



# INDIANA DEPARTMENT OF TRANSPORTATION

## *Driving Indiana's Economic Growth*

100 North Senate Avenue

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**Mitchell E. Daniels, Jr., Governor**

**Michael W. Reed, Commissioner**

09/02/2009

Honorable Lisa Jackson  
Administrator  
United States Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Ave NW  
MC 1101A  
Washington, DC 20460

Dear Administrator Jackson,

We are writing to express our views on next steps currently under consideration by the U.S. Environmental Protection Agency (EPA) regarding the regulation of coal combustion products (CCPs). The Indiana Department of Transportation (INDOT) strongly opposes any designation of CCPs as hazardous waste. Such action would have significant and long lasting adverse effect upon our ability to beneficially use fly ash and other CCPs in highway transportation projects.

~~Coal fly ash, a byproduct of coal combustion for electric generation, has been a crucial element in highway construction projects in Indiana. The regulation of coal ash as a hazardous waste threatens the recycling of this valuable material. The total production of CCPs in Indiana exceeds eight million tons per year. The INDOT has worked with the Indiana Department of Environmental Management (IDEM) to develop specifications and procedures to use CCPs for engineered fills and as a replacement for a portion of the cement used in concrete mixtures. We have been able to use approximately 42% of the material generated annually as a recycled construction material.~~

Fly ash improves durability in concrete construction in highway transportation projects by reducing damaging chemical reactions, reducing concrete permeability, and improving concrete strength, which results in improved durability and longer service life. Transportation engineers rely on fly ash to help solve challenges to creating concrete structures that are both economical and durable. Typically fly ash is substituted for up to 20% of the cementitious material required.

While there are other materials – silica fume, metakaolin, blast furnace slag – that can be used to enhance concrete durability, these materials are not as readily available, can be 4 – 6 times more expensive, and are not as effective as fly ash. The effect would be to increase construction costs and reduce performance of highway projects. Increasing costs to state governments would further strain limited state resources.

[www.in.gov/dot/](http://www.in.gov/dot/)

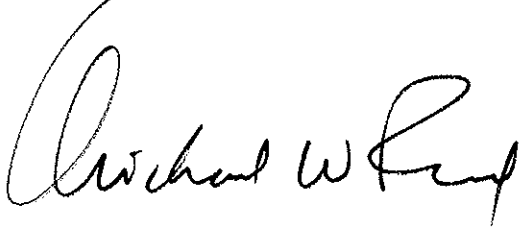
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We are also concerned about how the proposed reclassification would impact the status of highway pavements and constructed fills that have incorporated coal combustion byproducts. We routinely recycle old concrete pavements by crushing them to make base material for new roadways. The opportunity to recycle concrete pavements would be unavailable in the future.

We believe we have established adequate procedures to ensure the safe use of CCPs as construction materials. Fly Ash may only be used from the Department's approved list of fly ash sources. In order to remain on the approved list, monthly test results must be submitted to verify the chemical content and engineering properties of the material. In addition the monthly report must identify the source of the material and the concrete plants it is being shipped to. Projects that will use CCPs as engineered fill material are approved after a thorough geotechnical engineering review. The contractor must provide an erosion and dust control plan. The contract special provisions place strict limits on the construction practices on the jobsite, how much material is allowed to be stored on site and how long it may be in storage before it is encased.

The regulation of fly ash as non-hazardous waste would ensure the continued safe management of fly ash while allowing for its continued beneficial use, including the enhancement of the concrete construction in our nation's highway systems.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael W. Reed". The signature is written in a cursive, flowing style with a large initial "M".

Michael W. Reed, Commissioner

Indiana Department of Transportation