

**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**

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INTRODUCTION

Environmental justice issues run the gamut from local community health problems to larger conservation issues. The idea of “environmental justice” only became politically endorsed in the near history, when

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President William Jefferson Clinton signed an Executive Order recognizing the concept.<sup>1</sup> The order required that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”<sup>2</sup> Thus, agencies had to incorporate new considerations into their planning in addition to the traditional inquiries under the National Environmental Policy Act (NEPA).<sup>3</sup>

In 1996, the Environmental Protection Agency (EPA) adopted a strategy for addressing concerns associated with environmental justice.<sup>4</sup> As part of this plan, the EPA set forth five discrete areas where the concept of environmental justice would be incorporated into their analysis: “1) Public Participation, Accountability, Partnerships, Outreach, and Communication with Stakeholders; 2) Health and Environmental Research; 3) Data Collection, Analysis, and Stakeholder Access to Public Information; 4) American Indian and Indigenous Environmental Protection; and 5) Enforcement, Compliance Assurance, and Regulatory Reviews.”<sup>5</sup> The EPA continues to modify and adapt its implementation of environmental justice.<sup>6</sup>

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1. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 11, 1994), amended by Exec. Order No. 12,948, 60 Fed. Reg. 6381 (Jan. 30, 1995).

2. *Id.*

3. National Environmental Policy Act, 42 U.S.C. §§ 4321–4370 (2006).

4. U.S. ENVTL. PROT. AGENCY, EPA/300-R-96-004, 1996 ENVIRONMENTAL JUSTICE IMPLEMENTATION PLAN 2 (1996), *available at* [http://www.epa.gov/environmentaljustice/resources/policy/implementation\\_plan\\_ej\\_1996.pdf](http://www.epa.gov/environmentaljustice/resources/policy/implementation_plan_ej_1996.pdf).

5. *Id.* at 4.

6. COUNCIL ON ENVTL. QUALITY, ENVIRONMENTAL JUSTICE GUIDANCE UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT (1997), *available at* [http://www.epa.gov/environmentaljustice/resources/policy/ej\\_guidance\\_nepa\\_ceq1297.pdf](http://www.epa.gov/environmentaljustice/resources/policy/ej_guidance_nepa_ceq1297.pdf); U.S. ENVTL. PROT. AGENCY, FINAL GUIDANCE FOR INCORPORATING ENVIRONMENTAL JUSTICE CONCERNS IN EPA’S NEPA ANALYSES (1998) [hereinafter FINAL GUIDANCE], *available at* [http://www.epa.gov/environmentaljustice/resources/policy/ej\\_guidance\\_nepa\\_epa0498.pdf](http://www.epa.gov/environmentaljustice/resources/policy/ej_guidance_nepa_epa0498.pdf) (explaining that a traditional NEPA analysis required the EPA to consider: (1) definition, (2) screening, (3) scoping, (4) affected resources, (5) alternatives, (6) mitigation, (7) consequences, (8) decisions, and (9) monitoring, while a NEPA analysis incorporating environmental justice “requires EPA to consider both impacts on the natural or physical environment and interrelated social and economic impacts. In analyzing social and economic impacts, unique cultural aspects should also be reviewed. EPA, as a matter of policy, will consider interrelated social and economic impacts in EAs. This serves as a base to further the goals of the Executive Order. Environmental justice concerns may arise from impacts on the natural or physical environment, such as human health or ecological impacts on minority populations and low-income populations, or from interrelated social or economic impacts.”); *see also* U.S. ENVTL. PROT. AGENCY, DOCKET NO. EPA-HQ-OECA-2011-0299, PLAN EJ 2014: SUMMARY OF DRAFT IMPLEMENTATION PLANS 1 (2011), *available at* <http://www.epa.gov/environmentaljustice/resources/policy/plan-ej-2014/plan-ej-summary-2011-03.pdf> (explaining that in light of the upcoming twentieth anniversary of President Clinton’s Executive Order, the EPA “seeks to: Protect the environment and

Determining the success of the EPA's incorporation of environmental justice into its administrative determinations, however, is another matter. While environmental justice comports with notions of equal protection under the Fourteenth Amendment of the United States Constitution, any citizen suit brought for failure to incorporate such concerns rests with the Administrative Procedure Act (APA).<sup>7</sup> Thus, when a citizen wishes to challenge the actions of the EPA for failure to ensure that environmental justice issues are adequately addressed, they must bring a suit challenging the Agency's action under the APA, with deference given to the Agency.<sup>8</sup>

One area of environmental concern presents a stark example of the failure of the EPA to incorporate and apply an adequate environmental justice program. In the realm of toxic cleanup, and specifically with regard to the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), environmental justice can often be overlooked in the face of pressures to effectuate an immediate and thorough cleanup of an area. Unfortunately, some community somewhere will always be impacted by the choice of where to dispose of waste and how to contain it. But when those choices result in the disparate treatment of insular minority and impoverished communities, inevitably, issues of injustice arise. In the case of toxic or hazardous waste sites and the cleanup of those sites, the poor and minority communities of the country bear the brunt of playing host to the great majority.<sup>9</sup>

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health in overburdened communities; Empower communities to take action to improve their health and environment; and Establish partnerships with local, state, tribal and federal governments and organizations to achieve healthy and sustainable communities”).

7. Administrative Procedure Act, 5 U.S.C. § 702 (2006) (“A person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof.”).

8. *See id.* § 706 (“To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—(1) compel agency action unlawfully withheld or unreasonably delayed; and (2) hold unlawful and set aside agency action, findings, and conclusions found to be—(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law . . . .”); *see also* Nat’l Ass’n of Home Builders v. Defenders of Wildlife, 551 U.S. 644, 658 (2007) (“Review under the arbitrary and capricious standard is deferential; we will not vacate an agency’s decision unless it ‘has relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.’” (quoting Motor Vehicle Mfrs. Ass’n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983))).

9. *See, e.g.*, Jennifer M. Norton, Steve Wing, Hester J. Lipscomb, Jay S. Kaufman, Stephen W. Marshall & Altha J. Cravey, *Race, Wealth, and Solid Waste Facilities in North Carolina*, 115 ENVTL. HEALTH PERSP. 1344, 1348 (2007), available at <http://ehp.niehs.nih.gov/members/2007/10161/10161.pdf> (finding that “the prevalence odds of a solid waste facility in 2003 were greater in North

As the EPA and other agencies have worked to refine an understanding of how to approach environmental injustice claims—or to, at the minimum, incorporate environmental justice into their agency decisions—the present problem of where to send waste products during the cleanup of an environmental disaster demonstrates the intractable nature of these issues. This paper examines the history of the Tennessee Valley Authority (TVA) coal ash spill that occurred on December 22, 2008 and the cleanup initiative carried out in partnership between the TVA and the EPA. Under the umbrella of events associated with the spill, this note will examine the accrual of waste from coal burning and the omission of coal-burning byproducts from the hazardous waste classification under RCRA, while pointing out the obvious threat to public health that such an omission poses. Furthermore, the clean up of the spill—and corresponding disposal of waste—implicates environmental justice concerns, which the EPA failed to incorporate fully into its decisions regarding the response. Finally, this note will address the recent EPA attempts to regulate coal-burning byproducts and the interplay between the EPA proposed rule and the exclusion of this waste from the hazardous waste category under RCRA. If the EPA can implement a new regime regulating this waste, the question will remain whether a site chosen will comply with these higher disposal standards accorded to hazardous waste, or whether an alternative means of disposal exists.

This note, therefore, addresses two complex issues: environmental justice and the regulation of coal combustion residuals (CCRs). In the case of the TVA disaster—and other cases involving toxic waste storage—these two issues are inexorably intertwined, and the oversight of either one can lead to at least the potential of substantive harm, if not the current realization of such harm.

