

GROUPS: DATA SHOWING SIGNIFICANTLY HIGHER CANCER RISKS FOR U.S. RESIDENTS NEAR COAL-FIRED POWER PLANT ASH DUMP SITES WERE HIDDEN FOR YEARS BY BUSH ADMINISTRATION

Underlying 2002 EPA Risk Screening Report Only Released in 2009 After Obama Administration Took Power; Five or More High-Risk Sites Found in 21 States: NC, IN, IL, OH, GA, KY, TN, TX, AL, IA, MI, SC, WV, WI, WY, KS, LA, MD, ND, OK and PA.

WASHINGTON, D.C.//May 7, 2009//The Bush Administration dragged its feet for more than five years from 2002-2007 on what it now turns out was only the partial release of Environmental Protection Agency (EPA) data showing a disturbingly high cancer risk for up to one out of every 50 Americans living near more than 200 landfills and wet ponds used to dispose of ash and scrubber sludge from coal-fired power plants across the United States, according to a new analysis from the Environmental Integrity Project (EIP) and Earthjustice. Each year, coal-fired power plants dispose of nearly 100 million tons of toxic fly ash, bottom ash, and scrubber sludge in landfills and wet ponds, such as the one that burst in Kingston, TN in December 2008.

During the Bush Administration, the EPA made a concerted effort to delay the release of the information about cancer, non-cancer and general environmental risks. Partial disclosure of the coal ash dump site risks was delayed from 2002-2007, with the full picture not coming to light until an underlying 2002 EPA risk screening report was finally made public on *March 4, 2009* — seven years after its internal EPA publication. (The 2002 risk screening report pointed to risks associated with the toxic metal selenium, which were omitted from the draft EPA risk assessment issued in 2007.) The 2007 EPA risk assessment came only after substantial delays and Freedom of Information Act (FOIA) pressure, which had resulted in the blacking out of key sections of earlier EPA documents. (See “Timeline” section of this news release.)

What was the Bush Administration EPA hiding? The new analysis from EIP and Earthjustice zeroes in on 100 landfills and 110 surface impoundments examined by the EPA that lack effective synthetic liners to prevent leaks, since the EPA found unlined and clay-lined waste units present far greater risks to both human health and ecosystems.

According to the EIP/Earthjustice analysis of the EPA data, there are high-risk coal ash dump sites in at least three dozen states, with 21 states playing home to five or more such sites: North Carolina (17); Indiana (15); Illinois (14); Ohio (12); Georgia (11); Kentucky (11); Tennessee (11); Texas (10); Alabama (9); Iowa (7); Michigan (7); South Carolina (7); West Virginia (7); Wisconsin (7); Wyoming (6); Kansas (5); Louisiana (5); Maryland (5); North Dakota (5); Oklahoma (5); and Pennsylvania (5). A complete list of these unlined or clay-lined waste disposal units can be found at <http://www.environmentalintegrity.org>.

Titled “*Coming Clean: What EPA Knows About the Dangers of Coal Ash*,” the Environmental Integrity Project/Earthjustice report notes: **“Can living next to one of these dumpsites increase your risk of getting cancer or other diseases? The U.S. Environmental Protection Agency (EPA) thinks so, especially if you live near one of those wet ash ponds, or surface impoundments, that dot the landscape near large coal plants, the pond has no protective liner, and you get your drinking water from a well ... (N)earby residents have as much as a 1 in 50 chance of getting cancer from drinking water contaminated by arsenic, one of the most common, and most dangerous, pollutants from coal ash. And that’s not all. That same risk assessment says that living near ash ponds increases the risk of damage to the liver, kidney, lungs and other organs as a result of being exposed to toxic metals like cadmium, cobalt, lead, and other pollutants at concentrations far above levels that are considered safe. In addition, the danger to wildlife and ecosystems is simply off the charts, with one contaminant—boron—expected to leach into the environment at levels *two thousand times* thresholds generally considered to be safe.”**

Eric Schaeffer, director, Environmental Integrity Project, said: **“We now have the full picture about coal dump sites across America and it is not pretty. The EPA’s data shows that the disposal of coal ash, especially in unlined ponds, results in alarmingly high risks of cancer and diseases of the heart, lung, liver, stomach and other organs and can seriously harm aquatic ecosystems and**

wildlife near disposal sites. These risks are driven by exposure to toxic metals that leach from groundwater into drinking water, surface waters and sediment. Power industry lobbyists would rather keep the public in the dark about the risk from coal ash disposal; it's up to EPA to turn the lights on and regulate these hazards. Even as recently as December 2008, after the 1 billion gallon spill from its Kingston Power Plant, the Tennessee Valley Authority claimed that the coal ash posed little risk to human health or the environment. The EPA data we are releasing today brings the real threats to light."

