

# VIRGINIA'S TOXIC COAL ASH PROBLEM:

The Need to Protect the Health,  
Safety and Water of Virginia

BY VIRGINIA CONSERVATION NETWORK,  
IN PARTNERSHIP WITH  
THE VIRGINIA LEAGUE OF CONSERVATION VOTERS EDUCATION FUND,  
CLEAN WATER ACTION AND EARTHJUSTICE



COAL ASH DISPOSAL AT DOMINION'S CHESTERFIELD  
POWER PLANT. CREDIT: SOUTHWINGS

# EXECUTIVE SUMMARY

---

## DID YOU KNOW?

- Virginia waterways have millions of tons of toxic coal ash behind old earthen dams like the one that collapsed on the Dan River in North Carolina?
- One of these inactive legacy pits has an old corrugated metal pipe running under it like the pipe that broke and caused the Dan River disaster?
- Virginia regulations do not protect residents of the Commonwealth or their water resources from toxic coal ash?
- Dominion Power plans to close its coal ash ponds in Virginia, but the Commonwealth has inadequate rules to guide the closure process to protect our water and health?

Toxic coal ash is harming Virginia. The recent disaster on the Dan River revealed the vulnerability of Virginia citizens and their invaluable water resources. While most of the post-spill media coverage focused on North Carolina, Virginia communities suffered the majority of the harm from the 2014 spill. Although 39,000 tons of toxic ash and 24 million gallons of wastewater were released, Duke Energy eventually removed only 2,500 tons of ash, leaving over 90 percent of the coal ash in Virginia waters. While North Carolina's regulatory failures were on full display, the serious shortcomings of Virginia's regulations escaped scrutiny. However, the regulatory gaps of the programs overseen by the Virginia Department of Environmental Quality (VDEQ) and Virginia Department of Conservation and Recreation (VDCR) similarly cause harm and threaten the health and safety of Virginia communities. From dangerous dams to leaking dumps to reckless reuse, Virginia communities are in danger. If Virginia regulatory agencies fail to modernize Virginia state regulations, we will waste our clean waterways and be left wanting for chemical-free streams and healthy drinking water.

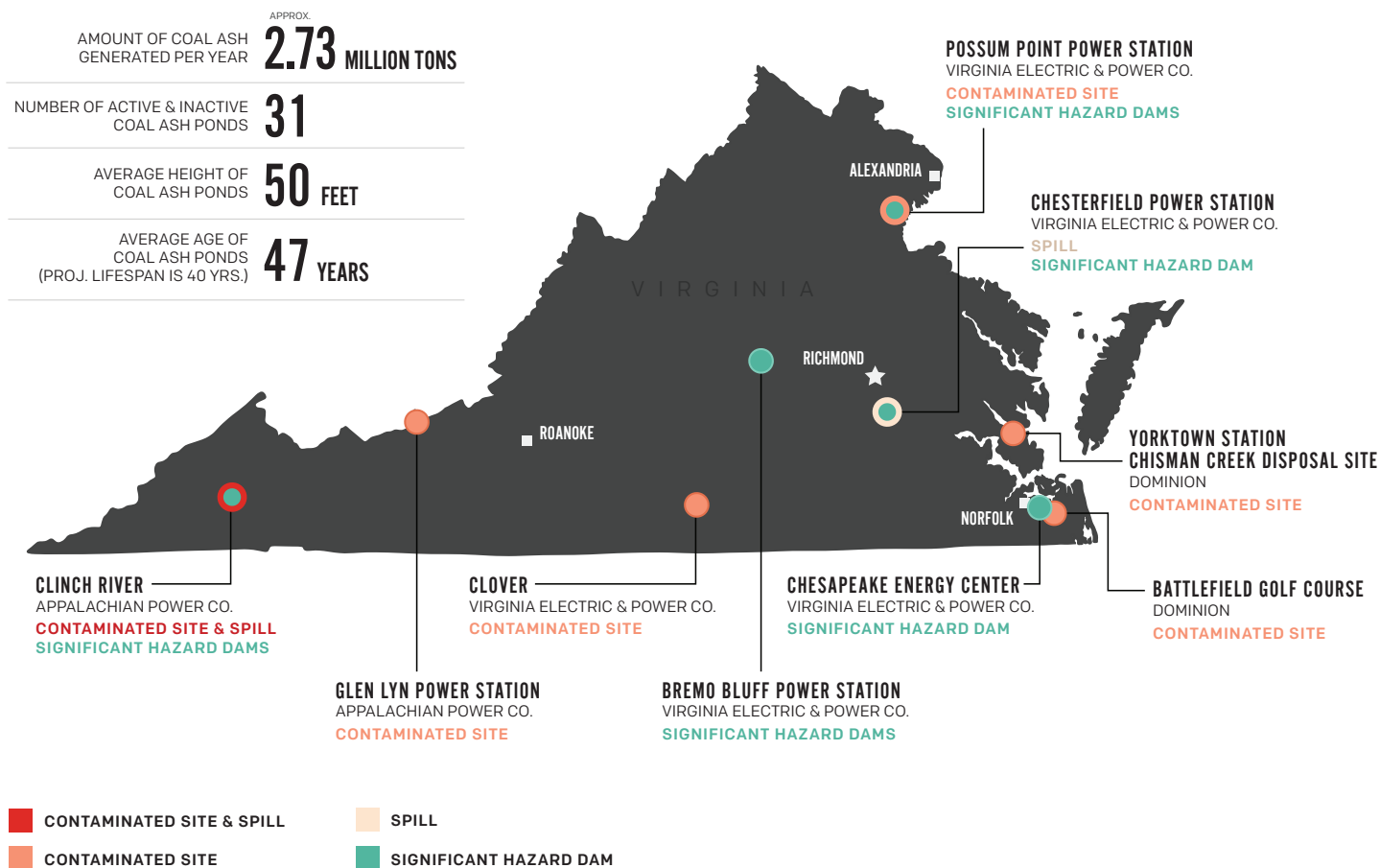
Is it surprising that VDEQ regulates toxic coal ash less stringently than household garbage? Everyone knows that breathing the smoke from power plant stacks is detrimental to our health. But what about drinking water that is contaminated by the power plant's waste after coal is burned? Coal ash adds poisons to our water, including arsenic, chromium, lead, mercury and even uranium. At present, among a litany of other oversights,

VDEQ does not require consistent monitoring of water supplies near coal ash dumps. And VDCR, the agency responsible for maintaining the structural integrity of coal ash dams, did not require annual inspections of decades-old coal ash dams until 2012. Finally, these toxic pits pose a threat to Virginia's most vulnerable residents- 76 percent of Virginia's coal-fired plants are located in communities of color and low-income communities.

