



PUTNAM COUNTY PROPERTY APPRAISER

P.O. BOX 1920 • 312 OAK STREET • PALATKA, FLORIDA 32178-1920
PALATKA: 386/329-0286 • FAX: 386/329-0447 • SUNCOM: 860-0286 • TOLL FREE: 1-800-826-1437
CRESCENT CITY: 386/698-4284 • INTERLACHEN: 386/684-3383
Website: www.putnam-fl.com/app • Email: appraiser@putnam-fl.com

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

JUN 22 2006

SITING COORDINATION

LARRY PRITCHETT, C.F.A.
Property Appraiser

TIMOTHY E. PARKER, C.F.E.
Chief Deputy

SHARON PRESTON, C.F.E.
Administrative Assistant

June 20, 2006

Mr. Hamilton Oven, P.E.
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, FL 32399

RE: Georgia Pacific Corp. Acct. 821328

Dear Mr. Oven:

Enclosed you will find the Return of Pollution Control Devices for the above referenced account in our county.

Would you please review this information and advise me as to what qualifies for assessment as pollution control devices under Section 193.621, Florida Statutes. If you need any additional information, let me know. Thank you for your assistance.

Sincerely,

(Mrs.) Marsha B. Denton, C.F.E.
Office Operations Supervisor

OUR COMMITMENT TO YOU . . .

We in Putnam County are a team of public employees who provide services to help meet the needs of our citizens. We are committed to continuous improvement and greater participation by everyone. We will deliver our services in a meaningful, respectful, and courteous manner. We will do this now and in the future to preserve and enhance the quality of life in our community.



DR-492
R. 08/83

Return of Pollution Control Devices For Ad Valorem Tax Purposes

Florida Statutes Chapter 193.621

To the Property Appraiser Pittman

County, Florida, Larry Pritchett

Return is hereby made for the assessment of the following described property under Florida Statutes as pollution control devices.

Description of Property

Pollution Control Equipment
see attached addition

Description of Facility

Mfg. Equip. & Equip.
Act 1# 521.328

Name and address of owner:

The undersigned taxpayer hereby agrees to furnish such other reasonable information as the Appraiser may request in regard to the assessment requested herein.

[Signature]
Taxpayer's Signature

This form must be filed with the County Property Appraiser before April 1st.

ORIGINAL TO BE RETAINED BY PROPERTY APPRAISER

COPY TO BE GIVEN TO TAXPAYER

Putnam County, Florida
Georgia-Pacific Corp.
Palatka Pulp Paper

Cost	Acq Date	Description	Code1
\$ 24,299,000	7-Nov-05	BROWN STOCK WASHING - #7 WASH LINE	G
\$ 2,817,000	7-Nov-05	BROWN STOCK WASHING - DNCG	G
\$ 23,840,000	5-Dec-05	BROWN STOCK WASHING - #6 WASH LINE	G
\$ 23,932,000	22-Dec-05	BROWN STOCK WASHING - #5 WASH LINE	G
\$ 166,746	30-Sep-05	INSTALL BAFFLES IN OXIDATION POND 4	G



Sales and Use Tax	2003-To Date Technical Assistance Advisements
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SUMMARY

QUESTION: Whether the Taxpayer's replacement of brownstock washing and oxygen delignification equipment, processes, and systems, as enumerated in Exhibit B of the TAA request, and required for compliance with the EPA Cluster Rule, NPDES permit, and DEP administrative order meet the requirements for exemption.

ANSWER - Based on Facts Below: Although the brownstock washing systems and the oxygen delignification system are integral parts of the pulp and paper production process, the primary purpose of their current replacement or installation is to meet a law implemented by, or a condition of a permit issued by, the Florida Department of Environmental Protection. Accordingly, the replacement and installation of these systems, as enumerated in Exhibit B of the TAA request, will qualify for exemption as pollution control equipment pursuant to s. 212.051(1), F.S.

Jun 09, 2004

Re: Technical Assistance Advisement 04A-036
Sales and Use Tax
Exemption on Equipment for Pollution Control
Section 212.051, F.S.

Dear :

This is in response to your letter of April 8, 2004, which requests the issuance of a Technical Assistance Advisement concerning the applicability of an exemption from sales and use tax pursuant to s. 212.051(1), F.S., to purchases of machinery and equipment by your company (hereinafter "Taxpayer").

BACKGROUND

Taxpayer operates a bleached and unbleached kraft pulp and paper facility in Florida. This facility operates under an Industrial Wastewater Facility Permit XXX issued by the Florida Department of Environmental Protection (DEP). This permit also serves as the federal National Pollutant Discharge Elimination System (NPDES) permit, as that permitting process is described in s. 403.0885, F.S. The standards, rules, and regulations as

established by the federal Environmental Protection Agency (EPA) are enforced, implemented, and permitted by DEP.

In order for Taxpayer to continue discharging treated wastewater into "waters" of the state as defined in s. 403.031, F.S., Taxpayer is required to make certain changes to its production process as specified in the NPDES permit and the accompanying administrative order (039-NE) that has been issued pursuant to s. 403.088(2)(f), F.S. The current NPDES permit that has been issued to Taxpayer by DEP specifically states that "[t]he Permittee [Taxpayer] shall comply with the Cluster Rule discharge requirements for bleached kraft mills...."