#### I. THE INEVITABLE COAL ASH SPILL AT THE KINGSTON PLANT OF THE TENNESSEE VALLEY AUTHORITY

In late December of 2008, approximately 5.4 million cubic yards of fly-ash waste and other CCRs spilled out of a dam and into the Emory River in

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Carolina block groups with larger proportions of people of color compared with white block groups, and greater in lower wealth block groups compared with high wealth block groups . . . [and] that in block groups without solid waste facilities . . . new facilities were permitted at a higher rate” in groups with larger proportions of people of color).

Tennessee.<sup>10</sup> This ash, a byproduct of burning coal, burst forth from a dredge cell holding the waste product.<sup>11</sup> Approximately sixty acres of the ash spilled into parts of the Emory River and surrounding waters, displacing homes and families in the process.<sup>12</sup> After the initial hours, the question became how to clean up the mess, with the TVA contacting the EPA and beginning an immediate assessment of the exact extent of the spill's impact on the surrounding area.<sup>13</sup>

The source of the spill was the TVA's Kingston Fossil Plant, which generated the waste while supplying ten billion kilowatt-hours of electricity to roughly 670,000 homes yearly in the Tennessee Valley.<sup>14</sup> The plant was constructed in 1955 with nine coal-fired generating units.<sup>15</sup> On a given day, the plant consumed roughly 14,000 tons of coal and the plant put out "about 1,000 tons or approximately 1,200 [cubic yards] of fly ash per day when operating at full power."<sup>16</sup>

The coal burned at the plant contained various radioactive elements such as uranium and thorium, as well as other harmful elements like arsenic, lead, and chromium.<sup>17</sup> These elements exist in small amounts when coal remains inert.<sup>18</sup> However, when a plant burns coal, the waste product (i.e., the ash) concentrates these chemicals at up to ten times the inert levels.<sup>19</sup> Thus, the ash byproduct contains significant levels of harmful

10. Tamara Keith, *Crews Toil to Cleanup Tennessee Coal Ash Spill*, NAT'L PUB. RADIO, Dec. 26, 2008, <http://www.npr.org/templates/story/story.php?storyId=98741600> (All Things Considered radio broadcast).

11. TENN. VALLEY AUTH., CORRECTIVE ACTION PLAN FOR THE TVA KINGSTON FOSSIL PLANT ASH RELEASE 1-2 (2009) [hereinafter CORRECTIVE ACTION PLAN], available at [http://www.tva.gov/kingston/admin\\_record/pdf/G/G4.pdf](http://www.tva.gov/kingston/admin_record/pdf/G/G4.pdf).

12. *Id.*; see also Shaila Dewan, *Coal Ash Spill Revives Issue of Its Hazards*, N.Y. TIMES, Dec. 25, 2008, <http://www.nytimes.com/2008/12/25/us/25sludge.html> [hereinafter Dewan, *Revives Hazards*] ("What may be the nation's largest spill of coal ash lay thick and largely untouched over hundreds of acres of land and waterways Wednesday after a dam broke this week, as officials and environmentalists argued over its potential toxicity.").

13. CORRECTIVE ACTION PLAN., *supra* note 11, at 1-5.

14. ANDA A. RAY, TENN. VALLEY AUTH., REGULATORY SUBMITTAL FOR KINGSTON FOSSIL PLANT: OFF-SITE ASH DISPOSAL ANALYSIS WORK PLAN 1 (2009) [hereinafter REGULATORY SUBMITTAL], available at <http://www.epakingstontva.com/Work%20Plan%20Approvals/Offsite%20Transport%20and%20Disposal/Transmittal%20Cover%20for%20Regulatory%20Submittal%20-%20Offsite%20Ash%20Disposal%20Options%20Plan%20Approved.pdf>.

15. *Id.*

16. CORRECTIVE ACTION PLAN, *supra* note 11, at 1-2.

17. See Mara Hvistendahl, *Coal Ash Is More Radioactive than Nuclear Waste*, SCI. AM., Dec. 13, 2007, <http://www.scientificamerican.com/article.cfm?id=coal-ash-is-more-radioactive-than-nuclear-waste> ("At issue is coal's content of uranium and thorium, both radioactive elements.").

18. *Id.*

19. *Id.* As one reporter noted, any exposure to drinking water containing fly ash could "increase cancer risks several hundredfold." Dewan, *Revives Hazards*, *supra* note 12.

carcinogens.<sup>20</sup> Most ash that results from energy production is stored in nearby impoundments, requiring constant supervision and maintenance to ensure the harmful ash does not leach into local water supplies.<sup>21</sup> From the dramatic events that occurred in 2008, it is safe to say TVA failed in this task.<sup>22</sup>

Early in the morning on December 22, 2008, a dredge-cell dike containing the ash collapsed, releasing “about 60 acres of ash in the 84-acre containment area” into the surrounding waters.<sup>23</sup> This dike was part of a series of impoundments built to house the coal waste—made up of fly ash, a fine silica-like material, and other CCRs.<sup>24</sup> Large earthen walls composed the impoundments and acted as a barrier to the Emory River.<sup>25</sup> After burning the coal, the ash slurry would arrive at the impoundment ponds, as at the Kingston plant, or in landfills, and after a settling period, TVA would pump the settled material to a dredge cell to hold the material. The spill involved the failure of a dike containing these dredge cells.<sup>26</sup>

Though early estimates put the spill total at sixty acres, in fact roughly eighty-four acres spilled into the Emory River waters, amounting to 9.4 million cubic yards of CCR waste.<sup>27</sup> Indeed, TVA initially claimed the amount of escaped ash as 1.7 million cubic yards, subsequent analysis placed the total cubic yards displaced at the much larger number of 5.4 million.<sup>28</sup> Furthermore, EPA testing around the spill area showed that the waste contained high levels of metals—metals capable of causing severe maladies.<sup>29</sup> One report by the Tennessee Department of Environment and Conservation found that tested ash contained “metals and radioactive materials.”<sup>30</sup> Although the Department found that “the only metal at levels

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20. Hvistendahl, *supra* note 17.

21. See Fred Bosselman, *The Ecological Advantages of Nuclear Power*, 15 N.Y.U. ENVTL. L.J. 1, 35 (2007) (stating that without constant supervision these sites run the risk of chemical run-off into “underground water supplies”).

22. What is even more chilling is that after the spill of 2009, TVA had another spill in which 10,000 gallons of coal ash escaped from a similar impoundment in Alabama. See Matthew Pearl, *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, 196 (2009).

23. REGULATORY SUBMITTAL, *supra* note 14, at 1.

24. CORRECTIVE ACTION PLAN, *supra* note 11, at 1-2.

25. *Id.*

26. *Id.*

27. *Id.*

28. See Shaila Dewan, *Tennessee Ash Flood Larger than Initial Estimate*, N.Y. TIMES, Dec. 27, 2008, <http://www.nytimes.com/2008/12/27/us/27sludge.html?scp=10&sq=&st=nyt> (explaining that officials quickly revised a preliminary estimate upon an aerial survey depicting the total amount of ash displaced).

29. *Id.*

30. CORRECTIVE ACTION PLAN, *supra* note 11, at 2-3.

that [Tennessee Department of Environment and Conservation] believe[d] may present a potential health hazard [was] arsenic,<sup>31</sup> the potential for harm from other chemicals still existed.