This report describes the imminent threat from coal ash in Virginia, documents harm from coal ash throughout the Commonwealth, and identifies critical gaps in the state regulatory program. It also provides useful insight into the need to enforce additional cleanup and storage requirements with a side-by-side comparison of three different regulatory options. The U.S. Environmental Protection Agency's (EPA) new coal ash rule provides much needed minimum standards to protect human health and the environment. EPA's rule will soon provide some relief to Virginia communities, but it will be up to the Commonwealth to revise its inadequate regulations and help enforce the protections established in the new rule. While EPA's rule is a vast improvement over current state regulations, it is a floor, not a ceiling. Virginia has an opportunity to establish even better regulations that will address Virginia-specific coal ash problems.

Coal ash has already caused widespread and long-lasting damage to Virginia communities and the state's water resources. Virginia sites contaminated by coal ash include:

- **Southwest Virginia:** Clinch River Coal Ash Spill, the second largest coal ash spill in U.S. history, which killed more than 200,000 fish and contaminated 90 miles of the Clinch River;
- **York County:** Chisman Creek Superfund Site, a landfill that made the EPA's list of the most contaminated Superfund sites in the nation;
- **Chesapeake:** Dominion Virginia Power Chesapeake Energy Center whose ponds and landfills have been leaking arsenic for more than a decade;
- **Chesapeake:** Battlefield Golf Course, where 1.5 million tons of ash fouled the air and contaminated drinking water with arsenic and other pollutants;
- **Henrico County:** East End Landfill, a dump that for years plagued nearby residents with clouds of toxic fugitive dust;



FULL DATA: [EARTHJUSTICE.ORG/COALASH/MAP](http://EARTHJUSTICE.ORG/COALASH/MAP)

SOURCES: IN HARM'S WAY (EIP, EARTHJUSTICE, SIERRA CLUB; 2010), EPA OFFICE OF WATER DATA, COAL COMBUSTION WASTE DAMAGE CASE ASSESSMENTS (EPA; 7/9/2007), 75 FED. REG. AT 35232.

FAILURE OR MIS-OPERATION OF SIGNIFICANT HAZARD DAMS CAN CAUSE ECONOMIC LOSS, ENVIRONMENT DAMAGE, DISRUPTION OF LIFELINE FACILITIES, OR IMPACT OTHER CONCERNS.

- **Chesapeake:** Unstable dam at the Chesapeake Energy Center that was rated in “poor” condition by the EPA, which called for urgent repair; and
- **Southside Virginia:** Duke Energy’s Dan River spill, that released 140,000 tons of ash and wastewater on the North Carolina/Virginia border fouling 80 miles of the Dan River and causing damage estimated at more than \$295 million.

- Require adequate control of fugitive dust;
- Protect groundwater after the closure of ponds and landfills;
- Require critical safeguards when old and dangerous dumps are expanded;
- Require adequate safety inspections of dangerous coal ash ponds;
- Establish specific standards for structural stability of ponds; and
- Require safeguards for coal ash reuse projects to prevent release of toxic pollutants.

Deficiencies in VDEQ’s coal ash regulatory program have contributed to the damage described above and to the ongoing threat posed to Virginia communities. Currently Virginia’s regulatory program fails to:

- Prohibit coal ash dumping directly into drinking water aquifers;
- Mandate liners, covers, and groundwater monitoring at all coal ash ponds;
- Require monitoring for all common coal ash pollutants;

Yes, Virginia, there is a threat from coal ash, and it is the responsibility of the Commonwealth to prevent harm to health, environment and the economy from coal ash pollution. The first step is for VDEQ is to establish, as soon as possible, a regulatory program with requirements at least as stringent as the new EPA coal ash rule. Then

together VDEQ and VDCR must vigorously enforce the requirements to prevent another major coal ash disaster, and require cleanup of all contaminated sites, both active and inactive. Virginia must be proactive in securing

funding for these agencies and showing its support for real protections from coal ash. It is long past time to take effective measures to protect Virginia’s air, water and property from further toxic pollution.

## PART I. ACTIVE COAL ASH DISPOSAL IN VIRGINIA

Coal ash from Virginia’s coal-fired power plants is creating a legacy of toxic pollution throughout the Commonwealth. Coal ash is what remains after companies like Dominion and American Electric Power (AEP) burn coal to make electricity. Coal ash is filled with some of the deadliest chemicals known to man, including 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. Notwithstanding these health threats, Virginia’s coal plants generate coal ash and dump it into our communities at alarming rates. Every year, the state’s coal-burning power plants produce more than 2.7 million tons of coal ash. This is enough to bury Arlington National Cemetery three feet deep in coal ash each year. One hundred percent of the toxic releases to land in Virginia of arsenic, chromium and

selenium reported by the Commonwealth’s industries, and over 92 percent of the releases to land of mercury in Virginia, come from coal ash alone.<sup>2</sup>

According to VDEQ, there are twelve active coal ash ponds and eight active coal ash landfills in Virginia. Most of the coal ash ponds in Virginia are not lined with a composite liner to prevent leaking. In addition, there are parks created from coal ash that are not subject to permit requirements because the ash is considered to be “beneficial reuse” under the law. Often, there is no barrier between coal ash and waterways when the waste is used for “beneficial reuse.”

