

# Illinois at Risk

*Lax safeguards and no enforcement endanger the water, air & lives of residents near coal ash dumps*



**A report from the Environmental Integrity Project  
and Prairie Rivers Network**

**By Jeff Stant and Traci Barkley  
August 17<sup>th</sup>, 2011**



## **Principal Authors**

- Jeff Stant is the Director of the Coal Combustion Waste Initiative with the Environmental Integrity Project.
- Traci Barkley is a Water Resources Scientist with the Prairie Rivers Network.

## **Contributing Authors**

- Brian Perbix is an Organizer with the Prairie Rivers Network.
- Matt Wasson is the Director of Programs with Appalachian Voices.
- Abel Russ is an Attorney with the Environmental Integrity Project.

## **Organizations**

The **Environmental Integrity Project** (<http://www.environmentalintegrity.org>) is a nonpartisan, nonprofit organization established in March of 2002 by former EPA enforcement attorneys to advocate for effective enforcement of environmental laws. EIP has three goals: 1) to provide objective analyses of how the failure to enforce or implement environmental laws increases pollution and affects public health; 2) to hold federal and state agencies, as well as individual corporations, accountable for failing to enforce or comply with environmental laws; and 3) to help local communities obtain the protection of environmental laws.

**Prairie Rivers Network** (<http://www.prairierivers.org>) is Illinois' statewide leader in river protection, conservation, and restoration. As a registered not-for-profit organization in Illinois, Prairie Rivers Network (PRN) is governed by a dedicated board of directors and funded with the support of passionate members throughout Illinois. Prairie Rivers Network works to protect Illinois' rivers for people, fish, and wildlife. Much of PRN's work focuses on how policies such as the Clean Water Act and Safe Drinking Water Act are used in Illinois—laws intended to protect our waters, our environment, and, ultimately, our health. PRN is the state affiliate of National Wildlife Federation and a member of Earth Share of Illinois.

*Cover photo shows Joliet Lincoln Stone Quarry Landfill, Will County IL.  
All photos copyright Prairie Rivers Network.*

## **Executive Summary**

Coal combustion waste (CCW) or “coal ash” is a toxic byproduct of electricity generation that is contaminating water supplies and harming communities across Illinois due to the lax regulation by the state in the absence of minimum federal standards.

**Illinois has the second highest number of contaminated coal ash dump sites in the United States.** Data from groundwater sampling conducted by the Illinois Environmental Protection Agency (hereafter called “IEPA”) at coal ash disposal sites in 2010 is now available, and the results are grim. IEPA found exceedances of health standards for contaminants commonly found in coal ash in groundwater at all 22 sites evaluated in the state. Yet, in spite of years of documentation demonstrating that coal ash is polluting groundwater in communities across the state, Illinois regulators have done little to prevent or correct these ongoing problems.

As the 10 case studies compiled in this report from the Illinois communities of Joliet, Venice, Hutsonville, Coffeen, Industry, Murdock, Vermilion, Coulterville, and Farmersville demonstrate, state oversight of coal ash disposal has failed Illinois residents living near coal ash dumps.

The U.S. Environmental Protection Agency (hereafter called “EPA”) is nearing completion on a national rulemaking that would set minimum common-sense safeguards for states to meet at coal ash dump sites. In Illinois, hopes are high that federal safeguards will finally force IEPA to take stronger action to clean up contaminated coal ash sites and prevent more contamination from occurring at new ash disposal sites. Yet under the cover of the federal debt debate, many Illinois’ Members of Congress have just voted to take away EPA’s authority to stop this harm.

As part of a broader move to roll back clean water protections, Representatives from Illinois’ delegation including Representatives Peter Roskam (R. 6<sup>th</sup>), Joe Walsh (R. 8<sup>th</sup>), Robert Dold (R. 10<sup>th</sup>), Adam Kinzinger (R. 11<sup>th</sup>), Jerry Costello (D. 12<sup>th</sup>), Judy Biggert (R. 13<sup>th</sup>), Randy Hultgren (R. 14<sup>th</sup>), Donald Manzullo (R. 16<sup>th</sup>), Robert Schilling (R. 17<sup>th</sup>), Aaron Schock (R. 18<sup>th</sup>), and John Shimkus (R. 19<sup>th</sup>) have voted to strip EPA’s ability to finalize their ongoing rulemaking which would provide Illinois residents relief from toxic coal ash pollution.

The following examination of coal ash dump sites and monitoring data reveals contamination of groundwater and air at many coal ash dump sites in Illinois, demonstrating why our federal legislators should step back and let EPA do its job to protect the drinking water and air of Americans living around coal ash sites in accordance with the federal Resource Conservation and Recovery Act, (RCRA).

