

TVA Kingston Coal-Plant FlyAsh Dam Breaks Dec 22, 2008

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Tuesday, December 23, 2008 from Appalachian Voices Website [Fly ash floods Tennessee River](#)

A six-foot wall of coal fly ash mud broke loose from an earthen dam early Monday morning near Harriman, TN, washing out a road, isolating a dozen homes and posing a possible threat to drinking water downstream from Watts Bar dam on the Tennessee River. No injuries were reported, TVA officials said. At least one person had to be rescued as 15 homes were evacuated in the spill, but no hospitalizations have been reported. Heavy rains and freezing conditions contributed to the spill, but neighbors told the Knoxville News that TVA had been struggling with “baby blowouts” for years.

The spill involved 2.6 million cubic yards of dry material, or an estimated 525 million gallons of wet coal fly ash sludge. The material flowed from facilities at the 1.7 gigawatt Kingston Steam Plant into the Emery River, then into the lake at Watt’s Bar dam on the Tennessee River. The earthen dam that broke was one of three being maintained by the TVA as part of the Kingston facility. The other two dams are intact at present.

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The spill is the largest on record, and compares to a 300 million gallon coal slurry sludge spill on Oct. 11, 2000 at Inez, Martin County, Kentucky. Coal fly ash contains heavy metals such as lead, mercury and arsenic. Ironically, the spill came on the same day that [39 environmental groups were urging](#) president-elect Barack Obama to reject a pending federal rule to make it easier to dump fly ash into abandoned mines.

As Appalachian Voice [has reported previously](#), every year, 120 million tons of fly ash form the residue of 1.1 billion tons of coal burned for electricity. Coal waste is the second largest waste stream in America after municipal solid waste. A train with cars full of a year’s fly ash production would stretch 9,600 miles.

Fly ash is often been used to make grout, asphalt, Portland cement, roofing tiles and filler for other products, but only about 43 percent is stabilized that way, according to the American Coal Ash Association. Fly ash disposal has become

increasingly controversial over the years. Studies from the 1980s said that fly ash was harmless, but more recent scientific and EPA assessments have sounded alarms.

Environmental groups have been alarmed at the groundwater contamination by heavy metals from coal fly ash. Incidents have taken place all over the country where old fly ash deposits have broken loose, contaminating neighborhoods, threatening health and reducing property values. Fish and other species die quickly when directly exposed to fly ash, and those exposed indirectly accumulate heavy metals in their bodies, harming the ecosystem and posing a serious health risk to anglers.

Undeterred, the coal and utility industries keep insisting that fly ash is harmless. Yet in 2003, EPA identified over 70 sites nationwide where fly ash and similar coal power plant waste has contaminated surface and groundwater. The next year, 130 environmental groups petitioned the federal government to stop allowing fly ash to be dumped where it could come into contact with drinking water supplies.

At the time, EPA put off a decision on new regulations for 18 months. Five years later, regulations have yet to be written, although two years ago, a National Science Foundation report urged EPA to begin regulation. In the summer of 2007, the EPA released a national risk assessment on coal fly ash disposal. One of the most important factors involved in risk was whether runoff could carry contaminants away from the site and into groundwater.

The cancer risk from arsenic is one of the biggest issues with fly ash. People drinking groundwater contaminated by a landfill that did not use a plastic liner had a 10,000 times greater than allowable risk of cancer, the EPA said. Other risks include high levels of mercury, lead and other heavy metal contaminants. Communities in Indiana, Pennsylvania and Maryland have already experienced severe fly ash problems. Water supplies had to be shut down in 2004 in the town of Pines, Indiana, and families were provided with bottled water after molybdenum showed up in the town's drinking water.

In September of 2007, the Boston-based Clean Air Task Force and EarthJustice released a report on the use of coal fly ash to fill in Pennsylvania mines. In 10 of 15 mines examined across the state, groundwater and streams near areas where coal ash, or coal combustion waste had high levels of arsenic, lead, cadmium and selenium and other pollutants above safe standards. Also in 2007, residents of Giles County, VA filed a lawsuit over coal fly ash landfills being placed by American Electric Power adjacent to the New River. They said that landfills posed a danger to people and recreational uses of the river. In November 2008, residents of Gambrills, Maryland, settled a class action lawsuit against a power company for \$45 million after water supplies were contaminated by a fly ash landfill.

