HOUSE SMALL BUSINESS COMMITTEE
RURAL AND URBAN ENTREPRENEURSHIP SUBCOMMITTEE
HEARING "Coal Combustion Byproducts: Potential Impact of a Hazardous Waste Designation on Small Businesses in the Recycling Industry"
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Chairman Shuler, Ranking Member Luetkemeyer, distinguished Members of the Committee, thank you for the invitation and opportunity to testify on the most critical issue for our small business -- the Environmental Protection Agency's (EPA) June 21, 2010 proposal to regulate the beneficial use of coal combustion products (CCPs). Our small business is PMI Ash Technologies, LLC (PMI) headquartered in Cary, North Carolina which focuses on environmental solutions to maximize the recycling of CCPs into concrete.

i. Introduction to PMI Ash Technologies

We are a small business with less than 25 employees. We develop innovative environmental solutions which solely focus on fly ash recycling in concrete. PMI develops, patents, commercializes, and deploys sustainable solutions which have avoided millions of tons of fly ash from being disposed of in landfills. One of our better known environmental solutions is Carbon Burn-Out (CBO) technology which utilizes a proprietary fine particle fluid bed to reduce a fossil plant's multi-media footprint. We also have developed solutions related to concrete blocks, specialty valves and solutions for different types of ash.

As long as coal is part of our nation's generation mix, we at PMI seek to reduce a fossil power plant's environmental footprint. We do this by focusing solely on one coal combustion by-product - fly ash. Fly ash receives most of the contaminants which are extracted from a fossil power plant's emissions via newly installed air pollution control devices. Most of these contaminants end up on the ash. PMI's innovative technologies work with air pollution control equipment providing a boost in fly ash sales into the concrete market. We seek to make all of our technologies sustainable. In certain applications, we can recycle heat from the fly ash to reduce coal burned at the fossil plant. In other applications, we can recycle other substances to reduce consumption.

One of our technologies, known as CBO, has been in commercial use since 1999. PMI's patented technology uses fly ash as a renewable or recurring feedstock to produce beneficiated fly ash suitable for use as a partial replacement for Portland cement in concrete and blended cements. The process combusts fly ash from the power plant in a fluidized bed, extracting the

residual energy content of the fly ash to fuel the beneficiation process, returning useful heat to the power plant. (See Attachment A – brief video of PMI's process).

PMI's technology accomplishes this in a manner where you never see the ash, because it is all enclosed in pipes, reducing particulate emissions. This allows a fossil plant to reduce its air, carbon, and solid waste footprint while using the fly ash to generate an additional 2 to 3 megawatts of generation or comparable fuel savings. (See Attachment B – brief video segment from the Profile Series highlighting one of PMI's innovative technologies).

Significant third party verification of carbon reductions occurred when a state regulatory scheme certified and verified carbon credits for two of the four PMI plants in commercial operation. (See Attachment C – regulatory documentation). In a carbon constrained environment, use of cementitious materials as a partial replacement of Portland cement plays an important role in producing real quantifiable offsets in manners which are safe for human health and the environment.

As communities and our society face energy challenges, existing coal plants are continuing to explore ways to reduce their multi-media footprint. CBO allows for sustainable use of a by-product – fly ash. It allows local stakeholders to avoid adding to landfills. It allows for implementation of additional air pollution control devices at power plants while at the same time recycling the fly ash in a safe manner – for use in concrete. Without the CBO technology, fly ash at these existing coal plants could not be used as a partial replacement for Portland cement. Incorporation of local fly ash into the local economy improves local green building supplies by making the concrete less permeable and more durable. CBO creates approximately 180 jobs during the construction of the CBO and 9 direct and 35 indirect high paying permanent jobs within the local market. Finally, the carbon footprint for the local community is reduced.

The significant energy, environmental and economic benefits resulting from the use of CBO and fly ash include:

1. PMI's beneficiation process extracts valuable energy from fly ash and makes it available to generate electricity, thereby increasing power plant efficiency and reducing coal use in proportion to the energy recovered from the fly ash.
2. PMI's beneficiation process reduces facility-wide mercury emissions while boosting ash sales even after activated carbon has been added to the power plant to reduce mercury emissions. (See Attachment D - Article from Alvaro A. Linero and David L. Read entitled, "Will the Hg Cycle Be Unbroken," which independently concludes that CBO technology is the best partner for the environment as mercury controls are implemented).
3. CBO greatly reduces the disposal of waste fly ash in landfills. Based on PMI's overall operating record with its first plant going into commercial operation in 1999, more than 5 million tons of fly ash have avoided being landfilled. Since the inception of PMI in the

late 1980's, using other solutions including a process to use fly ash in concrete block, more than 10 million tons of fly ash has avoided being landfilled.

4. Each of PMI's beneficiation processes provides approximately 180 temporary construction jobs and 44 permanent jobs to benefit the local economy.
5. PMI's beneficiation process reduces the fuel used at a cement plant when beneficiated fly ash is used as a partial substitute for Portland cement.
6. Each beneficiation process decreases the overall demand for Portland cement and the associated emissions from a cement kiln. While the United States has excess fly ash, fly ash recycling should be mandated in concrete which in turn reduces the need for additional cement kilns and the associated ambient air emissions.
7. PMI produces beneficiated fly ash, which is not only a lower cost raw material, but produces an end product that has superior qualities to end products made only with Portland cement.
8. CBO promotes sustainable economic development.

ii. ***EPA's proposed rulemaking to address CCRs will negatively impact SBAs if Subtitle C of RCRA is used***

EPA has a rule proposed to address coal combustion residual (CCR) disposal and CCP recycling. The proposed rule has two co-proposals under Resource Conservation and Recovery Act (RCRA): a Subtitle C or hazardous waste approach and a Subtitle D or non-hazardous waste approach. The Subtitle C hazardous waste approach is so broad in scope that it will have direct adverse impacts on CCP recycling, which is the sole focus of our company.

