



# USC TECHNOLOGIES, L.L.C.

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September 28, 2009

The Honorable Lisa Jackson  
Administrator  
United States Environmental Protection Agency  
Room 3000, Mail Code 1101A  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Re: Regulation of Coal Combustion Products

Dear Administrator Jackson:

We are writing to express our concern regarding the potential regulation of coal combustion products and to urge EPA to develop a regulatory scheme that will continue to allow these products to be used for beneficial purposes. It is vital that these materials, with their uniquely valuable qualities, continue to be available for beneficial uses, including but not limited to mine stabilization and reclamation.

USC Technologies has successfully used coal combustion products for mine stabilization in abandoned underground limestone mines in the Kansas City area for more than 15 years. To date, our stabilization of these limestone mines has allowed nearly \$200 million of commercial and residential development to occur at locations in the heart of Kansas City, Missouri where unstable mines had rendered the property otherwise unusable for development. Coal combustion products are not only the most economical method for stabilizing these mines; they are also the most effective in filling the voids. These products also have been used to stabilize portions of a number of unstable Kansas City area mines (both Missouri and Kansas) beneath City streets and State and Federal Highways that had either been closed due to mine collapses or have been at imminent risk of collapse.

We have been able to demonstrate, with more than 10 years worth of sampling data, that using coal combustion products for mine stabilization has been environmentally safe and fully protective. The particular limestone ledge and rock strata in the Kansas City area is very restrictive to groundwater flow. The permeability in the mine bedrock of  $10^{-7}$  to  $10^{-8}$  cm/sec is lower than current requirements ( $10^{-5}$  cm/sec) for the clay portion of ash landfills, and in fact is so low that it is in the range of current RCRA Subtitle D regulatory requirement (of  $10^{-7}$  cm/sec) for the clay portion of Municipal Solid Waste Landfill liners. The coal combustion products we use provide structural support in all circumstances of the mine environment, wet or dry, to ensure complete, long-term stabilization. We use only fly ash that is pozzolonic (self-cementing) in nature. Any heavy metals in this material are effectively encapsulated within the naturally cemented fill, thus being further protective of the environment.

Use of coal combustion products for engineered mine filling must continue to be allowed without undue regulation so we can continue to improve and stabilize these mines to put the land above them back to more productive use and make them safe for the general public. For the geological conditions of these

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and other Kansas City area mines, the use of these products is so well suited to the needs of mine stabilization that it is about as far as you can get from thinking of these projects as waste disposal.

As you may know, about 44 percent of coal combustion products are used for beneficial purposes. Regulating combustion productions under Subtitle C of RCRA would drastically reduce these beneficial uses. Generators would be required to construct an enormous amount of new landfill capacity to accommodate unused materials. This would result in a significant waste of resources that could be put to more productive use to promote additional safe beneficial uses and investing in alternative energy sources.

We understand EPA may be considering some other options, including regulating these materials under Subtitle D or under the Clean Water Act. Either of these options may provide the flexibility needed to ensure continued, protective use for beneficial purposes. In particular, we believe regulation under the Clean Water Act would be an effective means of addressing the risks associated with wet management of these materials, without unduly inhibiting their beneficial use for purposes like mine stabilization. For example, our activity is regulated in Missouri under the State's Underground Injection Control program. Our permit requires groundwater monitoring to ensure the material is not adversely affecting groundwater. More than 10 years' of monitoring data confirms that no releases are occurring.

We would welcome the opportunity to present more detailed information to you or your staff regarding our unique beneficial use so the new regulations can be written with as much knowledge available as possible so we can have a very effective regulation to accomplish our mutual goals.

Sincerely,



Richie Benninghoven  
President  
USC Technologies LLC

Cc: Mark Templeton, Missouri Department of Natural Resources  
John Mitchell, Kansas Department of Health and Environment  
Senator Claire McCaskill  
Senator Christopher "Kit" Bond  
US Representative Emanuel Cleaver  
US Representative Sam Graves  
Matt Hale, United States Environmental Protection Agency  
Mathy Stanislaus, United States Environmental Protection Agency  
Don Toensing, Region 7, Environmental Protection Agency