COAL FLY ASH LINKS - FOR MORE INFORMATION

[EPA documents on fly ash are available here](#) and also [here](#):

In 2006, the United States produced nearly 125 million tons of “Coal Combustion Products” (CCPs), including fly ash, flue gas desulfurization (FGD) materials, bottom ash, boiler slag, and other power plant byproducts. While 43 percent were recycled and stabilized, often in concrete, nearly 70 million tons were landfilled or held in ponds like the ones along a Tennessee River tributary at Kingston. See <http://www.aaa-usa.org/>

There is currently an enormous regulatory vacuum on fly ash disposal when the “beneficial uses” (like embedding in concrete) are not employed. A National Academy of Sciences report this year noted the regulatory vacuum and also said it would be safe to fill abandoned mines with coal fly ash. Not so, said the [Clean Air Task Force and EarthJustice](#), which have been pushing for more regulations: “The public has been told for decades that these coal wastes are not hazardous—it’s time to end that fraud.” A [House Natural Resources subcommittee](#) held a hearing on this on June 10 of this year:

In 2007, EPA performed a coal fly ash risk assessment (PDF)

http://www.tva.gov/emergency/ashslide_kingston.htm

Ash Slide at TVA's Kingston Fossil Plant

Updated December 23, 2008 – 11:00 p.m. EST

TVA President & Chief Executive Officer Tom Kilgore held a press conference at 3 p.m. today to update media representatives on the ongoing recovery efforts following the Dec. 22 ash slide at Kingston Fossil Plant in Harriman, Tenn.

[View press conference details](#)

[View video of the press conference](#)

Statement by TVA President and CEO Tom Kilgore on December 22, 2008.

Protecting the public, our employees, and the environment is TVA’s primary concern as we supply electric power for the people of Tennessee Valley region. We deeply regret that a retention wall for ash containment at our Kingston Fossil Plant failed, resulting in an ash slide and damage to nearby homes.

We are grateful no injuries have been reported, and we will take all appropriate actions to assist those affected by this situation.

We appreciate the continuing efforts of local and state agencies, as well as TVA employees, to respond to this situation quickly and efficiently. Our intense effort to respond effectively will continue 24/7 for the foreseeable future with the safety of the public our top priority.

Kingston Fossil Plant

TVA, local, state and federal agencies continue responding to an ash-slide caused by a failure of a retention wall for an ash containment area at TVA's Kingston Fossil Plant in East Tennessee. No injuries have been reported and personnel and public safety is the top priority during the recovery work at the plant and in the community.

TVA continues to assist residents in the affected area. TVA provided hotel rooms, meals, transportation and other immediate needs for affected residents who were not able to occupy their homes Monday night. Additional assistance is being provided by TVA as needed by affected residents.

Electricity, gas and water have been restored to all homes in the area that are habitable. Heavy equipment including bulldozers, dump trucks, and backhoes have been brought to the site and some clearing of debris has started. Sampling of water downstream of the plant will continue to assess the possible effects on water quality. Staff at TVA's other ten fossil plants have made visual inspections of the ash retention dikes to note any changes in conditions.

The Swan Pond Road past the Kingston plant remains closed (except for residents who live in the area whose homes are habitable). There is no estimated timeline for when the road will be reopened. TVA Police are assisting local law enforcement with maintaining security for the homes in the affected area. TVA continues to manage river flows on the Clinch and Tennessee Rivers to minimize downstream movement of the ash. There are no expected impacts to any other TVA facilities downstream.

The ash containment areas at all TVA's plants undergo a formal inspection annually and other inspections on a quarterly and daily basis. Early estimates for clean up indicate that it could take weeks to complete. Long-term plans are being developed. An adequate supply of coal is available and all nine units at Kingston continue to operate.