Coal-fired power generation has peaked in Virginia. Coal-fired power plants are being closed or retrofitted in favor of natural gas and biofuels.<sup>8</sup> As we move away from coal as a fuel source for our electricity, power providers are moving towards closure of active coal ash ponds.<sup>9</sup> Closure of these ponds must be strictly scrutinized by the public

TABLE 1:  
Virginia’s Coal Ash Impoundments and Landfills

COMPANY	NAME OF PLANT	LOCALITY	# OF ACTIVE UNITS
Dominion	Bremo Bluff	Fluvanna	2 ponds
Dominion	Chesapeake Energy	Chesapeake	1 pond, 1 landfill
Dominion	Chesterfield	Chesterfield	2 ponds, 1 landfill
Dominion	Possum Point	Dumfries	2 ponds
American Electric Power	Glen Lyn	Giles	1 pond, 1 landfill
American Electric Power	Clinch River	Russell	2 ponds, 2 landfills
Celanese, LLC	Narrows	Narrows	1 pond
Mead Westvaco	Covington	Covington	1 pond
Dominion	Clover Power Station	Halifax	Landfill <sup>3</sup>
Dominion	Yorktown	York	Landfill <sup>4</sup>
Dominion	Curley Hollow	Wise	Landfill <sup>5</sup>

CREDIT: VIRGINIA DEQ<sup>6</sup>

and by environmental agencies. Dominion prefers keeping the ponds where they are, leaking into the groundwater and adjacent streams. Their proposed method of closure simply puts a cap on top of the coal ash ponds so that rainwater cannot penetrate the pond from above. Meanwhile, the pollution leaks out from the bottom as the

coal ash often sits in the water table. Virginia's regulations must be updated to prevent Dominion and others from walking away from waterfront coal ash ponds. Ash removal and storage in lined, dry landfills away from our water bodies is the only remedy Virginians should accept.

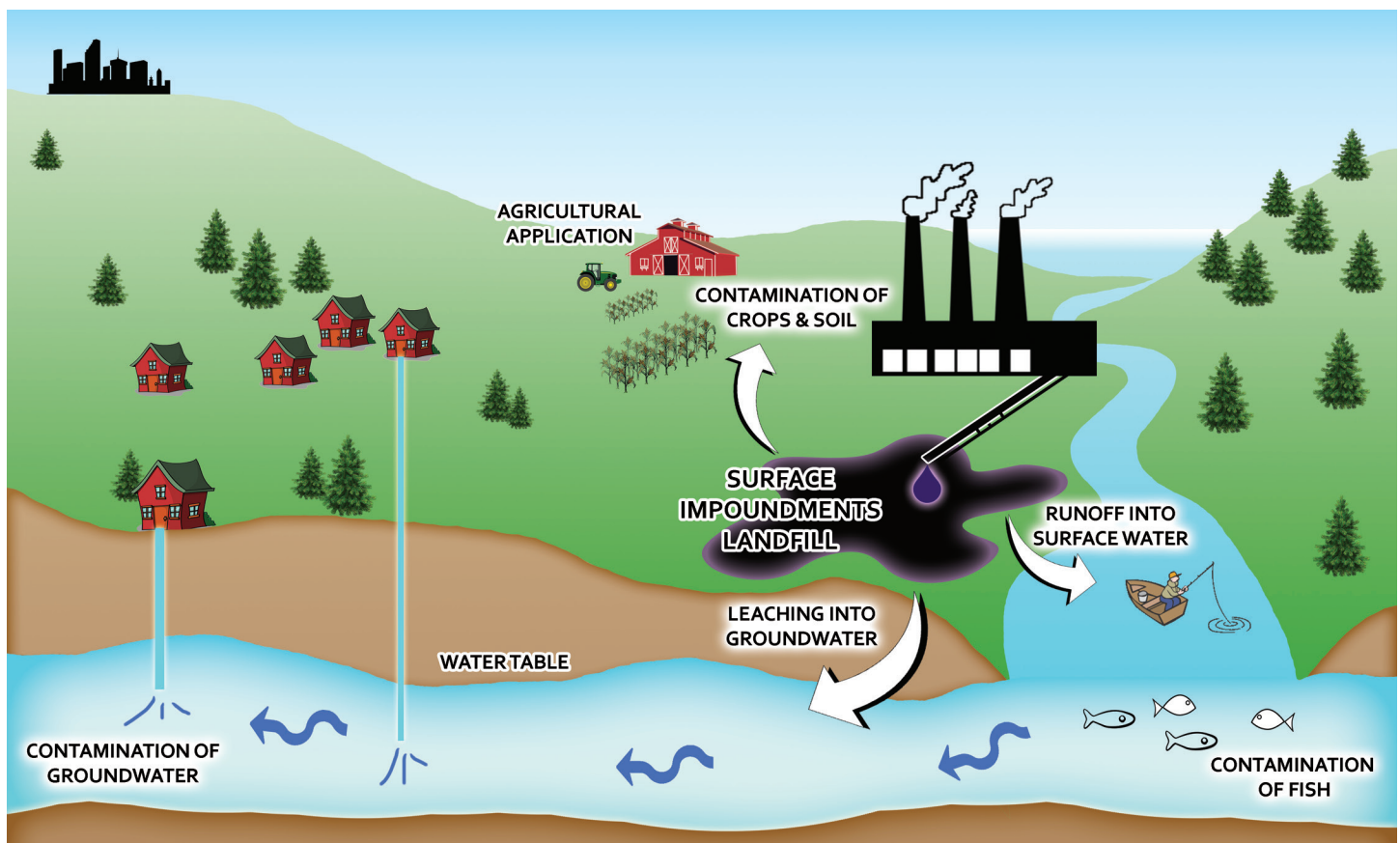
## PART II. LEGACY COAL ASH PONDS IN VIRGINIA: ANOTHER DAN RIVER DISASTER ON THE WAY?

