

## NOTES

# Sitting on Their Ashes: Why Federal Regulations Should Plug the Gaping Holes in State Coal Ash Disposal Regulatory Regimes

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In 2009, a flood of black sludge wiped out more than 300 acres of land in communities near a Tennessee coal-fired power plant when the walls of the pond containing the waste collapsed. Three years later, the federal government has yet to impose stricter regulations on coal ash disposal sites.<sup>1</sup> Instead, only state regulations are in place to ensure the safe and proper disposal of coal ash.<sup>2</sup> Almost all of these regulations mandating appropriate safety measures are nominal, if not entirely defunct, even though the chemicals contained in coal ash can cause serious health problems—including cancer, liver disease, and neurological complications.<sup>3</sup> Surface impoundments, or coal ash disposal ponds, and landfills are thus prone to collapse because gaping holes in state regulations allow coal-fired power plant owners to escape the responsibility of ensuring safe disposal sites.<sup>4</sup>

In the last 10 years, more than 1.26 billion gallons of coal ash have flooded waterways and communities located near coal-fired power plants as a result of structurally unsound sur-

face impoundments and landfills.<sup>5</sup> That is enough coal ash to fill twenty million bathtubs.<sup>6</sup> In the aftermath of the Tennessee spill and the ongoing clean-up efforts, industry and the U.S. Environmental Protection Agency (“EPA”) officials have taken great precautionary measures in handling the coal ash—in fact, it is being treated much like a hazardous waste, even though EPA has refused to officially classify coal ash as a hazardous waste to date despite mounting evidentiary support to do so.<sup>7</sup>

The carcinogens contained in coal ash have contaminated drinking water supplies across the United States regularly over the last decade due to either disposal pond breaches or the slow seepage of toxins contained in unlined landfills into groundwater.<sup>8</sup> In 2002, an estimated 1.4 million gallons of coal ash, containing at least 75 pounds of arsenic, poured into Euharlee Creek in northern Georgia.<sup>9</sup> That same year, EPA declared the town of Pines, Indiana a Superfund site<sup>10</sup> after it was discovered that a local coal ash landfill had leaked harmful chemicals into the aquifer below the surface for more than twenty years.<sup>11</sup> Then,

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1. *Environmental Groups Intend to Sue EPA Over Delays in Final Coal Ash Regulation*, 12 Daily Env’t Rep. (BNA) No. 11, at A-2 (Jan. 19, 2012), available at [http://news.bna.com/deln/core\\_adp/get\\_object/ps2k\\_den-not\\_20120119.pdf](http://news.bna.com/deln/core_adp/get_object/ps2k_den-not_20120119.pdf).
2. *Id.* at A-3.
3. Shailla Dewan, *At Plant in Coal Ash Spill, Toxic Deposits by the Ton*, N.Y. TIMES, Dec. 30, 2008, at A14, available at <http://www.nytimes.com/2008/12/30/us/30sludge.html>. In May 2011, Alabama became the last state in the Union to acknowledge coal ash waste as solid waste and permit regulation of it as such; yet, this regulation does not classify coal ash as a hazardous waste and simply grants the Alabama Department of Environmental Management the authority to regulate coal ash as a solid waste, just as it regulates household trash. See ALA. CODE. § 22-27-2 (2012).
4. *Coal Ash: 130 Million Tons of Waste*, CBS News (Aug. 15, 2010, 8:06 PM), [http://www.cbsnews.com/2102-18560\\_162-5356202.html?tag=contentMain;contentBody](http://www.cbsnews.com/2102-18560_162-5356202.html?tag=contentMain;contentBody).

5. This figure is the result of combining the one billion gallons of coal ash spilled in Kingston, Tennessee, with the amount released in other spills and leaks across the United States in recent history as outlined below.
6. A household bathtub can hold up to fifty gallons of liquid, and a million gallons would fill 20,000 bathtubs; therefore, two billion gallons would fill twenty million bathtubs. *A Million Gallons of Water—How Much Is It?*, U.S. GEOLOGICAL SURVEY, <http://ga.water.usgs.gov/edu/mgd.html> (last updated Aug. 1, 2012).
7. For example, people and vehicles that enter the Kingston spill site are scrubbed clean before leaving. See *Coal Ash: 130 Million Tons of Waste*, *supra* note 4.
8. In May 2009, Tennessee enacted new legislation that increased the standards for the issuance of coal ash disposal permits. Now, getting such a permit requires plans to include a liner and final cap. See TENN. CODE ANN. § 68-211-106 (2012). Of the forty-two states with coal ash disposal sites, only seventeen require that coal ash disposal ponds be lined and only eighteen mandate groundwater monitoring around coal ash disposal sites. See *EPA Final Rules for Power Plant Coal Ash, Definition of Solid Waste Expected in 2012*, 12 Daily Env’t Rep. (BNA) No. 6, at B-10 fig.1 (Jan. 11, 2012), available at [http://news.bna.com/deln/core\\_adp/get\\_object/ps2k\\_den-not\\_20120111.pdf](http://news.bna.com/deln/core_adp/get_object/ps2k_den-not_20120111.pdf).
9. Jingle Davis, *Power Plant’s Ashy Silt Spills Into Bartow Creek*, ATLANTA J. CONST., July 30, 2002, at 4B.
10. “Superfund” describes a national environmental program created to address abandoned hazardous waste sites. *Basic Information*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/superfund/about.htm> (last updated May 14, 2012).
11. MARTHA H. KEATING & LISA GOLLINS EVANS, CLEAN AIR TASK FORCE, NOT IN MY LIFETIME: THE FIGHT FOR CLEAN WATER IN TOWN OF PINES, INDIANA

in 2005, one hundred million gallons of coal ash leaked from a Pennsylvania coal-fired power plant into the Delaware River and caused the temporary shutdown of a downstream city's drinking water intake.<sup>12</sup> Two years later, a levee breach at an Indianapolis coal-fired power plant released an estimated thirty million gallons of coal ash into the White River.<sup>13</sup> In December 2008, 1.1 billion pounds of coal ash, containing decades worth of arsenic and lead deposits, overflowed from a holding pond in East Tennessee, making the flood the worst environmental disaster in the history of the United States in terms of volume—larger than the Exxon Valdez spill and the BP Deepwater Horizon spill combined.<sup>14</sup> Most recently, in early November 2011, coal ash spilled into Lake Michigan after a bluff collapsed and released toxic sludge into the drinking water supply for forty million people.<sup>15</sup>

The coal industry creates more than 140 million pounds of coal ash as a by-product of burning coal to produce electricity each year.<sup>16</sup> This is enough coal ash to fill a line of train cars from the North Pole to the South Pole.<sup>17</sup> The coal ash produced in this process is either captured in water and stored in surface impoundments (such as ponds and lagoons), moved to landfills, or recycled for beneficial uses.<sup>18</sup> Although coal ash is a known carcinogen and can kill off local ecosystems and cause developmental problems in nearby wildlife populations,<sup>19</sup> EPA does not classify it as a hazardous waste and it is not subject to any federal regulation.<sup>20</sup>

In the absence of federal regulations governing coal ash surface impoundments and landfills, state regulatory measures have proven ineffective at properly managing coal ash waste. The inability of many states to adequately dispose of coal ash waste is highlighted with every new disaster report about a disposal pond breach or discovery of contaminated

drinking water.<sup>21</sup> As a result, the piecemeal state regulations have allowed the coal industry to create huge unlined and unmonitored dumpsites for coal ash across the country.<sup>22</sup>

Although coal ash is the second largest stream of industrial waste in the United States,<sup>23</sup> with nearly 1,300 disposal sites across the country,<sup>24</sup> it remains subject only to the weak regulations imposed by states that rely, in large part, on these plants for electricity.<sup>25</sup> In effect, most states regulate the proper disposal of household garbage more consistently than the placement of coal ash in surface impoundments and landfills.<sup>26</sup> The months following the Tennessee spill saw a spark in the public debate that compelled EPA and the Obama Administration to speak out against the nearly unregulated industry in favor of stricter standards on how coal ash is stored and monitored.<sup>27</sup> No new rules regarding the safe and proper disposal of coal ash, however, have yet been finalized.<sup>28</sup>

EPA has proposed new rules that could impose stricter regulations on coal ash disposal, and it is currently deciding how to bolster the regulations in place for the disposal of coal combustion by-products produced by electricity utilities and independent power producers.<sup>29</sup> Concurrently, representatives in Congress have presented legislation to preclude EPA from regulating coal combustion by-products as a hazardous waste so that state regulations will remain intact.<sup>30</sup> The current state-

3 (2004).

12. Tracy Carluccio et al., *PPL Coal Ash Basin Blows Out Into Delaware River*, RIVER RAPIDS (River Rapids/Del. Riverkeeper Network, Washington Crossing, Pa.), Fall 2005, at 4.

13. *Ash Sluice Leaks Into River After Levee Breach at Plant*, INDIANAPOLIS STAR (Feb. 15, 2007), <http://www.indystar.com/article/20070215/LOCAL18/702150482/Ash-sluice-leaks-into-river-after-levee-breach-plant>.

14. Dewan, *At Plant Coal Ash Spill*, *supra* note 3, at A14.

15. Meg Jones & Don Behm, *Bluff Collapse at Power Plant Sends Dirt, Coal Ash Into Lake*, MILWAUKEE-WIS. J. SENTINEL (Oct. 31, 2011), <http://www.jsonline.com/news/milwaukee/authorities-investigate-bluff-collapse-at-we-energies-plant-132929538.html>; see also Raviya Ismail, *Tri-Ash Talk: Yet Another Coal Ash Spill*, UNEARTHED: THE EARTHJUSTICE BLOG (Nov. 1, 2011, 11:25 AM), <http://earthjustice.org/blog/2011-november/tr-ash-talk-yet-another-coal-ash-spill> (describing the November 2011 spill).

16. Jeff Goodell, *Coal's Toxic Sludge*, ROLLING STONE, Apr. 1, 2010, at 46, available at <http://www.rollingstone.com/politics/news/coins-toxic-sludge-20100317>.

17. Press Release, Earthjustice, EPA Coal Ash Rule Sends Mixed Signal on Strong, Federally Enforceable Standards (June 21, 2010), available at <http://earthjustice.org/news/press/2010/epa-coal-ash-rule-sends-mixed-signal-on-strong-federally-enforceable-safeguards>.

18. Amanda King, *Cleaning Up the Problem of Post-Combustion Coal Waste*, 9 SUSTAINABLE DEV. L. & POL'Y 41, 41 (2009).

19. Shaila Dewan, *Hundreds of Coal Ash Dumps Lack Regulations*, N.Y. TIMES, Jan. 7, 2009, at A1, available at <http://www.nytimes.com/2009/01/07/us/07sludge.html?pagewanted=all>.

