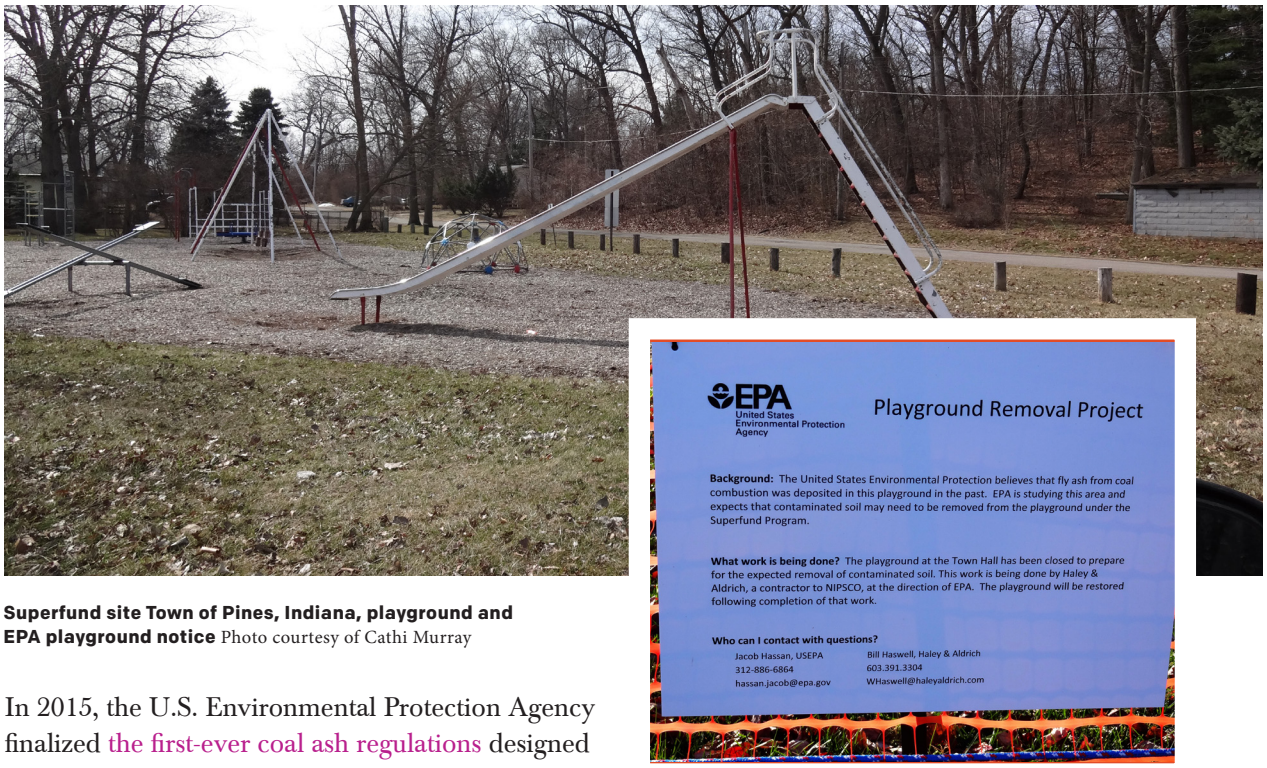
EARTHJUSTICE

TRUMP ADMINISTRATION WAGES MULTIFRONT ASSAULT ON COAL ASH PROTECTIONS



Superfund site Town of Pines, Indiana, playground and EPA playground notice Photo courtesy of Cathi Murray

In 2015, the U.S. Environmental Protection Agency finalized the first-ever coal ash regulations designed to protect communities from one of the largest toxic waste streams generated by U.S. industry and to prevent environmental disasters like coal ash spills in Kingston, Tennessee, and the Dan River coal ash spill in North Carolina.

Per the demands of the utility industry, the Trump Administration is working with unprecedented speed to reverse those hard-won safeguards in a multi-pronged attack on the EPA rule. So much is happening on so many fronts that it can be hard for even dedicated people to keep track of it all. This resource is intended as a backgrounder on coal ash and its impacts, a summary of the years-long efforts to safeguard communities from this toxic waste, and a guide to the ongoing attempts to erase those gains. As these attempts plow through the regulatory process, there will be many opportunities to report on their progress. Hopefully, this resource will provide important context.