Traditional "end-of-pipe" pollution control functions focus on capturing and recycling or destroying pollutants that have been formed in the production process. Rules have now been introduced by the EPA that depart from the traditional pollution control methods. These rules are commonly referred to as the "Cluster Rule." The term "cluster" refers to the two areas regulated by the rules, specifically, air and water. The Cluster Rule mandates significant, broad-scale changes to the paper making process, including new production methods, equipment, and chemicals. Instead of just regulating the types and quantities of pollutants that may be discharged by a manufacturing facility, the goal of the Cluster Rule is to reduce the generation or initial creation of pollutants in the manufacturing process itself. Accordingly, Taxpayer must make changes to the way that it produces pulp and paper.

Required changes to Taxpayer's manufacturing processes have previously affected the bleach plant operations. That issue has already been addressed for Taxpayer in TAA 00A-031, dated June 15, 2000. The current NPDES permit and administrative order now affect the processes immediately prior to the bleaching stage of the pulping cycle. These processes are the brownstock washing and oxygen delignification systems.

Brownstock refers to the lignin, which is brown in color, that has separated from the wood chips during the cooking process. Brownstock washing is a multistage process to remove the lignin before the cellulose pulp is sent to the bleaching stage. As a part of the brownstock washing system, oxygen delignification also helps in the removal of lignin. The better the removal of the lignin, the lesser the amount of chemicals that will have to be used in the bleaching process. One of the chemicals used in the bleaching process, chlorine dioxide, cannot be reused and must be discharged to the sewer. Chlorine dioxide is a pollutant that is regulated by the EPA and DEP.

ISSUE

Whether the replacement brownstock washing and oxygen delignification equipment, processes, and systems, as enumerated in Exhibit B of the TAA request, required for compliance with the EPA Cluster Rule, NPDES permit, and administrative order meet the requirements for exemption under the provisions of s. 212.051, F.S.

RELEVANT AUTHORITY

The following passage from the Florida Statutes (F.S.) is pertinent to the exemption issue in this advisement.

Section 212.051, F.S., provides in part:

Equipment, machinery, and other materials for pollution control; not subject to sales or use tax. -

(1) Notwithstanding any provision to the contrary, sales, use, or privilege taxes shall not be collected with respect to any facility, device, fixture, equipment, machinery, specialty chemical, or bioaugmentation product used primarily for the control or abatement of pollution or contaminants in manufacturing, processing, compounding, or producing for sale items of tangible personal property at a fixed location, or any structure, machinery, or equipment installed in the reconstruction or replacement of such facility, device, fixture, equipment, or machinery. To qualify, such facility, device, fixture, equipment, structure, specialty chemical, or bioaugmentation product must be used, installed, or constructed to meet a law implemented by, or a condition of a permit issued by, the Department of Environmental Protection; however, such exemption shall not be allowed unless the purchaser signs a certificate stating that the facility, device, fixture, equipment, structure, specialty chemical, or bioaugmentation product to be exempted is required to meet such law or condition.

DETERMINATION

Taxpayer will be spending millions of dollars to install the replacement brownstock washing systems and the new oxygen delignification system. Although these systems may result in some operational cost savings due to a reduction in chemical costs, the projects will have a negative financial return. While functioning adequately at this time, the current brownstock washing system does not remove as much lignin as a modern system. This results in the use and discharge of polluting chemicals, which exceed currently allowable quantities. The quantity of pollutants must be reduced in order to be in compliance with the Cluster Rule, NPDES permit, and administrative order as mandated by DEP. Without the new processes and systems, Taxpayer would be forced to close the facility.

Although the brownstock washing systems and the oxygen delignification system are integral parts of the pulp and paper production process, the primary purpose of their current replacement or installation is to meet a law implemented by, or a condition of a permit issued by, the Department of Environmental Protection. Accordingly, the replacement and installation of these systems, as enumerated in Exhibit B of the TAA request, will qualify for exemption as pollution control equipment pursuant to s. 212.051(1), F.S.

This response constitutes a Technical Assistance Advisement under Section 213.22, F.S., which is binding on the Department

only under the facts and circumstances described in the request for this advice, as specified in Section 213.22, F.S. Our response is predicated upon those facts and the specific situation summarized above. You are advised that subsequent statutory or administrative rule changes or judicial interpretations of the statutes or rules upon which this advice is based may subject similar future transactions to a different treatment from that which is expressed in this response.

You are further advised that this response, your request and related documents are public records under Chapter 119, F.S., which are subject to disclosure to the public under the conditions of Section 213.22, F.S. Your name, address, and any other details which might lead to identification of the taxpayer must be deleted before disclosure. In an effort to protect the confidentiality of such information, we request you provide the undersigned with an edited copy of your request for Technical Assistance Advisement, backup material and response within fifteen days of the date of this advisement.