## **State of Failure**

In Illinois, the oversight and permitting of the disposal of coal combustion waste by the state does not protect our drinking water, aquatic life or nearby communities. “Coal ash” is the residual material left after burning coal, including fly ash, bottom ash, and boiler slag, as well as flue-gas desulfurization (FGD) or scrubber sludge from air emissions controls. Coal ash is a dangerous waste because it has concentrated levels of toxic metals, salts and pH that can leach into water at unsafe levels, making it poisonous for people to consume and harmful to other life. Glass-like silica is a major component of many CCWs. Lighter CCWs such as fly ash are like talcum powder - so small in particle size that it is breathed deeply into the lungs where its structure and corrosive pH can inflame and damage the lung’s cell lining, and its toxic metals can pass into the bloodstream. <sup>1</sup>

Depending on where coal ash is dumped in Illinois, different regulations and units of government have supposed oversight. Typically, ash disposal is permitted without adequate liners, covers, groundwater monitoring or cleanup requirements. Monitoring data and research by the National Academies of Science, EPA, and academic institutions have documented that coal ash will readily contaminate water supplies and harm human health when it is disposed without meeting these basic safeguards. <sup>2 3 4</sup> Residents have been working for years to convince regulatory agencies that greater protection for water resources and public health is needed at coal ash dumps, but state agencies have resisted due to industry pressure. In 2007, EPA documented that eight coal ash dumps, six of which were ash impoundments (also known as “ash ponds”) had contaminated underlying groundwater in Illinois, some for more than a decade. Despite this knowledge, it took a catastrophic collapse of the dikes of an ash impoundment in Kingston, Tennessee and the flooding of nearby residents’ homes with 1.6 billion gallons of toxic coal ash sludge, before Illinois decision makers decided to examine Illinois ash ponds further.

In February of 2009, then-Lieutenant Governor Pat Quinn requested an assessment of the threat posed by coal ash impoundments from IEPA’s Director Doug Scott. The evaluation was limited only to the coal ash impoundments, or wet storage sites at power plants, leaving coal ash landfills and coal mine dump sites uninvestigated. During the first year of the investigation, IEPA evaluated Illinois’ eighty-three ash impoundments on the basis of structural integrity and potential for leakage to groundwater and drinking water wells. What the Agency found and reported was startling<sup>5,6</sup>:

- 1. Two-thirds of the impoundments do not have liners to contain waste and prevent contamination of groundwater.*
- 2. Groundwater monitoring was not required at most of the impoundments.*
- 3. At the six ash impoundments in which groundwater was evaluated, contamination was found at every one.*

4. *Dams holding the impoundments at most sites are unpermitted and have not been inspected for safety or stability by the Illinois Department of Natural Resources – Office of Water Resources.*

The second year of IEPA's evaluation has uncovered even more upsetting findings. Groundwater data was collected at 22 of 24 power plant ash impoundments examined (NOTE: no data was collected at the Kinkaid and Grand Tower impoundments).

Groundwater was contaminated at all 22 sites evaluated with results showing exceedances of at least one and usually more health standards such as drinking water standards (Maximum Contaminant Levels or MCLs) or health advisories set under the federal Safe Drinking Water Act in the groundwater underneath all disposal sites. Monitoring data obtained from IEPA by the Environmental Integrity Project showed that arsenic concentrations were 15 times over the MCL in groundwater under the Meredosia Station's ash ponds, more than 9 times over the MCL under the Dallman Station's ash ponds, and around 5 times higher than the MCL in groundwater contaminated by ash ponds at the Pearl and Waukegan Stations.<sup>7 8 9 10</sup> Lead was exceeding the MCL in groundwater under ash ponds at the Joppa and Powerton Stations.<sup>11 12</sup> Antimony was at least twice the MCL in groundwater contaminated under ash ponds at the Waukegan and Joliet 29 Stations.<sup>13 14</sup>

The extent of the contamination offsite is unknown because IEPA has only just started monitoring the groundwater under these ponds. To our knowledge, private wells nearby have never been checked by the state. Most Illinois ash ponds are unlined and contaminated groundwater has been found under every pond examined in the recent investigations from just one or two rounds of sampling. Given this, residents and regulators are quite likely to find more contaminated groundwater, including groundwater used as drinking water, as they investigate more unlined coal ash disposal sites that have been operating for decades with no requirements to monitor or protect underlying groundwater.

Currently, Illinois has the second highest number of documented coal ash contamination cases in the nation according to the EPA. Beyond groundwater contamination, surface waters at these sites are often polluted by the ash drainage and discharges from the disposal sites and neighbors must breathe endless clouds of ash dust blowing off the sites.

Below are examples of problems documented at 10 coal ash sites in Illinois over the past year by Prairie Rivers Network that exemplify the shortcoming of the state's regulation of coal ash. Documentation consisted of reviews of state files, visits to these sites and numerous discussions by Prairie Rivers Network staff with neighbors of the sites. This list is not exhaustive as no one within any of our state agencies maintains a list of all coal ash disposal sites in Illinois. These examples have only been discovered because concerned residents or environmental organizations have noticed problems at coal ash disposal sites and further investigated them. Examples include coal ash ponds at coal-fired power plants, coal ash landfills, coal ash minefilling operations and beneficial coal ash reuse sites. Several of these sites were brought to public attention and presented to USEPA by citizens in 2000, more than a decade ago and yet have remained contaminated to this day with no action by the state taken to clean up the contamination.

