and associated equipment. The No. 3 Bleach Plant will be capable of bleaching up to 1,440 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. PSD review is required for CO since the increase in emissions, per the application, is more than the PSD significance level per Table 62-212.400-2, F.A.C.

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:

POBUTANT	EXISTING EMISSIONS (No. 3 Bleach Plant)	PROPOSED EMISSIONS (No. 3 Bleach Plant)	NET CHANGE IN EMISSIONS
CO	201 TPY	324 TPY	123 TPY

DATE OF RECEIPT OF COMPLETE BACT APPLICATION:

March 7, 2003

Georgia-Pacific Corporation
No. 3 Bleach Plant

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

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

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	100 lb/hr and 324 TPY	Actual test data	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% ClO₂ substitution (NCASI TB 760, 1998). Based on studies performed by NCASI, it has been postulated that CO formation from ClO₂ substitution occurs as a result of the synergistic reaction between ClO₂ and the lignin in the pulp. The results of the studies do not show a correlation between CO formation and percent ClO₂ substitution. However, when using 100% ClO₂ substitution, CO emissions appear to increase linearly with

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

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 three other determinations besides G-P's original BACT determination. The determinations were made for two different Weyerhaeuser facilities, located in North Carolina and Mississippi. There were no add-on control technologies associated with these BACT determinations. The Mississippi Weyerhaeuser facility's 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 1) a stand-alone regenerative thermal oxidizer (RTO) and 2) on-site boilers. Cost for other thermal oxidizers types (e.g., catalytic oxidizers) are similar to an RTO and have similar destruction efficiencies.

Thermal Oxidation

Thermal incineration generally consists of an auxiliary fuel-fired burner and a combustion chamber. The principle of destruction is to raise the exhaust gases to a sufficiently high temperature, for an adequate retention time, so that oxidation occurs. RTO's are built on the principle of thermal oxidation, but with enhanced fuel efficiency. An RTO consists of two or more heat exchangers connected by a common combustion zone. The heat exchangers use beds of ceramic beads to store and release heat recovered from the oxidation process. The Bleach Plant exhaust air stream enters the first heat exchange bed where air stream passes directly through the ceramic media where it is preheated before entering the combustion chamber. In the combustion chamber, a burner is used to supply any heat necessary to reach optimum combustion temperature (usually 1,400 degrees Fahrenheit or higher) and complete the oxidation process.

The cleaned air stream next enters a second heat exchanger where it passes directly through the ceramic media and is cooled, while simultaneously heating the media before the air stream is exhausted to the atmosphere. The airflow through the heat exchange beds is reversed at regular intervals to conserve the heat of combustion within the RTO. The thermal efficiency of the unit can be as high as 95 percent.

A thermal oxidizer is a technically feasible, although unproven, option for reducing CO emissions from bleach plant wet scrubber vent streams. Since thermal oxidation is technically feasible, an economic analysis was performed by G-P for an RTO following the existing No. 3 Bleach Plant. According to G-P, the total estimated capital investment cost for a CO destruction efficiency of 95% is approximately \$5.4 million. The total annual cost is \$1,250,000/yr. Based on reduction of 187 TPY ($197 \text{ TPY} \times 0.95 = 187 \text{ TPY}$) of CO, the total cost effectiveness is \$6,638 per ton of CO removed.

The 197 TPY baseline emission rate used by G-P (instead of the maximum annual CO emissions of 324 TPY) is based on their use of guidance presented in Section B.IV.D.2.b of the New Source Review Workshop Manual- Draft (EPA 1990): "*In addition, historic upper bound operating data, typical for the source or industry, may be used in defining baseline emissions in evaluating the cost effectiveness of a control option for a specific source. For example, if for a source or industry, historical upper bound*

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

operations call for two shifts a day, it is not necessary to assume full time (8760 hours) operation on an annual basis in calculating baseline emissions." G-P concludes that an RTO is not cost-effective for this project.

