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"Coal Combustion Byproducts: Potential Impact of a Hazardous Waste Designation on Small Businesses in the Recycling Industry"
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Thank you Mr. Chairman. Honorable Members of the Committee, I am Bill Gehrmann, President of Headwaters Resources, Inc., on whose behalf I am testifying today. I have more than 25 years experience in the management and marketing of coal combustion products, which are often generically referred to as "coal ash." My experience includes managing the promotion, sale and distribution of coal ash; development of new products utilizing coal ash, the construction and operation of hazardous and non-hazardous waste landfills, and the design and operation of material handling systems.

Headwaters Incorporated is a New York Stock Exchange company that provides an array of energy services. We are a leading provider of pre-combustion clean coal technologies for power generation, including coal cleaning, upgrading and treatment. We are the nation's largest post-combustion coal product manager, operating on more than 100 power plant sites nationwide. We have built a construction materials manufacturing business and incorporated coal ash in many of our products. We are currently commercializing technologies for upgrading heavy oil and have entered the biofuels market by constructing an ethanol production facility utilizing waste heat from an existing coal fueled power plant in North Dakota. Headwaters is also active as both a technology provider and a project developer in the field of coal-to-liquid fuels.

As a manager and marketer of coal ash, Headwaters touches every link in the chain of activity that makes beneficial use of the material possible. Small businesses comprise a significant portion of many of the links in this chain. My testimony today is intended to describe that chain of activity and the probable effects of a "hazardous waste when disposed" determination on each.

There are many compelling reasons to use coal ash instead of simply disposing it. The most obvious reason is conservation of natural resources. When coal ash is used rather than disposed, other native natural resources are conserved by reducing the production of materials that coal ash is replaces. Additionally, landfill space is conserved.

The effect of off-setting environmental impacts from other industries is especially apparent in the case of utilizing coal fly ash to replace cement in the production of concrete. For every ton of fly ash used to replace a ton of cement, nearly a ton of carbon dioxide is avoided from the cement production process. In this manner, the coal ash reuse industry is currently responsible for well over 10 million tons per year of annual greenhouse gas emissions reductions. (It is important to remember that coal fly ash is a byproduct of generating electricity. The greenhouse gas emissions associated with consuming coal will exist whether or not the fly ash is used to replace cement. Accordingly, fly ash use in concrete has long been recognized by all credible sources as a legitimate and effective large volume approach to reducing greenhouse gas emissions.)

But the benefits of using coal ash are not limited to the environment. Many products made with coal ash are of higher quality than products made without it. For instance, concrete made with coal fly ash is stronger and more durable than concrete made with cement alone. Engineers and builders also use coal fly ash to address specific materials problems, such as the presence of reactive aggregates or soils, to further improve concrete durability.

There are economic benefits to consider, as well. More durable structures last longer, decreasing maintenance and replacement costs, while further conserving natural resources. Additionally, coal fly ash is less expensive than other technologies available to address engineering issues such as reactive aggregates.

Other witnesses will testify regarding the human health and environmental safety of using coal ash, but it is important to emphasize two facts. First, based on its mineral characteristics, coal ash does not approach the levels that would qualify it as a "hazardous waste" under federal law. Second, the mineral characteristics of coal ash are often strikingly similar to that of the materials coal ash is replacing when it is used.

The existence of all of these environmental, performance and economic advantages does not mean that using coal ash is easy. Significant investments must be made to be able to transport and deliver materials to users at the minute they need it. Users must be educated in how to properly utilize the materials and they must understand the materials' safety and efficacy. Today's utilization rate for coal ash in the United States is approximately 44 percent and is the product of more than three decades of efforts to identify and meet the needs of the following participants in coal ash use:

1. <u>Ash Producers.</u> Typically utilities that consume coal to generate electricity, ash producers are faced with a decision regarding whether to dispose of coal ash or reuse it. Disposal activities are usually carried out on the power plant site by the utility itself or a contractor. Since reusing coal ash is not considered a core function by most utilities, specialized "ash marketers" are usually engaged to perform those services on behalf of the utilities that desire a reuse program.