If federally enforceable safeguards were applied to transport, storage and disposal of coal ash, the examples below probably would not have occurred as proper site assessments, tracking and monitoring and pollution controls such as covers, liners and cleanup standards would have been required. Illinois' current state regulations, infrastructure and capacity to coordinate the proper monitoring and management of coal combustion wastes do not protect drinking water supplies, aquatic life, private property and communities in the state adjacent to coal ash sites.

### **Example 1: Joliet Lincoln Stone Quarry Landfill, Will County** <sup>15</sup>

Midwest Generation has been using the former Lincoln Quarry as a landfill disposal site for coal ash from the Joliet 9 and Joliet 29 Generating Stations since 1962. Ash from these stations has been dumped into standing water in the bottom of the quarry for many years. IEPA has known of contamination of surrounding groundwater by coal ash since the mid-1990s. Since 1996, Midwest Generation has been granted an adjusted standard allowing continued degradation of onsite groundwater. IEPA has approved applicable groundwater quality standards at levels exceeding Illinois Class I standards for boron by 5.9 times, cadmium by 52 times and selenium by 6.5 times respectively. The applicable groundwater quality standard IEPA approved at this site for molybdenum is more than 34 times above USEPA's long term health advisory (LTHA) level.

IEPA documented contamination moving offsite in 2005 finding high levels of ammonia, arsenic, barium, boron, chloride, copper, fluoride, molybdenum, nitrates, pH, sodium, sulfate, and total dissolved solids in boundary monitoring wells. Contamination is moving to the southeast, south, west and north from the coal ash landfill. There is a high potential for potable well contamination as 94 wells exist within one mile of the landfill. Despite extensive health impacts in the area ranging from skin rashes to autoimmune diseases, as of mid-2010, IEPA had not taken any enforcement actions at this site and has allowed Midwest Generation to continue dumping coal ash into the quarry.

### **Example 2: Ameren Energy Venice Power Station, Madison & St. Clair Counties**

Located on the boundary of Madison and St. Clair Counties along the bank of the Mississippi River, the Ameren Energy Venice Power Station was operated as a coal fired power plant from approximately 1942 to the mid-1970s. In the 1950's, coal ash ponds were added to manage coal combustion waste, storm water and other much smaller waste streams generated at the station. The ash ponds have contaminated the underlying groundwater with arsenic, boron and other contaminants. In the mid-1970s the station was converted to burn natural gas and oil. Although the ponds continued to be used for managing storm water and other small waste streams at the station, they have received no coal ash since 1977. <sup>16</sup>

Ameren has proposed a closure plan for these ponds that will leave the ash in place and cover it with a synthetic cap. Rather than clean up the levels of some chemicals in groundwater that greatly exceed Illinois' groundwater quality standards and are up to 26

times over the federal drinking water standard for arsenic and 7 times higher than the federal child health advisory level for boron in drinking water, Ameren plans to implement a groundwater management zone (GMZ) at the Venice Station to manage the contaminated groundwater by pumping to keep the pollution plume from spreading offsite. The contaminated groundwater will then be discharged - without further treatment - into the Mississippi River, authorized under an NPDES permit. Currently at the Venice Power Station, a contaminant plume of boron (> Class I GWS) extends 600 feet, and a contaminant plume of arsenic (> Class I GWS) extends even farther from under neighborhoods east of the plant to the west of the plant into the Mississippi River. The plumes were discovered in the late 1990s when groundwater monitoring was finally required by IEPA.<sup>17</sup>

While the groundwater management zone may prevent contaminants from reaching the River through groundwater, the mixing zone in the Mississippi River proposed by the IEPA for the discharge of the plume water will deliver the same pollutants but in much larger quantities, to the segment of the river just upstream of the drinking water intake for the cities of East St. Louis and Belleville. A number of communities in Metro East St. Louis and other parts of the state have large minority and low-income populations who have been disproportionately impacted by environmental pollution. They live with coal ash in their communities, both from power plants and industrial facilities.

### **Example 3: Grays Siding neighborhood, Vermilion County<sup>18</sup>**

Over a 10-year period, 380,000 tons of coal ash generated by the Bunge dry corn mill were dumped in a ravine adjacent to the Grays Siding neighborhood, a rural subdivision of 30 homes that are all on ground water. The disposal was allowed by IEPA and the Illinois Department of Natural Resources under state law as a “beneficial use” fill operation. State testing of coal ash at the site found lead levels 3.5-4 times the Illinois water quality standard of .007 mg/L. High levels of lead, iron, and manganese above the state ground water standards, have also been found in private drinking water wells in the adjacent Grays Siding neighborhood, which has 30 homes. Residents of two houses have been told by IEPA to stop drinking water from their wells, but no alternative source of drinking water was provided. The only available source of drinking water for this neighborhood are the residents’ private drinking water wells.

Drainage from the site is also flowing into Number Six Lake in Kickapoo State Park. The lake is a designated fishing lake within the park, and has a boat ramp. Drainage from the lake goes into the Middle Fork of the Vermilion River, a designated National Scenic River. IEPA has attempted to install monitoring wells on-site and to have some of the ash removed, but reportedly has been unable to take these actions due to the site owner declaring bankruptcy.