Sincerely,

Jeffery L. Soff
Tax Law Specialist
Technical Assistance and
Dispute Resolution

ctrl# 59714

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Jim Zingale
Executive Director

General Tax Administration
Child Support Enforcement
Property Tax Administration
Administrative Services
Information Services

June 9, 2004

John H. Stagmeier
Director – State & Local Taxes
Georgia-Pacific Corporation
Post Office Box 105681
Atlanta, Georgia 30348-5681

Re: Technical Assistance Advisement 04A-036
Sales and Use Tax
Exemption on Equipment for Pollution Control
Section 212.051, F.S.

Dear Mr. Stagmeier:

This is in response to your letter of April 8, 2004, which requests the issuance of a Technical Assistance Advisement concerning the applicability of an exemption from sales and use tax pursuant to s. 212.051(1), F.S., to purchases of machinery and equipment by your company (hereinafter "Taxpayer").

BACKGROUND

Taxpayer operates a bleached and unbleached kraft pulp and paper facility in Florida. This facility operates under an Industrial Wastewater Facility Permit (FL0002763) issued by the Florida Department of Environmental Protection (DEP). This permit also serves as the federal National Pollutant Discharge Elimination System (NPDES) permit, as that permitting process is described in s. 403.0885, F.S. The standards, rules, and regulations as established by the federal Environmental Protection Agency (EPA) are enforced, implemented, and permitted by DEP.

In order for Taxpayer to continue discharging treated wastewater into "waters" of the state as defined in s. 403.031, F.S., Taxpayer is required to make certain changes to its production process as specified in the NPDES permit and the accompanying administrative order (039-NE) that has been issued pursuant to s. 403.088(2)(f), F.S. The current NPDES permit that has been issued to Taxpayer by DEP specifically states that "[t]he Permittee [Taxpayer] shall comply with the Cluster Rule discharge requirements for bleached kraft mills. . . ."

Traditional "end-of-pipe" pollution control functions focus on capturing and recycling or destroying pollutants that have been formed in the production process. Rules have now been introduced by the EPA that depart from the traditional pollution control methods. These rules are commonly referred to as the "Cluster Rule." The term "cluster" refers to the two areas regulated by the rules, specifically, air and water. The Cluster Rule mandates significant, broad-scale changes to the paper making process, including new production methods, equipment, and chemicals. Instead of just regulating the types and quantities of pollutants that may be discharged by a manufacturing facility, the goal of the Cluster Rule is to reduce the generation or initial creation of pollutants in the manufacturing process itself. Accordingly, Taxpayer must make changes to the way that it produces pulp and paper.

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Brownstock refers to the lignin, which is brown in color, that has separated from the wood chips during the cooking process. Brownstock washing is a multistage process to remove the lignin before the cellulose pulp is sent to the bleaching stage. As a part of the brownstock washing system, oxygen delignification also helps in the removal of lignin. The better the removal of the lignin, the lesser the amount of chemicals that will have to be used in the bleaching process. One of the chemicals used in the bleaching process, chlorine dioxide, cannot be reused and must be discharged to the sewer. Chlorine dioxide is a pollutant that is regulated by the EPA and DEP.

ISSUE

Whether the replacement brownstock washing and oxygen delignification equipment, processes, and systems, as enumerated in Exhibit B of the TAA request, required for compliance with the EPA Cluster Rule, NPDES permit, and administrative order meet the requirements for exemption under the provisions of s. 212.051, F.S.

RELEVANT AUTHORITY

The following passage from the Florida Statutes (F.S.) is pertinent to the exemption issue in this advisement.

Section 212.051, F.S., provides in part:

Equipment, machinery, and other materials for pollution control; not subject to sales or use tax. —

(1) Notwithstanding any provision to the contrary, sales, use, or privilege taxes shall not be collected with respect to any facility, device, fixture, equipment, machinery, specialty chemical, or bioaugmentation product used primarily for the control or abatement of pollution or contaminants in manufacturing, processing, compounding, or producing for sale items of tangible personal property at a fixed location, or any structure, machinery, or equipment installed in the reconstruction or replacement of such facility, device, fixture, equipment, or machinery. To qualify, such facility, device, fixture, equipment, structure, specialty chemical, or bioaugmentation product must be used, installed, or constructed to meet a law implemented by, or a condition of a permit issued by, the Department of Environmental Protection; however, such exemption shall not be allowed unless the purchaser signs a certificate stating that the facility, device, fixture, equipment, structure, specialty chemical, or bioaugmentation product to be exempted is required to meet such law or condition.

DETERMINATION

Taxpayer will be spending millions of dollars to install the replacement brownstock washing systems and the new oxygen delignification system. Although these systems may result in some operational cost savings due to a reduction in chemical costs, the projects will have a negative financial return. While functioning adequately at this time, the current brownstock washing system does not remove as much lignin as a modern system. This results in the use and discharge of polluting chemicals, which exceed currently allowable quantities. The quantity of pollutants must be reduced in order to be in compliance with the Cluster Rule, NPDES permit, and administrative order as mandated by DEP. Without the new processes and systems, Taxpayer would be forced to close the facility.

