Georgia-Pacific LLC
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May 30, 2012

Via Electronic Mail to: stallworth.holly@epa.gov

Dr. Holly Stallworth
United States Environmental Protection Agency
Mailcode: 1400R
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Written Statement for the Science Advisory Board (SAB) Biogenic Carbon Emissions Panel

Dear Dr. Stallworth:

Enclosed are the comments of Georgia-Pacific, LLC (GP) to the Science Advisory Board (SAB) Biogenic Carbon Emissions Panel on the SAB's draft responses to charge questions on the United States Environmental Protection Agency's (U.S. EPA) draft *Accounting Framework for Biogenic CO_2 Emissions from Stationary Sources* (September 2011). GP appreciates the opportunity to continue commenting to the SAB Biogenic Carbon Emissions Panel and the U.S. EPA during the important process of considering the scientific and technical issues associated with accounting for emissions of biogenic carbon dioxide (CO_2) from stationary sources, and development of an appropriate framework to account for those emissions.

As one of the world's leading manufacturers and marketers of forest products including building products, tissue, packaging, paper, and cellulose with more than 150 manufacturing facilities across the United States, many of which burn biomass to produce energy, GP (through its operating/manufacturing subsidiaries) has a significant interest in this process.

If you have any questions or need clarification, please contact Dr. Sergio F. Galeano (404-652-4654) or me.

Sincerely,

Signature not included due to SAB policy

Traylor Champion
Vice President, Environmental Affairs

COMMENTS TO THE SCIENCE ADVISORY BOARD BIOGENIC CARBON EMISSIONS PANEL ON THE MAY 9, 2012 DELIBERATIVE DRAFT RESPONSES TO CHARGE QUESTIONS ON THE U.S. EPA'S DRAFT
Accounting Framework for Biogenic CO_2 Emissions from Stationary Sources
(September 2011)

INTRODUCTION

Georgia-Pacific LLC ("GP") is a major producer of forest products, using virgin wood and reclaimed paper fiber as feedstock for our product manufacturing facilities. The use of biomass as a fuel for energy generation in the forest products industry is integral and/or incidental to the manufacture of these products that consumers demand and society values. Biomass residues in this sector are generated from the harvesting and manufacturing processes in the form of forest and manufacturing residues, intermediates, and co-products. Utilizing the heating value of such biomass residues to generate thermal energy and combined heat and power is sustainable and environmentally sound. As a result, because of the unique conditions of these pulp and paper mills and solid wood manufacturing facilities, CO_2 emissions from the combustion of the biomass residues generated by these forest product manufacturing processes should be either:

(a) Exempted from any regulation of CO_2 emissions regardless of any analysis of the growth and harvest of carbon feedstock in the region of biomass fuel sourcing, or

(b) assigned a biogenic accounting factor (BAF) of zero.

The following comments briefly touch on specific areas of the May 9, 2012 deliberative draft responses and further stress and clarify GP's prior comments submitted on March 15, 2012, in the context of SAB's updated draft responses.

GP is reasonably in agreement with the overarching findings of the Panel regarding daunting challenges in the task of accounting for biogenic emissions and the challenges in improving on the presently proposed Framework, thus stressing to the U.S. EPA the pursuit of other alternatives where trade-off and policy decisions would compensate for these difficulties.

THE SCIENCE OF BIOGENIC CO_2 EMISSIONS

While the Panel recognizes the complicated nature of factoring time scales in an accounting scheme, it criticizes the EPA report for its lack of discussion of the different time scales inherent in the carbon cycle. This is an area where the limitations of science can be resolved by more considerations of trade-off and policy decisions. The Panel, in searching for other scientific alternatives, appears to place inordinate importance on recent advanced hypotheses. Regardless

of the scientific value of the cited work of Cherubini and others, it appears that these contributions are given more weight now in the formulation of a final regulatory framework. We want to caution the Panel that while these more recent studies can give directional confirmation of the benefits in replacing fossil fuel with biomass fuel, there are specific issues in their design/modeling that impede their generalization for a regulatory scheme. Examples are the use of plot or stand-based methods and inconsistency in the consideration of a vegetation stand carbon flux in the context of the global nature of greenhouse gas emissions. As the process unfolds there is even more evidence of the near impossibility of totally supporting statutory and regulatory schemes relating to biogenic CO_2 emissions based solely on scientific evidence. Trade-offs are needed.