Lisa Evans, attorney, Earthjustice, said: "Given what the Agency already knows, coal ash ponds must be phased out—and cleaned out—within five years, to keep their toxic cargo from building up and jeopardizing the health of nearby residents, poisoning wildlife, and contaminating rivers and streams. So called "dry landfills"—especially those that are unlined—also pose unacceptable risks, and ought to be regulated as hazardous waste disposal sites. The EPA's risk assessment clearly establishes that unlined coal ash disposal sites—wet and dry—are hazardous to human health and the environment. We hope the new leadership at the EPA will act on that knowledge before further serious damage occurs to our health and environment."

KEY FINDINGS

- ***The problem may be twice as big as the data indicate.*** The number of unlined and clay-lined ash ponds and landfills currently in operation in the United States is likely to be more than *double* the number of units represented in the EPA survey data. In fact, industry has reported at least 427 waste ponds in response to EPA's March 2009 information request letter, exceeding by 40 percent EPA's estimate of the number of operating waste ponds, EPA does not know how many of these ponds are unlined, but, based on 1995 statistics, approximately three-quarters of these ponds lack any liners.
- ***The coal ash threat could linger for 100 years.*** Because some of the EPA data go back to the mid-1990s, it is possible that some of the listed dump sites are no longer in use. The EPA warns, however, that peak pollution from ash ponds can occur long after the waste is placed and is likely to result in peak exposures approximately 78 to 105 years after the ponds first began operation—thus "retired" sites still pose very significant threats.
- ***Higher cancer risk for up to 1 in 50 nearby residents.*** The EPA estimates that up to 1 in 50 nearby residents could get cancer from exposure to arsenic leaking into drinking water wells from unlined waste ponds that mix ash with coal refuse. Arsenic has been found to cause multiple forms of cancer, including cancer of the liver, kidney, lung, and bladder, and an increased incidence of skin cancer in populations consuming drinking water high in inorganic arsenic. Threats are also posed by unacceptable high levels of other metals, including boron, selenium and lead.
- ***Higher non cancer risks seen from lead and other sources.*** The EPA also predicts that these unlined ash ponds can increase the risk of other "non cancer" health effects, such as damage to vital organs like the liver and kidneys and, in the case of lead, damage to the central nervous system. The agency has set maximum contaminant levels ("MCLs") under the Safe Drinking Water Act to limit exposure to hazardous pollutants. But according to the EPA, unlined waste ponds that mix ash and coal refuse will result in exposures up to nine times the federal standard for lead, a deadly neurotoxin that can damage the central nervous system, especially in young children.
- ***Even more "eye popping" risks to aquatic ecosystems and wildlife.*** According to the EPA data, ash ponds are predicted to leak boron into surface waters at concentrations up to 2000 times higher than levels estimated to be safe for aquatic life (2000 times the HQ). Even landfills will release boron at levels 200 times above the HQ, or safe level, according to the EPA. Based on predicted exposures to river otters, lead from ash ponds will reach surface waters at concentrations 20 times higher than the HQ, or safe level, while arsenic and selenium concentrations will be 10 times higher. Selenium is particularly dangerous in aquatic environments because even a very small amount can

rapidly attain levels that are toxic to fish and wildlife because of rapid bioaccumulation in food chains and resultant dietary exposure. Toxic metals can also be embedded in the sediment at the bottom of rivers or lakes, where they can be very difficult to remove, and poison bottom feeding plants and fish.

For the full text of the EIP/Earthjustice report and related charts, please go to <http://www.environmentalintegrity.org> on the Web.

