

# TOXIC ASH

## A NATIONAL PROBLEM LACKING A NATIONAL SOLUTION

Every year, coal-burning power plants produce 140 million tons of toxic ash—waste that contains deadly heavy metals but is dumped in our communities with little to no regulation or regard for the health and safety of citizens. Coal ash is the second largest industrial waste stream in the U.S. and its toxic contents include arsenic, cadmium, hexavalent chromium, lead, mercury, selenium and other harmful pollutants.<sup>1</sup> Exposure to toxics in coal ash can cause cancer, neurological, cardiovascular and reproductive damage in humans and can poison and kill fish and wildlife. Despite the grave risks, enormous volumes of toxic ash can be found in more than 350 landfills and behind more than 1,000 earthen dams, many of which are decades old and often constructed with nothing to prevent the ash from poisoning our air, drinking water, and waterways.<sup>2</sup>

**It is time for the EPA to act quickly to fulfill its duty to protect public health and ensure the right of every American to a healthy environment by establishing protective minimum federal standards for the disposal of toxic coal ash.**

### COAL ASH ENDANGERS THE HEALTH AND SAFETY OF AMERICANS

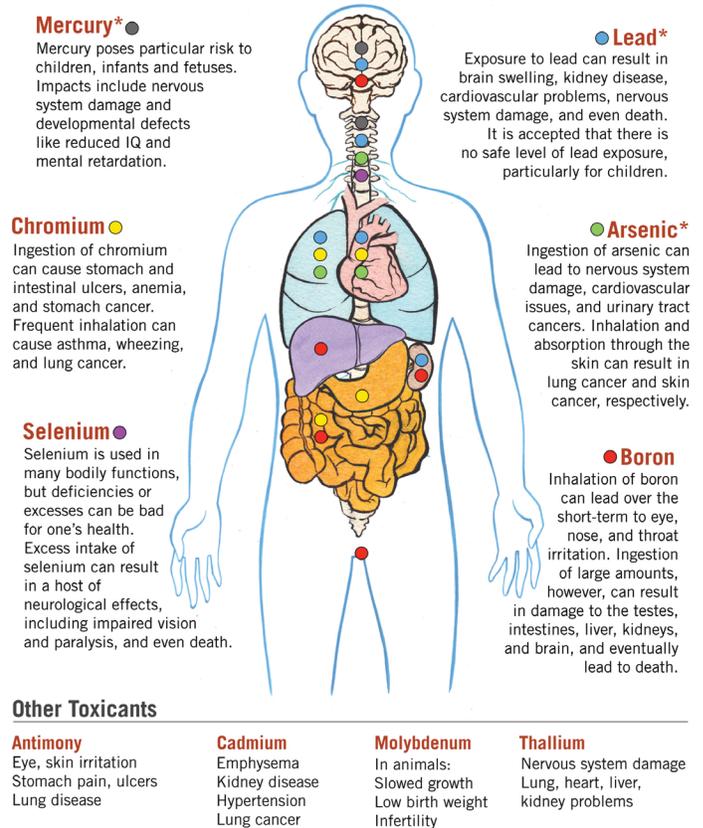
Coal ash contains hazardous chemicals that endanger the health of Americans. The effects of these toxins can be devastating. (See Fig. 1) When coal ash comes in contact with water, a soup of hazardous pollutants can leach out of the waste and poison our water. The EPA has found some coal ash ponds pose a 1 in 50 risk of cancer to residents drinking arsenic-contaminated water—a risk 2000 times higher than EPA's regulatory goal.<sup>3</sup> Our air can be made unhealthy by toxic ash particles blowing from landfills and ponds, causing asthma, lung irritation, and even premature death.<sup>4</sup> The toxic chemicals in ash threaten our vital organs, particularly those of children, and can have debilitating effects on their health and compromise their future.