20. Steven T. Moon & Amanda B. Turner, *Coal Ash Law and Regulation in the United States: An Overview*, 18 SOUTHEASTERN ENVTL. L.J. 173, 184–86 (2010); see also *infra* Parts I–II (discussing why coal ash is not subject to federal regulation).

21. See KEATING & EVANS, *supra* note 11, at 3; *EPA Final Rules for Power Plant Coal Ash*, *supra* note 8; Carluccio et al., *supra* note 12, at 4; Davis, *supra* note 9, at 4B; Dewan, *At Plant in Coal Ash Spill*, *supra* note 3, at A14; *Ash Sluice Leaks Into River After Levee Breach at Plant*, *supra* note 13; *Basic Information*, *supra* note 10; *A Million Gallons of Water—How Much Is It?*, *supra* note 6; *supra* text accompanying note 5.

22. See LINDA LUTHER, CONG. RESEARCH SERV., R41341, REGULATING COAL COMBUSTION WASTE DISPOSAL: ISSUES FOR CONGRESS 9 (2010).

23. Goodell, *supra* note 16, at 46.

24. Dewan, *Hundreds of Coal Ash Dumps Lack Regulation*, *supra* note 19.

25. Goodell, *supra* note 16, at 46–47. As an alternative to relying on state legislatures, Congress, or EPA to remedy the risks that coal ash disposal sites present, at least one state regulatory agency has taken a proactive approach to protecting the safety of human health and the environment. The Pennsylvania Department of Environmental Protection recently entered into a consent decree with FirstEnergy, the owner of the largest coal ash disposal pond in the country, to shut down the unlined pond after arsenic and other contaminants were found in groundwater near the impoundment. Rachel Cernansky, *Largest U.S. Coal Ash Pond to Close, but Future Rules Still Undecided*, NAT'L GEOGRAPHIC NEWS (Aug. 9, 2012), <http://news.nationalgeographic.com/news/energy/2012/08/120809-little-blue-run-coal-ash-pond-to-close/>.

26. Dewan, *Hundreds of Coal Ash Dumps Lack Regulation*, *supra* note 19.

27. LUTHER, *supra* note 22, at 1.

28. *EPA Final Rules for Power Plant Coal Ash*, *supra* note 8. Environmental groups, including Earthjustice, announced their intent to sue EPA in January 2012 for failing to perform its “nondiscretionary duties.” *Environmental Groups Intend to Sue EPA Over Delays in Final Coal Ash Regulation*, *supra* note 1, at A-2. According to their intent to sue, these groups are seeking a court order directing EPA to complete its review of coal ash regulation and finalize any necessary changes quickly. *Id.* EPA Administrator Lisa Jackson reported in December 2011, however, that EPA would most likely have made a decision about the proposed rules in late 2012. *EPA Final Rules for Power Plant Coal Ash*, *supra* note 8. Others expect the decision sooner. *Id.* Decision-makers have said that the rule-making process, which began in 2010, has been taking time because of the enormous response the agency received from the public. *Id.* At the time of publication of this Note, no new rules had been finalized.

29. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302).

30. Coal Residuals and Reuse Management Act, H.R. 2273, 112th Cong. (2011). Rep. McKinley, who proposed H.R. 2273, has more recently attempted to

based regulatory climate, however, is inadequate to address the hazards of coal ash disposal and prevent future disasters.

Therefore, Congress should pass legislation to regulate and monitor the disposal of coal ash as a hazardous waste under Subtitle C of the Resource Conservation and Restoration Act (“RCRA”), impose mandatory compliance standards to govern the placement of these by-products in structurally sound surface impoundments, and prohibit the coal industry from capturing coal ash in water and placing it in disposal ponds that place local waterways at risk. Such legislation could rely on the tremendous momentum in the energy industry to move towards cleaner, less expensive energy sources because heightened emissions standards have increased costs for coal-dependent companies significantly.<sup>31</sup> Congress and EPA must act because the current state-based regulatory scheme has proven to be inadequate in protecting the public from the harmful effects and catastrophic events stemming from improper coal ash disposal.

In advancing this proposal, Part I will begin with an explanation of coal ash and its status under federal regulation, including its mention in legislative history. Part II will discuss the problems arising from state regulations that currently both govern the disposal of coal combustion by-products into surface impoundments and mandate certain requirements to ensure the structural integrity of the impoundments. This overview will illustrate the serious deficiencies and gaps that make these regulations ineffective and will lay the foundation for the argument that such regulatory decisions should no longer be left to the discretion of the states, but should be vested in the federal government instead. Part III will look to existing and proposed mechanisms at the federal level that might put forth a more appropriate regulatory scheme for the disposal of coal combustion by-products, including EPA’s most recent proposed rules and recent Congressional efforts. Finally, Part IV will address the counterarguments presented by the coal industry, and other opponents, to more stringent federal regulation and will argue that even if EPA elects to regulate coal combustion residuals (“CCR”) according to its recently promulgated rules, there would still be much left to be desired.

## I. Understanding Coal Ash and How It Has Escaped Federal Regulation

### A. What Is Coal Ash?

Coal ash is the waste produced when coal is burned to create electricity.<sup>32</sup> The coal industry and EPA refer to coal

combustion by-products more specifically as either CCRs or coal combustion products (“CCP”), or in the aggregate, coal combustion waste (“CCW”).<sup>33</sup> These CCRs and CCPs include fly ash, bottom ash, boiler slag, and flue gas desulfurized gypsum—all of which are created as by-products during the process of burning coal to create electricity.<sup>34</sup> The by-products of burning coal contain carcinogenic and neurotoxic elements—including uranium, arsenic, and mercury—that were once inert inside the coal at highly concentrated levels.<sup>35</sup> The only distinction between CCRs and CCPs is their final destination: CCRs are intended to go into disposal sites, such as landfills and disposal ponds, whereas CCPs are recycled for beneficial uses, such as placement in construction and agriculture products.<sup>36</sup>

After coal is burned to produce electricity, the resulting coal ash that is not destined for beneficial uses is placed in disposal sites, which may be either a surface impoundment or a landfill depending on how the coal ash waste was captured during the electricity production process.<sup>37</sup> A surface impoundment is “a facility, or part of a facility, which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of CCRs containing free liquids.”<sup>38</sup> There are more than approximately one thousand surface impoundments and landfills within the continental United States, and nearly every state in the nation is home to at least one of the two.<sup>39</sup> These structures are normally located on

33. *Coal Combustion Residuals*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/coalashletter.htm> (last updated Nov. 15, 2012).

34. *Id.* This Note will refer to these in the aggregate as “coal ash.”

35. Mark Harrison Foster, *Ash Holes: The Failure to Classify Coal Combustion Residuals as a Hazardous Waste Under RCRA and the Burden Borne by a Minority Community in Alabama*, 12 VT. J. ENVTL. L. 735, 739 (2011).

36. See Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35254 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302). Approximately forty-three percent of coal ash, or coal combustion products (“CCP”), is recycled for “beneficial uses” throughout the construction and concrete industry; however, these beneficial uses are beyond the scope of this Note. Although this Note is not analyzing the beneficial uses of coal, it is worth noting that there has been considerable backlash in the industries that recycle coal ash for beneficial uses in response to EPA’s proposed rules, the first of which would regulate coal ash as a hazardous waste. Concerned industries argue that imposing harsher regulations would increase costs and discourage the recycling of coal ash; however, proponents of stricter regulations argue that there is no data to support the finding that harsher regulations would create a stigma on beneficial uses. Enacting federal legislation in line with this Note’s proposal will require complimentary legislation addressing the role of beneficial uses. Although the industries opposed to such legislation, or even EPA’s proposed rules, rely on the argument that coal ash is used frequently for beneficial purposes, they fail to acknowledge that there is a serious lack of uniformity in determining beneficial uses among the states that creates an environment of abuse. See Moon & Turner, *supra* note 20, at 190. Moreover, in March 2011 the Inspector General of EPA determined that EPA had promoted the use of coal ash products for beneficial uses with incomplete risk information, and since that point EPA had distanced itself from certain beneficial use programs. OFFICE OF INSPECTOR GEN., U.S. ENVTL. PROT. AGENCY, REP. NO. 11-P-0173, EPA PROMOTED THE USE OF COAL ASH PRODUCTS WITH INCOMPLETE RISK INFORMATION 2 (2011), available at <http://www.epa.gov/oig/reports/2011/20110323-11-P-0173.pdf>.

37. LUTHER, *supra* note 22, at 8.

38. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35130.

39. Michele Swenson, *The Urgency of Toxic Coal Ash and the Move to Clean Energy*, HUFFINGTON POST (Oct. 4, 2010, 4:07 PM), <http://www.huffingtonpost.com/>

insert similar legislation as an amendment to the Moving Ahead for Progress in the 21st Century Act, H.R. 4348; however the Amendment did not pass the Senate. H.R. 2273; *Final Transportation Bill Includes Provisions to Streamline Environmental Review Process*, 12 Daily Env’t Rep. (BNA) No. 125, at A-2 (June 29, 2012), available at [http://news.bna.com/deln/core\\_adp/get\\_object/ps2k\\_den-not\\_20120629.pdf](http://news.bna.com/deln/core_adp/get_object/ps2k_den-not_20120629.pdf).

31. *GenOn Will Close Eight Power Plants, Citing Compliance Costs for Environmental Rules*, 12 Daily Env’t Rep. (BNA) No. 40, at A-4 (Mar. 1, 2012), available at [http://news.bna.com/deln/core\\_adp/get\\_object/ps2k\\_den-not\\_20120301.pdf](http://news.bna.com/deln/core_adp/get_object/ps2k_den-not_20120301.pdf).