What Is Coal Ash?

Coal ash is the toxic waste left after coal is burned to generate electricity. Coal ash is made up of fly ash, bottom ash, boiler slag and FGD (flue gas desulpherization) sludge. Coal-fired power plants generate about 110 million tons of coal ash every year. This toxic waste contains deadly substances, including carcinogens like arsenic, cadmium and hexavalent chromium, and neurotoxins such as lead and lithium.

Coal ash contaminates the environment and threatens health in numerous ways. Fine, powdery ash blows off exposed piles, fills and pits, contaminating the air we breathe. Water used to clean ash out of boilers and flush scrubbers in air stacks becomes a highly contaminated sludge. When rain water passes through this sludge, which is

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stored in open pits or "ponds," or when water passes through dry, uncovered dumps, toxic chemicals seep into groundwater, and excess wastewater from the pits is dumped into the nearest waterbody.

Throughout their history, coal-fired plants have disposed of coal ash in the cheapest way possible, with little regard for potential health or environmental harm. The most common form of disposal has been to simply dump coal ash (mixed with water) into massive, unlined pits adjacent to the power plant. It is important to realize that most power plants are located near bodies of water to provide the steam that generates electricity, meaning that these unlined, leaking pits of toxic waste have generally been located near rivers and lakes that get contaminated when the ash pits leak. EPA estimates that there are about 1,000 coal ash pits or ponds across the U.S., as well as more than 400 landfills and thousands of uncounted coal ash fill sites.

Mabette testifies at the EPA hearing. Matt Roth for Earthjustice

" I'm only 18 years-old, and I want a great future for my community but how we are going to have it? Coal-burning for energy generation is killing us slowly."

Mabette Colon from Puerto Rico

Hundreds of millions of tons of coal ash have been used as fill material, a cheap but dangerous alternative to clean soil. It has been used to level ground for construction, fill in low-lying areas, and serve as foundations for roads and buildings, as a so-called "beneficial" use. It has been used at schools, playgrounds and sports fields.

Coal ash is also sometimes stored in mountainous piles – an ash pile in Guayama, Puerto Rico, has reached 12 stories high. These piles sit directly on the ground and are uncovered, leaving the coal ash open to the elements. Wind blows the ash onto nearby communities. Rain filters through the ash and the contaminated water sinks into the ground, poisoning groundwater, or runs off the pile, taking toxic ash along with it.

Coal Ash Is A Hazardous Substance

Coal ash contains a toxic stew of hazardous and even radioactive substances that leach into groundwater and nearby lakes, rivers and streams. Tiny particles from dry ash piles, pits, and coal ash fill are spread by wind.

Water sampling and scientific studies prove that contamination from coal ash ponds, piles and construction fills is widespread. New studies conducted by Dr. Avner Vengosh, a Duke University scientist, show that exposure of coal ash to water results in the leaching of high levels of hexavalent chromium – the cancer-causing chemical at the heart of Erin Brockovich's lawsuit against a California utility made famous in the Julia Roberts movie.

Groundwater monitoring data required by the 2015 rule and released by U.S. utilities shows that 92 percent of coal plants with coal ash ponds and landfills have polluted groundwater with unsafe levels of arsenic, lithium, cadmium, cobalt, selenium, mercury, lead and other toxins.

Wastewater used to flush out accumulated ash in combustion chambers and flush out smokestack scrubbers that remove pollution from emissions also contains dangerous levels of a variety of toxins –

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and for more than 100 years no federal rule limited the levels of toxic metals in that wastewater when it is dumped in waterways. Yet coal plants are by far the largest source of toxic water pollution in the U.S. Dozens of rivers, lakes, streams and bays that received these discharges have been declared contaminated because of poor water quality and their fish pronounced unsafe to eat.

Pollution of air, water and soil by coal ash has significantly harmed human health. It has been associated with cancer clusters, as well as respiratory illnesses, neurological impairments, developmental and reproductive issues, blood disease, liver disease, thyroid damage and more. Water contamination has also caused massive fish kills and harmed aquatic life in water bodies across the U.S., costing the nation billions in lost commercial and recreational resources.