If coal ash is designated a "hazardous waste" when disposed, ash producers will be faced with this question: "This material is 'hazardous' on my own property, so am I willing to take the risk of turning it over to a third party who will market it into applications where it will be used in thousands of locations in the surrounding community?" Coal ash sales revenues are not a significant source of income for most ash producers and many ash producers will simply pass increased disposal costs on to their customers in the form of higher prices for energy. Rather than risk additional future changes in regulation or lawsuits from enterprising personal injury attorneys, ash producers will likely elect to choose disposal over reuse. If that is the case, all of the small businesses about to be described will be left without a product to use.

2. Ash Marketers. These marketing companies range in size from very small (fewer than 5 employees) to medium sized divisions of larger companies. They carry out a range of activities that includes transporting ash to customer markets and storing it prior to distribution, providing education and technical support to product specifiers and end users, and providing quality control and customer service.

   If coal ash is designated a "hazardous waste" when disposed, ash marketers will face significant challenges in both the operations of their businesses and the outlook for customer relations.

   From an operational point of view, the U.S. Environmental Protection Agency claims that it will continue to support "legitimate" beneficial uses in the event of a "hazardous when disposed" designation, but cannot answer ash marketer questions such as these: If a small quantity of ash spills during delivery, does it become a 'hazardous waste' for disposal purposes? Does ash transportation and handling equipment need to be placarded as 'hazardous waste?' What additional training and personal protection equipment will be required for workers handling coal ash? What will happen to insurance and Workers Compensation rates? All of these questions, and there are many more, represent significant challenges for small and mid-sized businesses.

   From a customer relations point of view, many of the same operational questions will afflict the concrete producers and manufacturers that purchase coal ash from marketers – making them reluctant to continue using the material. Coal ash users have alternatives to using coal ash and can choose to eliminate its use.

3. Ash Technology Developers and Providers. A segment of the coal ash industry comprised primarily of small businesses can be described as ash technology developers and providers. Some of these companies are concerned with developing and deploying technologies for improving the quality and marketability of coal ash for traditional uses. One example is providers of technologies to remove residual carbon from fly ash in order to make it suitable for use in concrete. Other small companies are engaged in developing and deploying technologies for utilizing coal ash in new applications.

Examples include fly ash brick manufacturers or technologies that may use fly ash in sequestering greenhouse gas emissions.

If coal ash is designated as "hazardous waste" when disposed, ash technology providers and developers will face significant new customer objections and barriers to raising capital for development activities. Even in advance of enactment of any rule, companies in this sector have reported slowdowns in financing activities and customer purchases attributed to the regulatory uncertainty presented by EPA's draft rulemaking proposal.

4. Product Specifiers. A key link in the coal ash industry chain is comprised of entities that never actually purchase or handle the material, but play a pivotal role in whether or how it gets used. Product specifiers – including architects, engineers and their industry standards setting organizations – create specifications that either require or prohibit the use of coal ash. In determining specifications, these entities consider the effect of the material on finished product performance and human health and safety.

   If coal ash is designated a "hazardous waste" when disposed, product specifiers will face the same potential operational and liability concerns previously described for ash producers and marketers. Additionally, standard setting organizations such as the American Concrete Institute and ASTM have already indicated in letters to EPA that their obligations to protect human health would require them to remove from specifications any materials that are determined to be a hazardous substance in another setting.

5. Ash Users. Ash users are the entities that actually use coal ash as an ingredient in other products. Examples include ready mixed concrete producers and other product manufacturers, many of which are small businesses with less than 50 employees.