ACCOUNTING APPROACHES AND METHODOLOGICAL ISSUES

In pulp and integrated paper mills as well as solid wood products manufacturing facilities, an average of 96 percent of the biomass fuel materials used to generate on-site energy is incidental or integral to those manufacturing processes and operations. Only about 4 percent is from imported logging residues. For example, the spent liquors burned in recovery furnaces are the result of the technology utilized to transform wood into suitable wood fiber and the need to recover the spent pulping chemicals to make the process economically and environmentally sustainable. The wood input to those facilities is not for energy generation but for the production of pulp and subsequently other paper products. It is because of the transformation of residues or co-products that on-site combustion is performed as a needed environmental and economic practice. Both the energy generated and the chemicals recovered are complementary to the main function of manufacturing the forest products in question.

It appears that one additional classification or approach should be "*emissions from certain forest products manufacturing facilities in which the fuel materials are integral/incidental to the manufacturing processes*". Once these unique characteristics are recognized, a policy decision on their exclusion or assignment of a BAF of zero will be more understandable.

The same concept and approach would be applicable in the discussion of the second theme, *Methodological Issues*. In that section of the draft report, the Panel in the new discussion on emissions from wood mill wastes and pulping liquors appears to anticipate the need for another, broader consideration. Nevertheless, it ignores prior comments pointing to the abovementioned uniqueness of those facilities. GP is thus repeating this fact because it is not often recognized even within the forest products industry.

LANDSCAPE

For nonexempt biomass fuels, GP supports a "landscape" approach and reference-point baseline as the proven accounting method that has historical evidence. Only accounting based on robust statistical inference should be utilized. Other approaches like the "debt" hypotheses for stands or woodsheds based on a comparative approach lack the certainty and reliability of the former. The temporal cumulative radiative forcing models are also plot or stand-based, lacking historical evidence and statistical robustness for decision making.

The "landscape" approach should be applied at a regional level for nonexempt CO_2 emissions from biomass fuels where an analysis of the growth and harvest of carbon feedstock in the region

of biomass fuel sourcing is conducted using readily available data compiled by the Forest Inventory and Analysis (FIA) program of the United States Department of Agriculture (USDA) Forest Service. Where growth exceeds harvest and carbon stocks are shown to be steady or increasing, the use of biogenic feedstock does not have a net impact on the atmosphere. Since the accumulated evidence is that forest carbon stocks in the U.S. are increasing, there is every reason to conclude that the forest carbon cycle in the U.S., involving uptake of atmospheric CO_2 in the forest and return of biomass carbon to the atmosphere, is in fact accomplishing net removals of CO_2 from the atmosphere and validating existing accounting methods and the neutrality of biomass CO_2 emissions.

MARGINAL APPROACH FOR NEW USERS OF BIOMASS

For nonexempt biomass feedstock, GP favors a "marginal" approach for the permitting of CO_2 emissions from biomass fuel combustion from either new or additional sourcing of biomass fuels with the following caveats:

- Additional CO_2 emissions from biomass residue combustion in exempted manufacturing facilities within the forest industry sector will not be subjected to marginality requirements;

- CO_2 emissions from new sources of biomass fuel combustion will not be subjected to marginality requirements if compliant with the following general requirements:

    - the growth to harvest ratio in the landscape region of biomass fuel sourcing is equal or greater than 1.0; and,
    - any precautionary or preventive measure is only instituted by an authorized agency due to a significantly declining growth to harvest ratio that is observed for more than five years.

ALTERNATIVE APPROACHES – CERTIFICATIONS

GP considers the two items offered in the draft as Alternatives and not exclusive of other alternatives but valuable examples of the points the Panel is fostering, and cautiously agrees that default BAFs could be a practical alternative. However, as indicated above, this agreement must be qualified with the inclusion of a unique feedstock category "*emissions from certain forest products manufacturing facilities in which the fuel materials are integral/incidental to the manufacturing processes*."

GP laments the shift in content and context from the prior draft regarding the advanced alternative on certification. The new provisions are alien to the existing proven practice and procedures and very unnecessary for the traditional practices and operations of the industry. GP recognizes the benefits of sustainable forestry management in the stewardship of our forests and the ecological and environmental soundness of multiple uses of forests, and supports forestry best management practices (BMP) and training programs for forestry owners. In fact, GP requires our fiber suppliers to use sustainable forestry management practices. Any final regulation on carbon neutrality must differentiate between:

(a) Evidence of sustainable management for stocks dedicated to existing forest management facilities essentially for wood products manufacturing – that is, any final regulation should recognize the good forest practices that already exist regardless of whether such lands are certified by recognized programs such as ASFO, FSC, SFI, etc.

(b) Sustainable management for other uses and destinations, like bioenergy, public electricity generation, etc., as to which a revised version of the text in the proposal could be of value. The issues of additionality, leakage and permanence are complex and costly, which the Panel recognizes. They were developed originally as requirements in CDM projects, and their role and justification in this regulation is highly questionable regardless if the primary use of the biomass material is for product manufacturing or bioenergy/electricity generation. A regulation must be implementable, and for it to be, it must be practical.