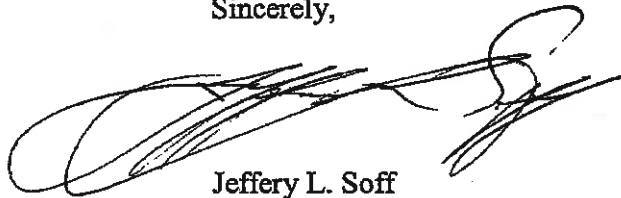
Although the brownstock washing systems and the oxygen delignification system are integral parts of the pulp and paper production process, the primary purpose of their current replacement or installation is to meet a law implemented by, or a condition of a permit issued by, the Department of Environmental Protection. Accordingly, the replacement and installation of these systems, as enumerated in Exhibit B of the TAA request, will qualify for exemption as pollution control equipment pursuant to s. 212.051(1), F.S.

This response constitutes a Technical Assistance Advisement under Section 213.22, F.S., which is binding on the Department only under the facts and circumstances described in the request for this advice, as specified in Section 213.22, F.S. Our response is predicated upon those facts and the specific situation summarized above. You are advised that subsequent statutory or administrative rule changes or judicial interpretations of the statutes or rules upon which this advice is based may subject similar future transactions to a different treatment from that which is expressed in this response.

Page Four

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Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffery L. Soff', with a large, stylized flourish extending to the right.

Jeffery L. Soff
Tax Law Specialist
Technical Assistance and
Dispute Resolution

encl.
ctrl# 59714

April 7, 2004

Mr. Glenn Bedonie
Director of Technical Assistance and Dispute Resolution
Florida Department of Revenue
Room 435 Carlton Building
P.O. Box 7443
Tallahassee, FL 32314-7443

Dear Mr. Bedonie:

Georgia-Pacific Corporation respectfully submits the following request for a Technical Assistance Advisement (Advisement) from the Florida Department of Revenue (DOR). We request an Advisement confirming that Georgia-Pacific's new facilities and equipment required by the federal Environmental Protection Agency and the Florida Department of Environmental Protection for pollution control will qualify for exemption from sales and use tax under Florida Statute Section 212.051(1), or other Florida statutes, as may be applicable.

Background

Georgia-Pacific Corporation (Georgia-Pacific) operates a pulp and paper facility in Palatka, Florida. This plant has been in operation since 1947. The facility produces approximately 280,000 tons of bleached paper and 240,000 tons of brown paper each year. The facility operates two kraft paper machines and three tissue paper machines. The facility employs approximately 1,250 people throughout its operations with an annual payroll of approximately \$85 million.

In relation to operation of this facility, rules were introduced by the federal government's Environmental Protection Agency (EPA) requiring large-scale changes to the paper making process. These rules are commonly referred to in the aggregate as the "Cluster Rule". The Cluster Rule mandates significant, broad-scale changes to the manufacturing process, including new production methods, equipment and chemicals. These same rules were the initiative detailed in the prior TAA ruling given by the State in June of 2000.

In consideration of the substantial expenditures designated for Palatka, Georgia-Pacific requested the Advisement referred to above from the State of Florida pertaining to the qualification and classification of certain expenditures as Pollution Control Equipment subject to exemption from sales and use tax within the meaning of Florida Statutes Section 212.051(1).¹

¹ The term Pollution Control Equipment is also found in within Section 193.621 for purposes of assessing the value of property for property tax purposes.

That ruling request related to phase one of the compliance with the Cluster rule mandates. That ruling approving Phase I expenditures in Cluster rule compliance is contained in Technical Assistance Advisement OOA-031.

Current Request

Georgia-Pacific Corporation is now beginning Phase II of compliance work required by the Cluster Rule and fulfillment of orders as set out in the Administrative Order No. 039-NE issued by the Florida Department of Environmental Protection. Georgia-Pacific is respectfully requesting from the State of Florida an advisement classifying certain expenditures and proposed future expenditures referenced in and required pursuant to the attached Department of Environmental Protection Administrative Order and related National Pollutant Discharge Elimination System (NPDES) Permit as Pollution Control Equipment exempt from sale and use tax.

Applicable Florida Statute

Florida law exempting certain pollution control equipment and machinery from sales and use tax is as follows.

Sec. 212.051. Equipment, machinery, and other materials for pollution control; not subject to sales or use tax --

(1) Notwithstanding any provision to the contrary, sales, use, or privilege taxes shall not be collected with respect to any facility, device, fixture, equipment, machinery, specialty chemical, or bioaugmentation product used primarily for the control or abatement of pollution or contaminants in manufacturing, processing, compounding, or producing for sale items of tangible personal property at a fixed location, or any structure, machinery, or equipment installed in the reconstruction or replacement of such facility, device, fixture, equipment, or machinery. To qualify, such facility, device, fixture, equipment, structure, specialty chemical, or bioaugmentation product **must be used, installed, or constructed to meet a law implemented by, or a condition of a permit issued by, the Department of Environmental Protection**; however, such exemption shall not be allowed unless the purchaser signs a certificate stating that the facility, device, fixture, equipment, structure, specialty chemical, or bioaugmentation product to be exempted is required to meet such law or condition. (*emphasis added*).

