

## North-Central W.Va. is Ground Zero for Surface Mine Coal Ash

**EPA is considering whether material from power plants used in mine reclamation is hazardous.**

Story by Pam Kasey

[Email](#) | [Bio](#) | [Other Stories by Pam Kasey](#)

On the eve of a U.S. Environmental Protection Agency decision about regulating coal combustion waste as a hazardous material, mine operators are spreading the substance extensively across north-central West Virginia.

The noncombustible part of coal, coal combustion waste (CCW) is what's left when power plants burn coal to make electricity, according to the EPA. It includes fly ash, boiler slag and scrubber residues.

Following the December 2008 CCW slurry spill that covered 300 acres in Kingston, Tenn., West Virginians learned of 20 such wet slurry impoundments in this state.

But CCW may be disposed of in other ways as well; in the absence of federal regulation, practices differ state by state.

In West Virginia, it may be landfilled.

It may be recycled: into concrete, for example, or wallboard.

Or, when written into a surface mine permit, its combination with coal mine refuse during reclamation may be designated a "beneficial use" by the West Virginia Department of Environmental Protection, according to the Division of Mining and Reclamation's permitting handbook.

Meanwhile, one coal company official said his company complies with regulatory standards and he is concerned that increased standards needlessly could increase the cost of energy.

### **CCW and North-Central W.Va.**

The practice is widespread in north-central West Virginia.

The simple idea behind it, according to Jeff Stant, is that the alkaline CCW material neutralizes the highly acidic northern Appalachian coal wastes and prevents acid mine drainage. Stant has studied CCW for two decades and directs the nonprofit Environmental Integrity Project's Coal Combustion Waste Initiative.

The reality, Stant said, is much more complex.

A 2006 National Academy of Sciences study found that CCW contains "metals and other elements, such as arsenic, cadmium, chromium and lead, in quantities that can potentially be harmful to human health or the environment."

Stant cited research showing that, rather than offering a beneficial synergy, the chemical interactions between acidic mine refuse and alkaline CCW create ideal conditions for leaching the heavy metals from the ash.

"They're creating a more dangerous scenario," Stant said. "They're maximizing risk."

A map in the National Academies study shows that north-central West Virginia has by far the highest concentration of CCW mine placement in the country.

"Monongalia, Marion and Preston counties, there are 80 or 90 mine dumps there," Stant said.

"Pennsylvania has more total mine dumps, about 120, but they're spread over the western half of the state and the eastern anthracite region. Yours are almost all in those three counties."

### **Two Current Permits**

Currently in public comment are two draft permits in north-central West Virginia that include CCW.

In one, for Morgantown-based Patriot Mining Co.'s New Hill West surface mine in the acidic Waynesburg seams, CCW from the Morgantown Energy Associates power plant would be applied during reclamation.

Residents John and Petra Wood, scientists who work in Morgantown and moved to nearby Cassville 17 years ago for a more secluded lifestyle, submitted comments on Patriot's Community Impact Statement and its draft Surface Mining Control and Reclamation Act permit.

The Cassville area has changed, the Woods wrote.

"Since 1997, almost 1,100 acres have been surface mined, and permit applications for an additional 580 acres of surface disturbance recently have been submitted for this area," they wrote.

"From 1999 to 2007, we estimate that about 6 million tons of CCW have been deposited on seven surface mine permits ... in and around the Cassville community," they wrote, summarizing their review of other permits. "An additional 2.4 million tons of CCW is proposed for (the current permit)."

They cited findings by the National Academies and others showing that CCW mine sites leach heavy metals with potential human health effects and that state-mandated surface water and groundwater monitoring typically are insufficient.

They also pointed out that CCW has been found to leach dissolved solids, or TDS -- the contaminant that contributed to the death of the fish and mussels on more than 38 miles of Dunkard Creek in their area

last fall.

"Could the millions of tons of CCW that have been deposited in the Monongahela River watershed in recent years be contributing to TDS loading in the river and its tributaries?" the Woods asked in their comments. "This needs to be investigated, as the Monongahela River is the drinking water source for 850,000 people (and has been) identified by the West Virginia Division of Natural Resources as a high-quality stream."

The second permit, for Morgantown-based Coresco LLC, is a surface mining control and reclamation act permit -- but involves no mining.

"The proposed Coal Refuse Disposal Area No. 4 will not include coal removal and will strictly be a refuse disposal site," the applicant states.

Coresco proposes to combine coal preparation refuse from its local mining operation and CCW from the Hatfield's Ferry, Fort Martin and Longview power plants on a 350-acre site near the Monongahela River.

The company would deposit up to 2.8 million tons of material each year for 25 to 30 years to a final height, in one area, of up to 500 feet.

The West Virginia chapter of the Sierra Club commented on this permit.

"There does not appear to be any beneficial purpose to the disposal of the coal ash and combustion byproducts," the comments read. "We recommend that the beneficial use designation be determined to be inapplicable to this permit, and that a solid waste landfill permit be required, complete with liner, leachate collection and leachate leak detection systems."

Stant placed the project in context.

"It's a huge, a huge operation," he said. "(The completed project) is like two-thirds of the entire annual national generation of coal combustion waste from all power plants."

