From: "Carl F Muska" <Carl.F.Muska@usa.dupont.com>
To: <fb4p@oce.usda.gov>
Date: 12/11/2006 9:50:21 PM
Subject: DuPont Comments on USDA "Proposed Designation of Items" RIN 0503-AA32

Please find in the attachment DuPont comments on the Designation of Biobased Items for Federal Procurement (FR 59862 Vol 71 October 11,2006).

(See attached file: Comments on USDA Proposed Rule Dec 11, 2006.doc)

If you have any further questions, or need additional information regarding these comments, please do not hesitate to contact me.

Carl F. Muska, PhD
Manager, Regulatory Affairs and Product Stewardship
DuPont BioBased Materials
CRP 728/1320
Wilmington DE 19880

Phone: 302/999-4980

CC: <mduncan@oce.usda.gov>

DuPont Bio-Based Materials
Chestnut Run Plaza 728
P.O. Box 80728
Wilmington, DE 19880-0728

December 11, 2006

Marvin Duncan
United States Department of Agriculture
Office of Chief Economist
Office Energy Policy and New Uses
Room 4059, South Building
1400 Independence Avenue SW, MS-3815
Washington, DC 20250-3815

Subject: Comments on Proposed Rule for "Designation of Biobased Items for Federal Procurement" (71 FR 59862; October 11, 2006) (RIN 0503-AA32)

Dear Mr. Duncan:

DuPont Bio-Based Materials welcomes the opportunity to provide comments on USDA's proposed rule for the "Designation of Biobased Items for Federal Procurement " as referenced above. Dupont is a science company. Founded in 1802, DuPont puts science to work by solving problems and creating solutions that make peoples lives better, safer and easier. Operating in more than 70 countries, the company offers a wide range of products and services to markets including agriculture, nutrition, electronics, communications, safety and protection, home and construction, transportation and apparel.

Before discussing our specific comments, DuPont would like to reaffirm its support of the overall intent of the preferential procurement provisions of Section 9002 of the Farm Security and Rural Investment Act of 2002 (FSRIA 7 U.S.C. (referred to in this document as Section 9002) for biobased products.

As a science company, DuPont has a major research focus and investment in materials science. One of the products of this investment is the discovery and development of a biological process to make 1,3-propanediol (Bio-PDO™), a key ingredient to Sorona® polymer. The U.S. Environmental Protection Agency presented DuPont with its annual

"Presidental Green Chemistry Award" in 2003 for the company's research leading to the development of the Bio-PDO™ process.

In November of this year, the DuPont Tate & Lyle Bio Products Company began commercial production of Bio-PDO™ in a $100 million dollar plant in Loudon, Tennessee. This facility has the design capacity to produce 100 million pounds of Bio-PDO™ per year. Bio-PDO™ is a platform chemical with many applications and uses. Currently, work is underway with manufacturers to incorporate Bio-PDO™ into a variety of biobased products.

The Integrated Corn Biorefinery Program (ICBR) is another excellent example of DuPont's alignment with and support for the intent of Section 9002. The Department of Energy and DuPont are co-funding a program to develop, along with our development partners, a biorefinery to turn corn grain and corn stover into ethanol and value-adding biopolymer intermediates. For this program, DuPont (including Pioneer) is partnering with John Deere, Diversa, DOE's National Research Energy Laboratory (NREL), and Michigan State University. DuPont is a stakeholder, and we have a vested interest in both Section 9002 and its successful implementation.

The following comments and recommendations are intended to be supportive to USDA in fulfillment of its responsibility to implement the provisions of Section 9002:

Comment #1: Including provisions for qualifying/designating biobased materials will accelerate the introduction of biobased products into the marketplace

Dupont has submitted this comment on previous USDA proposed rulemakings. We are resubmitting it as it is still applicable to the current proposed rulemaking.

We continue to strongly urge USDA to incorporate a biomaterial pre-qualification process as a method to streamline the current final product designation process and to promote the introduction of biobased materials and the products from which they are made to the marketplace.

The current USDA approach of designating final products for preferential procurement requires that individual products be tested for biobased content on a generic "item by item" basis. This process, by its design, requires a considerable amount time and resources.

Biobased products are made from biobased materials. Testing and qualifying biobased materials, the components and/or ingredients of biobased products, will greatly accelerate the designation process for preferential procurement. If a product is made from a prequalifed biobased material, it is then a simple matter for the manufacturing of the bioproduct to provide information to USDA on its biobased composition. If verification of manufacturer'supplied compositional information is needed, the ASTM biobased content test can always be conducted as needed.

DuPont and other material suppliers are making biobased materials. that will literally be going into thousands of biobased products. As more and more of these materials are introduced into the marketplace, the current designation process will become a bottleneck. To simplify and expedite the designation process, it is recommended that USDA develop a program for prequalifying the biobased materials that will form the basis of the biobased products.

