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Coal Ash: A National Problem Needs a National Solution

After decades of delay, EPA should finally issue regulations to safeguard the public from coal combustion waste.

Coal ash is an abundant and dangerous by-product of burning coal for energy. Despite its hazardous characteristics, coal ash and other coal combustion wastes are not subject to federal regulation, and state laws governing coal combustion waste disposal are usually weak or non-existent. Across the country, millions of tons of coal ash are being stored in precarious surface waste ponds, impoundments and abandoned mines. These put human health at risk from potential large scale disasters and from gradual yet equally dangerous contamination as coal ash toxins seep into drinking water sources. The Environmental Protection Agency (EPA) has long recognized the danger of coal ash and should act quickly to fulfill its duty to protect public health and the environment through strong federal regulations on coal ash.

Tennessee Coal Ash Spill: “Largest environmental disaster of its kind in the United States”

On December 22, 2008, a dike holding back decades worth of coal ash failed at the Kingston Fossil Plant in Harriman, Tenn., flooding the surrounding residential area with more than one billion gallons of toxic coal ash, or enough to flood more than 3,000 acres one foot deep.ⁱ Testing of surrounding water bodies showed extremely dangerous levels of arsenic, mercury, and other toxins. One sample showed arsenic at 149 times higher than what is considered safe.ⁱⁱ This is not an isolated incident. In August 2005, a dam confining a surface impoundment in Pennsylvania failed, discharging tons of coal ash water into the Delaware River. A similar failure occurred at an impoundment at Plant Bowen in Georgia in 2002.



Aerial photo of the Dec. 22 coal ash spill in Tennessee

A Slow-Motion Disaster: 600+ Coal Ash Sites Nationwide, But No Federal Regulations

While dramatic events like the coal ash spills in Pennsylvania, Tennessee, and Georgia garner national media attention, dangerous contaminants are quietly seeping from coal ash dumps into groundwater supplies across the country, exposing people and wildlife to toxic substances. There is no federal regulation of coal ash, and the vast majority of states do not require adequate monitoring or liners to stop the migration of coal ash pollution.

Coal-fired power plants produce approximately 131 million tons of waste per year, making coal combustion waste the second largest industrial waste stream in the U.S. Coal ash contains numerous hazardous chemicals, including arsenic, selenium, lead, mercury, cadmium, chromium, boron, thallium, and aluminum.ⁱⁱⁱ When coal ash comes into contact with water, these hazardous materials leach out of the waste and contaminate groundwater and surface water.^{iv} These substances are poisonous and can cause cancer and damage the nervous system or other organs, especially in children. EPA has identified over 600 coal ash sites and documented at least 67 proven or potential cases of surface water or groundwater contamination from coal ash in at least 23 states.^v

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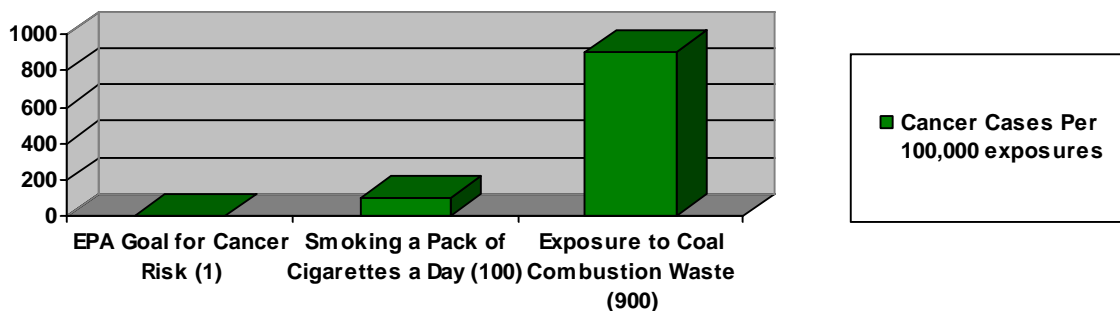
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More Dangerous Than Smoking a Pack of Cigarettes a Day

In August 2007, EPA published a draft risk assessment that found extremely high risks to human health and the environment from the disposal of coal ash in waste ponds and landfills.^{vi} The chart below compares EPA's findings on the cancer risk from arsenic in coal ash disposed in waste ponds to several other cancer risks, along with the highest level of cancer risk that EPA finds acceptable under current regulatory goals.^{vii} While the risk estimates shown below are extremely high, EPA officials admitted that they underestimated risk by at least 50% in some cases.^{viii}



Years of Delay

In 1980, Congress ordered EPA to study coal combustion waste and to make a regulatory determination by no later than 1983.^{ix} On April 24, 2000, EPA finally completed that regulatory determination and found that “coal combustion wastes could pose risks to human health and the environment if not properly managed” and “national regulations under subtitle D of RCRA are warranted for coal combustion wastes when they are disposed in landfills or surface impoundments.”^x Despite that finding and subsequent studies revealing high levels of toxins and carcinogens in coal ash, EPA has failed to enact any rules.

Call on EPA to Establish Federal Regulations for Coal Ash

EPA has the authority to phase out these surface impoundment “wet dumps”—the most dangerous ash disposal method—and put in place common-sense regulations that protect human health and the environment by governing the disposal and recycling of dry coal ash. Please join us in asking EPA to establish regulations that will protect us all from coal ash pollution.

For more information:

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ⁱ US EPA, Potable Water Sampling Results Kingston Fossil Fly Ash Response, January 4, 2009.

ⁱⁱ US EPA, TVA Kingston Fly Ash Release, Lab Analytical Results for Surface Water Samples, January 1, 2009.

ⁱⁱⁱ US EPA, Human and Ecological Risk Assessment of Coal Combustion Wastes, August 6 2007 (draft).

^{iv} *Id.*

^v US EPA, Coal Combustion Waste Damage Case Assessments, July 9, 2007.

^{vi} *Id.*

^{vii} Human and Ecological Risk Assessment of Coal Combustion Wastes, August 6, 2007 (draft). Date for cigarettes comes from Center for Disease Control, Cigarette Smoking-Attributable Morbidity-U.S. 2000, MMWR Weekly, September 5, 2003 / 52(35):842-844

^{viii} EPA Acknowledges Underestimates of Coal Ash Waste Disposal Risks, Inside EPA, Dec. 7, 2007, Vol. 28, No. 49.

^{ix} Solid Waste Disposal Act, Section 8002(n), 42 U.S.C. 6982.

^x US EPA, Reg. Determination on Wastes from the Combustion of Fossil Fuels, Final Rule 65 Fed. Reg. 32214, May 22, 2000.