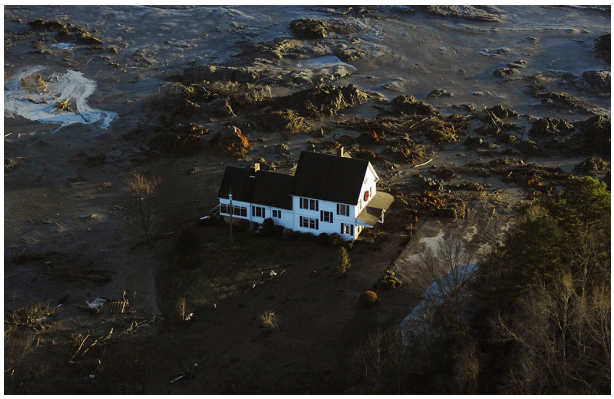
Regulation Of Coal Ash

Despite the dangers and toxicity of coal ash, its disposal went almost entirely unregulated by state or federal governments for most of the history of coal-fired electric generation.

Even after a number of catastrophic coal ash dam failures – from the Clinch River Power Plant spill in 1967 to the 2008 Kingston, Tennessee, coal ash disaster in 2008 and the 2014 Dan River spill in North Carolina – regulation was slow coming.

The 2008 Kingston spill was the largest toxic waste spill in U.S. history. The failure of a dike holding back nearly 10 million tons of coal ash sludge at the Tennessee Valley Authority's Kingston Fossil Plant in Roane County, Tennessee, dumped more than a billion gallons of coal ash slurry into the Emory and Clinch Rivers. The flood of sludge knocked dozens of homes off their foundations and destroyed the riverfront community forever.

Although the flood itself didn't immediately cause casualties, hundreds of workers who cleaned up the spill have been sickened by exposure to coal ash sludge, and more than 40 have died. Workers brought a class-action lawsuit in 2018 against the contractor TVA hired to undertake the cleanup who demanded clean-up workers forgo protective gear.



The devastating TVA Kingston coal ash spill of 2008.
Dot Griffith / Appalachian Voice via United Mountain Defense

In addition to catastrophic spills, the dangers of coal ash contamination are clear. In 2005, the Town of Pines, Indiana, became a Superfund site after contamination of its water was discovered – the result of a partially unlined coal ash landfill and widespread use of ash for construction fill throughout the town on driveways, in wetlands and even on playgrounds. In Gambrills, Maryland, in 2005, dozens of people were sickened by drinking water tainted with heavy metals from coal ash dumping. In 2007, in Chesapeake, Virginia, a golf course built using 1.5 million tons of coal ash contaminated the aquifer beneath it with arsenic and lead. In North Carolina, a number of cancer clusters

> **" This bucolic little town was made a dumping ground for coal ash. In 2014, levels of arsenic 1,200 times the safe level were found in areas where coal ash waste was used as fill. The town will never be clean."**
>
> ***Cathi Murray*** from The Town of Pines in Indiana, which has been declared an alernate Superfund site

were discovered in proximity to coal ash ponds and coal ash fill sites. By 2010, EPA and environmental groups had identified more than 200 sites where coal ash had contaminated water.

Despite all of this evidence of harm from coal ash, the U.S. Environmental Protection Agency didn't do anything to regulate its disposal or storage until Earthjustice, an Indian tribe, and several other public interest groups sued them. As a result, EPA's first coal ash rule was finalized in early 2015.

> **"We cannot eat the animals and plants. The air we breathe is polluted and filled with fine ash, and our aquifers and surface water are also contaminated, and our people sick. It is just not right what has happened to our tribe."**
>
> ***Vickie Simmons***, Moapa Band of Paiutes, a small Native American tribe in rural Nevada

The rule set up important safeguards, including design standards for coal ash dumps and deadlines for closing leaking, unstable and dangerous coal ash pits and requiring the utility industry to shift to safer methods of coal ash disposal in dry, lined landfills. A second rule by EPA in 2015 under the Clean Water Act, also addressing coal ash pollution, established more stringent safeguards for disposing of toxic wastewater from coal-fired power plants.

The 2015 coal ash rules were a significant step forward, a real if belated attempt to finally impose some safeguards on toxic ash disposal and re-use. These rules were weaker than they should have been, and Earthjustice has won recent lawsuits requiring the EPA to strengthen aspects of both rules.