32. *Fossil Fuel Combustion Waste*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/> (last updated Dec. 18, 2012).

the power plant site, where waste from the coal combustion process is directly sluiced from the plant to the pond and left to accumulate.<sup>40</sup> Over time, the heavier components in the waste sink to the bottom of the pond, thereby allowing the clearer fluids at the top to be cycled through the plant again.<sup>41</sup> Unlike coal ash waste that is captured in water, or wet-handled, and placed in disposal ponds, dry coal ash waste is disposed of in landfills.<sup>42</sup>

A large amount of coal ash waste is wet-handled, which requires coal-burning power plants to divert water from local waterways. When disposal ponds prove to be structurally unsound, however, as many have over the last decade, their contents flood back into the waterways from which the water was originally diverted.<sup>43</sup> Even though both disposal ponds and landfills pose a threat if they are left unlined, disposal ponds pose a significant additional threat to local waterways because a breach, such as the one in Tennessee, can cause polluted water to re-enter and quickly contaminate the stream.<sup>44</sup>

### B. The Coal Ash Exception Under Federal Environmental Protection Regulations

EPA does not presently recognize coal ash as a hazardous waste. Accordingly, coal ash is exempt from regulation under Subtitle C of RCRA, which imposes “cradle-to-grave” monitoring of hazardous wastes by establishing rules governing every stage of the waste management process.<sup>45</sup> Enacted in 1976, RCRA granted EPA the authority to impose regulations on the “generation, transportation, treatment, storage, and disposal of hazardous waste”<sup>46</sup> and expounded federal management requirements for solid and hazardous wastes under Subtitle C.<sup>47</sup> RCRA defines “hazardous waste” as:

a solid waste, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.<sup>48</sup>

To impose these cradle-to-grave regulations on the disposal of hazardous materials, EPA was required to promulgate characteristics of what might qualify as a “hazardous

waste.”<sup>49</sup> In doing so, EPA excluded fossil fuel combustion waste, characterizing it instead as a “special waste.”<sup>50</sup> These “special wastes” were not considered to pose significant risks to human health and the environment at the time Congress enacted RCRA.<sup>51</sup>

In 1980, Congress modified the newly created RCRA through the Solid Waste Disposal Act Amendments (“SWDAA”).<sup>52</sup> Representative Tom Bevill presented an amendment relevant to the disposal of coal combustion by-products that delayed the imposition of hazardous waste regulations for fossil fuel combustion waste until its potential hazard to human health or the environment could be determined.<sup>53</sup> What became known as the Bevill Amendment exempted “special wastes”—including fossil fuel combustion waste and the “waste from the extraction, beneficiation, and processing of ores and minerals”—from RCRA requirements.<sup>54</sup> Since the passage of this Amendment, fossil fuel combustion waste has been subject to regulation only by the states.<sup>55</sup>

## II. The Current State of Coal Ash Regulation and the Dangers Presented

States are not doing enough to guarantee the safe and proper disposal of coal ash or to protect local communities, drinking supplies, and waterways. Although the existing regulations for coal ash disposal ponds and landfills vary across state borders, there are some virtually universal similarities that have brought about devastating consequences, such as structurally unsound dams and surface impoundments.<sup>56</sup> Despite the gravity of the danger posed, most state legislatures have failed to promulgate regulations that require regular monitoring of groundwater or water tables near disposal sites or measures to ensure the structural integrity of surface impoundments.<sup>57</sup> This section will take a closer look at specific deficiencies in state laws applicable to coal ash disposal and highlight the federal government’s awareness of the problems these laws present.

michele-swenson/epa-hearings-on-toxic-coa\_b\_748722.html; Dewan, *Hundreds of Coal Ash Dumps Lack Regulation*, *supra* note 19, at A18. A recent EPA survey conducted after the Kingston spill revealed that there are more than 900 landfills and surface impoundments *in use*. LUTHER, *supra* note 22, at 8.

40. LUTHER, *supra* note 22, at 8.

41. *Id.*

42. See Dewan, *Hundreds of Coal Ash Dumps Lack Regulation*, *supra* note 19, at A18.

43. *Id.*

44. *Id.*

45. 42 U.S.C. §§ 6922–25 (2006); Moon & Turner, *supra* note 20, at 184; LUTHER, *supra* note 22, at 13.

46. *Summary of the Resource Conservation and Recovery Act*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/lawsregs/laws/rcra.html> (last updated Aug. 23, 2012). The Act also gives EPA the authority to regulate non-hazardous solid waste under Subtitle D. *Id.*

47. *Id.*

48. 42 U.S.C. § 6903(5) (2006).

49. Hazardous Waste Guidelines and Regulations, 43 Fed. Reg. 58946, 58950 (proposed Dec. 18, 1978) (to be codified at 40 C.F.R. pt. 250).

50. *Special Wastes*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/wastes/non-haz/industrial/special/> (last updated Nov. 15, 2012).

51. *Id.*

52. Pub. L. No. 96-482, 94 Stat. 2334 (1980).

53. LUTHER, *supra* note 22, at 3.

54. Solid Waste Disposal Act Amendments of 1980 (“SWDAA”) § 7, 42 U.S.C. § 6921 (2006).

55. See Moon & Turner, *supra* note 20, at 184–85.

56. See Ismail, *supra* note 15.

57. See Matthew Pearl, *Recent Development: The Aftermath of the December 2008 Incident in East Tennessee Illuminates the Inadequate Regulation of Coal Ash Impoundments*, 16 U. BALT. J. ENVTL. L. 195, 199 (2009). In its recently proposed rules, EPA admits that it still lacks details regarding the manner and degree of state regulations for the management of this material. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35150 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302).

## A. An Unfit Piecemeal State-Based Regulatory Framework

The present status of coal ash disposal regulations in various states reveals a significant lack of oversight and uniformity.<sup>58</sup> Forty-two states contain coal ash disposal sites,<sup>59</sup> but there is not one regulation common to all of these states.<sup>60</sup> The most prevalent regulation—common to thirty-six states—is that coal-fired utility services must carry a state permit for landfill disposal.<sup>61</sup> In contrast, only twenty-nine states require a permit for surface impoundments, the more common form of disposal, and just seventeen states require that surface impoundments be lined to prevent the toxins in coal ash from seeping through to the groundwater below.<sup>62</sup>

An investigation of the current state regulatory regimes—including Texas, which produces the most CCRs<sup>63</sup>—reveals that all of the states with disposal sites, like EPA, have refrained from classifying coal combustion materials as a hazardous waste.<sup>64</sup> Instead, the states have taken somewhat different approaches to classifying and attempting to regulate CCRs.<sup>65</sup> No matter what the approach, however, these varying state regulatory schemes demonstrate a systemic weakness in protecting human health and the environment. A sample of these state regulations, as described in the following sections, reveals the variety of approaches different states take, or fail to take, to regulate coal ash disposal.

### I. Texas

In Texas, coal ash, designated as “coal combustion by-products,” is defined and regulated as an industrial solid waste.<sup>66</sup> The Texas Commission on Environmental Quality (“TCEQ”), which is the delegated authority responsible for implementing RCRA in the state, regulates CCW.<sup>67</sup> Regulations promulgated by TCEQ forbid the discharge of industrial solid waste into state waterways unless there is specific authorization from the Texas Natural Resource Conserva-

tion Commission.<sup>68</sup> Texas state law prohibits the disposal of industrial waste in such a way that would endanger the public health or welfare, but the regulations surrounding coal ash disposal sites are weak.<sup>69</sup> Although Texas lawmakers have not ignored the need to regulate CCRs as a solid waste, regulations mandating standards to ensure the structural integrity of landfills and surface impoundments are absent. Additionally, the state has not taken any legislative steps towards discouraging power plants from capturing coal ash in water and diverting the wet-handled ash to nearby ponds.

### 2. Indiana

Indiana is home to more coal ash disposal ponds and lagoons than any other state, yet the Indiana Department of Environmental Management, which is tasked with regulating the waste, imposes relatively few safety requirements. Moreover, the capture and disposal of coal ash via water stored in a disposal pond is specifically excluded from the regulatory provisions governing solid waste land disposal facilities.<sup>70</sup> As a result, the few regulations that are in place to manage the disposal of coal ash do not apply to wet-handled coal ash. Beyond that, disposal ponds in the state are not subject to any financial assurances and have no mandated inspections to guarantee their structural integrity.<sup>71</sup> Further demonstrating the state’s weak coal ash disposal regulations is the absence of any requirement for pond liners or groundwater monitoring.<sup>72</sup> Additionally, unlike Texas, Indiana does not have any laws in place that prohibit dumping CCRs directly into the water table.<sup>73</sup>

There is, however, a regulatory regime in place for the dry disposal of CCRs in landfills that imposes stricter requirements on solid waste sites depending on how the waste is characterized.<sup>74</sup> The Indiana solid waste disposal regulatory scheme distinguishes between four different levels of restricted waste sites based on their chemical and physical composition, with the most stringent regulations on Types I and II.<sup>75</sup> The state does not require, however, that all such landfills employ a uniform liner to prevent chemicals in the coal ash from seeping through, nor does the law require groundwater monitoring for all landfills.<sup>76</sup> Instead, although

58. In its recently proposed rules to regulate CCW, EPA indicates that “information regarding the existing state regulatory programs calls into question whether those programs, in the absence of national minimum standards, have sufficiently improved . . . such that EPA can continue to conclude that in the absence of federal oversight, the management of these wastes will be adequate to protect human health and the environment.” Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35150.

59. See EPA Final Rules for Power Plant Coal Ash, *supra* note 8.

60. *Id.*

61. *Id.*

62. *Id.*

63. See Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35151.

64. See, e.g., ALA. ADMIN. CODE r. 335-14-2.01(4)(b) (2012); 401 KY. ADMIN. REGS. 45:010 (2012); W. VA. CODE R. § 33-1-2.30 (2012); LA. ADMIN. CODE tit. 33, § 105(D)(2)(d) (2011) (coal ash waste classifications).

65. See ALA. ADMIN. CODE r. 335-14-2-.01(4)(b); 401 KY. ADMIN. REGS. 45:010; W. VA. CODE R. § 33-1-2.30; LA. ADMIN. CODE tit. 33, § 105(D)(2)(d); see also Julie Schmit, *EPA to Decide How to Treat Coal Ash: Should It Be Deemed Hazardous Waste?*, USA TODAY (Aug. 27, 2010, 5:30PM), available at [http://www.usatoday.com/tech/news/2010-08-27-coalash27\\_ST\\_N.htm](http://www.usatoday.com/tech/news/2010-08-27-coalash27_ST_N.htm) (explaining that many states do not require groundwater monitoring near coal ash sites).

66. TEX. HEALTH & SAFETY CODE ANN. § 361.003(16) (West 2012).

67. Office of Waste, TEX. COMM’N ON ENVTL. QUALITY, <http://www.tceq.texas.gov/about/organization/waste.html#2> (last modified July 17, 2012).

68. 30 TEX. ADMIN. CODE § 335.4 (2012).

69. *Id.*

70. 329 IND. ADMIN. CODE § 10-3-1 (2012).

71. See *id.*; LISA EVANS ET AL., STATE OF FAILURE: HOW STATES FAIL TO PROTECT OUR HEALTH & DRINKING WATER FROM TOXIC COAL ASH 14 (EARTHJUSTICE, 2011), available at <http://earthjustice.org/sites/default/files/StateofFailure.pdf>. However, Indiana state law does require industries that dispose of solid waste on site where the waste is generated, as with disposal ponds, to apply for and receive a permit. 329 IND. ADMIN. CODE § 10-5-1 (2012).

72. EVANS ET AL., *supra* note 71. Dina Cappiello, *Coal Ash Piling Up Most in Indiana, Ohio, Kentucky, Georgia, and Alabama*, HUFFINGTON POST (Jan. 9, 2009, 8:20 PM), [http://www.huffingtonpost.com/2009/01/09/coal-ash-piling-up-most-i\\_n\\_156505.html](http://www.huffingtonpost.com/2009/01/09/coal-ash-piling-up-most-i_n_156505.html). Once these coal ash ponds are closed down and sealed off, however, state law requires that groundwater monitoring systems be put in place. *Id.*

73. EVANS ET AL., *supra* note 71.

74. 329 IND. ADMIN. CODE § 10-2-159, 10-9-4 (2012).