(2) *omitted due to limited application to landfills.*

(3) For the purposes of this section, "specialty chemicals" means those chemicals used to enhance or further treat wastewater, including, but not limited to, defoamers, nutrients, and polymers, and "bioaugmentation products" means the microorganisms used in waste treatment plants to break down solids and consume organic matter.

(As added by Ch. 69-222, Laws 1969; as amended by Ch. 98-317, Laws 1998; Ch. 2000-355, Laws 2000, effective July 1, 2000.)

Required Permitting

Standards, rules and regulations established by the EPA are enforced, implemented and permitted in Florida by the Department of Environmental Protection (DEP). Thus, the requirements of the EPA Cluster Rule are enforced by the Florida DEP. Georgia-Pacific complies with all required

permitting by the DEP and applicable documentation is incorporated into this request for Advisement.

The permits and applications included in this Request for Advisement are as follows:

Exhibit A: DEP NPDES Administrative Order Permit ("Administrative Order") for installation of pollutant discharge reduction equipment relating to brownstock washing and oxygen delignification.

Construction permits are required by the Florida DEP for all new or modified buildings or pieces of equipment which are considered emissions units (facilities which may be sources of pollutant emissions or discharges).

The Cluster Rule requirements for effluent discharge have been incorporated into an existing water permit application. In June of 1994, a NPDES Permit Application was submitted to the Florida DEP requesting a modification to the existing Permit to allow relocation of the effluent discharge from the Palatka mill. This requested relocation would eliminate discharge into Rice Creek and would require a pipeline from the mill to the St. Johns River. A number of studies have been conducted in the intervening period. Also during this period the Cluster Rule was promulgated. The previous advisement request contained the draft of the then proposed NPDES permit.

The final permit (#FL0002763) ("Permit") grants G-P permission to discharge into the St. Johns River. This permission is conditioned upon the installation of pollution control equipment including brownstock washing and oxygen delignification systems. While the installation of these two systems was not specifically required by the Cluster Rules, G-P, the Florida DEP and the Federal EPA agreed to these conditions in order to receive the NPDES Permit.

History of Rules and Compliance Efforts by Georgia-Pacific

Introduction to the EPA Cluster Rule

The Cluster Rule represented a completely new initiative on the part of the EPA to issue industry-specific integrated regulations to reduce the generation and ultimate release of pollutants. Choosing the pulp and paper industry as the first industry sector it would address, EPA in 1991 formed an internal "Pulp and Paper Cluster Group".²

The term "cluster" refers to the two media or areas regulated by the rules, namely air and water.

The uniqueness of this comprehensive Cluster Rule may be attributed to the emphasis not only on treatment of polluted effluent, both water and airborne, but on *preventing* pollution generated within the various manufacturing processes themselves. As such, industrial facilities must

² The federal Clean Water Act (CWA) of 1972 (and subsequent amendments) requires the EPA to periodically revise effluent discharge guidelines for industry categories and the Clean Air Act (CAA) of 1970 (as amended in 1990) establishes standards for 189 listed compounds. The EPA thus has the statutory authority to issue new rules and standards in both the Clean Air Act and the Clean Water Act and to initiate new approaches to the prevention of pollution in these media.

change the very production process, as well as modify or add equipment that serves more traditional (end-of-pipe³) pollution control functions.

The Cluster Rule has been developed over a period of time, with participation of both industry and governmental representatives. **Certain aspects of the Cluster Rule are still under review and have not yet been finalized**; those are not considered in this Advisement Request. The finalized Cluster Rule provisions cover two basic areas, air and water discharged from the pulping and bleach plant area. Significant attention is given to the bleaching process which historically has been a source of hazardous air pollutant emissions and chlorinated organic compound effluent discharges.

The EPA reinforced in the Federal Register that its long-term goals in promulgating the Cluster Rule were designed to “... promote and facilitate coordinated compliance planning by industry, promote and facilitate pollution prevention, and emphasize the multimedia nature of pollution control.” EPA further states, “A holistic approach to implementing these pollution prevention technologies would contribute to the long-term goal of minimizing impacts of mills in all environmental media by moving mills toward closed-loop process operations. Effective implementation of these technologies is capable of increasing reuse of recoverable materials and energy...”

In concert with the EPA's long-term goals, Georgia-Pacific is committed to implementing any and all necessary air emission and water effluent modifications in order to comply with the Cluster Rule. The Palatka facility, as an important player in Georgia-Pacific's paper production strategy, requires comprehensive changes in its manufacturing process, equipment, and chemicals for Cluster Rule compliance.

Summary of the Cluster Rule Standards

The specific requirements under the Pulp and Paper Cluster Rule are divided into two sections, (1) air related and (2) water related. The specific language of the cluster rule (in its entirety) may be found electronically at <http://www.epa.gov/ostwater/pulppaper/cluster.html>.