Trump Administration Wants To Eliminate Hard-Won Coal Ash Safeguards

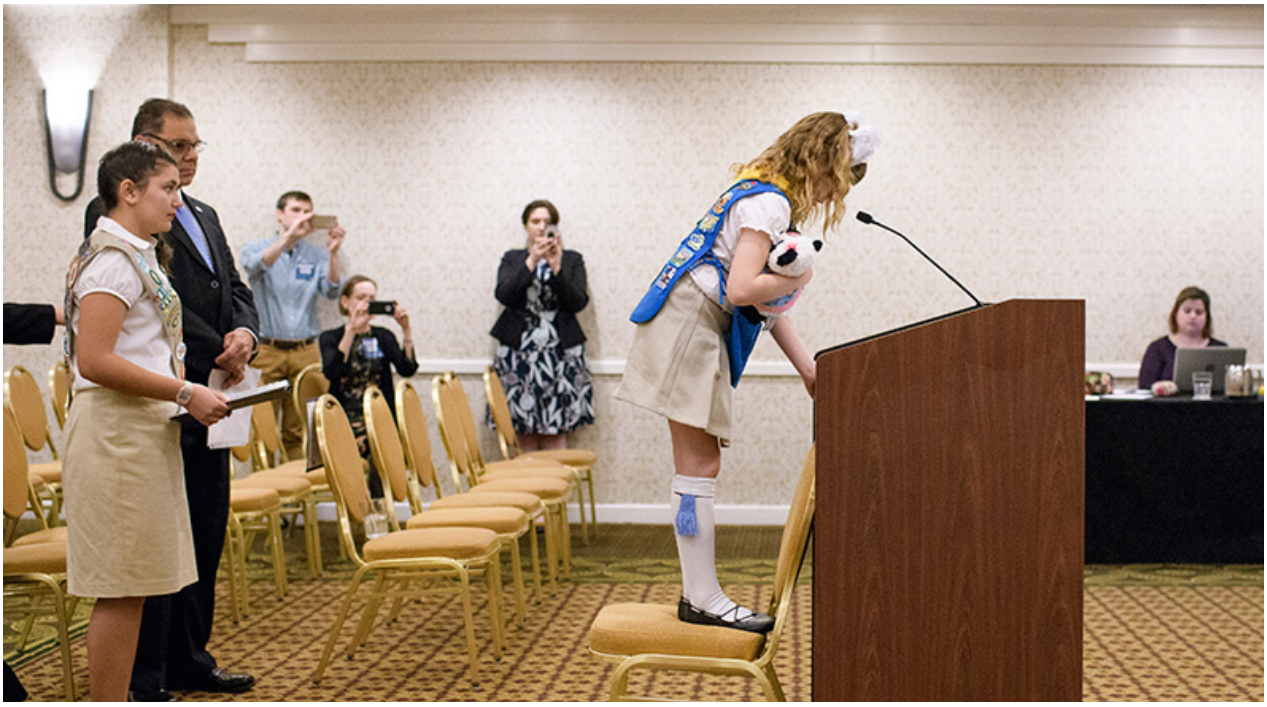
Rather than strengthening the 2015 coal ash waste and water protection rules, as the federal court ordered, EPA issued six proposals over an eight-month period that would substantially weaken coal ash rules. In the summer of 2019, EPA published proposals that end protections for coal ash waste piles and coal ash fill projects and could let coal plants off the hook for paying for coal ash cleanups. In fall 2019, EPA proposed rules that would erode protections against water contamination, allow some sites to end required groundwater monitoring, and delay closure of leaking, unlined waste pits. In early 2020, EPA proposed rules that establish a dangerously weak permit program for CCR disposal, allow some dangerous unlined pits to avoid closure requirements, and encourage the continued dumping of large quantities of coal ash in leaking and dangerous pits during closure. All of these proposals significantly reduce critical health and environmental protections from toxic ash.

Here is a brief summary of those efforts and where they currently stand, including the two proposed rules that are still open for comment:

Removing Strict Requirements To Safely Close Dangerous Coal Ash Pits

The latest proposal, known as "A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments; Implementation of Closure," or "Part B," was published on March 3, 2020. This proposal weakens critical protections established by the 2015 rule, allowing operators to continue to dump millions of tons of toxic waste in unlined, leaking pits – including those currently required to close due to leaking, instability or dangerous siting. This proposal violates the 2018 order of the U.S. Court of Appeals requiring EPA to strengthen the 2015 rule and close unlined ash ponds.