Immediately following the spill, TVA took various steps to control and rectify the situation. They built a dike to limit the extent of ash dispersion through nearby water systems, began a preliminary cleanup of roads and train tracks, and constructed a dredging system to catch ash solids in the contaminated waters.<sup>32</sup> Months later, the chief executive officer of TVA stated that the spill stemmed from “the existence of an unusual bottom layer of ash and silt, the high water content of the wet ash, the increasing height of ash, and the construction of the sloping dikes over the wet ash,” and, furthermore, admitted that causes of the spill could date to the plant’s initial construction.<sup>33</sup> The spill resulted in damage to at least fifteen houses.<sup>34</sup> As of September 14, 2009, TVA had agreed to provide the surrounding communities affected by the spill with 43 million dollars towards economic development projects, and though “[t]he money will be spent on projects that do not directly relate to the spill[] . . . local officials hope the work will help offset the international news coverage that made Roane County synonymous with acres of toxic sludge.”<sup>35</sup>

#### *A. The Response to the Spill and the Agreement on Consent*

In the days after the spill, the EPA and TVA shifted their focus from preliminary cleanup measures to long-term cleanup responsibilities.<sup>36</sup> During the “emergency phase” from the spill’s start to January 10, 2009, the Tennessee Department of Environment and Conservation and the EPA—in

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31. *Id.*

32. REGULATORY SUBMITTAL, *supra* note 14, at 1; CORRECTIVE ACTION PLAN, *supra* note 11, at 1-5.

33. *The Tennessee Valley Authority’s Kingston Ash Slide: Evaluation of Potential Causes and Updates on Cleanup Efforts Before the Subcomm. on Water Res. and the Env’t of the H. Comm. on Transp. and Infrastructure*, 111th Cong. 4 (2009) (statement of Tom Kilgore, President and Chief Executive Officer, Tennessee Valley Authority), available at <http://www.gpo.gov/fdsys/pkg/CHRG-111hhrg51348/html/CHRG-111hhrg51348.htm>.

34. Dewan, *Revives Hazards*, *supra* note 12.

35. Shaila Dewan, *T.V.A. to Pay \$43 Million on Projects in Spill Area*, N.Y. TIMES, Sept. 14, 2009, [http://www.nytimes.com/2009/09/15/us/15ash.html?\\_r=1&fta=y](http://www.nytimes.com/2009/09/15/us/15ash.html?_r=1&fta=y) [hereinafter Dewan, *\$43 Million*].

36. REGULATORY SUBMITTAL, *supra* note 14, at 2 (announcing that “the purpose of this disposal evaluation is to consider acceptable offsite disposal locations and recommend one or more for the disposal of dredged ash material”).

conjunction with TVA—oversaw the cleanup of the area.<sup>37</sup> With the winding down of the emergency phase, responsibility for the remainder of the cleanup shifted to TVA.<sup>38</sup> The Tennessee Department of Environment and Conservation then directed TVA to “undertake numerous response activities” to restore as best as possible the impacted area to its pre-spill environment.<sup>39</sup> After TVA gave notice of the chemical substances detected from the spill—which included numerous hazardous substances—to the EPA and Tennessee Department of Environment and Conservation, the EPA moved to retain jurisdiction over the spill and provide oversight of the subsequent restorative efforts.<sup>40</sup> EPA accomplished this by entering into an Agreement on Consent with TVA.

The ability of the EPA to oversee the cleanup and ensure TVA’s thorough handling of the spill enabled the agency to impose specific levels of performance.<sup>41</sup> The Agreement on Consent allowed the EPA to “(i) approve, in whole or in part, the submission [of any plan, report, or other item]; (ii) approve the submission upon specified conditions; (iii) disapprove, in whole or in part, the submission, directing that TVA modify the submission; or (iv) any combination of the above.”<sup>42</sup> Basing its authority to oversee the cleanup on CERCLA, the EPA was likewise required to fulfill its responsibility under the National Contingency Plan,<sup>43</sup>

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37. U.S. ENVTL. PROT. AGENCY, TVA KINGSTON FOSSIL FUEL PLANT RELEASE SITE, ADMINISTRATIVE ORDER AND AGREEMENT ON CONSENT 6 (2009) [hereinafter AGREEMENT ON CONSENT], available at <http://www.epa.gov/region4/kingston/May8TVAKingstonFinal106Order.pdf>.

38. *Id.*; see also Exec. Order No. 12,580, 52 Fed. Reg. 2923 (Jan. 29, 1987) (as amended) (implementing a National Contingency Plan for addressing any disaster under CERCLA and granting EPA the ability to oversee and administer such sites).

39. AGREEMENT ON CONSENT, *supra* note 37, at 6. Under the Agreement on Consent, the EPA retained jurisdiction under 42 U.S.C. §§ 9606(a) and 9607, and TVA agreed to

conduct response actions . . . to abate any imminent and substantial endangerment to public health, welfare or the environment that may be presented by the actual or threatened release of hazardous substances, pollutants or contaminants and to otherwise address the impacts of the release at or from the Site in accordance with CERCLA and the NCP.

*Id.* at 2–3.

40. *Id.* at 6.

41. *Id.* at 14 (explaining the requirements for the EPA’s approval of any plans by TVA).

42. *Id.*

43. *Id.* at 15 (citing to the National Contingency Plan as the first level of compliance the EPA’s oversight imposes upon TVA). The National Contingency Plan is a strict plan “for the removal of oil and hazardous substances” and includes ten separate considerations for various organizations to follow when engaged in such a venture. Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9605 (2006) (listing the minimum of the plan to include in relevant part: “methods for evaluating, including analyses of relative cost, and remedying any releases or threats of releases from facilities which pose substantial danger to the public health or the environment; methods for determining the appropriate extent of removal remedy, and other measures authorized by this Act; [and] appropriate

which CERCLA imposes on the occasion of such a disaster.<sup>44</sup> Through the Agreement on Consent and in conjunction with NEPA, any failure on TVA's part could open the door to stiff penalties.<sup>45</sup> In addition to the broad powers CERCLA granted the EPA over the Kingston facility and its cleanup, the Agreement on Consent further allowed the EPA to "determine that additional actions, not included in an approved plan, are necessary to protect public health, welfare, or the environment . . . ."<sup>46</sup> These broad discretionary powers, including oversight of TVA's community relations,<sup>47</sup> provided the EPA with the ability to impose certain limits on TVA's actions—actions that extended beyond the area of Kingston and implicated the broader impact of the entire cleanup process.

In the immediate aftermath, the EPA established strategic goals for addressing the Kingston disaster and separated responsibilities into short-, mid-, and long-term cleanup measures.<sup>48</sup> Though the EPA remained a watchdog figure in the process, the responsibility for the cleanup rested squarely on the shoulders of TVA.<sup>49</sup> These duties included: locating an offsite waste disposal facility, establishing the amount of waste to be shipped to a specific facility, establishing an exact schedule of shipments, and determining the method of shipment.<sup>50</sup> The EPA imposed extensive permitting prerequisites for any site receiving the waste.<sup>51</sup> The agency also retained a final authorizing consent over any chosen facility and reserved rights "to take, direct, or order all actions necessary to protect public health, welfare or the environment, or to prevent, abate, or minimize an actual or threatened release of hazardous substances."<sup>52</sup> The Agreement on Consent expanded the EPA's oversight over the cleanup,<sup>53</sup> while TVA retained

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roles and responsibilities for the Federal, State, and local governments and for interstate and nongovernmental entities in effectuating the plan").

44. § 9605.

45. See AGREEMENT ON CONSENT, *supra* note 37, at 26 (listing penalties assessed for each day that TVA is not in compliance with the Consent Order).

46. *Id.* at 30.

47. *Id.*; see also Dewan, *\$43 Million*, *supra* note 35 (showing TVA negotiated a settlement with the community surrounding the Kingston spill to provide \$10 million per year for the next four years, with a large portion of the sum going towards revitalizing the local school, as well as a public relations campaign).

48. AGREEMENT ON CONSENT, *supra* note 37, at 9–10.

49. *Id.* at 9 ("TVA shall comply with the following provisions, including but not limited to all documents incorporated by reference into this Order, and all schedules and deadlines in this Order, developed pursuant to this Order, or incorporated by reference into this Order.").

50. *Id.* at 18.

51. *Id.* at 18–19.

52. *Id.* at 19, 27.

53. *Id.* at 7 (stating in the finding of facts, which in signing TVA agreed to, "[i]n the days immediately following the release, arsenic, as well as numerous other contaminants, including cadmium,

primary responsibility; TVA's failure to follow any prescribed guideline could result in administrative action against TVA for failure to comply.<sup>54</sup> Thus, from the initial hours of the disaster, the EPA and TVA appeared to have adopted a substantive framework for solving the problem of the then-current disaster.