The threat is real and the damage widespread. EPA has identified over 1300 coal ash dumps and documented more than 200 cases of water contamination from coal ash in at least 37 states, making this a national crisis.<sup>5</sup>

### EVERYONE SHOULD HAVE THE RIGHT TO LIVE IN A HEALTHY NEIGHBORHOOD:

Coal ash hits our most vulnerable communities hardest—70 percent of ash dams are located in areas where the household income is less than the national median.<sup>6</sup> Considering that low in-

Fig. 1: Health Impacts of Coal Toxicants



come neighborhoods are less likely to have access to medical care and insurance and to have resources to legally assert their right to clean water and air, this is not just troublesome but unjust.

## COAL ASH POISONS WATERWAYS, FISH AND WILDLIFE

EPA and environmental groups have documented 204 coal ash contaminated sites, where levels of pollutants in lakes, rivers, ponds, and groundwater exceed state or federal standards and where harm has occurred to human health or the environment. The devastation to wildlife at some sites has been dramatic. For example, coal ash pollution in one North Carolina lake caused all but one species of fish in the lake to die of selenium poisoning.<sup>7</sup> Although the pollution occurred in the mid-1970s, the lake has not fully recovered, and birds visiting the lake 40 years later show bioaccumulation of the deadly toxic.

What does this mean? The waters we swim, fish, and cherish are at risk. And this nationwide poisoning endangers some of our most treasured waterways, including Chesapeake Bay,<sup>8</sup> the Great Lakes,<sup>9</sup> and the New and Monongahela Rivers.<sup>10</sup>

## NEED TO ESTABLISH FEDERAL STANDARDS TO PROTECT HEALTH AND SAFETY

On December 22, 2008, a dam holding back millions of tons of coal ash failed at the Kingston Fossil Plant in Harriman, TN, flooding the surrounding residential area with more than one billion gallons of toxic sludge—a spill 100 times the volume of the Exxon Valdez oil spill, or enough to cover more than 3,000 acres one foot deep.<sup>11</sup> Testing showed extremely poisonous levels of arsenic, mercury, and

other toxins.<sup>12</sup> Similar dam failures have occurred in Pennsylvania in 2005 and Georgia in 2002.<sup>13</sup>

Unfortunately, while dramatic events like these garner national media attention, their impact slips through the cracks in Washington. Despite the urgency and presence of over 50 high hazard coal ash dams throughout the U.S.,<sup>14</sup> there is still no federal regulation of coal ash, and the vast majority of states do not require adequate monitoring or liners to stop the release of toxic chemicals nor do they ensure that deadly earthen dams like the one in Kingston are maintained safely to prevent another disaster.<sup>15</sup>

## AMERICANS WANT PROTECTION FROM TOXIC ASH

Communities living with coal ash want industry to clean up their act, control their toxic trash, and dispose of it in a manner that does not threaten their health, safety and environment. Americans want federal leadership that will protect them from the continued poisoning of their air and water. In 2010, the public submitted over 400,000 comments to EPA asking for strong federal oversight. EPA has the authority to protect American communities from the harmful effects of toxic coal ash, by phasing out coal ash dams (surface impoundments)—the most dangerous ash disposal method—and putting in place common-sense regulations for dry disposal that protect health and the environment. Please join us in asking EPA to establish regulations that protect us all from coal ash pollution.

**For more information, please contact Andrea Delgado: [adelgado@earthjustice.org](mailto:adelgado@earthjustice.org) (202) 797-5240**

## NOTES

<sup>1</sup> U.S. Environmental Protection Agency, Frequent Questions About Coal Combustion Residues (CCR) - Proposed Rule. (November 2012) Available at <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/ccr-rule/ccrfaq.htm#13>

<sup>2</sup> Physicians for Social Responsibility and Earthjustice. Coal Ash: The Toxic Threat to our Health and Environment (September 2010). Available at <http://www.psr.org/assets/pdfs/coal-ash.pdf>

<sup>3</sup> U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Office of Resource Conservation and Recovery. "Human and Ecological Risk Assessment of Coal Combustion Wastes." Draft EPA document. PES-7 (April 2010).