It is noteworthy that EPA required installation of an oxidation catalyst at a combustion turbine in New York (Sithe) following a cost-effectiveness calculation of approximately \$6,000 per ton. On the other hand, EPA determined that an RTO is not required as MACT for pulp bleaching.

The Department does not necessarily follow the procedures in the mentioned EPA document or adhere to previous cost-effectiveness thresholds from projects reviewed by EPA. Further, the Department does not necessarily agree with the cost estimates provided by G-P. While the Department has not set a bright-line threshold for cost-effectiveness of CO control, the value will be less than thresholds for NO_x or SO₂. Therefore the Department still accepts G-P's conclusion that an RTO for this bleach plant is not cost-effective.

Incineration in a boiler

External combustion sources, such as a boiler, induct ambient air into the combustion zone of a primary fuel (e.g., oil or bark) to produce heat and steam. The combustion zone of a boiler will oxidize CO to carbon dioxide. Possible combustion sources at the Mill include the Power Boiler and the Combination Boiler. The Recovery Boiler and Lime Kiln at the Mill combust and convert reactants to chemicals used in the Kraft process, and cannot accept chlorine-containing streams. A cost analysis for incineration in an existing boiler was performed by G-P. The total estimated capital investment cost for a CO destruction efficiency of 95% is approximately \$4 million. The total annual cost is \$1 million/yr. Based on reduction of 187 TPY (197 TPY x 0.95 = 187 TPY) of CO, the total cost effectiveness is \$5,339 per ton of CO removed.

The Department does not necessarily accept G-P's values or that destruction in an existing boiler is technically infeasible. However, the Department accepts their conclusion that destruction in an existing boiler is not cost-effective for this project.

Conclusion

Based on available information, it appears that RTO has not been demonstrated on bleach plants and would not be cost-effective for the bleach plant at G-P. Incineration in an existing boiler is also considered economically infeasible. The best method to control CO emissions is 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 Department does not concur with the applicant in using upper bound operating

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

data in defining baseline emissions for the evaluation of cost-effectiveness of a control option. The Department believes that by using the maximum annual CO emissions of 324 TPY, use of an RTO or incineration at an existing boiler will not be cost-effective. The following emission limits are established for the No. 3 Bleach Plant:

POLLUTANT	EMISSION LIMIT	LIMIT BASIS	CONTROL TECHNOLOGY
CO	100 lb/hr and 324 TPY	Per application	Efficient bleaching operations

COMPLIANCE

An initial and annual stack test of the No. 3 Bleach Plant wet scrubber stack for CO emissions shall be conducted at 1,440 TPD of air-dried bleached pulp while processing 100 percent softwood in accordance with the EPA Reference Method 10 as contained in 40 CFR 60, Appendix A. Compliance with the work practice standard shall be demonstrated by an Operation and Maintenance (O&M) Plan for the No. 3 Bleach Plant submitted by the applicant on August 15, 2001. The O&M Plan sets forth the practices G-P will employ to result in efficient bleaching operations.

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:

Approved By:

 Trina Vielhaber, Chief
 Bureau of Air Regulation

 Howard L. Rhodes, Director
 Division of Air Resources Management

Date:

Date:

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Theodore D. Kennedy
 Vice President, Operations
 Georgia-Pacific Corporation
 Post Office Box 919
 Palatka, FL 32178-0919

2. Article Number (Copy from service label)

7099 3400 0000 1449 5175

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

John Alexander 4-15-03

C. Signature

x John Alexander

 Agent AddresseeD. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes**U.S. Postal Service****CERTIFIED MAIL RECEIPT***(Domestic Mail Only; No Insurance Coverage Provided)*

Article Sent To:

--

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Name (Please Print Clearly) (to be completed by mailer)

Theodore D. Kennedy

Street, Apt. No., or PO Box No.

PO Box 919

City, State, ZIP+4

Palatka, FL 32178-0919

PS Form 3800, July 1999

See Reverse for Instructions

7099 3400 0000 1449 5175