#### **Example 4: Ameren Hutsonville Power Station, Crawford County**

This facility's site contains five ash impoundments- four active and one closed. The ash impoundments were built in an area of very high geologic vulnerability with 17 known water wells within one mile of the ash impoundments. Groundwater contamination has resulted due to leakage from the closed impoundment for the past forty years.

Adjacent landowners own farmland to the south of the Hutsonville Power Station and actively farm the land to produce seed corn, soybeans, and wheat. Much of this land is irrigated with groundwater pumped from three onsite wells. Concerns have been raised about using the groundwater to irrigate crops, both for direct impact to the plants and for potential bioaccumulation of metals in crops ultimately destined for consumption.

Ameren sought to have IEPA approve new ash pond closure rules to allow the final closure of the contaminating ash pond and proposed the discharge of this contaminated groundwater into waters of the state, likely the Wabash River. The proposed plan requires 10-12 years of pumping at the rate of 1.9 million gallons per day just to reverse the advance of the pollution plume and an undetermined number of years to completely remove the contaminated water.<sup>19</sup> If plans as lax as this become the favored method of responding to groundwater contamination from Illinois' coal ash sites, long-term degradation of several regions' supplies of drinking water as well as water for agricultural irrigation, power production, and other existing uses could occur.

#### **Example 5: Dynegy Vermilion Power Station, Vermilion County**

This power station site contains three ash impoundments, two of which are open and actively used. Of these, one is lined to prevent leaching into the groundwater. The closed ash impoundment is unlined and located in an area where natural seeps are common. Steel gabions constructed in 1978 to support the retaining walls are not keeping the walls from crumbling. The leachate from the ponds are corroding the steel parts of the gabions, weakening their structural integrity and allowing the coal ash wastewater to drain into the Middle Fork of the Vermilion River, our state's only National Scenic River. As for the two newer ash ponds, floodwaters and high water tables threaten their foundation and structural integrity because they were built in the floodplain of the Middle Fork of the Vermilion River.

Despite this site being recognized by EPA for many years as contaminated, IEPA has only recently determined that further work needs to be completed to determine the extent of groundwater impacts.<sup>20</sup> Initial assessment results indicate a high potential to impact off-site potable water supplies. There are 20 private wells within one mile of the ash impoundments. The Dynegy Vermilion Station closed its doors and halted operation in March 2010 – now is the time for cleanup and final closure of the floodplain ash ponds to begin.

### **Example 6: U.S. Minerals, Montgomery County**



U.S. Minerals uses the bottom ash from Coffeen Power Station for making construction materials. Coal ash is stored in large piles at the industrial site, a half mile north of Coffeen Power Station. The piles of coal ash do not have liners, covers, windbreaks, or silt fences to prevent erosion and release of pollutants to air and water.

Federal regulators with the Occupational Safety and Health Administration fined US Minerals nearly \$400,000 last December for more than 2 dozen safety violations endangering workers with dangerously high levels of hazardous ash dust without proper breathing equipment and training.<sup>21</sup> Nearby residents have complained to Prairie Rivers Network personnel about lung and eye irritation, breathing problems and constant coating of their homes and vehicles with coal ash dust. The coal ash piles are still sitting on the ground without any air or water pollution controls in place.

### **Example 7: Springfield Coal Company's Crown III Mine Site, Macoupin County**

At this site, large above-ground impoundments rising over 100 feet above ground level contain coarse coal waste slurry and coal ash. Crown III mine is permitted by IEPA and the Illinois Department of Natural Resources to accept coal ash from 37 different coal-fired utilities or manufacturing facilities. The coal ash comes from 5 different states and 6 different universities. A review of the laboratory leachate analyses for both the single-source and composite coal ash samples shows that many of the parameters evaluated exceed groundwater protection standards and indicate potential to leach from the ash at dangerous levels, posing a risk to nearby water resources.

Nearby residents complain about fugitive dust from the site. On a dry windy day, one regularly sees dust clouds rising from the site and residents say they hear the dust clouds blowing against the siding on their houses as though they were being sandblasted. A site visit to the Crown III facility in November 2010 revealed the effects of poor onsite practices employed by Springfield Coal Company. Light winds present on the day of the visit carried clouds of black coal ash into the sky, and the ash could be felt in the throat, mouth and eyes of all four visitors. There was evidence of grading for drainage and berms for control of

runoff during precipitation events, but there was no evidence of any windbreaks to block wind gusts from blowing ash, no wetting of coal ash to prevent fugitive dust or other practices that might prevent coal ash from blowing uncontrolled from the site into the air of surrounding communities. Homes are downgradient, downstream and downwind of the coal ash disposal site. In several areas, it is clear that coal ash is being distributed onto the land, eventually draining into streams.

Residents have complained numerous times over the past five years to both Springfield Coal Company and IEPA. Prairie Rivers Network informed IEPA about the problem and submitted photos of fugitive dust clouds as part of a public hearing regarding the proposed reissuance of the Clean Water Act NPDES discharge permit for the site in late 2010.<sup>22</sup> No action has been taken to date by IEPA or Illinois Department of Natural Resources.