Virginia residents are currently facing the possibility of additional devastating spills from inactive toxic coal ash ponds, like the one that failed in February 2014 at the Dan River Plant near the Virginia border. There are at least eight large coal ash ponds in Virginia that are no longer being used for ash disposal but which sit, full of toxic sludge, on Virginia waterways. These waste sites pose a significant hazard to health and the environment and must be safely closed to prevent another large-scale disaster.

### WHERE ARE THESE CONTAMINATED LEGACY PONDS?

- **Possum Point Power Station, Town of Dumfries:**  
The Possum Point Power Station is located about 30

miles south of Washington, D.C. on Quantico Creek, which flows into the Potomac River. Five inactive coal ash ponds, including two ponds filled with wet toxic sludge remain at the plant.<sup>10</sup> These two ponds are rated as significant hazards, which means "significant dam failure may cause loss of life or appreciable economic damage."<sup>11</sup> Ash Pond D was built in 1988, covers 120 acres, stands 140 feet high, has a capacity of 10.3 million tons of coal ash and sits 900 feet from Quantico Creek. The second pond is unlined Ash Pond E, which was built in 1968, has a height of 44 feet, covers 5.5 acres, contains about 48,400 tons of sludge, and sits only 200 feet from the creek. Ash Pond E, like the pond at the Dan River Plant that suffered a catastrophic break when a corroded pipe



THE PATHWAYS OF COAL ASH POLLUTION. CREDIT: VIRGINIA CONSERVATION NETWORK

collapsed, has a 72-inch corrugated metal pipe running under the pond. In 1977, the pond suffered major damage due to seepage in the area of the pipe.<sup>12</sup> The presence of the pipe heightens the potential threat posed by the 47-year old pond.

- **Bremo Power Station, Bremo Bluff, Fluvanna County:**

The Bremo Power Station was one of the oldest coal-fired power stations in Virginia until it converted to gas in 2014. The plant has two significant hazard coal ash ponds, which were constructed in 1978 and 1983 adjacent to the James River.<sup>13</sup> One of these ponds is among the largest in the state; it spans 96 acres, stands 102 feet high, and contains about 3.5 million tons of coal ash. The second pond at the site covers 17 acres and contains approximately 406,000 tons of coal ash. Neither pond has been safely dewatered, emptied or closed. The ponds' location next to the James River presents an ongoing threat.

- **Chesapeake Energy Center, Chesapeake County:**

An unlined 17-acre coal ash pond, approximately 17 feet high, contains about 124,000 tons of coal

ash.<sup>14</sup> The pond is rated significant hazard because a failure would send coal ash into the Elizabeth River, which flows into Chesapeake Bay. In 2010, an EPA assessment of the pond found that the impoundment had experienced erosion and shallow slope failures. EPA recommended "urgent" repairs "to ensure the structural integrity of the impoundment in the near term."<sup>15</sup> While repairs have been made, the pond, which dates back to the 1950s, still contains a dangerous amount of toxic sludge that potentially threatens Chesapeake Bay.

At least two additional Virginia coal plants are projected to retire in 2015, the Yorktown and Glen Lyn plants, which together have at least four coal ash ponds currently onsite. In addition, the Hopewell, Altavista and Southampton power plants converted to biomass in 2013, but each may still have a contaminated coal ash pond onsite. It is likely that more coal plant retirements will occur in Virginia, and it is essential that VDEQ and VDCR address the hazards of inactive toxic ponds before another major disaster occurs.

## PART III. THE LEGACY OF CONTAMINATION FROM COAL ASH IN VIRGINIA

Dumping toxic coal ash has come at a high price to Virginia's treasured natural resources. Coal ash has landed two contaminated sites on the federal Superfund list, including one on the Superfund National Priority List, which comprises the nation's most toxic and dangerous hazardous waste sites. At six other sites, coal ash has severely contaminated groundwater and air or damaged ecosystems, and the sites include the second largest coal ash spill in U.S. history.



COAL ASH SPILLS FROM A STORMWATER PIPE INTO THE DAN RIVER.  
CREDIT: APPALACHIAN VOICES

Reckless mismanagement of coal ash and serious damage have occurred in every major region of Virginia, including:

### Northern Virginia

- **Possom Point Power Station Groundwater Contamination, Dumfries** - Three coal ash ponds were forgotten by both Dominion Power and VDEQ, allowing them to leak contaminated wastewater without a permit into Quantico Creek. These ponds have not received coal ash since the 1960s, and yet their pollution persists, adding measurable amounts of toxics to the water supply over fifty years later. Another two ponds are leaking, contaminating groundwater at the plant with cadmium and nickel.<sup>16</sup> EPA rated these ponds as "significant hazards" because economic loss and environmental damage will occur if these ponds fail.

### Southwest Virginia

- **Glen Lyn Plant Contamination, Glen Lyn** - Studies in the 1970s and 1980s documented acute toxicity of discharges from the plant's fly ash holding pond to aquatic life in a mountain stream that flows into the New River. Caustic pH, cadmium and selenium exceeding the Virginia Water Quality Standards killed

invertebrates and greatly reduced surviving species in the stream. Although this power plant will soon be retired, it is unclear what standards will apply to the closing of its coal ash ponds.