## II. CHOOSING PERRY COUNTY'S ARROWHEAD LANDFILL

As part of the initial Consent on Agreement power-sharing pact between the TVA and the EPA, the EPA placed strict time requirements on TVA to adopt an adequate measure for disposing of the coal-ash waste—imposing on TVA the duty to provide an initial removal plan within fourteen days after the Consent on Agreement was signed.<sup>55</sup> Immediately, the question became what TVA was to do with the ash, with the answer found in Uniontown, Alabama.

On June 30, 2009, TVA laid out a precise plan for disposing the ash waste in Uniontown Alabama.<sup>56</sup> The proposal estimated that TVA would transport approximately 9000 cubic yards of the ash on a daily basis, requiring either 500 truckloads or eighty-five to ninety rail cars.<sup>57</sup> In finding an adequate site for holding the waste material, the Agreement on Consent provided that

TVA shall not permanently dispose of any Waste Material at an off-Site facility, or in a new landfill on-Site, unless that facility or landfill is operating in compliance with RCRA Subtitle D permitting requirements . . . which, at a minimum, shall include the use of a synthetic liner, leachate collection system, groundwater monitoring, financial assurance, and closure and post-closure care.<sup>58</sup>

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chromium, copper, lead, mercury, nickel, selenium, and zinc, were detected in surface water at concentrations which exceeded the National Recommended Ambient Water Quality Criteria (AWQC),” thereby allowing EPA to exercise expansive control due to the threat these substances pose).

54. *Id.* at 27–28.

55. *Id.* at 11. After the initial plan's approval by EPA, TVA had fifteen days to submit an offsite ash disposal and storage plan. *Id.*

56. Letter from Anda Ray, Senior Vice President & Env'tl. Exec., Tenn. Valley Auth. to Leo Francendese, U.S. Env'tl. Prot. Agency, Regulatory Submittal for Kingston Fossil Plant, June 29, 2009.

57. *Id.* at 3.

58. AGREEMENT ON CONSENT, *supra* note 37, at 18–19. Notice that in both the Agreement on Consent and other relevant documents, reference to the disposal of the waste at issue falls under Subtitle D of RCRA. When the initial cleanup began, the EPA and TVA agreed the substances that had spilled into the Emory River constituted “hazardous substances” as defined by CERCLA. *See id.* at 8 (“Ash at

Thus, TVA had to find a location that met both the capacity needs of the coal-ash waste, as well as a site that met the stringent requirements the RCRA statute (akin to those for disposal of industrial wastes) imposes.<sup>59</sup>

TVA issued a request for proposals to identify offsite waste disposal facilities that could handle the ash.<sup>60</sup> The three sites that initially appeared the most promising included: (1) the Arrowhead Landfill in Alabama, (2) the Veolia-Taylor County Landfill in Georgia, and (3) the Hazleton Mine Reclamation Project in Pennsylvania.<sup>61</sup> The Alabama and Georgia landfills were situated nearest the Kingston facility and could receive the most ash—as compared with the Pennsylvania site.<sup>62</sup> The Pennsylvania site later dropped from consideration, with TVA stating that the site was “unable to commit to installing a liner for placement of [spill] material.”<sup>63</sup> These three rail-accessible sites, including the later discounted Pennsylvania site, represented the main hope for disposal of the ash, as any site accessible by truck alone would produce inherent safety risks.<sup>64</sup> An additional consideration was that the rail option offered a more fuel-efficient result.<sup>65</sup>

Thereafter, TVA concluded that the Arrowhead Landfill provided the best means of meeting the EPA’s standards for ash disposal.<sup>66</sup> The TVA considered the price tag for the waste disposal and found that with the Arrowhead Landfill the “total cost was notably less than the price” of the Georgia facility.<sup>67</sup> TVA did consider the permeability status of the landfills at issue and their propensity for hazardous material seepage.<sup>68</sup> However, the importance of cost measures versus permeability studies raises the specter

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the Site contains constituents such as arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium and zinc, which are ‘hazardous substances’ as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).”) The Agreement on Consent also noted that coal ash is not regulated as hazardous waste under RCRA. *Id.* See also *infra* Part IV.A (discussing the class distinctions between hazardous and solid waste).

59. See REGULATORY SUBMITTAL, *supra* note 14, at 3, 5, 6.

60. *Id.* at 4.

61. *Id.* at 6.

62. *Id.*

63. *Id.* But see Tom Rathbun, *PA DEP Rejects Application for Beneficial Use of Tennessee Valley Ash for Mine Reclamation*, PR NEWswire, May 13, 2009, <http://news.prnewswire.com/ViewContent.aspx?ACCT=109&STORY=/www/story/05-13-2009/0005025644&EDATE>. Though Pennsylvania was approved by the EPA as a site where ash could be dumped, Pennsylvania refused to accept the ash, explaining that the ash did not meet the statutory requirements. *Id.*

64. REGULATORY SUBMITTAL, *supra* note 14, at 8. The risks consisted of the likelihood of accidents due to carriage of ash by trucks, since a single truck’s capacity was limited and the present disaster would require a fleet equal to the capacity of a train. *Id.*

65. *Id.*

66. *Id.* at 13.

67. *Id.*

68. *Id.* By TVA’s calculations such seepage would be minimal at best. *Id.*

of impropriety.<sup>69</sup> The toxins at issue could pose a threat, and studies show that this threat exists despite the waste-area soil components. Thus, situs outcomes are dictated by cost rather than safety, to the detriment of the host community.

The TVA acknowledged the impact the disposal would have on the chosen local community. Statements made in TVA reports, however, only elaborated the beneficial effects the project would provide for the community, including job opportunities and payment for tonnage of ash received, while glossing over any detrimental impact.<sup>70</sup> The closing sentence of the most relevant report states “[t]he common theme among the elected [local] officials was the need for revenue and jobs to improve the economic condition of Perry County. No concerns were expressed about receiving [Kingston] material.”<sup>71</sup>

During the disposal process, the Arrowhead Landfill altered their permit as a landfill in order to expand the service area and disposal value (the amount of waste they could accept), and to allow other changes to the landfill to provide greater ease of access.<sup>72</sup> In the application for the permit, the Alabama Department of Environmental Management explicitly stated that “the waste stream for Perry County Associates Landfill will remain as non-hazardous, non-infectious putrescible wastes.”<sup>73</sup> The modification of the permit included an exemption for “special wastes,” with municipal solid

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69. *See id.* (admitting that TVA’s “final decision was based primarily on cost per ton to transport and dispose of the ash material”).

70. *Id.* at 14; *see also* Shaila Dewan, *Clash in Alabama over Tennessee Coal Ash*, N.Y. TIMES, Aug. 29, 2009, <http://www.nytimes.com/2009/08/30/us/30ash.html> [hereinafter Dewan, *Clash in Alabama*].

71. REGULATORY SUBMITTAL, *supra* note 14, at 13. *But see* U.S. ENVTL. PROT. AGENCY, SUMMATION OF COMMENTS RECEIVED AND RESPONSE TO COMMENTS, TVA KINGSTON FOSSIL FUEL PLANT RELEASE SITE, ADMINISTRATIVE ORDER AND AGREEMENT ON CONSENT, DOCKET NO. CERCLA-04-2009-3766, PUBLIC COMMENT PERIOD MAY 18 – JULY 20, 2009 at 50–54 (2009) [hereinafter SUMMATION OF COMMENTS], *available at* <http://www.epa.gov/region4/kingston/tvaacommentga82009.pdf> (stating, in response to a comment, “[t]he decision to move toxic ash to these particular locations raises environmental justice concerns because of the social vulnerability of the communities targeted,” entailed a summary of environmental justice review at the EPA, the statement the landfill preexisted the present disaster, and the explanation that the landfill in question is suitable to take RCRA Subtitle D wastes).