75. *Id.* § 10-9-4.

76. Instead, composite liners and groundwater monitoring are only required for municipal solid waste land disposal facilities and not the “restricted waste sites” where coal ash is deposited. See *id.* § 10-17-1; *id.* § 10-3-1.

Types I and II require liners and groundwater monitoring, Types III and IV require a much different liner and groundwater monitoring is not imposed.<sup>77</sup> Notwithstanding the groundwater monitoring requirements for certain restricted waste sites, a recent report revealed that, in addition to the discovery of dangerously contaminated groundwater in the town of Pines, there have been seven more groundwater contamination cases in the state.<sup>78</sup>

### 3. Tennessee

In the still lingering aftermath of, and ongoing litigation surrounding, the Kingston spill that unleashed billions of pounds of coal ash into local waterways and communities, the Tennessee state legislature recently amended its laws governing the disposal of coal ash.<sup>79</sup> Now, in order to receive a permit to dispose of coal ash, coal-fired industries must include in their design plans the placement of composite liners and a final cap to seal the site at the end of its life, but these requirements are not retroactive and do not apply to existing disposal sites.<sup>80</sup> The commissioner of the Tennessee Department of Environment and Conservation can waive landfill regulations on a permit-by-permit basis, and environmental site assessments are required only for new solid waste disposal facilities.<sup>81</sup> These environmental site assessments, which would require groundwater monitoring, are not required for expansions, modifications, or new units for existing permitted facilities and sites.<sup>82</sup> In effect, these new laws created in reaction to the Kingston spill will do nothing to bolster the safety of coal ash disposal sites that existed before the laws were enacted. As a slow but positive step, however, the Tennessee Valley Authority ("TVA"), which owned and operated the coal-fired power plant and disposal pond in Kingston, Tennessee, announced that it planned to convert all of its wet storage ponds to dry storage as of 2017.<sup>83</sup>

Aside from the permit requirements imposed on solid waste disposal sites and TVA's voluntary resolution to transition from wet storage to dry storage methods, coal ash disposal ponds remain largely unregulated. Surface impoundments are not recognized, even by exemption, in the state laws established to regulate solid waste disposal or protect health, safety, and the environment.<sup>84</sup> Coal ash disposal ponds are

instead subject to regulation under the Tennessee Water Quality Control Act, which imposes a permit requirement for the construction of surface impoundments that discharge industrial waste and temporarily collect and hold it.<sup>85</sup> To comply with the permit requirement under this Act, applicants must disclose a description of the processes that create the wastewater as well as include information about the source of the water supply and the treatment system.<sup>86</sup> This Act does not establish any requirements, however, that guarantee the structural integrity and safety of surface impoundments, the installation of liners, or groundwater monitoring to detect contamination.<sup>87</sup> Recently, independent inspectors found that half of the sixteen TVA coal ash disposal ponds needed immediate remedial action and eight of the disposal sites have been reported for groundwater contamination due to toxins in coal ash.<sup>88</sup>

### 4. Common Problems These Different State Regulatory Schemes Demonstrate

The different approaches that states take to regulate coal ash disposal result in a lack of uniformity that often give rise to a new set of problems. Beyond the deficiencies in state regulations, the aforementioned examples expose another problem inherent in delegating the regulation of coal ash disposal to the states. Without a uniform federal regulatory regime in place, states engage in cross-border dumping wherein companies that burn coal to produce electricity for one state dump the resulting waste in neighboring states that have less stringent regulations, which creates a hybrid problem of free-riding and disposal site shopping.<sup>89</sup> For example, the Arrowhead landfill in Alabama is licensed to receive CCW from more than thirty-three states, including waste from the Kingston spill.<sup>90</sup> Alabama state law is very friendly towards the coal-fired industry, and recently it became the last state to remove the exemption for coal ash from the state's solid waste laws.<sup>91</sup> Under the new law, however, facilities that were already permitted to store coal ash before the law's enactment are still effectively exempt from any additional regulatory oversight.<sup>92</sup>

#### B. A Federally Recognized Problem Lacking a Federal Solution

EPA is aware of the flaws in the state regulatory regime and the dangers and risks associated with poorly regulated coal

77. 329 IND. ADMIN. CODE § 10-34-1 (2012).

78. EVANS ET AL., *supra* note 71.

79. See TENN. CODE ANN. § 68-211-106 (2012).

80. *Id.*

81. *Id.*

82. *Id.* § 68-211-105. Tennessee state law provides that funds available in the solid waste management fund may be used to investigate and install a liner if it is discovered that a *closed* landfill containing coal ash has contaminated the groundwater. These funds, however, may only cover up to fifty percent of the costs incurred. *Id.* § 68-211-832.

83. Dave Flessner, *TVA to Phase Out Wet Fly Ash Disposal*, KNOX NEWS SENTINEL (Aug. 10, 2009, 12:00 AM), <http://www.knoxnews.com/news/2009/aug/10/tva-to-phase-out-wet-fly-ash-disposal/>.

84. U.S. ENVTL. PROT. AGENCY, DOCKET ID No. EPA-HQ-RCRA-2009-0640, PUBLIC HEARING ON EPA'S PROPOSED RULE ON HAZARDOUS AND SOLID WASTE MANAGEMENT SYSTEM; IDENTIFICATION AND LISTING OF SPECIAL WASTES; DISPOSAL OF COAL COMBUSTION RESIDUALS FROM ELECTRIC UTILITIES 20–21 (2010).

85. Tennessee Water Quality Control Act of 1977, TENN. CODE ANN. §§ 69-3-101 to -148 (2012).

86. *Id.* § 69-3-113.

87. See EVANS ET AL., *supra* note 71, at 8 tbl.2.

88. *Id.* at 19; J. RUSSELL BOULDING, ENVTL. INTEGRITY PROJECT, RISKY BUSINESS: COAL ASH THREATENS AMERICA'S GROUNDWATER RESOURCES AT 19 MORE SITES 15 (2011).

89. EVANS ET AL., *supra* note 71, at 10.

90. *Id.*

91. Mary Orndorff, *Alabama Close to Regulating Storage of Coal Ash*, AL.COM (May 11, 2011 7:30AM), [http://blog.al.com/sweethome/2011/05/alabama\\_close\\_to\\_regulating\\_st.html](http://blog.al.com/sweethome/2011/05/alabama_close_to_regulating_st.html).

92. ALA. CODE § 22-27-3(h) (2012); *id.*

ash waste, as made clear in its own reports, but there has not been an impetus for federal regulation to prevent water contamination until recently.<sup>93</sup> As previously mentioned, EPA declared the town of Pines, Indiana, a Superfund site in 2002 after EPA discovered that several drinking wells contained dangerous levels of carcinogens and lead.<sup>94</sup> Evidence linked the contaminated groundwater in the drinking wells to a nearby landfill that had received more than one million tons of coal ash from coal-fired power plants for more than twenty years.<sup>95</sup>

For the last decade, EPA has drifted closer to the conclusion that coal ash should be regulated in the same way as hazardous wastes because it has recognized the relationship between mismanaged coal ash disposal sites and their dangers to human health and local ecological systems.<sup>96</sup> EPA came close to reclassifying CCW as hazardous in March 2000, but its efforts were stymied by intense lobbying from the coal and energy industries that claimed compliance with stricter regulations would cost more than five billion dollars.<sup>97</sup> Shortly thereafter, EPA redirected its efforts and designed a study to test the toxicity levels contained in CCW and identify “human health and ecological risks that may be associated with current disposal practices.”<sup>98</sup> The 2009 report found that chemicals and toxins in landfills, both lined and unlined, that are holding CCW leak out and contaminate local water supplies.<sup>99</sup> The report also indicated serious deficiencies in existing state regulatory schemes.<sup>100</sup> Yet, the information coming out of the report was not enough to propel EPA into another battle with the industries opposing stricter regulations—most likely because of a lack of political will.<sup>101</sup>

EPA has since released a more recent draft risk assessment report that indicated the extremely high risks to human health from coal ash disposal sites and implied that exposure to coal ash carried a significantly higher risk of cancer than smoking a pack of cigarettes a day.<sup>102</sup> In 2010, EPA conducted a study of risk assessments associated with CCW and found that there was a high risk of human exposure to toxins and carcinogens contained in unlined coal ash disposal sites, with the risks particularly increased with regard to surface impoundments as opposed to landfills.<sup>103</sup>

When EPA released its proposed rules in 2010, it had documented more than twenty-seven proven cases of damage to human health or the environment from CCW contamination and forty potential damage cases.<sup>104</sup> Proven damage

cases require sufficient evidence of the presence of toxins in groundwater exceeding the maximum limit and a scientific or judicial finding that the location of the toxins is sufficient to pose a danger to human health or the environment.<sup>105</sup> Two-thirds of the proven damage cases show adverse effects to groundwater, with unlined storage undoubtedly the leading cause of the contamination.<sup>106</sup> In contrast to proven damage cases, potential damage cases involve situations where the level of toxins in a given area exceeds the maximum limit, but a nexus to human health risks has not yet been established.<sup>107</sup> Beyond these cases, EPA suspects that there are several other instances of damaging contamination that have not yet been brought to light.<sup>108</sup> According to a recent environmentalist group survey, there are at least 157 cases of groundwater and soil contamination resulting from nearby unlined and under-regulated coal ash disposal sites.<sup>109</sup> Although the exact number of contamination and damage cases is not certain, the potential harm arising from exposure to CCW is undeniable.

EPA recognizes that toxic elements in coal ash that seep into local drinking supplies are at levels far beyond federal safety standards and that residents near unlined surface impoundments may be exposed to concentrated levels of arsenic that pose a risk of cancer as high as one in fifty.<sup>110</sup> Additionally, the absence of composite liners to prevent the toxins contained in coal ash from seeping into nearby groundwater resources is compounded by the lack of groundwater monitoring requirements in less than half of the states with coal ash disposal pond sites.<sup>111</sup> This is not a new problem. The environmental community was aware of improper coal ash disposal resulting in groundwater contamination in the 1970s when Virginia residents living near a coal ash disposal site reported that the water in their drinking wells had turned green; fifty-five homes were restricted from using their well water and received public water as a replacement.<sup>112</sup> Yet, the federal government continues to rely entirely on the states to fix this problem—but the problem is not being adequately addressed and deficient state regulations can no longer be relied upon.<sup>113</sup>

Although the imposition of new emissions technology and the recent improvement of air pollution controls have limited the amount of toxins that coal-fired power plants release into the atmosphere in the energy production process,

93. See LUTHER, *supra* note 22, at 3–4.

94. KEATING & EVANS, *supra* note 11, at 5.

95. *Id.*

96. LUTHER, *supra* note 22, at 3–5.

97. Harrison Foster, *supra* note 35, at 756–57; Goodell, *supra* note 16, at 47–48.

98. Harrison Foster, *supra* note 35, at 757.

99. *Id.*

100. LUTHER, *supra* note 22, at 4.

101. Harrison Foster, *supra* note 35, at 757–58.

102. EARTHJUSTICE & SIERRA CLUB, COAL ASH: A NATIONAL PROBLEM NEEDS A NATIONAL SOLUTION 2 (2009), available at <http://www.sierraclub.org/coal/downloads/2009-07-coal-ash.pdf>.