- **Cumberland Park Fly Ash Project, Giles County** - In 2008, AEP arranged the placement of 125,000 tons of coal ash from the Glen Lyn Power Plant next to the scenic New River and an RV campground in the Town of Narrows. The New River Gorge National Park lies downstream from the fill. VDEQ approved the fill project under Virginia's Beneficial Use Regulation without any notice or input from the local community or any liner or monitoring requirements, despite its dangerous placement in the floodplain. Federal requirements under the National Flood Insurance Program for permits, public review and input on projects in 100-year floodplains may not have been followed.<sup>17</sup>
- **Clinch River Dam Collapse, Carbo** - In 1967, 31 years before the Kingston disaster, a dike surrounding a coal ash pond at the Clinch River Plant collapsed, releasing 130 million gallons of highly caustic ash slurry into the Clinch River, causing severe ecological damage. Some 217,000 fish were killed in a 90-mile stretch of the river. Aquatic insects were completely eliminated for nearly four miles and dramatically reduced for 77 miles. Mussels and snails were wiped out for more than 11 miles. Recovery was slow, and 20 years later, a survey found no mollusks up to 2,000 feet downstream. The Virginia regulatory agency in charge of coal ash dam oversight did not learn of the Clinch River dam failure until 2011, forty-four years after it happened.<sup>19</sup> Harm to aquatic life continues because discharges from the Clinch River Plant and its ash ponds have contained copper and aluminum far above water quality standards.<sup>20</sup>

### Tidewater Virginia

- **Chisman Creek Superfund Site, Yorktown** - From 1957 to 1974, a half million tons of coal ash were dumped into four unlined sand and gravel quarries where the Chisman Creek estuary opens into Chesapeake Bay. The dumping contaminated Chisman Creek and groundwater supplying 55 residential drinking water wells near the plant. Contaminants included arsenic, beryllium, chromium, copper, molybdenum, nickel, selenium and vanadium. In 1983, the EPA put the site on its National Priority List of the most contaminated Superfund sites in the nation. A Superfund cleanup began in 1986



COAL ASH IN THE DAN RIVER. CREDIT: DAN RIVER BASIN ASSOCIATION

provided city water to the residents, capped the site, and treated contaminated groundwater. Twenty years later, the treated groundwater was still too contaminated to discharge to Chisman Creek.<sup>21</sup> Forty-five years after the spill, aquatic ecosystems downstream remain degraded.<sup>22</sup>

- **Dominion Virginia Power Chesapeake Energy Center, Chesapeake** - For more than a decade, the plant's leaking 22-acre coal ash landfill and coal ash ponds have contaminated groundwater with levels of arsenic as high as 30 times the groundwater protection standard and federal drinking water standard.<sup>23</sup> In 2001, the power plant's coal ash landfill was also found to have contaminated groundwater with sulfides and vanadium. In March 2015, the Southern Environmental Law Center filed a lawsuit on behalf of the Sierra Club alleging that ponds at the plant are leaking arsenic and other chemicals into groundwater and into the Southern Branch of the Elizabeth River.<sup>24</sup>
- **Battlefield Golf Course, Chesapeake** - From 2002 through 2007, the VDEQ allowed 1.5 million tons of coal ash from the Chesapeake Energy Center to be used to construct a golf course in a residential neighborhood. The ash was dumped on swampy fields only 1-2 feet above a shallow groundwater table that served as the drinking water source for more than 300 nearby residents. Despite the arsenic contamination the coal ash had already caused at the Chesapeake Energy Center, VDEQ allowed its

placement as a “beneficial use,” waiving liners or caps that would have been required by the solid waste regulations.<sup>25</sup> By 2008, wells beneath the golf course were contaminated with arsenic, chromium, lead, beryllium, and vanadium. In 2009, Dominion agreed to pay \$6 million to provide city water to residents around the course. Neighbors of the golf course have filed suit, claiming injury to health and dust contamination.<sup>26</sup> Radioactive metals in the ash have been found in many of the homes at elevated levels. A worker who inhaled the ash for five years filed a separate lawsuit for \$10 million claiming the ash caused his kidney cancer.<sup>27</sup>

- **“Poor-Rated” Coal Ash Pond at Chesapeake Energy Center, Chesapeake** - In 2011, the EPA gave a “poor” rating to the plant’s coal ash pond. The pond is ranked a “significant” hazard because a failure would cause significant damage and release toxic coal ash to the Elizabeth River, which flows into Chesapeake Bay. The pond is contained by an earthen dam and is unlined, holding fly ash, bottom ash, and leachate contaminated with arsenic from the plant’s coal ash landfill. EPA identified the need to make “urgent” repairs to address slope failures at the pond.<sup>28</sup> Reportedly, Dominion completed such repairs.

#### Central Virginia

- **The East End Landfill, Henrico County** - Large clouds of coal ash blew from this landfill onto neighboring properties for years. The owner of the landfill disposed of more than 290,000 tons of coal ash even though he was not licensed to do so.<sup>29</sup> Nine notices of violation were issued by VDEQ in 2010 and 2011, many for fugitive dust. A VDEQ enforcement action finally required all stockpiled

coal ash to be removed from the landfill in 2012.<sup>30</sup>

- **Chesterfield Power Station, Chester** - The Chesterfield Power Station is Virginia’s largest coal-fired power plant, owned and operated by Dominion Power, with three unlined coal ponds onsite.<sup>31</sup> One of the impoundments is rated a “significant” hazard, which means it would cause substantial economic and environmental damage if it failed. These impoundments are visible from Henricus Park, a historical site commemorating the second English settlement in North America after Jamestown. Coal ash is also stored onsite in piles for export. In 2010, EPA questioned the long-term structural stability of one of the ponds, stating that it did not meet dam embankment criteria established by the US Army Corps of Engineers.<sup>32</sup>

#### Southside Virginia

- **Dan River Coal Ash Spill** - On February 2, 2014, a break in the wall of an inactive coal ash pond at Duke Energy’s Dan River Power Plant in North Carolina released about 140,000 tons of coal ash sludge and wastewater into the Dan River.<sup>33</sup> The damage was immediately felt in Virginia, most acutely near the City of Danville. In total, 80 miles of river were fouled, most of them in the Commonwealth. Three public drinking water systems downstream of the spill were forced to temporarily close their intakes to prevent the pollution from contaminating water supplies.<sup>34</sup> Duke Energy’s “cleanup” removed only 2,500 tons of ash, less than ten percent of the toxic ash spilled, so the long-term impact of the disaster is uncertain. A researcher from Wake Forest University estimates that the spill caused more than \$295 million in environmental, recreational and other damage.<sup>35</sup>