I. Maximum Achievable Control Technology (MACT) Standards, under 40 CFR Part 63 – National Emission Standards for Hazardous Air Pollutants

There are three phases of MACT standards - I, II, and III.

MACT I deals with hazardous air pollutants (HAPs) from the pulping and bleaching processes (some of which get into the air through evaporation from liquids).

MACT II deals with reducing airborne pollutants resulting from the utilization of furnaces and lime kilns in the process of recovering certain chemicals

MACT III does not require Georgia-Pacific's Palatka mill to install any new control technology currently.

³ Traditional pollution control mechanisms focused on recycling pollutants or burning pollutants after they were formed in the production process. The Cluster Rule places much of its focus on *preventing* the generation of pollution in the production process.

II. Effluent Limitation Guidelines, under 40 CFR Part 430 – The Pulp, Paper, and Paperboard Point Source Category

These standards specify a level of pollution prevention technology to reduce the discharge of toxic pollutants (Best Available Technology or BAT), and effluent limits therefrom. The rule issues new standards for the bleaching process. Specifically, mills must reduce the pollutants in the wastewater discharged during the bleaching process and the final discharge from the mills. This reduction is not based upon treating the wastewater after it is produced, but rather the wastewater, as produced, must contain fewer amounts of pollutants. This new type of EPA requirement involves a change to the process itself rather than additional equipment used to treat the wastewater.

This final cluster rule mandates a reduction of wastewater discharges (on average) by:

- 96% reduction in dioxin and furan discharges to water
- 96% reduction in dioxin and furan in sludge destined for land disposal
- 99% reduction in chloroform

Modification of Entire Industry Bleach Process for Both Air and Water Compliance

Note: Georgia-Pacific received TAA OOA-031 on June 15, 2000, which related to the bleach plant pollution control requirements.

The proposed rule published December 1993 would have required bleaching systems to control all hazardous air pollutant (HAP) emissions by 99 percent using a caustic scrubber. This requirement was revised when it was determined that caustic scrubbing reduces emissions of chlorinated HAP compounds except chloroform, and does not control non-chlorinated HAP emissions. The EPA determined that reduction of chloroform emissions was only feasible through *process modification*, not end-of-pipe treatment. The EPA analyzed the effect of process modifications on chloroform emissions, and found that complete chlorine dioxide substitution for molecular chlorine and elimination of sodium hypochlorite as a bleaching agent reduced chloroform emissions significantly. The EPA also proposed chlorine dioxide substitution and hypochlorite elimination as the technology bases for the water effluent limitations and standards.⁴ Therefore, process modification will have the effect of meeting both the air and water requirements under the Cluster Rule.

Elimination of sodium hypochlorite plus complete substitution of chlorine dioxide for elemental chlorine is called elemental chlorine-free (ECF) bleaching. According to the EPA, ECF bleaching must include high shear mixing to ensure adequate mixing of pulp and bleaching chemicals, as well as other technology elements. The EPA considered two ECF technology options for the BAT effluent limitations in the December 1993 proposed rules. Option A is described by the EPA as including nine elements in addition to the substitution of chlorine dioxide for elemental chlorine:

Option A

Option A consists of conventional pulping followed by complete substitution of chlorine dioxide for elemental chlorine, as well as the following nine elements:

⁴ EPA 40 CFR Parts 63, 261, and 430, Preamble Section VI. A. 7.

- (i) Adequate chip thickness control;
- (ii) Closed brownstock pulp screen room operation, such that screening filtrates are returned to the recovery cycle;
- (iii) Use of dioxin- and furan-precursor-free defoamers (i.e., water-based defoamers or defoamers made with precursor-free oils);
- (iv) Effective brownstock washing, i.e., washing that achieves a soda loss of less than or equal to 10 kg Na₂SO₄ per ADMT of pulp (equivalent to approximately 99 percent recovery of pulping chemicals from the pulp);
- (v) Elimination of hypochlorite, i.e., replacement of hypochlorite with equivalent bleaching power in the form of additions of peroxide and/or oxygen to the first extraction stage and/or additional chlorine dioxide in final brightening stages;
- (vi) Oxygen- and peroxide-enhanced extraction, which allows elimination of hypochlorite and/or use of a lower kappa factor in the first bleaching stage;
- (vii) Use of strategies to minimize kappa factor and dioxin- and furan-precursors in brownstock pulp;
- (viii) High shear mixing during bleaching to ensure adequate mixing of pulp and bleaching chemicals; and
- (ix) Efficient biological wastewater treatment, achieving removal of approximately 90 percent or more of influent BOD₅.⁵

Option B

Option B includes the majority of the nine elements above, along with extended delignification (oxygen delignification and/or extended cooking) of the pulp prior to the bleaching cycle. Both of these options were reviewed by the EPA in determining the technology basis for meeting the Cluster Rule requirements. After consideration of all available technical information and data, the EPA ultimately selected Option A as the basis for the final Cluster Rule.

While Option A necessitated the first ruling request upon which the Department approved the Pollution Control characterization, Option B is essentially the initiative behind this current request for technical assistance. The primary driver requiring the implementation of Option B is the DEP's NPDES Administrative Order which granted the Wastewater Permit No. FL0002763.