#### **EPA and OMB**

A "hazardous" designation from the EPA would trigger the development of a federal disposal standard.

Tom Jones, senior mining engineer at Patriot Mining, said he believes the testing that Patriot conducts and that WVDEP requires is sufficient to show that the company's use of CCW is in compliance with existing regulations.

A blanket hazardous designation would send CCW to landfills needlessly, he said, and would increase Patriot's costs and, ultimately, the price of electricity.

The federal Office of Management and Budget currently is conducting meetings with industry stakeholders.

At issue are those additional costs, as well as whether a hazardous designation would cripple re-use -- the destination of 45 percent of CCW in 2008, according to the American Coal Ash Association, mine fills included.

Stant believes the designation would stop the use of CCW at mines.

"Minimum requirements would have to be met that would force them to isolate the ash from water," he said. "If they did that, that would spell the end of mine filling as we currently know it."

**Copyright 2010 West Virginia Media.**

<http://www.wv.gov.org/sec.aspx?id=32&articleid=1943>

**OP-ED: COAL ASH A BENEFICIAL RESOURCE IF SAFETY CONCERNS ARE PUT FIRST**

By: West Virginia Governor Joe Manchin, Chairman of the Southern States Energy Board

Contact: Matt Turner, 304-558-3702

The U.S. Environmental Protection Agency is expected to propose new federal rules that would designate coal ash — a byproduct of using coal to generate electricity — as a “hazardous” waste. Such a decision would cause significant economic and environmental damage and I implore the EPA to evaluate the facts about coal ash recycling before making a decision.

Coal fly ash has received a lot of attention following the December 2008 failure of a fly ash slurry impoundment in Tennessee. The safety of our citizens always takes first priority and every state should closely examine their fly ash impoundments, as our Department of Environmental Protection has done in West Virginia in the last year. But we must also separate the issues of the safety and benefits of the material and the faulty design and construction of the dam, which caused that horrible environmental tragedy in Tennessee.

Jumping to classify coal ash as hazardous waste would neglect many dozens of years of proven beneficial uses of this byproduct. Hastily raising its status to “hazardous” could actually cause more environmental harm and place undue financial burden on countless thousands of Americans.

According to EPA's own figures, about 45 percent of all the coal ash generated by electric utilities in the country today is reused or recycled. Coal ash recycling is a multi-billion dollar industry that provides thousands of truly green jobs across our country. This reduces landfills and these beneficial products diminish acid mine drainage — a problem in many parts of the country.

The EPA proposal would shut down the many U.S. businesses that recycle coal ash and similar materials into dozens of different products we use every day — from concrete to gypsum wall boards to roof shingles.

According to the Electric Power Research Institute, designating coal ash as hazardous material would shut down 411 coal-based electric generating units in the Midwest and Southeast, costing some regions as much as 14 percent of their generating capacity.

Industry figures show that in 2007, the cement and concrete industry used more than 14 million tons of coal ash. And, every year, thousands of concrete construction projects use coal combustion byproducts.

For example, following the 2007 collapse of the Interstate 35W bridge in Minneapolis, the replacement span was built with high-performance concrete that uses coal ash.

In West Virginia, coal ash was used to build the world-famous New River Gorge Bridge and the West Virginia Culture Center. The California Department of Transportation requires that concrete used in its construction projects contain at least 25 percent coal ash.

This past year, the gypsum wallboard industry relied on more than 8 million tons of a material recycled from fly ash, called flue-gas desulfurization gypsum. In 2007, more than 56 million tons of ash were recycled for beneficial uses.

The safety of fly ash was evaluated in 2000 by the Clinton administration, which determined after an exhaustive analysis that coal ash should not be designated as a “hazardous” waste.

In fact, in the 10 years since that decision, the EPA has calculated that ash recycling by the cement and concrete industry alone has reduced carbon emissions by a staggering 117 million tons. For comparison, all the SUVs on our country's roads emit about 70 million tons of carbon each year, according to the environmental group, Environmental Defense.

This view is not uncommon. Every key federal agency that has weighed in on the issue — the departments of Energy, Interior, Agriculture and Transportation, the Small Business Administration, and the Army Corps of Engineers — opposes regulating coal ash as hazardous waste.

In addition, dozens of state policymakers, including groups like the National Governors Association and the Environmental Council of the States, along with numerous state environmental protection agencies, also oppose the designation of coal ash as hazardous waste.

More than three dozen industry groups and individual companies — those whose businesses rely on coal combustion products — have made it clear that hazardous waste regulation is unnecessary and would have a devastating impact on the recycling of coal ash.

Coal fly ash has many beneficial uses and deeming it a "hazardous waste" could have devastating consequences on industries that use this product, and on the families who rely on the jobs related to coal combustion products. In addition, the elimination of the recycling of fly ash because of such a designation would cause a significant negative environmental impact and actually could increase the carbon released to the atmosphere.

For the sake of our environment, our economy, and our citizens who rely on the products and jobs from coal fly ash recycling, let's hope the EPA and federal government consider these facts and make the right decision. Designating this material as hazardous is wrong.

###