## PART IV. COAL ASH AND ENVIRONMENTAL JUSTICE IN VIRGINIA

Seventy-six percent of the coal ash ponds and landfills in Virginia are located in areas that are below the average state income and/or in communities of color. According to EPA, the plants that are located in the communities with the highest percentages of people of color are Possum Point (75 percent), Spruance Genco (formerly known as Cogentrix of Richmond) (70 percent), and Clover Power Stations (62 percent). Plants that are located in areas where the percentage of people below the poverty level is twice the state average include Spruance Genco, Hopewell,

and Clover Power Stations. Some facilities are located in areas where communities are impacted by other industrial pollution sources, which raise the potential for harm from cancer, lung and neurological disease as a result of cumulative chemical exposure. Furthermore, communities of color and low-income communities often have limited access to health care, which can exacerbate adverse impacts. The need to protect vulnerable communities requires immediate attention from VDEQ and VDCR.



## PART V. VIRGINIA'S REGULATIONS DO NOT PROTECT VIRGINIANS FROM TOXIC COAL ASH

---

Despite the abundant evidence of groundwater contamination by coal ash in Virginia and the long history of spills and mismanagement of dams, state regulations have serious gaps that heighten the risk of future harm from coal ash. The following are ten of the major gaps in the Virginia coal ash regulatory program:

1. Coal ash can be disposed directly into drinking water aquifers: There is no prohibition against placing coal ash landfills or ponds below the water table. See 9VAC20-81-120(F).
2. Coal ash landfills and ponds can be constructed with inadequate liners: Regulations allow soil liners or 1-foot clay liners, which are inadequate to prevent toxic contaminants from leaking. See 9VAC20-81-130(J)(2).
3. Poor regulation of coal ash ponds: State regulations do not require a liner, cover, or groundwater monitoring at any coal ash pond in Virginia.<sup>36</sup>
4. VA “beneficial use” rule allows dumping of ash without safeguards: Power plant operators can avoid the landfill regulations and dump their ash without binding agents, impervious covers, liners, or monitoring, if the ash is used “beneficially.” VDEQ may waive the requirement that coal ash structural fills be two feet above the water table. See 9VAC20-85-170.
5. Insufficient groundwater monitoring: Groundwater monitoring of landfills and ponds does not include critical coal ash contaminants such as boron, molybdenum and sulfate. Monitoring for these contaminants can provide early warning that coal ash dumps are leaking. See 9VAC20-81-250, Table 3.1, Groundwater Solid Waste Constituent Monitoring List.
6. Regulations allow expansion of old and dangerous dumps: Coal ash landfills and ponds in existence before 1983 can be expanded without liners or leachate collection systems. See 9 VAC20-81-35(C)(1).
7. Toxic dust is not adequately controlled: Daily cover is not required to prevent toxic dust from blowing from coal ash landfills. See 9VAC20-81-140(D)(1)(c).
8. Groundwater is not protected from long-term harm: Post-closure monitoring is only required for 10 years (or less, if permitted by VDEQ). This time period is insufficient to detect potential long term leaking from coal ash.<sup>37</sup> See 9VAC20-81-170(B)(2)(c).
9. No regular inspection of dangerous coal ash ponds: Regulations do not require frequent inspections of ash ponds by owners and operators. Inspections are only required annually. See 4VAC50-20-105E.
10. No specific standards for structural stability: The regulations do not include specific safety standards that must be met by dam owners.

## PART VI. THE 2015 HOUSE COAL ASH BILL - THE WRONG OPTION FOR THE COMMONWEALTH

---

After many years of deliberation, the EPA finalized disposal regulations for coal ash in December 2014. The new EPA coal ash rule will help fill the gaps identified in Virginia’s regulatory program when it goes into effect in October 2015.<sup>38</sup> The EPA coal ash rule will immediately put Virginia power plants on the road to safer practices and increase health protections for the residents of the Commonwealth. The rule requires immediate inspections, enhanced design standards for all new ponds and landfills, prohibitions on dangerous dumping in and near drinking water sources, strict federal cleanup levels and more.

These protections, however, are in jeopardy. The U.S. House of Representatives is currently considering a bill that would gut the EPA rule and deprive Virginia residents of long-

awaited and much needed safeguards.<sup>39</sup> H.R. 1734, the “Improving the Coal Combustion Residuals Regulation Act of 2015,” eliminates, weakens or delays many of the EPA rule’s critical safety provisions. Do not be misled by the bill’s title. Table 2 on the next page compares the new EPA rule with the current VA coal ash program requirements and the proposed legislation.

As the side-by-side comparison reveals, maintaining the status quo and supporting Congress’ legislation are simply not options for Virginia. The head of VDEQ, however, testified in favor of H.R. 1734. In spite of the dire need for improvements in Virginia’s coal ash program, the director of VDEQ publicly supported weaker national coal ash regulations in his testimony before Congress on March 18,

TABLE 2:  
**Comparison of Coal Ash Disposal Safeguards in the new EPA rule, Virginia Regulations, and H.R. 1734**

COAL ASH HEALTH AND ENVIRONMENTAL SAFEGUARDS	EPA COAL ASH RULE	VIRGINIA REGULATIONS	H.R. 1734 "IMPROVING THE COAL COMBUSTION RESIDUALS REGULATION ACT OF 2015"
Safety requirements on expansions of coal ash ponds and landfills	YES	NO	NO <sup>a</sup>
Prohibition against disposal of coal ash directly into groundwater	YES	NO	NO
Design standards for all new ponds and landfills (e.g., composite liners)	YES	NO	NO <sup>a</sup>
Basic safeguards for all new ash ponds (liner, groundwater monitoring, cap)	YES	NO	NO <sup>a</sup>
Beneficial use conditions for large structural fills	YES	NO	NO
Structural stability standards	YES	NO	YES, but longer compliance time allowed
Monitoring of ponds and landfills for coal ash contaminants (e.g., boron and molybdenum)	YES	NO	YES, but cleanup levels may be less stringent if contamination is found

<sup>a</sup> BECAUSE THE H.R. 1734 GIVES DISCRETION TO STATES TO DEFINE TERMS AS THEY SEE FIT, IT IS NOT CERTAIN THAT ALL SAFEGUARDS WILL BE REQUIRED FOR ALL DISPOSAL UNITS IN ANY PARTICULAR STATE.

