November 30, 2009

Boral Material Technologies Inc. Summary Comments Regarding the Possible EPA Option to Regulate Coal Combustion Products as Hazardous Waste

1. Introduction to Boral

Boral Material Technologies Inc. (BMTI) is a division of Boral Limited, an integrated, resource based manufacturing company supplying products and materials into the building and construction markets in Australia, the United States and Asia.

BMTI is a leading marketer of fly ash and all coal combustion products in the United States with over forty years of experience in the industry. BMTI also provides coal-fired power generating plants with complete on-site ash handling and management, environmental services and engineering services. The BMTI area of operation extends through the southern half of the United States and corporate offices are located in San Antonio, Texas.

2. Beneficial Uses of Fly Ash as a Construction Material

Fly ash is a viable and valuable construction material with a wide range of applications including:

- Partial replacement of cement in concrete at Boral Construction Materials operations in Denver and Oklahoma and via sales to other BMTI customers.
 - o Avoids landfill of solid waste at power plant sites
 - o Reduces CO₂ by reducing cement consumption
 - o Lowers concrete raw material costs
 - o Increases durability of concrete structures extends service life, and reduces repair and life cycle costs

3. Beneficial Uses of Fly Ash in Building Products

BMTI has developed several building products which utilize fly ash as an important component in their manufacture. These innovations are central to BMTI's sustainability and innovation emphasis. These products include:

- Exterior building cladding and roofing products
- Masonry cements and cementitious products
- These types of applications encourage recycling of recovered resources, lower finished product's embodied energy, improve performance of the products and reduce the need for virgin raw materials
- Other industry organizations such as: Saint Gobain, Calstar, Ceretech and others, are developing similar innovative fly ash applications

4. Beneficial Uses of Fly Ash as a Mineral Filler

Fly ash is a proven material as mineral filler for bitumen and polymer composite products. In these applications, fly ash improves efficiency and reduces resin needs (therefore reducing VOC's) and improves performance.

5. The Construction Industry recognizes the benefits of Fly Ash

- Corps of Engineers, FHWA and State DOTs specify the use of fly ash
- Over 50 years and thousands of research and scientific reports support the use of fly ash in concrete and other applications such as soil amendment and asphalt pavements
- Extends structure's service life and reduces life cycle costs of structures and pavements
- Aids in achieving LEED certification for structures

6. Any Hazardous Classification of Coal Combustion Products will be harmful

Any association of fly ash or other coal combustion products as a "hazardous waste" will have negative effects on their use.

- Full Subtitle C will devastate all beneficial uses
- Blended Subtitle C (landfill) and Subtitle D (certain uses) will be harmful
- Many BMTI customers have stated they will no longer use fly ash if any risk exists including the perception or "stigma" of the product being hazardous
- Long-term liability issues for existing structures that contain fly ash or other coal combustion products
- 7. <u>Boral Material Technologies opposes regulation of Coal Combustion Products as</u> Subtitle C or any hybrid classification

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