This Administrative Order essentially details the brownstock washing and the oxygen delignification improvements. However, the Administrative Order also speaks to the construction of a 48" pipeline running four (4) miles from the Palaika mill to the St. Johns River. This pipeline will be required [and is approved via the Permit and Administrative Order] in the event the modifications required pursuant to Option B are not adequate to reduce the effluent to acceptable levels for Rice Creek. Option B modifications for Rice Creek are required prior to any construction of the pipeline. In other words, Option B modifications must be installed for the anticipated ability to discharge into Rice Creek. However, if subsequent testing of the discharge into Rice Creek proves that effluent solutions are at unacceptable levels, then the pipeline must be constructed. In no event can the pipeline be constructed without the Option B modifications occurring first.

⁵ EPA 40 CFR Parts 63, 261, and 430, Preamble Section VI.B.5 a (1)(b).

Oxygen Delignification and Brownstock Washing (Option B) --- & Potential Pipeline Construction

As stated previously, the Cluster rules require extensive modifications to the washing and bleaching processes. The processes described in this ruling request should be considered a continuation of the various projects described in the previous ruling request in which the State of Florida deemed the Federal and State mandated expenditures as pollution control. The projects detailed herein, are the "next step" in a series of major modifications required for pulp mills as mandated by the Cluster rules. Whereas the previous ruling dealt with the new bleach plant, this request describes the processes which must be modified in the area immediately prior to the bleaching stage of the pulping cycle.

Note the MACT I rules have concentrated on processes that occur prior to the pulp reaching bleach plant. These rules are in addition to the rules established to remove the use of elemental chlorine from the bleach process. This emphasis on the pre-bleach washing stage is due to the fact that certain processes using a chemical solution for brownstock washing may be recycled and or burned versus the bleach process which uses a chemical solution which must be sewerred after use.

The changes to the bleach plant achieved the desired goal of eliminating the use of elemental Chlorine to bleach pulp. However, the MACT I rules also emphasize the reduction of consumption of the replacement chemical, Chlorine Dioxide. The chemical solution of Chlorine Dioxide, once it is used to bleach the pulp, cannot be returned for additional use in the pulping process. Nor can the solution be burned due to the poor burning characteristics of Chlorine Dioxide and the other chemicals utilized. In addition, this chemical solution would severely corrode the pipes used to transport burnable liquids to the various boilers as well as the pipes in the boilers themselves. For these reasons, the used chemical solution from the bleaching process must be discharged to the sewer after use and after treatment.

Again, the process changes which are the subject of this request and which are required by MACT I and the DEP occur prior to the bleaching process. This brownstock washing stage occurring prior to the bleach process uses a chemical solution that does not contain Chlorine Dioxide. The spent pulping chemicals recovered in the brown stock washing process (-pre-bleaching) can be burned in the black liquor recovery boiler after being used for their intended purpose.

Cleaner pulp requires less Chlorine Dioxide in order to achieve the desired brightness of the pulp needed to make paper. Reducing the amount of lignin that goes to the bleaching process from the brownstock washers reduces the amount of bleaching chemicals used to bleach the pulp and, therefore, results in less discharge of spent chlorine dioxide solution into the sewer. In addition to the recyclability of the pulping chemicals, the pulp coming from this stage of the operation allows for cleaner pulp to be sent to the bleach plant. .

The changes mandated specifically by the MACT I standards relate to washing the pulp after the wood chips have been "cooked" in the digester. The cooking process is achieved by placing the chips in a chemical solution and heating this mixture to high temperatures generated by steam. This cooking process lasts for approximately 35 minutes prior to the mixture being moved to the next state of the process. This process is known as brownstock washing. Brownstock refers to the lignin [brown in color] that has separated from the chips during the cooking process. The brownstock washing process is a multistage process wherein water is used to make a dilution thickening and diffusion process that removes degraded lignin from the brownstock pulp. This

washing process is repeated using individual washing stages for a given amount of pulp coming from the digesters.

Palatka currently operates four brownstock wash lines consisting of 3 or 4 stages (line 4 and lines 1,2 & 3, respectively). However, while functioning adequately at this time, this equipment does not remove as much spent pulping liquor containing lignin and exhausted pulping chemicals, as a modern line. Moreover, these old and inefficient lines would require excessive modifications to achieve compliance with the MACT-1 (8-year) HVLC rule. Therefore, a completely new 3-stage brownstock washing system will be installed in order to comply with the MACT I rules. This new brownstock washing system will utilize technology to reduce color and conductivity in the sewer to reduce bleaching load, and to remove a greater amount of spent pulping chemicals and lignin than is currently removed during the washing process.

In addition to the construction of the 3-stage brownstock washing system, the EPA Technical Team provided guidance to G-P recommending the installation of a 2-stage oxygen delignification system. This would further reduce the amount of air and water born pollution from the bleach plant by removing more lignin from the pulp prior to bleaching and burning in the black liquor recovery boiler.