72. Letter from Philip Davis, Chief, Solid Waste Branch, Ala. Dep’t of Env’tl. Mgmt. to Perry Cnty. Assocs., LLC, Permit No. 53-03 Modification (July 20, 2009). Thus, though the EPA responded that the Arrowhead Landfill was a preexisting site, and therefore the Agency’s decision to send the waste there was generally immune from a challenge based upon failure to incorporate environmental justice concerns, the suspect enlargement of a preexisting facility—in order to “appear” a more appropriate site—may raise some eyebrows.

73. ALA. DEP’T OF ENVTL. MGMT., SOLID WASTE DISPOSAL FACILITY PERMIT at Final Determination for Modification (2009).

waste an acceptable disposal material under the permit.<sup>74</sup> A Regulatory Submittal of June 29, 2009<sup>75</sup> explained that the Arrowhead Landfill met the permit requirements of RCRA's Subtitle D, Class I landfills;<sup>76</sup> nonetheless, it was not the safety measures of the site, but economic incentives that appear to have dictated the choice.<sup>77</sup>

Returning to the administrative actions at hand, many other alterations occurred to the landfill—beyond the alterations to the landfill's permit—for the landfill to handle the massive amounts of ash sent to the area. As an initial matter, TVA and the EPA had to develop a procedure for loading the ash that would minimize any dust spillage during routing from Tennessee to Alabama.<sup>78</sup> In addition to a work-plan for loading the ash, TVA developed a plan for unloading the ash in Alabama,<sup>79</sup> as well as the construction of a rail spur at Kingston to “accommodate easier loading of the ash.”<sup>80</sup> In a preliminary test of the unloading process, EPA officials reported that upwards of ninety-eight percent of the test substance could be offloaded from the trains.<sup>81</sup>

74. *Id.* at 8. While the permit also required a specific liner, it also allowed asbestos waste, foundry sand, and petroleum contaminated waste to be among the contents disposable at the site. *Id.*

75. These submittals were a required part of the Consent on Agreement between the EPA and the TVA. The TVA had to file any work order or plan with the EPA prior to full approval.

76. REGULATORY SUBMITTAL, *supra* note 14, at 6.

77. *Id.* at 13. Furthermore, the ultimate decision between the Arrowhead Landfill and another landfill based in Georgia rested entirely “on cost per ton to transport and dispose of the ash material.” *Id.* Where decisions regarding the disposal of what the EPA has found to be hazardous waste hinges entirely upon cost considerations, the actions of the government and institutions engaging in the cleanup should be subjected to a serious examination to ensure that these actions do not endanger the health, welfare, and environment of communities, and statutory holes should be closed entirely. Arguments can be made that the waste has to go somewhere, and as an economically-driven capitalist country, these considerations are fundamental to a properly functioning society. However, where these decisions discriminately impact individuals and pose long-term hazards, greater care should be afforded to the cleanup and disposal—in fact, that is the general aim of RCRA.

78. TENN. VALLEY AUTH., REGULATORY SUBMITTAL FOR KINGSTON FOSSIL PLANT: LOADING WORK PLAN 5 (2009), available at [http://www.tva.gov/kingston/admin\\_record/pdf/38.pdf](http://www.tva.gov/kingston/admin_record/pdf/38.pdf).

79. TENN. VALLEY AUTH., REGULATORY SUBMITTAL FOR KINGSTON FOSSIL PLANT: RAIL MODIFICATION WORK PLAN REV 1 (2010), available at <http://www.epakingstontva.com/Work%20Plan%20Approvals/Offsite%20Transport%20and%20Disposal/Railroad%20Modificaion%20Work%20Plan%20R1.pdf>.

80. TENN. VALLEY AUTH., REGULATORY SUBMITTAL FOR KINGSTON FOSSIL PLANT: RAIL SPUR CONSTRUCTION PLAN (2009), available at <http://www.epakingstontva.com/Work%20Plan%20Approvals/Forms/DispForm.aspx?ID=6>.

81. U.S. ENVTL. PROT. AGENCY, ASH LOADING TEST EVALUATION 5 (2009), available at [http://www.epakingstontva.com/Work%20Plan%20Approvals/Offsite%20Transport%20and%20Disposal/Ash%20Loading%20Test%20Evaluation\\_052809.pdf](http://www.epakingstontva.com/Work%20Plan%20Approvals/Offsite%20Transport%20and%20Disposal/Ash%20Loading%20Test%20Evaluation_052809.pdf). These work plans show a measured progress towards ensuring public health and safety, and the care regarding the transportation of the ash—with attention paid to the propensity for spills along the way and a final recommendation for stringent requirements for the transport of the ash. *Id.*

Later in the cleanup process—after disposal had commenced—the EPA explained in greater detail its reasons for accepting the TVA’s choice of Arrowhead Landfill.<sup>82</sup> The EPA stated it had considered Arrowhead’s compliance with federal and state regulations, the technical requirements of the landfill membrane system, the large capacity of the landfill, and finally the proximity to the rail system.<sup>83</sup> Though acknowledging that they considered “community impacts,” the agency described the landfill as “an isolated area, surrounded by large tracts of property, farms and ranches,” with an expansive buffer to ensure the ash does not impact the community.<sup>84</sup>

Directly addressing questions during the Public Notice and Comment Period, the EPA admitted that it had refused to reclassify the ash as hazardous under RCRA (which governs the present storage of the ash at Arrowhead)—maintaining that even though constituents in the ash may rise to a hazardous level, the failsafe devices and safety precautions at Arrowhead sufficed.<sup>85</sup> As noted above, in response to a question on environmental justice, the EPA explained that their actions coincided with any and all concepts of environmental justice the agency endorsed while making no apologies for their choice of shipping the ash to a largely African-American community.<sup>86</sup> The answers to questions regarding environmental injustice and the community surrounding the landfill suggest a reluctance to answer the issues head on, instead skirting by without an accurate accounting of the local impact.

Indeed, the initial enthusiasm of local administrators and county officials may have hidden certain misgivings of the community to accept these waste materials.<sup>87</sup> Some residents expressed reservations during this public comment phase of the choice;<sup>88</sup> nonetheless, community leaders generally believed the ash posed no immediate or long-term health threats. However, members of the public apart from community leaders are voicing

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82. STEPHANIE BROWN, CMTY. INVOLVEMENT COORDINATOR, U.S. ENVTL. PROT. AGENCY, FREQUENTLY ASKED QUESTIONS REGARDING THE DISPOSAL OF COAL ASH AT THE PERRY COUNTY ARROWHEAD LANDFILL UNIONTOWN, ALABAMA 2 [hereinafter ARROWHEAD LANDFILL FAQs], available at <http://www.epa.gov/region4/kingston/TVAPerryCountyFAQ.pdf>.

83. *Id.*

84. *Id.*

85. SUMMARY OF COMMENTS, *supra* note 71, at 28–29. This finding seems to directly contradict the earlier statements of fact by the EPA in the Consent on Agreement, *supra* note 37, and even the testing done of surrounding waters in the period following the spill.

86. *Id.* at 53–54. The question to the EPA noted that “Alabama’s Perry County is 69% African-American with more than 32% of its residents living in poverty, making it one of the poorest counties in the state.” *Id.* at 50.

87. Dewan, *Clash in Alabama*, *supra* note 70.

88. *Id.*

at least general concern over the contents of the ash and its affect on public health.<sup>89</sup>

Former Representative Artur Davis, of Alabama, at the same time started his own war against the dumping of the ash in Perry County.<sup>90</sup> In a letter to the EPA, Rep. Davis wrote:

[I]t is increasingly apparent that the federal government has to date not conclusively analyzed or addressed the potential hazards of large scale coal ash storage. I believe that residents and elected officials in Perry County deserve a clearer answer than they have received about the health and environmental risks posed by coal ash.<sup>91</sup>

The call for reevaluating the risk posed by this material stands against the backdrop of rising community concerns about the long-term effects the coal ash poses for the general public.<sup>92</sup> As Rep. Davis alleged in his letter, the confluence of charged rates for dumping the ash and lower waste disposal standards of Alabama led to the EPA's choice to send the waste to the Arrowhead Landfill. Though the siting of the ash will provide money and job opportunities for this community, Rep. Davis notes that many are growing uneasy over what burden the cleanup may ultimately impose.<sup>93</sup> Rep. Davis's concerns mirror those of the local communities—the failure of states to safeguard their citizens, the disservice the EPA could be perpetuating in the cleanup process, and the larger omission of regulation at the federal level. Unfortunately, Representative Davis was not reelected to office.