103. LUTHER, *supra* note 22, at Summary.

104. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35155 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302). Where EPA finds there is

sufficient evidence of a “damage case” it can require corrective action. BARBARA GOTTLIEB ET AL., PHYSICIANS FOR SOC. RESPONSIBILITY & EARTHJUSTICE, COAL ASH: THE TOXIC THREAT TO OUR HEALTH AND ENVIRONMENT 15 (2010).

105. GOTTLIEB ET AL., *supra* note 104, at 15.

106. See GOTTLIEB ET AL., *supra* note 104, at 16.

107. *Id.*

108. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35155.

109. *News Report: 20 Additional Toxic Coal Ash Contamination Sites Found in 10 States*, ENVTL. INTEGRITY PROJECT (Dec. 13, 2011), [http://www.environmentalintegrity.org/12\\_13\\_2011.php](http://www.environmentalintegrity.org/12_13_2011.php).

110. See *id.* at vii; Goodell, *supra* note 16, at 46.

111. See Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35150 (describing “key protections,” including groundwater monitoring, as either lacking or totally absent); EPA *Final Rules for Power Plant Coal Ash*, *supra* note 8.

112. GOTTLIEB ET AL., *supra* note 104, at 17.

113. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35152.

the amount of toxins in coal is not decreasing.<sup>114</sup> The regulations limiting air pollution have thus diverted the toxins from being released into the air to being injected into the ground.<sup>115</sup> As a result, recent years have seen an increase in both the amount of coal ash produced and the amount of toxins contained in it. Therefore, coal ash is dirtier than ever and there is more of it to manage.<sup>116</sup>

EPA is reviewing two proposed rules, promulgated in 2010 in response to the disastrous spill in east Tennessee, which could impose harsher restrictions on coal ash waste disposal.<sup>117</sup> Three years after the biggest environmental disaster in United States history, however, the federal government has not finalized a binding rule that would impose stronger regulations and mandate the safe and proper disposal of coal ash.<sup>118</sup> In the meantime, coal ash disposal sites continue to fall solely under state regulation while communities lie in wait for the next coal ash contamination catastrophe.<sup>119</sup>

### III. EPA Proposed Rules to Regulate Coal Combustion Residuals

EPA is currently reviewing two proposed federal regulations that would govern coal ash waste from electric utilities and independent power plants, specifically CCRs.<sup>120</sup> Prior to pro-

posing these new rules, EPA conducted a Risk Assessment in 2009, which concluded that the disposal of coal combustion by-products in unlined landfills and surface impoundments resulted in substantial risks to human health and the environment.<sup>121</sup> Moreover, the assessment revealed that sixty percent of states do not require liners or groundwater monitoring for surface impoundments.<sup>122</sup>

Even though new landfills and surface impoundments are being constructed to include liners and groundwater monitoring systems in response to mounting public pressure, the concerns for human health and the environment remain strong because a large amount of the coal ash waste being produced every year is still being placed in older, unlined, and unmonitored coal ash disposal sites.<sup>123</sup> Wary of the unsatisfactory progress in state regulations after its determination in 2000 that brought to light the serious deficiencies of state coal ash regulations, EPA proposed two new rules that would attempt to establish national standards to address the risks associated with the mismanagement of coal ash waste.<sup>124</sup>

#### A. First Proposed Rule: Remove the Bevill Amendment and Regulate Coal Combustion Residuals as a "Special Waste" Under Subtitle C of the RCRA

RCRA provides two ways in which a solid waste might be re-categorized as a hazardous waste: (1) waste may be deemed hazardous if it exhibits "hazardous" characteristics—ignitability, corrosivity, reactivity, or toxicity—as determined by the waste generator<sup>125</sup> or (2) it may be deemed hazardous if EPA has specifically listed the waste as hazardous because it contains certain toxic constituents and is capable of posing a substantial risk to human health or the environment.<sup>126</sup> The First Rule proposed by EPA is to remove the Bevill Amendment<sup>127</sup> for CCRs and list CCRs from electric utilities and independent power producers as a "special waste" subject to regulations imposed by Subtitle C of the RCRA.<sup>128</sup>

In selecting this proposed rule and passing new regulations for compliance, EPA could cure many of the problems

114. Most recently, in December 2011, EPA issued a final rule to reduce mercury and other toxic emissions into the air by power plants that put forth stricter standards than ever before. Revisions to the Definition of Cogeneration Unit in Clean Air Interstate Rule (CAIR), CAIR Federal Implementation Plans, Clean Air Mercury Rule (CAMR); and Technical Corrections to CAIR, CAIR FIPs, CAMR, and Acid Rain Program Rules, 72 Fed. Reg. 59190 (proposed Oct. 19, 2007) (to be codified at 40 C.F.R. pts. 51, 60, 72, 78, 96, 97); see *EPA Finalizes Rule to Reduce Mercury, Air Toxics Emissions From Power Plants*, 11 Daily Env't Rep. (BNA) No. 246, at A-1 (Dec. 22, 2011), available at [http://news.bna.com/deln/core\\_adp/get\\_object/ps2k\\_den-not\\_20111222.pdf](http://news.bna.com/deln/core_adp/get_object/ps2k_den-not_20111222.pdf); see also King, *supra* note 18, at 41 (explaining that stricter toxic emissions standards for coal-fired power plants will create coal ash waste with increased levels of arsenic, thallium, boron, barium, and other harmful chemicals). A recent environmental organization news release provides that the most recent data from the U.S. Toxics Release Inventory demonstrates that disposal in ponds has risen since 2007. Press Release, Env't. Integrity Project, *Three Years After Kingston Spill: Toxic Coal Ash Dumping Continues to Rise in U.S.* (Jan. 5, 2012), available at [http://www.environmentalintegrity.org/01\\_05\\_2012.php](http://www.environmentalintegrity.org/01_05_2012.php).

115. This was predicted in 1997 after the 1990 Clean Air Act Amendments. See Christopher B. Power, *Ashes to Earth: Coal Combustion By-Products Returned to the Mine Site*, 11 NAT. RESOURCES & ENV'T. 25, 25 (1997).

116. EPA estimates that in 2015 the amount of coal ash produced in the energy-production process will rise to 175 million tons per year. Ken Silverstein, *Coal Ash Spilling Into Obama and Romney Race*, FORBES.com (Sept. 4, 2012). See also King, *supra* note 18, at 41 (explaining that increased emissions standards for coal-fired power plants have increased the amount of toxins captured in coal ash disposal waste); see *Disposal of Coal Ash Metals in Ponds Rose 9 Percent in 2010, Report Says*, 12 Daily Env't Rep. (BNA) No. 3, at A-3 (Jan. 6, 2012), available at [http://news.bna.com/deln/core\\_adp/get\\_object/ps2k\\_den-not\\_20120106.pdf](http://news.bna.com/deln/core_adp/get_object/ps2k_den-not_20120106.pdf).

117. *Coal Combustion Residuals—Proposed Rule*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/ccr-rule/index.htm> (last updated Nov. 15, 2012).

118. See *Environmental Groups Intend to Sue EPA Over Delays in Final Coal Ash Regulation*, *supra* note 1, at A-3.

119. See Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35150–52 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302).

120. The two proposed rules heavily discuss the regulation of coal combustion residuals ("CCR"), and not CCPs, which were distinguished above. Patrick Reis, *EPA Backed Off "Hazardous" Label for Coal Ash After White*

*House Review*, N.Y. TIMES (May 7, 2010), <http://www.nytimes.com/gwire/2010/05/07/07greenwire-epa-backed-off-hazardous-label-for-coal-ash-af-10431.html>. Even though this Note is not discussing the beneficial uses of CCPs, it is important to keep in mind that the only difference between the two sub-definitions of coal ash—CCRs and CCPs—is their intended destination (disposal site or recycled purpose).

121. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35144.

122. LUTHER, *supra* note 22, at Summary.

123. *Id.* at 4.

124. See *id.* at 5, 16–17 (discussing EPA's 2000 determination).

125. 40 C.F.R. § 261.21–.24 (2012).

126. 42 U.S.C. § 6921(a) (2006); 40 C.F.R. § 261.11 (2012). EPA may also consider the presence of toxic constituents, the concentration of the constituents, the potential of any hazardous constituents to degrade and migrate, and the plausible types of improper management to which the waste could be subject. LUTHER, *supra* note 22, at 13.

127. This amendment excluded coal ash waste from being categorized as hazardous waste.

128. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35133 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302).

associated with the disposal of coal ash waste.<sup>129</sup> Removing the Bevill exception for coal ash waste could impose cradle-to-grave monitoring on coal ash such that EPA could impose regulations on CCRs from the point of their generation to their final disposition, including after a disposal site is no longer working.<sup>130</sup> This would specifically include a requirement that existing landfills and surface impoundments—which are either being used or are closed—either be retrofitted with composite liners to prevent the seepage of toxins contained in coal ash or be shut down.<sup>131</sup> Therefore, instead of relying on states to create and implement their own permitting standards and enforcement processes, EPA could impose uniform national regulations that put forth specific criteria with which facilities that treat, store, or dispose of CCRs—in either surface impoundments or landfills—would have to comply.<sup>132</sup>

Under this rule, EPA could also impose requirements for dam safety and the stability of surface impoundments to prevent catastrophic releases and have more control over the permitting process for the construction of these sites.<sup>133</sup> Under Subtitle C, EPA can either manage and distribute its own permitting program or authorize a state to implement its own program, as long as it is at least as strict as the federal program.<sup>134</sup> If EPA determines that CCRs are a hazardous waste and lists them as a special waste under Subtitle C, then states would still be able to implement their own permit distribution programs under federal oversight with EPA maintaining enforcement authority.<sup>135</sup>

Although this rule would not categorically prohibit the use of surface impoundment for the disposal of CCRs, the promulgated rule does require that facilities currently employing the use of wet-handling for coal ash waste either convert from wet-handling to dry-handling, comply with minimum technological requirements for treatment (e.g., composite liners), or close.<sup>136</sup> EPA would not, however, require landfills built before the rule is finalized to install liners.<sup>137</sup> This differential treatment between disposal ponds and landfills demonstrates a serious disconnect between how this rule would treat wet-handling versus dry-handling coal

ash—even though the waste contains carcinogens in either form. In effect, it is likely that companies that currently rely on wet-handling coal ash would have to convert the wet ash to dry ash to comply with the new rule, with the dry ash going into existing landfills. These existing landfills, however, are not required to have liners to prevent seepage. As a result, much of the wet coal ash that exists before the rule is enforceable would presumably be moved from unlined surface impoundments into unlined landfills—moving, but not solving, the problem.