COAL ASH POLLUTION: THE HEALTH/ENVIRONMENTAL THREATS

- **Arsenic.** Ingesting arsenic, even in low doses, through drinking water or by eating fish in which arsenic has bioaccumulated, can cause nausea, vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of ‘pins and needles’ in hands and feet.
- **Lead.** The detrimental health effects of lead are well known. No safe blood level has been identified for lead, making it one of the most toxic constituents of coal waste. Because children absorb lead more easily than adults, lead levels of 10 micrograms or more in a deciliter of blood can damage ability to learn. At blood levels greater than or equal to 25 micrograms per deciliter, lead exposure can cause damage to the kidneys, blood and nervous system. At very high levels, lead poisoning can cause mental retardation, coma, convulsions or death. Lead ranks second after arsenic on the 2007 CERCLA Priority List of Hazardous Substances.
- **Selenium.** Short term oral exposure to high concentrations of selenium causes nausea, vomiting, and diarrhea, while chronic exposure to “mildly excessive” concentrations can lead to selenosis, a condition resulting in brittle hair, deformed nails and numbness in the limbs. Selenium causes respiratory and liver damage in animals and may affect reproduction in farm animals. Moreover, because selenium bioaccumulates in plants, farm animals are particularly susceptible to toxic effects from selenium ingestion. Selenium ranks 147th out of 275 toxic constituents on the 2007 CERCLA Priority List of Hazardous Substances.
- **Boron.** Exposure to large amounts of boron (about 30 grams of boric acid) over short periods of time can affect the stomach, intestines, liver, kidney and brain and can eventually lead to death. Boron can also bioaccumulate in plants, and is therefore ingested in fruits and vegetables as well as in drinking water. Boron is also known to be highly toxic to plants and algae, inhibiting growth, protein content, chlorophyll content and photosynthesis.
- **Cadmium.** The CDC Third National Report Spotlight on cadmium states that, “exposure to low levels of cadmium in air, food [and]... water over time may build up cadmium in the kidneys and may cause kidney disease,” and that long-term effects of cadmium exposure also include fragile bones. Moreover, the U.S. Department of Health and Human Services and the International Agency for Research on Cancer have determined that cadmium and cadmium compounds are known human carcinogens and EPA has determined that cadmium is a probable human carcinogen. Cadmium is listed 7th on the 2007 CERCLA Priority List of Hazardous Substances.
- **Cobalt.** Exposure to high levels of cobalt can result in lung and heart effects and dermatitis. Liver and kidney damage are also possible. Moreover, cobalt from CCW is especially dangerous to human health in the environment when co-disposed with coal refuse because its mobility increases under more acidic conditions. Cobalt ranks 49th on the 2007 CERCLA Priority List of Hazardous Substances.

TIMELINE

- **2002** - EPA finalizes -- but does not publicly release -- a risk screening report (the precursor to a risk assessment) showing major cancer, non-cancer and environmental risks from coal ash dump sites.

- **November 2006** – Freedom of Information Act request filed by Earthjustice to compel EPA to release any risk assessments for coal combustion waste that examine the potential for metals and other hazardous constituents to leach from coal combustion waste. EPA responds that the risk assessment has not been finalized.
- **March 2007** – In response to a second FOIA request, EPA produced documents with key sections blacked out relating to cancer and ecological risks.
- **August 2007** – EPA publishes draft risk assessment report on coal combustion waste, but omits discussion of high risk from direct contact with contaminants in waste ponds described in 2002 screening report
- **March 2009** – Two months after Bush Administration leaves office, the EPA finally releases the full text of the 2002 screening report, including some risks not addressed in the 2007 draft risk assessment.

ABOUT THE GROUPS

The Environmental Integrity Project (<http://www.environmentalintegrity.org>) is a nonpartisan and nonprofit organization established in March 2002 to advocate for more effective enforcement of environmental laws. EIP was founded by Eric Schaeffer, who was director of the U.S. Environmental Protection Agency's Office of Regulatory Enforcement. He resigned in 2002 after publicly expressing his frustration with efforts of the Bush Administration to weaken enforcement of the Clean Air Act and other laws.

Earthjustice (<http://www.earthjustice.org>) is a non-profit public interest law firm dedicated to protecting the magnificent places, natural resources, and wildlife of this earth, and to defending the right of all people to a healthy environment. Earthjustice brings about far-reaching change by enforcing and strengthening environmental laws on behalf of hundreds of organizations, coalitions and communities.

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EDITOR'S NOTE: A streaming audio recording of the news event will be available on the Web as of 6 p.m. EDT on May 7, 2009 at <http://www.environmentalintegrity.org> and <http://www.earthjustice.org>.