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89. *Id.*

90. See Dana Beyerle, *Davis Wants Coal Ash Criteria*, TUSCALOOSA NEWS, Oct. 16, 2009, <http://www.tuscaloosaneews.com/article/20091016/NEWS/910169993/1007?Title=Davis-wants-coal-ash-criteria> (stating that Rep. Davis has begun seeking the EPA to reclassify—or at least reexamine—the ash coming to Perry County as hazardous in wake of the impact it could have on community members).

91. Letter from Artur Davis, former Rep., 7th Dist. Ala. to Lisa Jackson, Adm'r, U.S. Env't. Prot. Agency, Oct. 15, 2009, (on file with the author).

92. *Id.*

93. See Tom Gordon, *Dumping Ash, Cash, on Perry County*, BIRMINGHAM NEWS, Nov. 15, 2009, [http://blog.al.com/birmingham-news-stories/2009/11/dumping\\_ash\\_and\\_cash\\_on\\_perry.html](http://blog.al.com/birmingham-news-stories/2009/11/dumping_ash_and_cash_on_perry.html) (writing of the growing frustration of the local populace regarding the dumping of the ash).

III. VARIANCES IN REGULATION LEADING TO DISPROPORTIONATE  
ACCEPTANCE OF HAZARDOUS MATERIALS:  
PENNSYLVANIA'S APPROACH TO ASH VERSUS ALABAMA'S

The refusal of Pennsylvania to accept the ash offers a striking example of the problem of classifying the ash when it comes to disposal of this waste—namely, the issue of substantive state differences regarding the handling of waste and the question of the EPA's choice to avoid regulating this area. Furthermore, where state regulation appears inconsistent with the propensity for public harm, and where the federal government already has proven its stake in regulating certain aspects of this area through the passage of RCRA and CERCLA, it would appear an appropriate place for stronger federal legislation superseding the ineffectiveness and disparate state policies and legislation.

For instance, while the period for choosing a disposal site was ongoing, a report surfaced that indicated Pennsylvania had rejected the TVA's proposal for "reclamation of abandoned coal mines," citing the stricter residual waste requirements in Pennsylvania.<sup>94</sup> The opportunity for disposal in Pennsylvania differed from Alabama, in that it would be a beneficial use project in the form of a mine reclamation project. However, under Pennsylvania law, spilled ash constituted residual waste and could not be employed in beneficial use.<sup>95</sup> Pennsylvania adopted stricter requirements more stringently enforced for the disposal and reuse of coal ash, with a limit for levels of tested-for compounds within the ash.<sup>96</sup>

On the other hand, the exact requirements under the Alabama statute differ greatly from those of Pennsylvania. Alabama's Department of Environmental Management categorizes fly ash as a municipal solid waste, or "special waste."<sup>97</sup> A cursory comparison of the maximum levels of compounds found in ash shipped to the respective states showcases the differing requirements for accepting the waste in Pennsylvania (Table 2) and Alabama (Table 1).

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94. Rathbun, *supra* note 63.

95. *Id.*

96. See PA. DEP'T OF ENVTL. PROT., CERTIFICATION GUIDELINES FOR THE CHEMICAL AND PHYSICAL PROPERTIES OF COAL ASH BENEFICIALLY USED AT MINES 6 (2009), available at <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-74216/563-2112-224.pdf> (listing requirements for specific compounds).

97. ALA. ADMIN. CODE r. 335-13-1.03(149) (2010).

Table 1: Allowable Levels from Alabama

<b>Chemical</b>	<b>Max. Concentration (mg/l)</b>
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	0.01
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.05
2,4-Dichlorophenoxy acetic acid	0.1
1,4-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
Endrin	0.0002
Fluoride	4
Lindane	0.004
Lead	0.015
Mercury	0.002
Methoxychlor	0.1
Nitrate	10
Selenium	0.01
Silver	0.05
Toxaphene	0.005
1,1,1-Trichloromethane	0.2
Trichloroethylene	0.005
2,4,5-Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002

Table 2: Allowable Levels from Pennsylvania

<b>Chemical</b>	<b>Max. Concentration (mg/l)</b>
Aluminum (Al)	5.0
Antimony(Sb)	0.15
Arsenic (As)	0.25
Barium (Ba)	50.0
Copper (Cu)	25.0
Fluoride	4.0
Iron (Fe)	7.5
Lead (Pb)	0.375
Manganese (Mn)	2.5
Mercury (Hg)	0.05
Molybdenum (Mo)	4.375
Nickel (Ni)	2.5
Selenium (Se) <sup>4</sup>	0.5
Silver (Ag)	2.5
Thallium (Tl)	0.05
Vanadium (V)	6.5
Zinc (Zn)	50
Sulfate (SO <sub>4</sub> )	2500
Chloride (Cl)	2500
Nitrate (NO <sub>3</sub> )	10
Nitrite (NO <sub>2</sub> )	1
Ammonia (NH <sub>3</sub> )	30
Calcium (Ca) <sup>5</sup>	-----
Magnesium (Mg) <sup>5</sup>	-----
Potassium (K) <sup>5</sup>	-----
Sodium (Na) <sup>5</sup>	-----

The two tables from the respective departments exemplify different acceptable levels of different chemicals and compounds. These separate rankings and listings of allowable materials, calculated in different ways, showcase the discretion states have in classifying, accepting, and regulating waste.<sup>98</sup> The problem, however, is what the baseline is. Although some of the Pennsylvania chemicals do have higher acceptable levels, the discrepancy between the two tables as a whole illustrates the propensity that certain states have for becoming dumping grounds where there is no

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98. *Id.* at r. 335-13-4-18(h)(2)(iii) (2005); PA. DEP'T OF ENVTL. PROT., *supra* note 96, at 6.

baseline rule for material, like CCRs, shown to consist of subparts of hazardous material. Or rather, where the baseline is so minimal as to be ineffective. Especially during economically difficult times, with states attempting any means to achieve budget equilibrium, the proclivity towards raising acceptable levels especially regarding coal-ash waste (as it remains in its own distinct category of waste) may be too great.<sup>99</sup> Looking at the Arrowhead Landfill, the re-permitting of the landfill provides a distinct example of the desire to accept waste and its attendant money pay-off without a full examination of the repercussions. With these wastes, the opportunity to lower regulation to a minimum designation should not be available, and instead, a higher level of safety measures should be required for its disposal.

#### IV. FAILING TO ACKNOWLEDGE WHAT ALREADY EXISTS: THE EPA'S ASSESSMENT OF THE RISKS FLY ASH AND OTHER COAL COMBUSTION RESIDUALS POSE

##### *A. Hazardous v. Solid Waste: Where Class Means Everything*

The disposal of the waste at issue here directly implicates RCRA. Yet a quick summary of RCRA and CERCLA illuminates the differences in regulation provided by the two acts and the apparent insufficiency of RCRA.

RCRA and CERCLA provide overlapping guidance in addressing hazardous waste cleanup. Under RCRA, a person who “comes into contact with a ‘hazardous waste’ during its life cycle” bears certain responsibilities or duties under the federal statute.<sup>100</sup> The statute functions to “promote the protection of health and the environment and to conserve valuable material and energy resources,”<sup>101</sup> accomplishing (or attempting to accomplish) these goals by requiring one who comes into contact with any substance defined as hazardous under the statute to “keep records, file reports, and properly handle such wastes.”<sup>102</sup> While RCRA focuses on future impacts of waste disposal, CERCLA focuses on the past disaster and its present

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99. An argument can be made that state geographic structure varies greatly, and therefore the states should have the opportunity to decide the level of regulation for these materials. However, as will be discussed below, these materials pose threats regardless of soil type.