USDA has an opportunity to do this as part of the "USDA Certified" labeling program. By including biobased materials in the labeling program, biobased materials can be tested and certified as to their biobased content. With a list of prequalified biobased materials, manufacturers of final biobased products can select and use biobased materials based on their previously quantified biobased content and environmental profile. In addition, manufacturers will be able to identify and contact biomaterial suppliers for information on the performance characteristics and other information to determine the most appropriate biomaterials for their particular application. USDA can thus use the labeling program to expedite the development of biobased products consistent with the Congressional intent of the 2002 Farm Security and Rural Investment Act.

Recommendation #1: USDA should include biobased materials as part of the labeling program.

Comment #2: The provision for handling the " overlap with EPA Comprehensive Procurement Guidelines program fo recovered content products" is reasonable

This proposed rulemaking contains, as do the past two rulemakings, an approach for dealing with the legislative overlap between "EPA-designated products" with recycled content and the current USDA preferential procurement program for biobased products.

The procurement decision to buy a "recycled content product" or a biobased product should be based on the application and the respective performances of the products in fulfilling the specific requirements of the application. There is a provision in the Farm Bill that "recycled content products " have priority in Federal procurement over the qualifying biobased product. USDA has appropriately proposed in this FR notice that additional information should be sought from manufacturers before procurement decisions are made. This information will enable the procurement process to determine "whether the biobased products in question are, or are not, the same products as the recovered content products".

A good example is the use of recycled carpet vs carpet with biobased content. Carpets made with different materials will have different performance attributes. The desired performance characteristics should be developed first and them compared against the available products. A purchasing decision made strictly in favor of recycled carpet without evaluating performance information is not in the best interest of either the

"recovered content" or the " biobased products" programs. An arbitrary decision that results in the purchase of the wrong product for an application will only impede its acceptance and reputation in the marketplace.

Recommendation #2: The USDA Preferential Procurement Guidelines for Biobased Products should be upgraded to include the proposal in this rulemaking for handling the "overlap" between the recycled content and biobased content programs.

Comment #3: The USDA proposal to encourage "Federal procurement agencies to examine all available information on the environmental and human health effects " is commendable

The above USDA proposed statement, which was specifically directed to cleaning products , should be extended to all "green purchasing" decisions. To fully compare products, it is imperative to take a life cycle assessment approach which quantifies "cradle to grave" impacts of the manufacture, use and disposal of products. One of the key environmental impact categories is greenhouse gas emissions. The potential for a product to contribute to GHG emissions should be assessed along with other key environmental impact categories. USDA's statement that "qualifying biobased products offer the user the opportunity to manage the carbon cycle and limit the introduction of new fossil carbon into the atmosphere while non-biobased products derived from fossil fuels add new fossil carbon to the atmosphere" is an important differentiation that should be part of the preferential procurement process.

Recommendation #3: The potential for reduced greenhouse gas emissions is a key differentiation for biobased products and USDA should continue to emphasize this point as part of the preferential procurement program.

Comment #4: USDA's proposed exemptions for critical applications should be unnecessary given the provisions of the current Guidelines.

The current rulemaking contains the proposed exemptions included in the two previous rulemaking. As stated in previous comments, these exemption are not necessary given the provisions in the guidelines. No product, biobased or not, should be used in any critical application if it does not meet performance requirements. One of the existing procurement criteria in the USDA Guidelines for Preferential Procurement of Biobased Products is performance. Today, Federal agencies are not required to purchase biobased products if they do no meet their performance specifications. The problem with proposing an exemption that limits the use of biobased products to "more conventional applications" is that it carries the implication that biobased products are inferior in their performance characteristics to the incumbent product. Not only is this not the case but it sends the wrong message regarding the potential benefits of and uses for biobased products. For example, the DuPont Tate & Lyle Bio Products Company is making 1,3, propanediol from a renewable feedstock by a biological process. This material is 100% biobased and is of extremely high purity. High purity 1,3-propanediol, whether from a

fossil feedstock or a renewable feedstock, is still 1,3-propanediol. The suitability of this chemical or others, regardless of the source , needs to be performance tested for the specific application , particularly if it is a critical application. Proposing an exemption from the use of biobased materials and products in critical applications, is unnecessary per the current USDA Guidelines

As examples, in the current rulemaking, two of the items for designation are clothing products and de-icers. USDA is proposing to exempt products with biobased content from "combat or combat-related applications. " DuPont is aware of applications in the clothing (military uniforms and other clothing) and de-icers (airport runways) where the introduction of a biobased ingredient into these products could result in not only equal performance but potentially enhanced performance. Performance testing is currently in progress to support the intended uses for these products. Recognizing that the biobased products industry is in its infancy, proposing exemptions for critical performance applications because there is a current lack of performance testing data to support some of these applications is both unnecessary, as discussed above, and also counter to the intent of the Farm Bill of using federal procurement to pull biobased products into the marketplace.

Comment #5: USDA's proposal to set the minimum biobased content for clothing products at 6 % is reasonable at this time

Setting the initial minimum biobased content at 6% recognizes that most clothing is not made from one fabric but instead are blends. Blending allows different sources of fibers, natural and synthetic, to be woven together to meet specific performance requirements and to service a wide range of price points and markets. The production of clothing products containing qualified biobased materials and products is still very much in a development stage. This is certainly illustrated by the fact that USDA identified only 3 manufacturers and 5 individual biobased products for this "item". The proposed minimum biobased content of 6% will help stimulate the continued development of biobased clothing products.