Oxygen delignification can be viewed as a means of extending or continuing the cooking process, but in such a way that fiber strength and yield are, for the most part, preserved; whereas simply cooking longer in the kraft digestion step would produce low yield and unsustainable pulp for paper making.

Oxygen delignification also uses chemicals that are returned to the pulping process and not discharged to the sewer. Again, both processes, brownstock washing and oxygen delignification result in transferring cleaner pulp to the bleach plant through the use of recyclable chemical solutions versus non-recyclable chemical solutions.

As noted above, in the event the brownstock washing and the oxygen delignification systems are not sufficient to reduce the discharge to acceptable levels, a pipeline must be constructed from the mill to the St. Johns River. This pipeline, as required in the Administrative Order and Permit, is scheduled to be 4 miles in length with a diameter of 48". The pipeline will be made of ductile iron pipe. In addition to carrying the effluent to the St. Johns River, high purity oxygen will be added to the discharge via a 1043 foot-long diffuser.

No Justification other than for Pollution Control

Although the installation of this new process equipment may result in some operational cost savings due to decreased chemical costs utilized in the bleaching process because of the decreased lignin in pulp entering the bleaching process, the capital investment is in no way justified by these potential cost savings. In addition, these changes in process equipment, including the construction of the pipeline to the St. Johns River, the brownstock washing system, and the oxygen delignification and bleaching processes are specific requirements of the NPDES permits issued by the Florida DEP as a result of Cluster Rule regulations.

As noted previously, the Palatka mill cannot implement only an oxygen delignification project nor only a new and improved brownstock washing process. Both projects must be implemented in order to achieve the goals mandated by the Administration Order.

Description of the Required Projects

A summary of the components of the Brownstock washing and Oxygen Delignification processes are as follows:

- 1.0 Demolition, site preparation and relocation activities
- 2.0 Buildings
- 3.0 Utilities
- 4.0 Brown Stock Washing Common Processes
- 5.0 Brown Stock Washing Line 5
- 6.0 Brown Stock Washing Line 6
- 7.0 Brown Stock Washing Line 7
- 8.0 DNCG System
- 9.0 Oxygen Delignification System

A detailed schedule of equipment under each of the categories referenced above is attached to this ruling request as "Exhibit B". The listing, at this time, is considered preliminary due to the number of individual components required for a pollution control project of this magnitude.

Summary

Compliance with federal and state environmental requirements requires significant capital investment by pulp and paper manufacturers. These requirements must all be met in order for the Palatka mill to receive permits to operate. As noted earlier, the EPA Cluster Rule requires *prevention* of pollution, not just collection and treatment of pollution. Palatka's existing equipment, chemicals and processes are insufficient to meet the water quality criteria for Rice Creek and therefore, must be completely upgraded and/or replaced as a condition of the Administrative Order and related NPDES Permit. In order to meet the current requirements, Georgia-Pacific is investing significant capital in brownstock washing and oxygen delignification processes in Palatka. The specific purpose and intent for these new processes and facilities are to comply with the EPA Cluster Rule and the related Florida DEP requirements to abate air and water born pollution. Without these new processes and systems, the mill would not be able to comply with the new Cluster Rule regulations and would be forced to close.

Mandated changes to Palatka's processes are comprehensive and expensive. The financial burden placed on Palatka to implement these changes is extreme. Millions of dollars will be spent on these projects with negative financial return. The value of the Palatka mill will be significantly reduced because of the new capital employed without any corresponding increase in earnings. However, Georgia-Pacific is totally committed to our Palatka facility. We are committed to keeping Palatka operating, to keep it running efficiently and safely, and operating fully within federal and state environmental specifications.

Advisement Requested

Georgia-Pacific Corporation believes that the brownstock washing and oxygen delignification equipment, processes and systems required for compliance with the EPA Cluster Rule, Permit and Administrative Order, meet the requirements for exemption from sales or use tax under F.S. Section 212.051(1), because they are "used primarily for the control or abatement of pollution or contaminants in manufacturing" and are "installed or constructed to meet a law implemented by or a condition of a permit issued by, the Department of Environmental Protection".

We respectfully request an Advisement from the State of Florida concurring with our opinion that equipment, processes and systems required for compliance with the EPA Cluster Rule, , including the brownstock washing and oxygen delignification meet the requirements for exemption for sales and use tax exemption under F.S. Section 212.051(1). Should the State conclude to not provide the requested ruling in full, we would like to schedule an informal conference to discuss the issues with you prior to your completion of a written response. In addition, we would be glad to offer you the opportunity to tour our Palatka mill, to be scheduled at a mutually agreeable time. We can provide you with a tour and explanation of the Cluster Rule projects (as currently underway and planned), and give you the opportunity to ask any questions you may have, of the appropriate Palatka engineering and environmental personnel.

Your consideration of this request for a Technical Assistance Advisement is sincerely appreciated. If we may answer any questions with regard to this request, please do not hesitate to contact me at (404) 652-2667.

Sincerely yours,

John H. Stagmeier
Director – State & Local Taxes

Enclosures

cc: Brian Perry, G-P
Bill Willis, G-P