

COAL ASH: *UNREGULATED* DIRTY, DANGEROUS, TOXIC!

The EPA considers new regulation on coal ash now!
Learn why it's important for your health, family and
community.



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

What is it?

Coal ash is an abundant and dangerous by-product of burning coal for energy. Despite its toxic 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.

EPA Rulemaking: Now is the time!

On June 21, 2010, EPA proposed 2 approaches for regulating disposal of coal ash:

1) The status quo option:

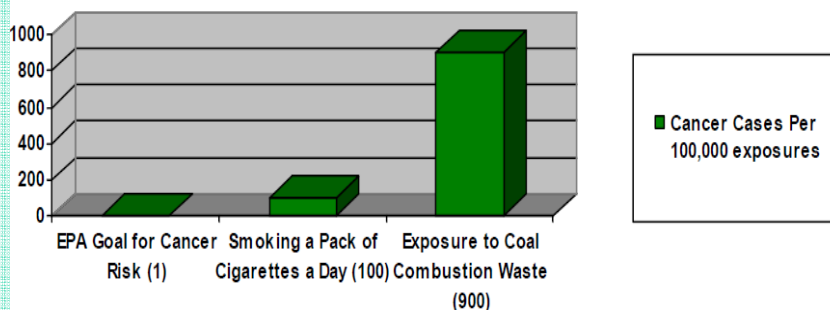
The status quo option of suggested state guidelines is not substantively different from current policies and will result in few if any changes. The steps suggested in EPA guidelines are not new; neither is the idea that the industry should be taking basic precautions, like conducting groundwater monitoring, to protect people from its toxic waste. Yet knowing has not equaled doing and it will not do so now without federal enforcement. Simply telling states and the industry that they really should be more careful is not enough. The lack of federal regulation is what has led to the current failed patchwork of state protections against coal ash and the massive Tennessee coal ash disaster.

2) The stronger option:

Recognizing that coal ash is substantially more dangerous than household garbage and regulating it like the toxic substance it is will benefit communities and environments across the country. The common sense guidelines backed up by federal enforcement and financial accountability provide much needed environmental and public health safeguards. Coal ash is not only toxic when it is put into a pond or landfill. It should be regulated from cradle to grave. Despite the known toxicity of coal ash a vast majority of states do not even require monitoring to see if coal ash is polluting drinking water. Storing wet coal ash in ponds is highly dangerous and needs to be phased out. It is time for the federal government to step in.

Health impacts of coal ash

Improved testing methods reveal that coal ash is significantly more toxic than originally thought and has an increased risk of leaking into waterways. The levels of pollution, like arsenic, sulfate, selenium, phosphorus, mercury and more, seeping from coal ash were found to be significantly higher than what is considered "safe" for drinking water. Concentrations of metals and chemicals in coal ash have been found at levels many times higher than what is currently considered hazardous waste. Living near a coal ash site is significantly more dangerous than smoking a pack of cigarettes a day, according to a risk assessment done by EPA.^{1,2}



People living near unlined coal ash ponds can have an extremely high 1 in 50 risk of cancer. That's more than 2,000 times higher than what EPA considers acceptable. The toxins found in coal ash have been linked to organ disease, cancer, respiratory illness, neurological damage and developmental problems. Children are more susceptible to the health impacts of coal ash, a disturbing fact since EPA has found that 1.54 million children live near coal sites.



Coal Ash and the Environment

Exposure to toxic coal ash can lower birth rates, cause tissue disease, slow development and even kill plants and animals, leading to changes in wildlife concentrations and disruptions in entire ecosystems. As much of the coal ash pollution ends up in our waterways, fish are especially at risk. Exposure to selenium, a pollutant found in coal ash, is known to have caused severe deformities in fish-- two eyes on one side of their heads, s-shaped spines and mutated organs. The toxic pollution from coal ash builds up in exposed animals and plants, causing the pollution to make its way up the food chain when they are eaten.

Coal Ash in Michigan

Currently there are 11 coal ash sites at 5 facilities in Michigan. Michigan coal plants generate over 2.1 million tons of coal ash annually. The bulk of that coal ash is going into some sort of unlined landfill or storage pond. According to the EPA surface impoundment database, the 11 ponds in MI cover an area of 1,152 acres. Many of those storage ponds' locations are unknown to the public, and are unregulated by the state leaving residents and community members in the dark about the risks to their health and environment. Seven of the ponds in MI are over 40 years old. The age of these ponds makes it unlikely that they have safeguards like liners and leachate collection systems. Storage capacity data are missing for most of the ponds, but the largest unit for which there is data – the fly ash pond at the Monroe Power Station – can store up to 16 million cubic yards of coal ash.³

Karn and Weadock Facility

Coal ash The Karn and Weadock landfills are two adjacent coal ash disposal sites constructed on a narrow strip of land between the Saginaw River and Saginaw Bay of Lake Huron. Groundwater monitoring at the site detected high levels of boron and arsenic in the groundwater surrounding the site. The site sits at the mouth of the Saginaw River which flows into Saginaw Bay; the source of 34,000 Bay City residents' drinking water. Along with arsenic and boron, these landfills have been known to be discharging lithium and sulfate into Saginaw Bay since 2002. Mercury is also a concern.

State Action: Consent Order under negotiation to require construction of slurry walls to stop landfill leakage. Documented off-site damage to surface water Karn and Weadock MI Generating Facility, Consumer Energy.⁴



Lansing and Whiting

From 1980 to 1997, this facility was used for disposal of coal ash from the Lansing Board of Water and Light (LBWL) electric and steam generating plants. This site was classified as a proven damage case based on a scientific observation of off-site exceedances of the State's health-based standard for lithium. The exceedance was caused by the fact that the site is an unlined former gravel quarry with an elevated ground water table leading to ground water contact.⁵

In Erie, a 400-acre ash lagoon used by CMS Energy's JR Whiting facility since 1953 relies only on natural soil to serve as a barrier for leakage, and releases sluice water back into Lake Erie. At this site there is no required monitoring of groundwater. According to Larry Bean, supervisor of the Department of Natural Resources and Environment's solid waste division in Jackson, CMS has been exempted from groundwater testing because the risk of aquifer contamination at this site has been deemed minimal.⁶

¹ EPA Acknowledges Underestimates of Coal Ash Waste Disposal Risks, Inside EPA, Dec. 7, 2007, Vol. 28, No. 49.

² 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.

³ Earth Justice and Environmental Integrity Project Report, "Out of Control: Mounting Damages From Coal Ash Waste Sites". February 24, 2010.

⁴ U.S. EPA. Database of coal combustion waste surface impoundments (2009).

⁵ U.S. EPA, Office of Solid Waste. Coal Combustion Waste Damage Case Assessments (July 9, 2007).

⁶ Meltzer, Eartha Jane. "EPA considering stronger coal ash regulations: Power companies say current system works fine". Michigan Messenger June 12, 2010.