



Freight Pipeline Company

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To: Matt Hale, Director
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW, MC 5301P
Washington, DC 20460

Subject: Comment and Suggestion on Proposed Change of Classification for Fly Ash

Dear Mr. Hale:

I am the inventor of the Greenest Brick technology which won the 2008 C2P2 Award in Innovation, an award co-sponsored by EPA. My invention was also selected by both TIME and POPULAR SCIENCE magazines as one of top ten best inventions of 2007. I am also an emeritus professor of civil and environmental engineering (University of Missouri – Columbia). I would like to respond to the proposed EPA new regulation to classify coal-generated fly ash as a “hazardous waste.” The opinion expressed here is strictly my own and is not reflecting that of any institution that I am affiliated with.

Frankly, I am against the proposed new regulation for the following reasons:

1. Studies by U.S. Geological Survey (USGS) have shown that the amounts of hazardous chemicals (heavy metals) that exist in coal-fired fly ash are minute – less than that exist in many natural rocks and soil.
2. Unlike coal dust which causes the black-lung disease to coal miners, no occupational hazard or disease has ever been identified with fly ash, in spite of the fact that fly ash handlers have been dealing with fly ash daily for decades now.
3. Experience tells us that fly ash is less hazardous than coal dust. Yet coal is not classified as hazardous, and is transported by trucks and trains routinely, causing some coal dust to be emitted into air.
4. There is a good scientific reason for fly ash to be less hazardous than coal dust, street dust and cement, none of which has been classified by EPA as “hazardous”. Fly ash is less hazardous than these “non-hazardous” materials because most of the particles in fly ash are glassy spheres. They can be expelled from lungs relatively easily once they are inhaled, and can be removed from eyes easily by flushing the eyes with water. In contrast, most particles of coal dust, street dust and cement are particles of irregular shapes having sharp edges. They are far more difficult to expel from lungs or wash out of eyes.
5. Classifying fly ash as “hazardous waste” will generate the wrong impression—that fly ash is as dangerous as some of the truly hazardous materials such as the spent fuel of nuclear power plants, or hazardous waste from a chemical plant that manufactures sulfuric acid or cyanide. Classifying a non-hazardous material as “hazardous” does not serve public interest because it misleads the public, and diverts public attention from truly hazardous materials.
6. My experience has been that the public is very sensitive to the term “hazardous waste”. Once fly ash is classified as “hazardous waste”, the public will be reluctant to use any product made from fly ash despite assurances from the manufacturer that the product is safe. Therefore, classifying fly ash as “hazardous waste” is expected to harm all types of beneficial use of fly ash. It will severely hinder progress made in recent years in increasing beneficial use of fly ash in the United States.

7. Once classified as a “hazardous waste”, the thousands of existing coal ash landfill sites scattered around the nation, including impoundments near power plants, will automatically become “hazardous waste sites,” requiring Superfund cleanup. To clean up so many hazardous waste sites would certainly bankrupt the nation. On the other hand, not to clean up such sites will cause residents around the sites to rise up against EPA and electric utilities owning such sites. Thousands of law suits will be filed against EPA and electric utilities, benefiting no one but trial lawyers.

8. The proposed new EPA regulation is known to have been prompted by the fly ash spill at TVA’s Kingston Power Plant last December, which received widespread public concerns and media coverage. However, classifying fly ash as “hazardous waste” will do little to help prevent another Kingston, or to enhance any public safety. An effective way to prevent similar future spills of fly ash from impoundments is for the government to beef up rules on dam safety. This can be done either by simply extending the nation’s existing Dam Safety Regulations to cover fly ash impoundments (which is not done currently), or creating a set of new rules on dam safety specific for fly ash impoundments.

9. Let us not forget a lesson learned from recent history. About 15 years ago, EPA was sued by an environmental activist group, which forced EPA to withdraw the “non-hazardous” classification for fly ashes generated by power plants that burned municipal solid waste (trash). The action brought great chills to the once booming waste-to-energy industry in the nation. Suddenly, all the waste-to-energy facilities in the nation became severely affected. No more new waste-to-energy facilities have been built in the U.S. since, and the fly ash generated from existing facilities was no longer used, and had to be dumped in special landfills for hazardous wastes, which cost much more to build and operate than ordinary landfills. Did the nation’s environment benefit any? No, because the special landfills do not render hazardous materials non-hazardous; they merely store hazardous materials, postponing the problem for our children and grandchildren to deal with. How much better it would have been to the economy, the environment and to our children and grandchildren if the fly ash from waste-to-energy facilities were not considered hazardous and used beneficially! That sad mistake made 15 years ago must not be repeated today with coal-fired ashes.

Based on the foregoing facts and evidence, it is clear that classifying fly ash as “hazardous waste” does little to help prevent future spills of fly ash, yet will greatly damage national interests including but not limited to hindering beneficial use of coal ash, damaging the environment (by increasing landfills), and diverting public attention from truly hazardous materials that require such attention and the “hazardous” designation.

Due to the above, I feel that it is my patriotic duty to explain the above problems to you, and to urge you to advise your superiors in EPA not to change the current classification of fly ash. The proposed change is a bad idea that does not make sense, does not benefit the environment, and will cause severe damage to national interest.

I am taking the liberty of copying this letter to all Congress persons from Missouri, and certain other key individuals, urging them to oppose this proposed new rule change. It would be better yet if EPA would quit pursuing this misguided idea of reclassifying fly ash, and do something positive instead, such as providing tax incentives and more research funding for beneficial use of coal ashes!

Sincerely,



Henry Liu, PhD, P.E.

Cc: Missouri Congressional Delegation (Senators: Christopher S. Bond and Claire McCaskill; House of Representative Members: Todd Akin, Roy Blunt, Russ Carnahan, William “Lacy” Clay, Jr., Emanuel Cleaver, Jo Ann Emerson, Sam Graves, Blaine Luetkemeyer, and Ike Skelton.

American Coal Ash Association: Tom Adams, Mike MacDonald, David Goss, Annelly Noble.

Environmental Protection Agency (EPA): Susan Bodine.