100. JOHN G. SPRANKLING & GREGORY S. WEBER, *THE LAW OF HAZARDOUS WASTES AND TOXIC SUBSTANCES IN A NUTSHELL* 173 (2d ed. 2007).

101. 42 U.S.C. § 6902(a) (2006).

102. SPRANKLING & WEBER, *supra* note 100, at 173–74.

cleanup.<sup>103</sup> CERCLA authorizes the President “to remove or arrange for the removal of, and provide for remedial action relating to such hazardous substance, pollutant, or contaminant at any time.”<sup>104</sup>

The spill of the ash into the waters surrounding the Kingston plant initially triggered CERCLA—as the Consent on Agreement makes clear in its references to the “actual or threatened release of hazardous substances”<sup>105</sup>—binding the EPA to oversee TVA’s cleanup of the ash and ensuring that the removal of ash would restore the areas “impacted by the release.”<sup>106</sup> While Section 9604 of CERCLA outlines the specific actions liable parties must undertake in the face of any release of a hazardous substance, the Consent on Agreement between TVA and the EPA established a loose framework for an adaptable cleanup plan.<sup>107</sup>

As noted above, part of the EPA’s “Conclusions of Law and Determinations” in the Agreement on Consent included a finding that the ash site contained “arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium and zinc”—all elements that the EPA has defined as hazardous substances under CERCLA.<sup>108</sup> CERCLA allows the EPA flexibility in confronting hazardous waste disasters, and the EPA has broad power to ensure that such disasters are capably managed.<sup>109</sup> As courts have held, CERCLA applies when any amount of a hazardous substance constitutes a part of the regulated waste.<sup>110</sup>

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103. *Id.* at 178.

104. § 9604 (a).

105. AGREEMENT ON CONSENT, *supra* note 37, at 8; *see also id.* at 2 (stating that 42 U.S.C. §§ 9606(a) and 9607 grant the EPA the authority to oversee the project). Compare Exec. Order No. 12,580, 52 Fed. Reg. 2923 (Jan. 29, 1987) (as amended) (implementing a National Contingency Plan for addressing any disaster under CERCLA and granting EPA the ability to oversee and administer such sites).

106. AGREEMENT ON CONSENT, *supra* note 37, at 1.

107. *See id.* at 10–11 (recognizing the difference between short-term, mid-term, and long-term objectives, and the necessary interplay between these goals, an interplay that requires “revision upon direction by EPA”); *see also* 42 U.S.C. § 9604(a) (listing possible response authorities).

108. AGREEMENT ON CONSENT, *supra* note 37, at 8. Compare with RCRA, which does not regulate coal ash as hazardous. *See infra*, Part I (discussing the radioactive elements in coal).

109. *See* SPANKLING & WEBER, *supra* note 100, at 285 (explaining that CERCLA’s classification of hazardous substances under 42 U.S.C. §§ 9601(14) and 9602(a) includes “[a]ny substance which has already been designated as hazardous or toxic under specified provisions of the CAA, CWA, RCRA, or TSCA” and “if a substance ‘may present a substantial danger to the public health or welfare’” (quoting 42 U.S.C. § 9602 (a))).

110. *See, e.g.,* United States v. Alcan Aluminum Corp. 755 F. Supp. 531 (N.D.N.Y. 1991) (“Much of what plaintiffs need to prove in order for liability to be imposed on Alcan is not in dispute. In its attempt to resist liability, Alcan argues essentially that the concentrations of cadmium, chromium, copper, lead and zinc in its emulsion are less than background levels and, therefore, do not constitute hazardous substances under CERCLA.”).

However, a problem emerges here. CERCLA covers the initial cleanup of the area, but once this step is completed, the disposal of the waste can go forward under a less-stringent standard. Because of the exclusion of coal byproducts from the “hazardous waste” category under RCRA, the transportation and eventual disposal of these materials is subject to the lighter degree of regulation imposed by the Bevill Amendment under RCRA. Therefore, in the initial cleanup stage the EPA can regulate (and oversee TVA’s cleanup of) coal ash as a hazardous waste because of the distinct concentrations of designated elements within it—along with TVA’s consent to allow the EPA to oversee the cleanup. On the other hand, after the cleanup moves into a disposal face, the substance no longer falls under the hazardous waste designation under RCRA, but falls under the less stringent waste designation, solid waste.<sup>111</sup> Though the EPA appears to be confronting this problem through its most recently proposed rule on CCRs, this rule is far from implementation.<sup>112</sup>

*B. A History of Failing to Regulate: Missed Opportunities to Reclassify CCRs as Hazardous Waste Under RCRA*

In August of 2007, the EPA assessed the risks of coal-burning byproducts.<sup>113</sup> This was not the first time that the EPA had taken such a step.<sup>114</sup> Previously, the EPA had found that coal combustion waste did not fall under the hazardous waste category of RCRA.<sup>115</sup> RCRA—which was passed to address growing environmental concerns regarding the disposal of waste—established a comprehensive scheme of regulation for waste

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111. JOHN APPEGATE & JAN LAITOS, ENVIRONMENTAL LAW: RCRA, CERCLA, AND THE MANAGEMENT OF HAZARDOUS WASTE, 142–43 (2006); *see also* AGREEMENT ON CONSENT, *supra* note 37, at 8 (“Coal ash is not regulated as a hazardous waste under RCRA.”).

112. *See* Gabriel Nelson, *White House Gets an Earful on Power Plant Rule*, N.Y. TIMES, Mar. 14, 2011, <http://www.nytimes.com/gwire/2011/03/14/14greenwire-white-house-gets-an-earful-on-power-plant-rule-86449.html?scp=3&sq=coal%20ash&st=cse> (“That rule has faced a backlash from companies that burn coal, or recycle the ash by using it as an ingredient in cement and other products. EPA has not moved forward with a final rule since receiving tens of thousands of comments on the coal ash proposal. The agency is unlikely to make a decision by the end of this year, Administrator Lisa Jackson told lawmakers during a hearing earlier this month.”).

113. RTI INT’L, HUMAN AND ECOLOGICAL RISK ASSESSMENT OF COAL COMBUSTION WASTES AT ES-1 (2007) [hereinafter DRAFT RISK ASSESSMENT], *available at* [http://www.pineswater.org/EPA\\_ccw\\_risk.pdf](http://www.pineswater.org/EPA_ccw_risk.pdf) (draft prepared for U.S. EPA).

114. *Id.* at ES-2. *See generally* U.S. ENVTL. PROT. AGENCY, RISKS POSED BY BEVILL WASTES (1997) [hereinafter BEVILL WASTES], *available at* <http://www.epa.gov/osw/hazard/tsd/ldr/mine/risks.pdf> (presenting new information on the risks posed by Bevill wastes and discussing whether some Bevill wastes should be regulated).

115. DRAFT RISK ASSESSMENT, *supra* note 113, at 1-1.

categorized as hazardous.<sup>116</sup> When the EPA categorized coal ash as nonhazardous, the agency opened the door to relaxed regulation of coal-burning byproducts.<sup>117</sup>

The classification of coal byproducts has a long history dating back to 1980 and the Bevill Amendment, which established various hurdles for classifying coal ash as hazardous waste.<sup>118</sup> This amendment, in effect, exempted CCRs from the hazardous-waste designation under RCRA.<sup>119</sup> The EPA subsequently provided Congress with two reports—dated 1988 and 1999—which addressed the hazardous versus nonhazardous issue, both reports retaining fly ash’s categorization as a nonhazardous waste.<sup>120</sup> Though some concerns arose,<sup>121</sup> coal byproducts remained exempt from regulation as a hazardous waste—even though these byproducts contained concentrations of hazardous chemicals.