### **Example 8: Springfield Coal Company's Industry Mine, McDonough & Schuyler Counties**

Technically, coal ash is disposed of in two ways at this site. Coal ash is permitted to be dumped in mine voids. Coal ash is also permitted as a "beneficial byproduct" and thus "beneficially used" to fill in an onsite depression, which according to state regulations must contain lower concentrations of certain pollutants. Despite being permitted in two different ways, the chemical composition of the coal ash does not differ in accordance with its permitted classification. A review of the laboratory leachate analyses for both the single-source and composite coal ash samples shows that many of the parameters evaluated exceed groundwater protection standards and indicate potential to leach from the ash at dangerous levels, posing a risk to nearby water resources.

There are also no visible onsite pollution controls. Site visits to this industrial facility in September 2010 and April 2011 revealed poor onsite practices employed by Springfield Coal Company. Coal ash was dumped in a large pile that was spilling onto the roadway, into a ravine and was being blown or flowing from the dumpsite as far as the eye could see. Light winds present on the days of the visits carried clouds of black coal ash into the sky and could be felt in the throat, mouth and eyes of both visitors. There was no evidence of covers, grading for drainage, berms or other windbreaks to block wind gusts from blowing ash, wetting of roads or coal ash to prevent fugitive dust, or other practices to prevent coal ash from being blown or draining off property onto neighbor's lands.

Residents have complained numerous times over the past five years to both Springfield Coal Company and IEPA. Prairie Rivers Network informed IEPA about the problem and submitted photos of fugitive dust clouds as part of a formal pollution complaint in September 2010. A site inspection by an IEPA inspector followed and documented poor onsite problems though no follow-up action was taken.<sup>23</sup> The problems were also reported to the IEPA by Prairie Rivers Network, Sierra Club and residents as part of a public hearing regarding the proposed reissuance of the NPDES permit for the site in April 2010. No action has been taken to date by IEPA, Illinois DNR or the company.

### **Example 9: Peabody's Gateway Mine, Randolph County**



Site visits to the Gateway Mine facility in February 2011 and again in late April 2011 revealed lax onsite practices for managing coal ash by Peabody Coulterville Mining LLC. Coal ash is dumped into piles within huge impoundments perched nearly 100 feet above the ground level. There was evidence of grading for drainage, and berms for control of runoff during precipitation events but there was no evidence of any windbreaks, covers, wetting of coal ash or other practices to prevent coal ash from being blown offsite. Large continuous clouds of blowing black dust were observed during both visits. Homes were observed in the vicinity of the coal ash disposal site, and it was clear that the coal ash is blowing onto neighboring land and eventually runs off into streams. Local residents have shared with Prairie Rivers Network their concerns with the constant dust blowing from the site, entering their homes, coating their cars, and covering their gardens. Several adjacent homes are now empty as residents have moved away from the site. Feedback of onsite problems has been shared with IEPA with no noticeable response or correction of the problems.

Most recently Peabody has proposed to double their operations in Coulterville and greatly expand their coal waste disposal facility at the Gateway Mine. Groundwater data collected near the existing coal waste impoundments show exceedances of groundwater standards for total dissolved solids, sulfates, chlorides, iron, manganese, arsenic, barium, cadmium, chromium, copper, lead and silver.<sup>24</sup> Despite this knowledge, Illinois EPA has issued a draft permit for the expanded coal waste impoundment without a liner or additional pollution controls.

### **Example 10: Alpena Vision Resources' Murdock Site, Douglas County**

Alpena Vision Resources is reclaiming the surface of a previous underground coal mine. Surface facilities occupy 178 acres. The area contains a coarse refuse pile and some impoundments that were used for disposal of the fine coal waste material from the coal preparation process. The long-term reclamation plan is to fill the largest impoundment with 500,000 tons of ash and then cover it with 2-4 feet of "non-acid producing cover material". As of March 2010, the impoundment was 70% full. Bio-solids and "humin" (grain processing residue) have been approved by Illinois Department of Natural Resources as cover material rather than the typical soil cover.

A resident who lives near the site has reported coal ash contamination of air and water to the IEPA several times with no response. He has witnessed coal ash clouds so thick, cars have had to stop on the road. A visit to the site in the summer of 2010 for stream sampling found a recent mussel kill in the stream ½ mile downstream of the dump; every fingernail clam seen was open and dead. Fly ash coated the surface of the stream and its banks. A report on the site conditions and pictures were submitted to IEPA by PRN – a site inspection was not completed until several weeks later. Several households are downgradient of the unlined coal ash dump site and draw their water from wells finished in the sand and gravel lenses that lie only ten to forty feet below the surface. Residents have complained of coal ash contamination of air and water to the IEPA several times with no response.

### **Help Was Finally on the Way ...**

Each phase of the coal life cycle adversely impacts human health and the environment – the extraction of coal, which leaves landscapes barren and destroys natural resources; the burning of coal, which releases pollutants into air and water; and the disposal of coal combustion waste which often involves dumping the waste into unlined pits and ponds that leak heavy metals into water systems.