Although this proposed rule would go far to remedy many of the problems arising from the current state-based regulatory regime, it does not positively prohibit wet-handling as a method of capturing coal ash or require that all existing disposal sites be lined. Of significant importance, the creation of a new category—“special waste”—still does not acknowledge that coal ash should be considered a hazardous waste and treated as such. Given the steady flow of disasters that result from improper coal ash disposal, coupled with EPA’s own assessments of the risks posed to human health and the environment, EPA could reasonably label coal ash as a hazardous waste, but this rule would not go that far.<sup>138</sup> In fact, the characteristics established for qualification as a “special waste” are extrapolated from the framework put forth for classifying waste as hazardous waste.<sup>139</sup> This reliance in crafting a definition for special wastes makes clear that the difference between coal ash and hazardous waste would be, in large part, in name only. Additionally, creating a new category might easily lead to the misinterpretation or manipulation of the dangers coal ash actually presents, although, in fact, EPA is currently reevaluating its previous determinations about reusing coal ash.<sup>140</sup> This special category might address the industry’s concern, however, that regulating coal ash as a hazardous waste would impede beneficial uses of the waste product.<sup>141</sup>

## B. Second Proposed Rule: Establish National Criteria for States to Regulate Coal Combustion Residuals Under Subtitle D of the RCRA

The option to use Subtitle D to put forth stronger national criteria, while maintaining the Bevill Amendment, would include implementing national minimal requirements to be enforced by the states and/or their citizens.<sup>142</sup> This pro-

129. *Id.* at 35177.

130. *Id.* at 35133. These requirements would specifically include location restrictions, standards for liners, groundwater monitoring, closure and post-closure care requirements, storage requirements, land disposal restrictions and treatment standards, corrective action, and financial assurance. LUTHER, *supra* note 22, at 13–14.

131. LUTHER, *supra* note 22, at 5. EPA anticipates that if this rule is selected, surface impoundment operators would choose to close down the disposal site rather than pay the costs to have such sites retrofitted so that they could continue to be used. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35177.

132. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35135.

133. *Id.* at 35133.

134. 42 U.S.C. § 6926 (2006).

135. LUTHER, *supra* note 22, at 13. Although EPA maintains enforcement authority, authorized states have primary enforcement responsibility. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35191.

136. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35178.

137. *Id.* at 35179; see also *Coal Combustion Residuals—Key Differences Between Subtitle C and Subtitle D Options*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/ccr-rule/ccr-table.htm> (last updated Nov. 15, 2012) (comparing both proposed rules and indicating that neither rule would require landfills to be retrofitted with liners).

138. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35166–67.

139. *Id.*

140. OFFICE OF INSPECTOR GEN., U.S. ENVTL. PROT. AGENCY, *supra* note 36, at 1–5.

141. See Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35186. Although beneficial uses are beyond the scope of this note, one of the main reasons that the power supply and coal industries are opposed to the regulation of coal ash under Subtitle C is that it would become cost prohibitive to continue with beneficial uses, which divert the waste from ending up in surface impoundments and landfills. See *Coal Ash: 130 Million Tons of Waste*, *supra* note 4.

142. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35133–34. Subtitle D of RCRA established criteria characterizing non-hazardous waste, separate from “special waste,” and delegated much of the regulatory and implementation responsibilities to state and local governments. LUTHER, *supra* note 22, at 3

posal is similar to existing state regulations applicable to municipal solid waste landfills because of the nature of the waste that is being regulated—non-hazardous waste.<sup>143</sup> If EPA selects this proposed rule, surface impoundments and landfills that are disposal sites for CCRs will be subject to location standards, composite liner requirements, groundwater monitoring, closure and post-closure care requirements, and measures to guarantee the structural stability of surface impoundments that EPA puts forth.<sup>144</sup> Specifically, Subtitle D would require new landfills and surface impoundments to be lined and that existing surface impoundments be lined within five years or be shut down.<sup>145</sup> But retrofitting would not be required for existing landfills.<sup>146</sup> This presents the same problem explained in the discussion of the Subtitle C proposed rule involving the conversion of wet ash in surface impoundments into dry ash placed in unlined landfills. This rule would similarly not require that all existing surface impoundments be lined.<sup>147</sup> Instead, a utility company could choose to close its surface impoundments and circumvent the requirement to install liners, thus leaving huge pools of coal ash to rest entombed forever.<sup>148</sup>

Under Subtitle D, unlike the rule under Subtitle C, EPA would not have the authority to impose “cradle-to-grave” regulations because its authority would be limited to establishing national standards for the disposal of the solid waste.<sup>149</sup> EPA would also not have administrative enforcement authority to enforce criteria for CCR facilities created in Subtitle D or to require states to implement adequate permit programs effectively.<sup>150</sup> This rule would ultimately have a significantly lower impact than the proposed rule to regulate CCRs as a special waste under Subtitle C because this rule relies on states to comply with EPA recommendations instead of granting EPA the authority to mandate certain requirements.<sup>151</sup> In reality, this rule would be a gift to the coal and power supply industries. If this option is chosen, the Federal government’s role will be to establish the overall regulatory direction, much like it has already done for municipal solid waste, and provide technical assistance to states for planning and developing their own environmentally sound waste management processes.<sup>152</sup> The national criteria issued under the authority of this rule could only be implemented at the state and local level, leaving only the states, or their citizens, with enforcement power. As a result, the imposition of this new rule would effectuate no real change, making it no wonder that states, who currently control coal ash disposal regulation, have urged EPA to select this rule as its final decision on the issue.<sup>153</sup>

143. See LUTHER, *supra* note 22, at 18.

144. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35133–34.

145. LUTHER, *supra* note 22, at 18.

146. *Id.*

147. *Coal Combustion Residuals*, *supra* note 137.

148. See *id.*

149. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35134.

150. *Id.*

151. *Id.*

152. *Id.* at 35136.

153. The Association of State and Territorial Solid Waste Management Officials sent letters from multiple states, including Alabama and Pennsylvania, concerning

This is not the first time EPA has considered whether coal ash disposal warrants stricter regulations under Subtitle C than solid waste warrants under Subtitle D, and traces of EPA’s prior indecisiveness linger now.<sup>154</sup> After its determination in 2000 that coal ash should be regulated under Subtitle D, EPA represented that it would issue a regulation under that provision establishing minimal national standards.<sup>155</sup> But, those standards remain only a promise.<sup>156</sup> Given this history, there is no certainty that if EPA were to arrive at the same conclusion again, it would put forth the desperately needed national standards for the proper disposal of coal ash.

### C. Comparing the Proposed Rules

At first blush, the two proposed rules might appear to share fundamental requirements to guarantee the protection of human health or the environment, but closer inspection shows that there is a large disparity between the strength of the two proposed rules.<sup>157</sup> Despite the differences in the substance of the proposed rules, the largest distinguishing factor is the strength behind them. In an effort to minimize the difference, EPA has proposed its requirements to be self-implementing, such that if states do not adopt the proposed Subtitle D standards, the facilities would still have to comply with the criteria based on interactions with regulatory officials and citizen suits.<sup>158</sup> Thus, citizens of a state that is not complying with the national minimum standards could bring a suit against the state in order to force it to come into compliance. Despite the self-enforcing nature of the proposed rule under Subtitle D, the energy and coal industries have a very real interest in keeping coal ash from being regulated under Subtitle C because it would impose serious costs and could arguably impede the beneficial uses of coal ash.<sup>159</sup>

## IV. Congress and EPA Should Collaborate to Enact Legislation to Repeal the Bevill Amendment, Regulate Coal Combustion Residuals Under Subtitle C of the RCRA as a Hazardous Waste, and Prohibit Wet-Handling

There is an immediate need for federal legislation creating a uniform regulatory scheme to ensure the safe and proper

EPA’s proposed rules to regulate coal ash. *Environmental Groups Intend to Sue EPA Over Delays in Final Coal Ash Regulation*, *supra* note 1, at A-2.

154. Hazardous and Solid Waste Management System, 75 Fed. Reg. at 35137.

155. *Id.*

156. *Id.*

157. LUTHER, *supra* note 22, at 20.

158. *Id.* at 19; see also William L. Penny & Christina B. Davidow, *The Battle Over Regulation of Coal Combustion Products as Waste*, WASTE & RES. RECOVERY COMM. NEWSL. (A.B.A. Section of Env’t, Energy & Res., Chicago, Ill.), Jan. 2010, at 1, 5 (explaining that RCRA creates a right of action for states and citizens where a coal ash facility posed a substantial and imminent endangerment).

159. Letter from the Am. Coal Ash Ass’n et al. to John Boehner, Speaker of the House (Oct. 11, 2011), available at <http://www.transportationconstruction-coalition.org/Docs/TCC-Coal-Ash-Letter-10112011.pdf>. Industry opponents of regulating coal ash disposal under Subtitle C of the RCRA argue that such regulation will stigmatize the beneficial use of coal ash. Penny & Davidow, *supra* note 158, at 5.

disposal of CCW products. EPA's proposed rule to amend Subtitle C of RCRA and create a new category of "special waste" to regulate CCRs is a step in the right direction.<sup>160</sup> This rule does not fully address, however, the serious risks now present at coal ash disposal sites across the country. The rule proposed under Subtitle D stands in stark contrast and would be a step in the wrong direction because it promises only a future filled with the status quo.

Congressional action is imperative to address the numerous under-regulated and over-laden coal ash disposal sites across the United States because congressional legislation is the only means to repeal the Bevill Amendment and allow EPA to regulate coal ash as a hazardous waste. Without a repeal of this amendment, EPA cannot regulate coal ash as a hazardous waste; however, it may still issue federal standards if it adopts the Subtitle C proposed rule and regulates coal ash as a "special waste."<sup>161</sup>

When it was originally enacted, the Bevill Amendment directed EPA to exempt fossil fuel combustion waste from regulation as hazardous waste until enough information had been acquired to report to Congress on various factors, including the actual harm and potential risks associated with disposing the material.<sup>162</sup> EPA issued such a determination in 2000 based on information it had gathered about the potential hazards of coal ash—as required under the Bevill Amendment—that alluded to serious health and safety concerns.<sup>163</sup> EPA's findings in its 2010 determination removed any doubt about these dangers and clearly indicated serious risks associated with human exposure to the toxins captured within coal ash, particularly when it is stored in unlined landfills and surface impoundments.<sup>164</sup>

Yet, even when there is unequivocal evidence of the need for mandated federal coal ash disposal regulations, EPA continues to wobble.<sup>165</sup> To bring about a necessary and timely change in the regulation of coal ash disposal and better protect communities from contaminated drinking water supplies and catastrophic events, Congress should pass legislation regulating coal ash as a hazardous waste under Subtitle C of RCRA that phases out wet-handling as a measure to capture and dispose of coal ash at an accelerated rate. It should also include provisions authorizing EPA to mandate composite liners in new and existing surface impoundments and landfills, regular groundwater monitoring, and standards to govern the placement of coal ash by-products in structurally sound and regularly inspected surface impoundments.