The proposal contains two very dangerous provisions. The first would allow some unlined



Alivia Hopkins testifies at an EPA hearing on coal ash contamination. Matt Roth for Earthjustice

pits to continue to operate indefinitely if operators attempt to make a "demonstration" that their pits should be considered "lined." This demonstration involves a two-part process initially requiring only minimal information from the operator. It is a license to delay even urgently needed pit closures – including at sites that are currently leaking.

The second proposal is an end run around one of the 2015 rule's most critical closure requirements. The 2015 rule required dangerous pits to cease receiving toxic waste by a date certain and initiate closure. EPA's closure mandate applies to unlined and leaking pits, pits in dangerous locations, such as unstable areas, and dams that failed the federal factors of safety. EPA's proposed rule, however, would allow operators to continue to dump coal ash into these dangerous pits during the closure process for up to 15 years.

While the 2015 rule required operators to use a stable and non-toxic material (i.e., soil) to fill the pits to ground level and construct the above-ground impermeable "cap," EPA's proposal would allow toxic ash to be used instead. There would potentially be no limit on the amount of ash dumped. This provision could save utilities more than $1 billion by allowing the continued dumping of millions of tons of ash into dangerous, leaking and unstable pits. It would also create a huge financial incentive for utilities to save even more money by closing pits through capping the ash in place versus excavating the toxic waste. Capping fails to remove the source of contamination and can result in continuing pollution of water sources. EPA predicts that the majority of plants will take advantage of the opportunity to continue to dump ash and close their pits in place and that harm to public health and the environment will increase as a result.

The comment period for this proposal closes on April 17, 2020. There will be a virtual public hearing on April 9, 2020.

Establishing Federal Permitting Guidelines and Hampering Enforcement, Citizen Suits

This proposed rule will establish federal permitting standards for coal ash ponds and landfills on Indian lands and in states that do not have approval to implement their own coal ash permit programs – currently all states except Oklahoma and Georgia.

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This rule would allow EPA to begin issuing never-expiring federal permits for coal ash disposal units in those states. EPA proposes to issue permits to these dangerous dumps with little to no public input – even less public process than permits for household trash dumps. What is more, EPA proposes to issue permits for certain ash dumps without any review whatsoever of whether those dumps meet protective safeguards. Finally, under this proposal, EPA would allow coal ash dump owners to disregard safeguards determined to be necessary to protect communities.

The proposed rule was published in the Federal Register on February 20, 2020. Comments are being accepted until May 20, 2020 and a virtual public hearing will be held on April 15, 2020.

"These experiments suggest that when coal ash interacts with water there is extensive mobilization of chromium in the form of the highly toxic hexavalent chromium."

Dr. Avner Vengosh, Duke University

Removing Regulations on Coal Ash Waste Piles and Fill Projects

EPA published its "Phase 2 rollback" in August. This roll back would weaken the 2015 Coal Ash Rule in two important ways: (1) by lifting health-protective safeguards on coal ash waste piles, which are currently subject to all the requirements applicable to coal ash landfills; and (2) by substantially increasing the amount of coal ash that can be used, without restriction, for fill projects ("beneficial" use). This rollback will hurt communities near the largest (12-story) coal ash waste pile in the U.S. at the AES plant in Guayama, Puerto Rico, and it may encourage other utilities to dump waste in dangerous piles. Lifting restrictions on coal ash fill projects will harm communities across the U.S. and likely increase the use of ash as fill without the necessary protections like liners, monitoring and siting requirements. Using ash as fill has already proven to cause long-term harm to communities, such as the Town of Pines, Indiana, which was declared a Superfund site due to coal ash fill. The comment deadline for this proposal closed October 15, 2019. Comments from public interest groups opposing the proposed rule are available here.