Despite the many problems posed by improper coal ash disposal and the failure by Illinois and most other states to set proper safeguards, EPA has never promulgated any disposal regulations for coal ash disposal sites. The Resource Conservation and Recovery Act (“RCRA”) is the solid and hazardous waste disposal law, which was passed by Congress in 1976. Congress amended RCRA in 1982 with the “Bevill Amendment,” which directed EPA to take 6 months to decide whether coal ash is “hazardous waste,” a regular “solid waste” or a special waste necessitating some federal safeguards, and then to regulate coal ash accordingly. EPA’s failure to make its decision has left thousands of communities that have a coal ash dump continually plagued by clouds of toxic ash dust and in peril of toxic discharges into their groundwaters and surface waters, or catastrophic structural failures for the last 30 years.

However in June 2010, it seemed as though the long wait was finally over. Prompted by the devastating breach of an ash impoundment in 2008 at the Tennessee Valley Authority’s Kingston Power Plant, which spilled over 1 billion gallons of coal ash into the Clinch and Emory Rivers, EPA proposed comprehensive coal ash regulations.<sup>25</sup> EPA’s proposal offers two options for coal ash disposal: 1) to regulate coal ash as a “special” waste, using common sense, federally enforceable minimum safeguards under RCRA’s Subtitle C hazardous waste provisions, or 2) to regulate coal as “nonhazardous” solid waste, using Subtitle D’s “guidelines” that states could choose to adopt or ignore. The much-needed Subtitle C option would set minimum federal standards that all states would have to require – such as requiring placement above groundwater, composite liners, leachate collection systems, covers, monitoring, cleanup standards and the phase out of ash ponds (a particularly dangerous type of disposal). Certain uses of coal ash, including as an additive in cement, roofing shingles and other materials that safely encapsulate the waste, would be exempted from the regulation to encourage safe forms of recycling.

Subtitle D can offer these safeguards as “guidelines,” but the states will have the power to ignore them completely and they will lack any federal enforceability. Additionally, Subtitle D would not require inspections of the older generation of closed ash dumps, meaning that the ongoing pollution problems at closed ash dumps documented in this report would not be required to be corrected. For these and other reasons, if EPA selects Subtitle D, it will simply fail to protect residents in Illinois and nationwide from the irresponsible management and dangers of uncontrolled toxic coal ash.

EPA held eight public hearings on its proposed RCRA rules for coal ash in 2010 and received 455,000 public comments on the proposals, an unprecedented level of comment on any proposed EPA regulation, with most favoring the Subtitle C regulation.

Unfortunately, the US House of Representatives has voted to circumvent EPA’s rulemaking process, putting the short term interests of the energy industry and the states - who want no federal oversight of CCW - ahead of the safety of drinking water and clean air for Americans living around coal ash sites and coal mines. Rather than let EPA do its job and decide on the best regulatory approach to take based on an analysis of these comments and the best science, the House voted in February to throw out these comments and prohibit EPA from choosing any regulation under Subtitle C regulation (Amendment 217 to HR 1 the House Budget Resolution).

The House of Representatives’ move to prevent federally enforceable regulations for coal ash disposal has come as part of a broader assault on clean water protections spearheaded this year by the energy lobby, including bills and amendments which would eviscerate the Clean Water Act’s most basic provisions. These include:

- HR 2018, which would remove EPA's "authority to review and adjust water quality standards and other State water pollution control decisions where necessary, to assure that they reflect up to date science, comply with the law, and protect downstream water users in other States. H.R. 2018 would roll back the key provisions of the CWA that have been the underpinning of 40 years of progress in making the Nation’s waters fishable, swimmable, and drinkable." Bill passed in the U.S. House by a vote of 239 to 184.
- Amendment 217 to HR 1 the House Budget Resolution, HR1 which eliminated funding for EPA’s development of a coal ash regulation under Subtitle C of RCRA. Bill passed in the U.S. House by a vote of 239 to 183.
- Amendment 109 to HR 1, which prohibited the EPA, Department of Interior and Army Corp of Engineers from using funds to implement or enforce procedures agreed to in a federal 2009 Memorandum of Understanding to ensure consistent and transparent review of new mountaintop removal coal mining permits in Appalachia. Bill passed in the U.S. House by a vote 235 to 185.
- HR 2273, the Shimkus Substitute to the McKinley bill, which eliminates EPA’s authority to regulate coal ash under Subtitle C of RCRA or enforce any safeguards in regulations at coal ash sites and replaces it with the authority to approve or disapprove solid waste plans adopted by the states over the next three years for

CCW. The bill also grants states the right to challenge disapprovals of those plans. This bill passed the Energy and Commerce Committee in July. Representatives Rush and Schakowsky voted against passage of the bill in the Committee. Representatives Kinzinger and Shimkus voted in support of passage of the bill in the Committee.

As Table 1. shows ,Illinois’s Representatives have played a key role in the 2011 Dirty Water movement in D.C., voting in large numbers not only to prohibit regulation of coal ash under Subtitle C, but also to roll back the clock on the Clean Water Act by removing EPA’s role in setting minimum water quality standards as well as their ability to protect clean water from the most destructive coal mining practices.