<sup>4</sup> Id

<sup>5</sup> See U.S. Environmental Protection Agency (EPA), Proposed Rule, Coal Combustion Residuals from Electric Utilities, 75 Fed. Reg. 35,128 (June 21, 2010); Environmental Integrity Project (EIP), Earthjustice, and Sierra Club, In Harm's Way: Lack of Federal Coal Ash Regulations Endangers Americans and their Environment (Aug. 26, 2010), available at <http://earthjustice.org/sites/default/files/files/report-in-harms-way.pdf>; EIP and Earthjustice, Out of Control: Mounting Damages from Coal Ash Waste Sites (Feb. 24, 2011), available at: [http://environmentalintegrity.org/news\\_reports/documents/OutofControl-MountingDamagesFromCoalAshWasteSites.pdf](http://environmentalintegrity.org/news_reports/documents/OutofControl-MountingDamagesFromCoalAshWasteSites.pdf); EIP, Risky Business: Coal Ash Threatens America's Groundwater Resources at 19 More Sites (December 12, 2011), available at <http://www.environmentalintegrity.org/documents/121311eipthirddamagereport.pdf>

<sup>6</sup> EIP and Earthjustice. Out of Control: Mounting Damages from Coal Ash Waste Sites (Feb. 24, 2011). Available at <http://earthjustice.org/sites/default/files/library/reports/ej-eipreportout-of-control-final.pdf>

<sup>7</sup> See, e.g., A. D. Lemly, "Belews Lake: Lessons Learned," U.S. EPA Publication EPA-822-R-98-007, at 3-6 and E15-20 (1998); A. D. Lemly, "Symptoms and implications of selenium toxicity in fish: the Belews Lake case example," *Aquatic Toxicology*, vol. 57, at 39-49 (2002).

<sup>8</sup> Chesapeake Climate Action Network. Maryland Coal Ash Water Contamination and Disposal Sites. Available at <http://www.chesapeakeclimate.org/file-uploads/jnolan/MarylandCoalAsh-Sites.pdf>

<sup>9</sup> Content, Thomas, and Sharif Durhams. "Bluff Collapse at Power Plant Sends Dirt, Coal Ash into Lake." *Milwaukee Wisconsin Journal Sentinel*, October 31, 2011. Available at <http://www.jsonline.com/news/milwaukee/authorities-investigate-bluff-collapse-at-we-energies-plant132929538.html>

<sup>10</sup> EIP, Earthjustice and Sierra Club. In Harm's Way: Lack of Federal Coal Regulations Endangers Americans and their Environment. (August 2010). Available at <http://earthjustice.org/sites/default/files/files/report-in-harms-way.pdf>

<sup>11</sup> US EPA, Potable Water Sampling Results Kingston Fossil Fly Ash Response. (January 4, 2009). Available at <http://www.epa.gov/region4/kingston/pdf/10644911.pdf>

<sup>12</sup> US EPA, TVA Kingston Fly Ash Release, Lab Analytical Results for Surface Water Samples. (January 1, 2009). Available at <http://www.epa.gov/region4/kingston/pdf/10644913.pdf>

<sup>13</sup> Sierra Club and Earthjustice. In Harm's Way: Lack of Federal Coal Regulations Endangers Americans and their Environment (August 2010). Available at <http://earthjustice.org/sites/default/files/files/report-in-harms-way.pdf>

<sup>14</sup> US EPA. Coal Combustion Residues (CCR) - Surface Impoundments with High Hazard Potential Ratings. (November 15, 2012), available at <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/ccrs-fs/>; Waterkeeper Alliance and Earthjustice, North Carolina: Coal Ash Disposal, Damage and Regulation, available at <http://earthjustice.org/sites/default/files/nc-coal-ash-factsheet-1112.pdf>

<sup>15</sup> Earthjustice. State of Failure, How States Fail to Protect Our Health and Drinking Water from Toxic Coal Ash. (August 2011). Available at <http://earthjustice.org/sites/default/files/Stateof-Failure.pdf>