## A. Feasibility: The Politics of Regulating Coal Ash

While EPA reviews its proposed rules concerning CCRs, some members of Congress are pulling in the opposite direction. Congress is currently reviewing legislation that would allow states to adopt and implement CCR permit programs under Subtitle D and prohibit EPA from regulating coal ash as a hazardous waste.<sup>166</sup> If passed, this legislation, named the Coal Residuals Reuse and Management Act, would guarantee that states remain responsible for regulating coal ash disposal.<sup>167</sup> Although the bill moved steadily through the House of Representatives, it is unlikely to pass because it has made no progress in the Senate.<sup>168</sup> Furthermore, the bill lacks executive branch support because it does not sufficiently address the risks of improper coal ash disposal and does not prevent future leaks or spills.<sup>169</sup> The bill is also opposed by Congressional Democrats who describe it as, "yet another attempt by Republicans to put the interests of polluters ahead of public health and the well-being of our communities."<sup>170</sup>

Politicians on both sides of the argument have attempted to gain support by discussing what the financial ramifications of imposing federal coal ash regulations would be on consumers and employment.<sup>171</sup> Parties on both sides, however, have put forth conflicting evidence on the matter. Proponents of vesting more regulatory power within EPA assert that stricter regulation of coal ash disposal would create 28,000 jobs,<sup>172</sup> but opponents argue that such regulations could kill up to 316,000 jobs.<sup>173</sup>

Additionally, opponents of federal regulation argue that costs to the industry in complying with stricter regulations would run to the consumer.<sup>174</sup> In response to its proposed

160. Local and national environmental protection organizations have gathered together in an effort to push EPA towards adopting the Subtitle C proposed rule. See EARTHJUSTICE ET AL., EPA COAL ASH PROPOSED RULE: SUMMARY 1 (2011), available at [http://action.sierraclub.org/site/DocServer/coalashrule\\_SUMMARY.pdf](http://action.sierraclub.org/site/DocServer/coalashrule_SUMMARY.pdf).

161. *Id.*

162. LUTHER, *supra* note 22, at 3, 11.

163. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35137 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302).

164. LUTHER, *supra* note 22, at Summary.

165. See *supra* Part II.B.

166. Coal Residuals and Reuse Management Act, H.R. 2273, 112th Cong. (2011).

167. EPA Final Rules for Power Plant Coal Ash, *supra* note 8. At the time of this writing, the bill had passed through the House, but had not yet been voted on by the Senate. Jim Abrams, *House Republicans Pass Coal Ash Regulations, Shift Power Away From EPA*, HUFFINGTON POST (Oct. 14, 2011, 6:45 PM), [http://www.huffingtonpost.com/2011/10/14/house-republicans-coal-ash-epa-environment-regulations\\_n\\_1011371.html](http://www.huffingtonpost.com/2011/10/14/house-republicans-coal-ash-epa-environment-regulations_n_1011371.html); H.R. 2273 Coal Residuals Reuse and Management Act, GOVTRACK.US, <http://www.govtrack.us/congress/bill.xpd?bill=h112-2273> (last visited Dec. 18, 2012). The language of this bill was also added as an amendment to a recent transportation bill, H.R. 4348; the amendment passed the House but did not survive the Senate. Joselyn King, *Fly Ash Amendment Dropped From Highway Bill*, THE INTELLIGENCER (June 29, 2012), <http://www.theintelligencen.net/page/content.detail/id/571461/Fly-Ash-...1; Bill Summary & Status, H. AMDT 1015>, LIBRARY OF CONG., THOMAS, <http://thomas.loc.gov/home/LegislativeData.php> (last visited Dec. 18, 2012) (search for "H.R. 4348," click on "amendments," and select the first result).

168. S. 1751: Coal Residuals Reuse and Management Act, GOVTRACK.US, <http://www.govtrack.us/congress/bill.xpd?bill=h112-2273> (last visited Dec. 18, 2012). At the time of this writing, the Bill had not been referred to a committee in the Senate. *Id.*

169. See Andrew Restuccia, *White House Blasts Bill to Override EPA Coal Ash Rules, Stops Short of Veto Threat*, THE HILL (Oct. 12, 2011, 11:53 AM), <http://thehill.com/blogs/e2-wire/e2-wire/187037-white-house-blasts-bill-to-override-epa-coal-ash-rules-falls-short-of-veto-threat>.

170. 157 CONG. REC. E1944 (daily ed. Oct. 26, 2011) (statement of Rep. Betty McCollum (D-MN)).

171. Abrams, *supra* note 167.

172. FRANK ACKERMAN, TUFTS UNIV., STOCKHOLM ENV'T INST.-U.S. CTR., EMPLOYMENT EFFECTS OF COAL ASH REGULATION 4 (2011).

173. Letter from the Am. Coal Ash Ass'n et al. to John Boehner, *supra* note 159.

174. David B. McKinley, Op-Ed., *Coal Ash Legislation a Winner for American Economy*, DAILY CALLER (Apr. 15, 2011), <http://mckinley.house.gov/editorials/coal-ash-legislation-a-winner-for-american-economy/>.

rules, EPA has received several letters from concerned state officials and industry representatives indicating that if EPA issues a new rule under Subtitle C, the cost of complying with the new regulations would be tremendous and eventually felt by consumers.<sup>175</sup> Industry estimates of how much compliance with new standards under Subtitle C will cost range from \$22 billion to \$110 billion over twenty years, but EPA estimates that industry would pay \$1.5 million a year if it were to regulate the waste as hazardous material—in stark contrast to the \$587 million industry will pay if the waste is considered nonhazardous.<sup>176</sup> If Congress were to consider passing legislation to repeal the Bevill Amendment and direct EPA to regulate coal ash as a hazardous waste, the industry would likely present these figures, if not higher estimates, in an attempt to stymie the move.

Although these anticipated costs seem high, they are not too far from the \$1.2 billion the Kingston spill clean-up is predicted to cost upon completion.<sup>177</sup> This figure does not include the growing litigation costs associated with the private civil suits brought against the TVA after the spill.<sup>178</sup> These costs, and the injuries caused when surface impoundments breach or groundwater is contaminated, are very high and fall disproportionately on low-income communities located near coal ash disposal sites.<sup>179</sup> Industry representatives contend that stricter standards will raise costs, which would be reflected in consumers' energy bills, but consumers already have to pay for the costs associated with cleaning up

leaks and spills.<sup>180</sup> Increased costs on energy bills may thus be a welcome alternative for consumers who would rather pay more for energy without the threat of groundwater contamination or surface impoundment breaches.

Just as the current Congress has demonstrated an aversion to imposing federal regulations on coal ash disposal, EPA has also been slow to act.<sup>181</sup> In fact, several environmental protection groups, including Earthjustice, are moving towards initiating litigation to compel EPA to make a decision regarding a final rule because EPA has effectively stalled its decision-making process on the issue.<sup>182</sup> These groups support the proposed rule under Subtitle C because it would impose stricter standards on coal ash disposal sites and provide a floor for what measures states must take to make these facilities safer and more stable.<sup>183</sup> But even these groups acknowledge that standards issued under this proposed rule would not be a total cure.<sup>184</sup> This is not the first time environmental activists have had to put pressure on EPA in order to bring about change and better protect human health and the environment from destructive pollution and other dangers.<sup>185</sup> Prior practices of EPA demonstrate that its reluctance to impose stricter federal standards can match that of Congress. At this critical moment, if EPA adopts its proposed rule under Subtitle D, or gives Congress enough time to prohibit coal ash waste from being considered a hazardous waste, it would be a gift to the industry.<sup>186</sup> Nevertheless Congress and EPA are not immovable. With enough motivation and political pressure from government officials and constituents, Congress and EPA will hopefully collaborate to bring about progressive and necessary changes.

## B. Getting Off Their Ashes: Why Congress and EPA Should Work Together and Put to Use Existing Hazardous Waste Infrastructure

Congressional action to repeal the Bevill Amendment is just the first step to better protecting human health and the environment from the dangers of improper coal ash disposal—but it is the most important. Following the framework of Subtitle C, upon repeal of the Bevill Amendment, EPA will need to review the characteristics of coal ash residuals and determine whether it qualifies as hazardous waste.<sup>187</sup> EPA's proposal to regulate coal ash as a "special waste," in lieu of

175. See generally ASS'N OF STATE & TERRITORIAL SOLID WASTE MGMT. OFFICIALS, COMPILATION OF STATE COMMENTS RECEIVED BY ASTSWMO REGARDING THE EPA PROPOSED REGULATION OF CCB (2009), available at <http://www.uswag.org/pdf/2009/ASTSWMOCompilationofStateComments.pdf> (providing examples of state comments).

176. Compare VERITAS ECON. CONSULTING, AN ECONOMIC ASSESSMENT OF NET EMPLOYMENT BENEFITS FROM REGULATING COAL COMBUSTION RESIDUALS 1 (2011), available at <http://mckinley.house.gov/uploads/June%202011%20Veritas%20Economic%20Report.pdf> (concluding that the cost to industry for imposing either proposed rule will range from \$22.8 to \$110 billion over twenty years), with *Frequent Questions: Coal Combustion Residues (CCR)—Proposed Rule*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/ccr-rule/ccrfaq.htm#20> (last updated Nov. 15, 2012) (explaining that the Regulatory Impact Analysis predicts the average annual regulatory cost to range from \$1.4 million under the Subtitle C proposed rule and \$587 million under the Subtitle D proposed rule for fifty years). See also *Coal Ash: 130 Million Tons of Waste*, *supra* note 4 (where a coal industry lobbyist explained in an interview that if EPA categorizes coal ash as a hazardous waste then industry will incur \$12-13 billion in compliance costs).

177. Shaïla Dewan, *TVA to Pay \$43 Million on Projects in Spill Area*, N.Y. TIMES, Sept. 15, 2009, at A13, available at <http://www.nytimes.com/2009/09/15/us/15ash.html>.

178. TVA reported in December 2011 that the litigation costs resulting from the Kingston spill amounted to nearly eleven million dollars. Bill Poovey, *TVA Says Coal Ash Spill Legal Costs Almost \$11 Million*, TIMESNEWS.NET (Dec. 17, 2011, 4:43 AM), <http://www.timesnews.net/article.php?id=9039744>.