Table 1. Votes by Illinois Congressional Representatives on key environmental legislation.

Representative	Party	District	H.R. 2018 Dirty Water Act	H.R. 1 Amendment 217 No Funds for Coal Combustion Waste Regulation	H.R. 1 Amendment 109 No Funds for Mountaintop Mining Enforcement	H.R. 2273 No USEPA Regulation of Coal Ash (Energy/Commerce Cmte.)
Rush, Bobby L.	D	1	No	No	No	No
Jackson, Jesse L. Jr.	D	2	No	No	No	*
Lipinski, Daniel	D	3	No	No	No	*
Gutierrez, Luis V.	D	4	No	No	No	*
Quigley, Mike	D	5	No	No	No	*
Roskam, Peter J.	R	6	Yes	Yes	Yes	*
Davis, Danny K.	D	7	No	No	No	*
Walsh, Joe	R	8	Yes	Yes	Yes	*
Schakowsky, Janice D.	D	9	No	No	No	No
Dold, Robert J.	R	10	No	Yes	Yes	*
Kinzinger, Adam	R	11	Yes	Yes	Yes	Yes
Costello, Jerry F.	D	12	Yes	Yes	No	*
Biggert, Judy	R	13	Yes	Yes	Yes	*
Hultgren, Randy	R	14	Yes	Yes	Yes	*
Johnson, Timothy V.	R	15	No	No	No	*
Manzullo, Donald A.	R	16	Yes	Yes	Yes	*
Schilling, Robert T.	R	17	Yes	Yes	Yes	*
Schock, Aaron	R	18	Yes	Yes	Yes	*
Shimkus, John	R	19	Yes	Yes	Yes	Yes

### **Conclusion: Thirty Years Later and Illinois is Still Waiting**

Decades of irresponsible coal ash disposal and little or no response by the state have left Illinois residents with no place to turn for help. In spite of the hard evidence that all of the 22 coal ash disposal sites IEPA evaluated are contaminating groundwater above federal health standards for drinking water, IEPA has taken no enforcement action, and has no protocol in place to require their clean up or ensure safe closure of these contaminated disposal sites. Worse still, under the status quo – and even under Subtitle D RCRA regulations – as these ash old ponds fill up, there is nothing that would prevent utilities

from opening and operating the exact same kinds of unlined, inadequately planned coal ash dumps that have polluted the drinking water and air in communities across Illinois.

The ten contamination sites discussed in this report merely scratch the surface of the problem in Illinois, but nevertheless provide a glimpse of the severity of the situation. What is needed at these sites are mandatory, common sense safeguards such as liners, covers, monitoring and cleanup standards that must be met by operators and enforced by IEPA. For a safeguard to be a mandatory requirement that states must meet, it must be federally enforceable under Subtitle C of the Resource Conservation and Recovery Act. Subtitle C is the only regulatory option that would grant EPA the ability to intervene and enforce safeguards if operators act irresponsibly and IEPA fails to respond, which is exactly the situation Illinois residents living near coal ash dumps find themselves in today.

As Americans we expect our drinking water, health and property to be protected from irresponsible waste disposal practices by government agencies enforcing the law regardless of whether we live near a coal-fired power plant. Accordingly, Americans living near these coal ash dumps deserve equal protection under the law for their drinking water, health and property, rather than voluntary guidance that dump operators and IEPA can continue to ignore. Just as they would for their own families' health, Illinois legislators must put their constituents' safe drinking water first and let EPA do its job.

---

<sup>1</sup> Ruhl L. Vengosh A, Dwyer G.S., Hsu-Kim H., Deonaraine A., Bergin M. and Kravchenko J. –Survey of the Potential Environmental and Health Impacts in the Immediate Aftermath of the Coal Ash Spill in Kingston, Tennessee.” Environmental Science & Technology, volume 43, No. 16, 2009. American Chemical Society. See also Smith et al. –Interleukin-8 Levels in Human Lung Epithelial Cells Are Increased in Response to Coal Fly Ash and Vary with the Bioavailability of Iron, as a Function of Particle Size and Source of Coal.”, American Chemical Society, October 1999 and Aranyi, Catherine et al. –Cytotoxicity to Alveolar Macrophages of Trace Metals Adsorbed on Fly Ash.” Environmental Research 20, 14-23, 1979.

<sup>2</sup> U.S. Environmental Protection Agency, —Coal Combustion Waste Damage Case Assessments.” Office of Solid Waste, July 9, 2007.

<sup>3</sup> U.S. Environmental Protection Agency. –Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities.” Docket EPA-HQ-RCRA-2009-0640 (RIN-2050-AE81), 75 Fed. Reg. 35128. June 21, 2010.

<sup>4</sup> National Research Council, —Managing Coal Combustion Residues in Mines.” Committee on Mine Placement of Coal Combustion Wastes, The National Academies Press, 2006

<sup>5</sup> Memorandum from IEPA Bureau of Water Chief Marcia Wilhite to IEPA Director Doug Scott. 2009. Assessment of Ash Impoundments Permitted Within the State of Illinois (Feb.3, 2009).