Clothing products is an extremely broad "item". As defined in this rulemaking, clothing includes "coverings for the torso and limbs, as well as coverings for the hands, feet and head". To meet this diversity of clothing types and performance needs, manufacturers use a variety of fibers and blends to achieve the desired level of protection.

For now, setting a 6 % biobased content makes sense given the wide variety of products under this "item" designation. As USDA collects data from more manufacturers of biobased clothing , it may useful to designate subcategories for clothing. Obtaining more data on clothing products and developing clothing subcategories will help USDA to establish industry relevant minimum biobased content limits. At this time, setting a 6 % minimum biobased content level for clothing will provide incentives to the clothing industry to make greater use of qualified biobased materials and products.

As a supplier of materials to the clothing industry, DuPont welcomes the opportunity to work with USDA on this issue.

Comment #6: USDA's proposal to set the minimum biobased content for de-icers products is not appropriate at this time

De-icers as defined by USDA are "agents that aid in the removal of snow and ice". Because of their different applications, high performance de-icers are formulated to meet very specific performance requirements. These formulations are often based on performance standards, not only to de-ice, but also to meet other safety and equipment related needs. As such these high performance de-icers are usually blends of materials. Setting a minimum biobased content at 97%(essentially a 100% biobased product/material) will exclude many applications for de-icers that contain or will contain biobased materials and products.

Dupont contacted a leading de-icer manufacturer in preparing these comments. The company we talked to recommended against setting a minimum biobased content in deicers as high as 97% for several reasons. First , USDA could restrict products that may be freeze point depressants and whose optimum use concentration (for characteristics such as freeze point and viscosity) is lower than 97% biobased content. Freeze point and viscosity are two variables that need to be looked at when designing deicers. Freeze point of a deicer is important to maximize ice melting performance. Viscosity (the thickness of the deicer) is crucial when evaluating safety and ease of application.

As an example, glycerine is a known freeze point depressant. Crude glycerine has a eutectic point (the lowest melting point of the fluid) of around -60 degrees F at a concentration of around 60% glycerine (that is for a 60% biobased glycerine). As a road deicer, a 60% crude biobased glycerine solution would not be a adequate deicer due to the viscosity of the fluid at this concentration. It would be too thick and viscous at cold temperatures to ensure safety. But, 40% crude biobased glycerine would be a much less viscous (safer) fluid and still have an adequate freeze point depressant to melt ice but it would not meet the 97% biobased requirement.

There are many characteristics that need to be evaluated to have a safe, effective deicer. This is just one example. Due to the potential for safety concerns, we suggest that USDA not set a minimum biobased content for this item designation at this time.

For the purposes of this rulemaking, USDA did "not include de-icers used at airports to de-ice airplanes and runways." However, there are many critical applications for de-icers. De-icers are sprayed on coal piles and conveyers, trams, railways, specialized automated sprays for bridge decks and overpass systems, roofs, etc. Many of these de-icing applications have industry standards which must be met for a product to meet both performance and safety requirements. .Before establishing minimum biobased content levels, USDA should work with the de-icer industry to designate appropriate, industry

recognized subcategories and to insure that the already existing performance standards for many of these de-icing applications are being considered

Given the safety implications, we strongly suggest that USDA not set a minimum biobased content for de-icers at this time.

Comment #7: USDA's proposal to set the minimum biobased content for durable plastic films product is not appropriate at this time

USDA has defined durable plastic films as products "typically used in the production of bags and packaging materials, and designed to resist water, ammonia and other compounds, and to not readily biodegrade." USDA is proposing a minimum biobased content of 61%. This is based on "two different manufacturers producing two individual products". This is a very limited sample and is not representative of the many applications for durable plastic films. Durable plastic films is a broad product category which covers many applications . The selection of polymers used to make these films and the final products are very dependent on the performance requirements for the specific application. For example, durable plastic films are used for high performance applications such as food packaging. To achieve the performance required for food applications, durable films are often made from composites or layers of polymer films. They can be multi-ingredient/multi-layered films designed to meet very specific barrier specifications. Setting a high minimum biobased content such as 61 % will exclude these high performance applications and the biobased products that could support them.

USDA needs to establish subcategories for this generic item due to the wide range of applications for durable plastic films. The minimum biobased content for some of these subcategories will be substantially lower that the one USDA is proposing. At this time, USDA should not be setting a minimum biobased content level for a product category as complex and diverse as durable plastic films. USDA needs to establish appropriate subcategories for durable plastic films and then establish minimum biobased contents for each of these subcategories. The other option is to significantly lower the minimum biobased content level so high performance films that contain biobased polymers can be considered for preferential procurement.

We thank you for the opportunity to participate in this proposed rulemaking, and we look forward to working proactively with the USDA on these and on future proposed rules associated with the Federal Biobased Products Preferred Procurement Program.

Sincerely,

Carl F. Muska, PhD
Safety, Health, Environment and Regulatory Affairs Manager
DuPont Bio-Based Materials

CFM:jeg