2015.<sup>40</sup> A flurry of media attention captured the public’s opposition to the director’s testimony.<sup>41</sup> The public must communicate to VDEQ that Virginia needs stronger, not weaker, protections and ensure that VDEQ has the resources it needs to implement the program EPA rule established.

H.R. 1734 is a dangerous bill for the residents of Virginia. Virginia officials should not support the bill, but rather should amend their coal ash regulatory program as soon as possible to include safeguards at least as stringent as the EPA rule. While the EPA rule’s requirements are self-implementing and are effective starting in October 2015, VDEQ and VDCR should incorporate the rule’s requirements

in enforceable permits as soon as possible.

H.R. 1734 will also have a detrimental impact on the swift and safe closure of Virginia’s legacy coal ash ponds. The EPA coal ash rule provides incentives for power plants to close inactive ponds within three years so that another Dan River spill does not occur. The House bill, however, allows plants to delay an additional two years and does not apply safety requirements to ponds that fail to close for at least another 6-7 years. In light of the numerous coal-fired power plants retiring in Virginia, the EPA rule’s requirement that plants close ponds quickly is essential for Virginia residents.

## CONCLUSION

Virginia is in a position to significantly improve the current state of regulation for an environmental problem that is more than sixty years old. By adopting standards at least as stringent as those as outlined in EPA’s rule, the Commonwealth will strike a balance between protection of drinking water and the industry’s need to dispose of waste. The EPA rule creates regulatory certainty. The public will have greater access to information about toxic waste in their communities, and permitholders will have uniform standards to guide their disposal of coal ash. We are in great need of an update,

Virginia. Stressing this need to VDEQ and to Virginia’s elected officials is critical. The General Assembly and Governor McAuliffe have an opportunity to make this issue a priority by ensuring VDEQ has the resources it needs to implement strong, protective standards. In our efforts to move away from leaking, overgrown, unstable dams to safe storage of coal ash in dry, lined landfills away from our waterways, time is of the essence. We must embrace EPA’s rule and bring Virginia’s regulatory standards in line with federal guidelines designed to protect our health and environment.