<sup>6</sup> Illinois Environmental Protection Agency, Bureau of Water. 2009. Ash Pond Evaluation Spreadsheet.

- 
- <sup>7</sup> Accutest Laboratories, Report of Analysis, Ameren-Meredosia, Meredosia, IL, Client Sample ID: APW-3, Date Sampled: 12/12/2010.
- <sup>8</sup> Environmental Monitoring and Technologies, Inc., Report of Laboratory Analysis, Morton Grove, IL, City, Water, Light & Power, Springfield, IL, Ash Pond Table 1, Client Sample ID: AW3, Collection Date: 6/1/2010.
- <sup>9</sup> Prairie Power, Inc., TABLE I, Groundwater Analytical Data, Pearl Station, Pearl IL, MW-12, 5/27/2010.
- <sup>10</sup> Midwest Generation, Ash Pond Assessments, Feb. 28, 2011, Table 2. Groundwater Analytical Results, Waukegan Station, Waukegan IL, MW-1, 10/25/2010.
- <sup>11</sup> Electric Energy, Inc. Table 4, Analytical Results Summary – Groundwater, Joppa Power Station, Joppa, IL, Monitoring Well G-151, Sample Date: 8/17/2010.
- <sup>12</sup> Midwest Generation, Ash Pond Assessments, Feb. 28, 2011, Table 2 Groundwater Analytical Results, Powerton Station, Pekin, IL, MW-7, 12/6/2010.
- <sup>13</sup> Midwest Generation, Ash Pond Assessments, Feb. 28, 2011, Table 2 Groundwater Analytical Results, Waukegan Station, Waukegan, IL, MW-2, 10/25/2010.
- <sup>14</sup> Midwest Generation, Ash Pond Assessments, Feb. 28, 2011, Table 2 Groundwater Analytical Results, Joliet Station #29, Joliet, IL, MW-2, 12/6/2010.
- <sup>15</sup> The Environmental Integrity Project (EIP) and Earthjustice. 2010. IN HARM’S WAY: *Lack of Federal Coal Ash Regulations Endangers Americans and Their Environment* (Aug. 26, 2010), [http://www.environmentalintegrity.org/news\\_reports/documents/INHARMSWAY\\_FINAL.pdf](http://www.environmentalintegrity.org/news_reports/documents/INHARMSWAY_FINAL.pdf).
- <sup>16</sup> The Environmental Integrity Project (EIP) and Earthjustice. 2010. IN HARM’S WAY: *Lack of Federal Coal Ash Regulations Endangers Americans and Their Environment* (Aug. 26, 2010), [http://www.environmentalintegrity.org/news\\_reports/documents/INHARMSWAY\\_FINAL.pdf](http://www.environmentalintegrity.org/news_reports/documents/INHARMSWAY_FINAL.pdf).
- <sup>17</sup> Illinois Environmental Protection Agency. 2010. Ash Pond Closures at AmerenUE’s Venice Plant (Mar. 25, 2010), <http://www.epa.state.il.us/water/ash-impoundment/ameren-venice-station/index.html>.
- <sup>18</sup> The Environmental Integrity Project (EIP) and Earthjustice. 2010. Out of Control: Mounting Damages from Coal Ash Waste Sites (Feb. 24, 2010), [http://www.environmentalintegrity.org/news\\_reports/news\\_02\\_24\\_10.php](http://www.environmentalintegrity.org/news_reports/news_02_24_10.php).
- <sup>19</sup> Technical Support Documents; Ameren's Proposal for Site-Specific Regulation of the Closure of Ash Pond at the Hutsonville Power Station. 2008-2009.
- <sup>20</sup> Memorandum from IEPA Bureau of Water Chief Marcia Wilhite to IEPA Director Doug Scott. 2009. Assessment of Ash Impoundments Permitted Within the State of Illinois (Feb.3, 2009).
- <sup>21</sup> U.S. Department of Labor: Office of Public Affairs. 2010. US Labor Department's OSHA fines US Minerals facility in Illinois \$396,000 for 28 violations, including exposure to hazardous dust. (Dec. 7, 2010), [http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=NEWS\\_RELEASES&p\\_id=18918](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=18918)
- <sup>22</sup> Traci Barkley, Prairie Rivers Network. 2010. Public comment at Water Discharge Permit Public Hearing for Crown III Mine (December 14, 2010), <http://www.epa.state.il.us/public-notices/2010/springfield-coal-crown3/hearing-transcript.pdf>.

---

<sup>23</sup> Todd R. Huson, Illinois Environmental Protection Agency. 2010. Reconnaissance Inspection Report, Industry (North Grindstone) Mine, September 27, 2010.

<sup>24</sup> Peabody Coulterville Mining, LLC. Table I. Groundwater Monitoring Data, MW-04, MW-05, MW-07, MW-08, MW-09, MW-10, Coulterville, Illinois, Sample Date: 1/26/2011. Accessed through Illinois FOIA file review.

<sup>25</sup> U.S. Environmental Protection Agency. "Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities." Docket EPA-HQ-RCRA-2009-0640 (RIN-2050-AE81), 75 Fed. Reg. 35128. June 21, 2010.