   If coal ash is designated a "hazardous waste" when disposed, ash users will face the same potential operational and liability concerns previously described for ash producers and marketers. In order to avoid added operational costs and potential liabilities, many users may elect simply to quit using coal ash. In almost every example of coal ash use, coal ash replaces another material that is accessible without a hazardous regulatory stigma. In cases where coal ash is used for specific engineering purposes, such as mitigating reactive aggregates in concrete, competitive products are available at much higher costs, but without potential liabilities.

   In its proposed coal ash disposal rule, the EPA cites examples of other industries in which materials designated as "hazardous" have been successfully recycled. None of EPA's examples, however, are analogous to coal ash – which is used without undergoing additional processing and is placed in products that come into direct contact with end users. EPA's examples also concern materials that are sold to sophisticated users accustomed to handling hazardous materials. Coal ash users do not have this level of experience and capability.

6. End Users. End users are the people who actually purchase and use finished products containing coal ash – in other words, anyone who uses a home, school, office building, driveway, etc. This final link in the coal ash industry chain is the least likely to be informed regarding characteristics of materials and the most likely to become confused and concerned by a "hazardous when disposed" regulatory designation.

   If coal ash is designated a "hazardous waste" when disposed, end users will likely demand products that contain no "hazardous" substances. This phenomenon is already being seen even in advance of EPA enacting any new rules. The drumbeat of the phrase "toxic ash" in news stories about EPA's rulemaking effort has resulted in many ready mixed concrete producers receiving calls from customers asking for fly ash to be eliminated from their concrete. The Los Angeles Unified School District has eliminated coal ash from its concrete specification pending resolution of the EPA rulemaking. New examples are arising every day.

   Manufacturers of competitive products are also beginning to step in to fan flames of doubt for end users. Advertisements warning against products containing "hazardous waste" have appeared. Potentially even more damaging is "behind the scenes" misinformation by competitors that will be impossible to identify or rebut.

In meetings with me and with other representatives of the coal ash industry, EPA officials have indicated that they support the beneficial use of ash. But actions speak louder than words and EPA has done precious little to demonstrate support for legitimate coal ash use. To the contrary, EPA has unilaterally and without explanation removed its Coal Combustion Products Partnership program information from its web site. End users seeking information from the EPA about coal ash are now greeted with the single statement: "The Coal Combustion Products Partnerships (C^2P^2) program Web pages have been removed while the program is being re-evaluated."

The benefits of coal ash use are well known to EPA and have been presented in detail in two former Reports to Congress. Also contained in those reports were analyses of "barriers" to greater coal ash utilization. "Regulatory barriers" have been identified by EPA itself as one of the key reasons coal ash use rates don't go even higher.

EPA's 2010 rulemaking has already become a significant regulatory barrier by introducing the possibility of "hazardous when disposed" regulation. As discussed previously, end users are already reacting negatively to the mere presence of EPA's proposal. I find it ironic that such a regulatory barrier has been created primarily over a dispute by regulators regarding who should enforce regulations. The actual engineering standards for disposal facilities are essentially the same under EPA's hazardous and non-hazardous proposals. EPA's hazardous proposal appears calculated primarily to get federal enforcement authority over the regulatory program. EPA appears to be willing to sacrifice a substantial and beneficial industry merely to obtain greater regulatory influence.

Headwaters and the coal ash industry are not opposed to increasing the regulation of coal ash disposal. Our trade organization, the American Coal Ash Association, has even passed a formal resolution supporting national standards for coal ash disposal. But these increased disposal standards can and must be established without designating coal ash as a "hazardous waste" in any setting.

The best course of action for our nation's environment is one that encourages safe and beneficial coal ash use as a preferred alternative to disposal. Whatever material remains unused can then be disposed in a safe and effective manner. The "hazardous when disposed" approach proposed by EPA will have exactly the opposite effect – reducing coal ash use activities and thereby creating more waste to be disposed.

Thank you for the invitation to testify and for your interest in this important topic. I would be happy to answer any questions.