# ENDNOTES

- 1 U.S. Environmental Protection Agency, Frequent Questions About Coal Combustion Residues (CCR)- Proposed Rule. (November 2012) Available at <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/coalash-fags.htm>
- 2 See U.S. EPA, Toxic Release Industry dataset update for 2009 released in February 2010, available at <http://www.epa.gov/triexplorer/>.
- 3 See <https://www.dom.com/library/domcom/pdfs/corporate/our-commitments/environment/coal-ash-report-2014.pdf>
- 4 *Id.*
- 5 *Id.*
- 6 [http://www.deq.virginia.gov/Portals/0/DEQ/AboutUs/Coal%20Ash%20State%20Water%20Commission%20June%2023%202014\\_Joint%20Presentation.pptx](http://www.deq.virginia.gov/Portals/0/DEQ/AboutUs/Coal%20Ash%20State%20Water%20Commission%20June%2023%202014_Joint%20Presentation.pptx)
- 7 [http://www.deq.virginia.gov/Portals/0/DEQ/AboutUs/Coal%20Ash%20State%20Water%20Commission%20June%2023%202014\\_Joint%20Presentation.pptx](http://www.deq.virginia.gov/Portals/0/DEQ/AboutUs/Coal%20Ash%20State%20Water%20Commission%20June%2023%202014_Joint%20Presentation.pptx)
- 8 See, e.g. "Biomass," <https://www.dom.com/corporate/what-we-do/electricity/generation/biomass>; see also, Tamara Deitrich, "Dominion wants to convert coal-fired plant to natural gas," The Daily Press, Sept. 5, 2012, [http://articles.dailypress.com/2012-09-05/news/dp-nws-coal-plant-convert-20120905\\_1\\_coal-fired-stations-coal-plant-natural-gas](http://articles.dailypress.com/2012-09-05/news/dp-nws-coal-plant-convert-20120905_1_coal-fired-stations-coal-plant-natural-gas)
- 9 John Reid Blackwell, "Dominion Virginia Power to close coal ash ponds in state", April 17, 2015, Richmond Times-Dispatch, <http://citybizlist.com/article/261198/dominion-virginia-power-to-close-coal-ash-ponds-in-state>
- 10 See U.S. EPA, Dam Safety Assessment of CCW Impoundments: Possum Point Power Station, prepared by O'Brien & Gere, September 8, 2010, available at <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/surveys2/dom-possum-final.pdf>
- 11 *Id.* at page 4
- 12 *Id.*
- 13 See U.S. EPA, Dam Safety Assessment of CCW Impoundments: Bremono Bluff Power Station, prepared by O'Brien & Gere, September 29, 2010, available at <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/surveys2/dom-bremono-pwr-final.pdf>
- 14 See U.S. EPA, Dam Safety Assessment of CCW Impoundments: Chesapeake Energy Center, prepared by O'Brien & Gere, September 30, 2010, available at <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/surveys2/dom-chesa-power-final.pdf>
- 15 *Id.*
- 16 *Id.*; see also, Virginia Department of Conservation and Recreation, Division of Dam Safety and Floodplain Management report in App. A, Doc. 16.
- 17 Rex Bowman, *Some Giles residents oppose plan to dump ash along river*, Richmond Times-Dispatch, Feb. 14, 2008 and email communications between James McGrath, Eggleston, VA and Aziz Farahmand, VDEQ, Oct. 4 & 25, 2012.
- 18 [http://www.roanoke.com/news/local/giles\\_county/coal-ash-storage-a-new-river-worry/article\\_765f5af4-c292-11e3-966d-0017a43b2370.html](http://www.roanoke.com/news/local/giles_county/coal-ash-storage-a-new-river-worry/article_765f5af4-c292-11e3-966d-0017a43b2370.html)
- 19 Letter from Thomas Roberts, Virginia Department of Conservation and Recreation to Jerome Strauss, Dec. 29, 2011, available at <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/surveys2/aep-clinch-river-com.pdf>
- 20 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), pages 212-216, available at [http://www.environmentalintegrity.org/news\\_reports/documents/INHARMSWAY\\_FINAL3.pdf](http://www.environmentalintegrity.org/news_reports/documents/INHARMSWAY_FINAL3.pdf)
- 21 U.S. EPA. *Coal Combustion Waste Damage Case Assessments* (Jul. 9, 2007).
- 22 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://www.environmentalintegrity.org/news\\_reports/documents/INHARMSWAY\\_FINAL3.pdf](http://www.environmentalintegrity.org/news_reports/documents/INHARMSWAY_FINAL3.pdf)
- 23 See Matthew Bowes, *Dominion Fly-ash Proposal Panned in Chesapeake*, The Virginian-Pilot, Sept. 14, 2010, <http://hamptonroads.com/2010/09/hearing-tonight-flyash-landfill>
- 24 Southern Environmental Law Center, *Dominion Sued by SELC and Sierra Club Over Coal Ash Leaks in Chesapeake VA*, Mar. 19, 2015, <https://www.southernenvironment.org/news-and-press/news-feed/dominion-sued-by-selc-and-sierra-club-over-coal-ash-leaks-in-chesapeake-va>
- 25 Va. Code § 9.20-85
- 26 In 2012, over 250 residents filed a lawsuit seeking more than \$2 billion in damages from Dominion, two ash management and marketing companies, and the owner of the golf course, claiming water and dust contamination.
- 27 Virginia: Circuit Court for the City of Chesapeake, *Fentress Families Trust, et al. vs. Virginia Electric and Power Co. d/b/a Dominion Virginia Power, et al.*, COMPLAINT, Feb. 21, 2012.
- 28 See <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/surveys2/index.htm>
- 29 UP-025-07, Conditional Use Permit, Letter from Benjamin W. Blankenship, AICP, Secretary, Commonwealth of VA, County of Henrico Board of Zoning Appeals to Henry R. Pollard, V, Esquire, Christian & Barton LLP, Richmond, VA, Dec. 21, 2007.
- 30 VDEQ, Response to Public Comment, Mar. 23, 2012, VIRGINIA WASTE MANAGEMENT BOARD ENFORCEMENT ACTION, AMENDMENT TO ORDER BY CONSENT ISSUED TO WASTE ASSOCIATES, LLC AND THE EAST END LANDFILL, LLC, FOR THE EAST END LANDFILL, Solid Waste Permit No. 524 and DARBYTOWN ROAD LANDFILL, Solid Waste Permit No. 525.
- 31 O'Brien and Gere Engineers, Inc. for U.S. EPA, "Dam Safety Assessment of CCW Impoundments: Chesterfield Power Station," Sept. 29, 2010., available at <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/surveys2/dom-chesterfield-power-final.pdf>
- 32 *Id.*
- 33 See [http://www.southeastcoalash.org/?page\\_id=3337](http://www.southeastcoalash.org/?page_id=3337)
- 34 See <http://wavy.com/2014/02/04/local-water-supply-protected-from-coal-ash-spill/>.
- 35 A. Dennis Lemly, *Damage Cost of the Dan River coal ash spill*, Environmental Pollution, 197 (2015) 55-61. See also, Taft Greenback, News and Record, "One Report puts Dan River coal ash spill damage at \$295 million, available at [http://www.roanoke.com/news/virginia/one-report-puts-dan-river-coal-ash-spill-damage-at/article\\_a6afedaa-ad63-5958-b217-ae708dbee859.html](http://www.roanoke.com/news/virginia/one-report-puts-dan-river-coal-ash-spill-damage-at/article_a6afedaa-ad63-5958-b217-ae708dbee859.html)
- 36 State regulators point to guidance for water pollution permitting (Water Guidance Memo No. 10-2003, January 2010, VPDES Manual Revisions) that allows them to require liners and groundwater monitoring at ash ponds, but the guidance does not mention ash ponds. Furthermore Virginia's water pollution permit regulation 9VAC25-31-90, "Guidance Documents" states, "The board may develop and use guidance, as appropriate, to implement technical and regulatory details of the VPDES permit program. *Such guidance is distinguished from regulation by the fact that it is not binding on either the board or permittees.*" (italics added)
- 37 U.S. EPA, Human Health and Ecological Risk Assessment of Coal Combustion Wastes (draft). (April 2010). See also, Va. Code 9.20-81-170(B)(2)(c).
- 38 See U.S. EPA, 2014 Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities, <http://www2.epa.gov/coalash/coal-ash-rule>
- 39 See H.R. 1734, "Improving Coal Combustion Residuals Rule Act of 2015."
- 40 David Paylor, Testimony on "H.R. \_\_\_\_, the Improving Coal Combustion Residuals Regulation Act of 2015," Mar. 18, 2015, <http://docs.house.gov/meetings/IF/IF18/20150318/103173/HHRG-114-IF18-TTF-PaylorD-20150318.pdf>
- 41 See, e.g. Associated Press, *Environmentalists Update with Va. Official Over Coal Ash Bill*, Wash. Post, Mar. 18, 2015, [http://www.washingtonpost.com/local/environmentalists-upset-with-va-gov-over-coal-ash-bill/2015/03/18/b8f60e9c-cd8d-11e4-8730-4f473416e759\\_story.html](http://www.washingtonpost.com/local/environmentalists-upset-with-va-gov-over-coal-ash-bill/2015/03/18/b8f60e9c-cd8d-11e4-8730-4f473416e759_story.html)