Weakening Toxic Wastewater Guidelines

In response to an industry petition, EPA proposed a rule in fall 2019 that would delay and weaken the 2015 "Effluent Limitations Guidelines" issued under the Clean Water Act that set deadlines for power plants to invest in modern, state-of-the-art wastewater treatment technology to substantially reduce the billions of tons of toxic pollutants such as arsenic, mercury, and selenium that power plants dump into U.S. waterways each year. The rule proposes loopholes in the 2015 standards that would allow power plants to avoid complying with them 100 percent of the time, exemptions for certain types of plants (such as plants that the owner promises to retire) from the standards, and further delays in compliance deadlines for all plants. This proposed rule was published in November 2019. Comments from public interest groups opposing the proposed rule are available here.

Adding Loopholes to Regulations Covering Coal Ash Impoundments

EPA proposed a rule in the fall of 2019 in response to the D.C. Circuit's order earlier in the year allowing EPA a "do-over" on its 2018 "Phase I, Part One" revision of the Coal Ash Rule. The Phase I rule made several changes to the Coal Ash Rule, most notably extending to October 31, 2020, the deadline for closing the most dangerous coal ash ponds in the U.S. – those leaking toxic chemicals and ponds that are too close to underlying groundwater.

EPA promised the court that it would conduct a new rulemaking on how quickly all unlined impoundments would be required to close and that this new rule would bring the Coal Ash Rule

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into compliance with the D.C. Circuit's August 2018 decision that it was unlawful for EPA to allow any unlined impoundments to continue operating, due to the substantial evidence that all unlined impoundments pose unacceptable risks to human health and the environment such as groundwater contamination and structural failure.

The proposed rule (called "A Holistic Approach to Closure Part A: Deadline to Initiate Closure" or "Part A") sets a deadline of August 31, 2020, for facilities to stop dumping waste into coal ash ponds and either begin retrofitting them or closing them. However, this new deadline comes with huge loopholes that would allow utilities to put off completing closures of some dangerous and leaking impoundments as far out as 2038. In addition, EPA left unchanged a dangerous provision from the 2018 Phase 1 rule that allows utilities to suspend groundwater monitoring if they claim there is no potential for migration of coal ash contamination into groundwater. We expect some utilities to make untrue claims and not be held accountable. Furthermore, without monitoring, contamination may be discovered too late and be irreversible. Comments from public interest groups opposing the proposed rule are available here.

Eliminating Financial Assurance Rule

EPA issued a proposed determination withdrawing its intention to establish financial assurance requirements for coal plants under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for the electric power generation, transmission, and distribution industry.

In 2010, the Obama EPA determined that such regulations were likely warranted due to the high risk posed to health and the environment from coal ash spills. The Trump EPA's rulemaking reversed this determination. A financial assurance rule would have required utilities to set aside sufficient funds for cleanup of coal ash contamination, including the damage from catastrophic spills.

Following the $1 billion cleanup of the 2008 TVA coal ash disaster, the Obama EPA recognized the critical need for utilities to guarantee such funds. With this proposed determination, the Trump EPA would potentially let coal plants off the hook for cleanup from future coal ash disasters. EPA published this proposal in July 2019. Comments from public interest groups opposing this determination are available here.

The combined impact of these six proposals is to gut essential health and environmental protections established by EPA in its first-ever coal ash rule in 2015. Industry specifically asked the Trump EPA for these changes in order to reduce the costs of disposal. The proposals, however, fail to comply with the requirements of the underlying statutes, the Resource Conservation and Recovery Act and the Clean Water Act. The harm that will occur from the removal of protections will increase widespread toxic pollution, causing harm to the health and water quality of the nation's most vulnerable communities, including low-income populations and communities of color.

State-Level Efforts Demonstrate What Can Be Accomplished

Although the news is bad at the federal level, several states are showing what effective regulation and remediation of coal ash contamination can look like. North Carolina and Virginia ordered politically powerful utility companies to clean up coal ash pits. Illinois passed stringent guidelines for the construction, operation and closure of the pits. Michigan passed a law mandating safeguards similar to the 2015 federal rule for coal ash pits and landfills. The legislature in Puerto Rico is currently considering a bill that would ban use of coal ash as construction fill – following the dumping of toxic coal ash in dozens of locations on the island.

These are important efforts that show the power of informing the public of the risks posed by coal ash contamination of our air, water and soil. There are interesting and important stories to be told about how these measures came to pass and how political pressure from affected communities was brought to bear to make them reality.

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