179. U.S. ENVTL. PROT. AGENCY, EPA-HQ-RCRA-2009-0640, COMMENTS OF EARTHJUSTICE, ENVIRONMENTAL INTEGRITY PROJECT, SIERRA CLUB, NATURAL RESOURCES DEFENSE COUNCIL, SOUTHERN ALLIANCE FOR CLEAN ENERGY, SOUTHERN ENVIRONMENTAL LAW CENTER, PHYSICIANS FOR SOCIAL RESPONSIBILITY, CLEAN AIR TASK FORCE, KENTUCKY RESOURCES COUNCIL, ENVIRONMENTAL JUSTICE RESOURCE CENTER 8 (2010), available at [http://earthjustice.org/sites/default/files/us\\_epa\\_proposal\\_disposal\\_coal\\_comb\\_residue.pdf](http://earthjustice.org/sites/default/files/us_epa_proposal_disposal_coal_comb_residue.pdf). Although beyond the scope of this Note, there are serious environmental justice issues surrounding the placement of unstable coal ash disposal sites near poor communities who lack the capital to fight back against the coal and energy industry.

180. See, e.g., Bob Fowler, *Three Years Later, Kingston Ash Spill Cleanup Continues*, KNOXNEWS (Dec. 19, 2011 7:20 PM), <http://www.knoxnews.com/news/2011/dec/19/three-years-later-kingston-ash-spill-cleanup/> (explaining that to cover the cleanup costs associated with the Kingston spill, TVA is tacking on 69 cents to every power bill it issues for the next 13 years). *Id.*

181. Mark Drajem, *Environmentalists Send EPA Intent-to-Sue Notice on Coal Ash*, BLOOMBERG (Jan. 18, 2012, 1:22 PM), <http://www.bloomberg.com/news/2012-01-18/environmentalists-send-epa-intent-to-sue-notice-on-coal-ash-1-.html>.

182. *Id.*

183. EARTHJUSTICE ET AL., *supra* note 160.

184. *Id.*

185. Such measures were taken to compel EPA to regulate DDT. Christopher J. Bosso, PESTICIDES AND POLITICS: THE LIFE CYCLE OF A PUBLIC ISSUE 154-58 (1987).

186. EARTHJUSTICE ET AL., *supra* note 160, at 2.

187. See discussion *supra* Part I.B.

the Bevill Amendment's exemption, strongly indicates that it would easily find coal ash to be a hazardous waste once the Bevill Amendment is repealed.<sup>188</sup> After making this determination, EPA will then have to put forth new regulations governing coal ash disposal, which will likely take time to implement.<sup>189</sup> In putting forth these new regulations, however, EPA may rely on the existing frameworks established to regulate the disposal of other hazardous wastes, instead of creating an entirely new framework for a new category of "special wastes," which would occur under EPA's first proposed rule.<sup>190</sup>

Existing EPA regulations govern hazardous waste generators, transporters, and treatment and storage facilities,<sup>191</sup> which could be tailored to accommodate coal-fired power plants that produce coal ash. To best accommodate these plants and the unique nature of coal ash disposal, EPA could extrapolate certain requirements within its varying hazardous waste regulatory regimes to create a hybrid framework for plants that generate, treat, and dispose of coal ash produced entirely on site. Additionally, industry concerns regarding the classification of coal ash as a hazardous waste could be eased with EPA's existing hazardous waste recycling program.<sup>192</sup> Although the implementation process could take longer, regulating coal ash residuals as a hazardous waste would result in long-term success and would avoid allowing the energy industry to find a way to circumvent the nuanced classification of "special waste." Furthermore, imposing costly federal regulations could discourage industry overdependence on coal, such that choosing methods that are more environmentally palatable would make better business sense.<sup>193</sup>

In the same legislation that repeals the Bevill Amendment, Congress should also direct EPA to put forth standards similar to those discussed in EPA's proposed rules, including the requirement that coal burning power plants fit new and existing surface impoundments and landfills with liners, conduct regular groundwater monitoring, and satisfy specific EPA guidelines concerning the structural integrity of surface impoundments. Equally as important, Congress should mandate the phasing out of wet-handling as a method to capture and dispose of coal ash in surface impoundments. The process of capturing coal ash in water and placing it in surface impoundments as disposal sites can be more favorable to power plants as they provide a nearby disposal site and mitigate waste transportation costs.<sup>194</sup> Because surface

impoundments require large amounts of water diverted from local waterways, however, breaches and spills from these structures pose aggravated dangers to human health and the surrounding environment that rely on the same local waterway as a drinking water source.<sup>195</sup>

Regulating coal ash as a hazardous waste will make coal less profitable for industry and could contribute to the shift in energy production from coal to cleaner sources.<sup>196</sup> Even if coal ash is managed as a hazardous waste, using coal as a fuel is still far from ideal because of all of the toxins that are released into the environment before, during, and after the process of burning coal to produce energy.<sup>197</sup> Right now, there is tremendous momentum to phase out coal-fired power plants due to the implementation of stricter emissions standards<sup>198</sup> in tandem with the increased use of less-expensive and cleaner natural gas.<sup>199</sup> Instead of coming into compliance with these new standards, many power plants that burn coal are shutting their doors, or even better, converting to cleaner, renewable energy.<sup>200</sup> These closures involve some of the dirtiest coal burning power plants in the country.<sup>201</sup> Congress should harness this momentum and use it to repeal the Bevill Amendment and direct EPA to regulate coal ash as a hazardous waste under RCRA.

## V. Conclusion

Congress is in the midst of a stream of catastrophic events related to coal ash leaks and spills at disposal sites across the country and cannot wait for yet another injury to the environment before taking control out of the hands of state authorities. The catastrophic spill in Kingston, Tennessee three years ago was the tipping point, and we can no longer tolerate the failed attempts of states to balance the interests of the public and coal industry. Even before the coal ash spill in Kingston, citizens in several states who experienced first-hand the serious health implications of disposal pond spills and groundwater contamination have

ment, but the same hand that provides jobs to these communities is also putting citizens at an increased risk of exposure to the dangerous toxins in coal ash.  
195. *See id.*

196. John Lorinc, *Converting Coal Plants to Biomass*, N.Y. TIMES (Feb. 1, 2010, 9:32 AM), <http://green.blogs.nytimes.com/2010/02/01/converting-coal-plants-to-biomass/>.

197. *See Swenson, supra* note 39; *Coal Is Dirty and Dangerous*, NAT. RES. DEF. COUNCIL, <http://www.nrdc.org/energy/coalnotclean.asp> (last revised Jan. 15, 2009).

198. *See, e.g., End of Coal Power Plants? EPA Proposes New Rules*, MSNBC.COM (Mar. 27, 2012, 11:49 AM); *GenOn Will Close Eight Power Plants, supra* note 31; *Midwest Generation Plans to Close Two Coal-Fired Plants in Chicago by End of 2014*, 12 Daily Env't Rep. (BNA) No. 40, at A-12 (Mar. 1, 2012), available at [http://news.bna.com/deln/core\\_adp/get\\_object/ps2k\\_den-not\\_20120301.pdf](http://news.bna.com/deln/core_adp/get_object/ps2k_den-not_20120301.pdf) (documenting different closures among coal-fired power plant sites).

199. *See Cernansky, supra* note 25.

200. *See, e.g., Coal-Fired Power Plant Completes Total Conversion to Renewable Bio-fuel Energy*, PENNENERGY (Feb. 22, 2012), [http://www.pennenergy.com/index/power/display/4335120070/articles/pennenergy/power/renewable/2012/february/coal-fired-power\\_plant.html](http://www.pennenergy.com/index/power/display/4335120070/articles/pennenergy/power/renewable/2012/february/coal-fired-power_plant.html); Press Release, Dominion News, Dominion Virginia Power Plans to Convert Three Coal-Fired Stations to Renewable Biomass (Apr. 1, 2011), available at <http://dom.mediaroom.com/index.php?s=26677&item=71785> (explaining that a coal-fired power plant in Pennsylvania plans to convert to a renewable biofuel energy production site.)

201. *See Midwest Generation Plans to Close Two Coal-Fired Plants in Chicago by End of 2014, supra* note 198.

188. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35128, 35166 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264-65, 268, 271, 302).

189. *Id.* at 35191.

190. *Id.* at 35166.

191. *Wastes—Hazardous Waste*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/osw/hazard/> (last updated July 24, 2012).

192. *Id.*

193. *See Mary Anne Hitt, Big News: Nation's 100th Announced Coal-Fired Power Plant Retirement*, SIERRA CLUB (Feb. 29, 2012, 11:22 AM), <http://sierraclub.typepad.com/compass/2012/02/100th-plant.html> (discussing the trend in the energy production industry away from coal dependency).

194. *See GOTTLEB ET AL., supra* note 104, at 8. Although not a focus of this Note, it is appropriate to mention that many surface impoundments are located in rural areas in which local communities rely on the energy industry for employ-

protested vigilantly against the placement of coal ash waste in landfills or surface impoundments in their state—yet no real changes in state regulatory regimes to better protect citizens have resulted.<sup>202</sup>

EPA is currently considering two rules that would attempt to impose federal regulations on coal ash disposal.<sup>203</sup> One of these rules would merely buttress the status quo, but the second would address many, although not all, of the prob-

lems improper coal ash disposal presents.<sup>204</sup> Most notably, this rule would create a special category for coal ash waste to prevent the refuse from being stigmatized. But Congress and EPA must officially acknowledge what coal ash really is—hazardous waste—and institute necessary changes to prevent future disasters. This requires that Congress repeal the Bevill Amendment, prohibit the use of wet-handling coal ash, and support EPA's imposition of strict standards.

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202. For example, environmental non-profit group “Appalachian Voices,” headquartered in North Carolina, has spoken out repeatedly against under-regulated coal ash disposal sites and the dangers they pose to human health and the environment. According to the group, North Carolina produces more than 5.5 million tons of coal ash every year, and 12 of the 26 coal ash disposal ponds have been designated by EPA as “high hazard;” however, the state has not passed state specific regulations concerning coal ash. Press Release, Appalachian Voices, Delayed Coal Ash Regulations Put Public Health at Risk (Jan. 18, 2012), *available at* <http://appvoices.org/2012/01/18/delayed-coal-ash-regulations-put-public-health-at-risk/>; *see also* Letter from Mary Leila Schaeffer et al., Constituents, to Their U.S. Senators (Oct. 20, 2011), *available at* [http://www.environmentalintegrity.org/documents/DFULetter12\\_13\\_2011FINAL.pdf](http://www.environmentalintegrity.org/documents/DFULetter12_13_2011FINAL.pdf) (addressing concerns of 2,000 Americans living near coal ash disposal sites).

203. *See* Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128, 35133–34 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264–65, 268, 271, 302).

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204. *See id.*