We understand that EPA is concerned about the Subtitle D approach because EPA does not believe it has direct enforcement authority. To remove this potential road block, we strongly encourage members of this Committee to work to pass a law which gives EPA direct enforcement authority over CCRs, while continuing to manage fly ash under Subtitle D as a non-hazardous material. By ensuring that EPA has direct CCR enforcement authority, the Agency can follow its precedent, in that it approved the disposal of fly ash from the TVA Kinston spill in a Subtitle D landfill. In the TVA spill instance, EPA has direct oversight over the disposal of the fly ash under a Consent Decree. If EPA has approved a Subtitle D landfill as the ultimate disposal unit for ash from the TVA spill, it further demonstrates that Subtitle D is suitable and should be the choice as long as EPA can enforce national minimum standards.

My essential point today is that EPA's proposed Subtitle C option would be devastating to the still growing CCP beneficial use markets, and would slow economic growth and job creation in our fragile economy. EPA's attempt to create exemptions for beneficial use of CCPs under Subtitle C is not efficient or sustainable for small businesses. We have met with EPA and have advised EPA that we are not against increased regulations, but a Subtitle C scheme will be devastating for CCP beneficial use job growth for small businesses such as ours! Despite this

input from our industry, the Office of Management and Budget, state Departments of Transportation, the American Concrete Institute (ACI), and ASTM International stating the negative stigma and likely disallowance of fly ash as a recyclable product due to the Subtitle C "hazardous" classification, EPA continues to maintain that we are mistaken. EPA believes that a Subtitle C scheme will increase CCP recycling. EPA's position ignores the real world evidence from those involved in the CCP beneficial use markets. Again, we implore you to find the right regulatory solution by giving EPA direct enforcement authority under Subtitle D.

Our industry is already feeling the adverse impact merely from the threat of a Subtitle C hazardous waste program for CCRs. All the utilities we have spoken with have deferred their decisions to implement beneficiation technologies, such as our CBO solution. Our equipment requires significant investment and long term commitments in order to underwrite these investments. Our utility customers are unwilling to make such commitments, with the possible risk of tort liability related to the sale of a material that is otherwise classified as hazardous. In other CCP recycling markets, we have already seen negative ad campaigns warning customers against using CCPs, because they are hazardous wastes. Solutions such as ours bridge our energy future until more renewable sources of energy enter the market. It is a shame not to employ these solutions and create green jobs our economy needs today and will need into the future.

In addition, EPA does not and cannot control market standards like ASTM, ACI, and state DOTs. ASTM and ACI have clearly stated to EPA that they fear the "cradle to grave" liability that arises under RCRA Subtitle C and any related litigation will attach to downstream suppliers, architects, engineers and financiers in the product chain. They have stated that they will remove fly ash from their building specifications if EPA proceeds with the Subtitle C hazardous waste option for CCRs. In fact, we have already learned that the school system in Los Angeles, California has removed fly ash from their specifications (See Attachment E) and that the LEED green building classification that has encouraged fly ash recycling in concrete is considering disqualifying fly ash as a green material. All of these adverse impacts are directly attributable to EPA's proposed option of regulating CCRs under RCRA's hazardous waste program. These kinds of real threats prohibit utilities from starting beneficiation projects and lenders and investors from making funds available for projects. Result - no job growth! Further, we will see insurance costs and litigation risks increase unnecessarily to preserve existing business.

Furthermore, EPA actions discredit their own statements that they support fly ash recycling. Although EPA says in its proposed rulemaking that it favors beneficial uses which use fly ash in concrete; EPA's unilateral actions with regard to its C2P2 program – a program to grow the CCP beneficial recycling industry- have raised additional questions about its long term support of fly ash as a partial replacement for Portland cement. EPA closed its C2P2 website and suspended its support of the C2P2 program which has created additional uncertainty in the market place. In

the proposed regulations, EPA says it supports fly ash use in concrete, yet it has become alarmed that fly ash could be used in "consumer products", such as a filler in bowling balls. Their statement alone stigmatizes fly ash being used in fully encapsulated applications. These mixed signals ultimately inhibit our business and the jobs we create.

In summary, PMI firmly objects to any type of Subtitle C hazardous regulations for CCRs, and like other recycling partners can only support a Subtitle D non-hazardous regulatory program for these materials. This is because the Subtitle D regulatory option will not have the "unintended consequence" of negatively impacting CCP beneficial recycling. Any type of hazardous waste regulatory action will eliminate the nation's largest recycling success, fly ash as a partial replacement for Portland cement in concrete. We would support legislation which would specifically direct EPA to promulgate a CCR standard under Subtitle D and give the Agency direct enforcement authority, which the Agency via its actions at the Kinston site has already acknowledged would be protective of human health and the environment. I am hopeful that you or your colleagues will promptly introduce a bill to give EPA direction to develop regulations under Subtitle D of RCRA for CCRs and give EPA direct enforcement authority.