Only a year after the 1999 categorization of the ash as nonhazardous, the EPA again reexamined the issue.<sup>122</sup> In March of 2000, the agency neared stricter limits on disposal of coal ash; however, heavy lobbying by the

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116. See 42 U.S.C. §§ 6903–6924 (2006) (establishing requirements for the storage, treatment, transport, and disposal of hazardous waste).

117. RCRA classifies coal ash as “solid waste” rather than as a hazardous waste. The classification as “solid waste” impliedly means that it is not a hazardous waste. Compare *id.* §§ 6922–6924 (establishing standards applicable to producers of hazardous waste, transporters of hazardous waste, monitoring of disposal, and other limits on actions relating to hazardous materials) with *id.* § 6941 (proposing federal assistance in achieving stated purposes of waste disposal, rather than limits and penalties for improper handling of hazardous materials).

118. Kristen Lombardi, *Coal Ash: The Hidden Story*, CENTER FOR PUB. INTEGRITY, Feb. 19, 2009, <http://www.publicintegrity.org/articles/entry/1144/>.

119. BEVILL WASTES, *supra* note 114, at 2. Section 6921 states:

[E]ach waste listed below shall . . . be subject only to regulation under other applicable provisions of Federal or State law in lieu of this subchapter until at least six months after the date of submission of the applicable study . . . and after promulgation of [statutory] regulations: (i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

§ 6921(b)(3)(A).

120. Lombardi, *supra* note 118, at 6.

121. BEVILL WASTES, *supra* note 114, at 3 (“After studying beneficiation wastes, the Agency expressed concerns about the environmental threats from mining and stated that the Administration will work with Congress to develop expanded Subtitle D authority (i.e., Federal oversight and enforcement) to support an effective State-implemented program for mining waste and use RCRA section 7003 and CERCLA sections 104 and 106 to protect against substantial threats and imminent hazards in the interim.”).

122. Regulatory Determination on Wastes for the Combustion of Fossil Fuels, 65 Fed. Reg. 32,214 (May 22, 2000).

energy industry forced the issue on to the backburner.<sup>123</sup> Thus, the attempts to bring more stringent limits to the disposal of coal ash petered out.<sup>124</sup>

Despite these previous failures, the EPA continued to study CCRs. While a recent draft study by the EPA did not examine whether to reclassify coal combustion waste products as hazardous or not, it instead attempted “to identify and quantify human health and ecological risks that may be associated with current disposal practices.”<sup>125</sup> More specifically, the study thoroughly tested and looked at the toxicity levels of various harmful chemicals that CCRs contain.<sup>126</sup> These chemicals include arsenic, cadmium, copper, lead, mercury, and selenium—chemicals identified in the spilled-ash from the TVA disaster.<sup>127</sup>

The study methodologically looked at the levels of these chemicals present in fly ash compared with historically dangerous levels.<sup>128</sup> By examining traditional “human health and ecological benchmarks” regarding the fly ash chemicals with “conservative estimates of exposure concentrations” and a full-scale pathway examination, the study traced the source of the chemicals to human contact and explained the propensity for detrimental health effects.<sup>129</sup> The report found that landfills (whether clay soil-lined or not) could do little to prevent a higher rate of leakage of cancer-causing compounds.<sup>130</sup> The report further stated that even lined landfills could not stop some elevated risk that carcinogens would enter pathways to interact with humans.<sup>131</sup>

The report explained the high-risk fly ash and other coal combustion waste products pose; however, the report functions as a draft only, not a representative stance on the harmful nature of coal combustion waste. Thus, while the EPA provided evidence of harmful effects, it appeared unwilling to venture into a heated debate like the one surrounding the 2000

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123. *See id.* at 32,217 (evidencing that politicians from coal heavy states (e.g., representatives from West Virginia, Montana, and Tennessee) lobbied vehemently against any measure that would impose stricter regulation of the ash); *see also* Dewan, *Revives Hazards*, *supra* note 12.

124. Lombardi, *supra* note 118.

125. DRAFT RISK ASSESSMENT, *supra* note 113, at ES-2.

126. *Id.* at ES-2-3.

127. *Id.* at ES-6 tbl.2-1; *see also* ARROWHEAD LANDFILL FAQs, *supra* note 82, at 1 (“On December 22, 2008, the failure of a containment structure at the facility resulted in the release of an estimated 5.4 million cubic yards of coal ash to the Emory River and surrounding areas.”).

128. *See* DRAFT RISK ASSESSMENT, *supra* note 113, at ES-1 (“evaluating whether current management practices for coal combustion waste (CCW) pose risks to human health”).

129. *Id.* at 1-3.

130. *Id.* at ES-7-8 (finding that impoundments and unfilled landfills carried the same risk). Note that the EPA focused on the clay-lined landfill at the Arrowhead Landfill as one justification for disposal there. *Id.*

131. *Id.* at ES-8.

reclassification without adequate support from at least one side of the political aisle.

*C. The Present Proposed Rule to Regulating CCRs*

The EPA has, once more, undertaken an attempt to regulate these CCRs. In June of 2010, the EPA announced a proposed rule for CCRs. In its decision to regulate these coal-fire byproducts, the EPA announced two options for regulation under RCRA:

Under the first proposal, EPA would list these residuals as special wastes subject to regulation under subtitle C of RCRA, when destined for disposal in landfills or surface impoundments. Under the second proposal, EPA would regulate coal ash under subtitle D of RCRA, the section for non-hazardous wastes. The Agency considers each proposal to have its advantages and disadvantages, and includes benefits which should be considered in the public comment period.<sup>132</sup>

The EPA, in fact, explained that its decision to try to regulate these substances was driven almost entirely by the TVA spill.<sup>133</sup> The proposed rule pointed out the significant steps EPA must take in order to overturn the Bevill Amendment and strictly regulate CCRs.<sup>134</sup> As an initial matter, the regulation under Subsection C would ensure the greatest measure of safety for the public, a measure that should be met given the EPA's draft findings of the harm these substances pose. However, the Agency acknowledged in

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132. *Coal Combustion Residuals—Proposed Rule*, U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/ccr-rule/index.htm#propose> (last updated Mar. 8, 2011).

133. Hazardous and Solid Waste Management System, 75 Fed. Reg. 35,128, 35,132 (proposed June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264, 265, 268, 271, and 302) (“This decision [to regulate coal ash] is driven in part by the failure of a surface impoundment retaining wall in Kingston, TN in December 2009. Deciding upon the appropriate course of action to address over 100 million tons per year of CCRs is an extremely important step.”).

134. *Id.* at 35,132. Whether to maintain the Bevill exemption for CCRs requires an evaluation of eight RCRA study factors under Section 8002(n): (1) source and volumes of CCRs generated per year; (2) present disposal and utilization practices; (3) potential danger, if any, to human health and the environment from the disposal and reuse of CCRs; (4) documented cases in which danger to human health or the environment from surface runoff or leachate has been proved; (5) alternatives to current disposal methods; (6) the cost of such alternatives; (7) the impact of the alternatives on the use of coal and other natural resources; and (8) the current and potential utilization of CCRs. *Id.*

its proposal the contentious nature of any new designation, and therefore provided for a full comment period.<sup>135</sup>

The EPA explained that two avenues exist for regulating CCRs as hazardous under Subtitle C of RCRA. First, a waste is deemed hazardous if “it exhibits certain hazardous properties, called ‘characteristics,’ or [second] if EPA has specifically listed the waste as hazardous.”<sup>136</sup> A waste may also become regulable under Subtitle C through a lengthy investigation by the EPA, where the agency finds that “the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”<sup>137</sup>

Obviously, the EPA has recognized the concrete threat CCRs and coal-burning byproducts pose to the public; the proposed rule reflects this concern.<sup>138</sup> As part of the proposed rule, the EPA put together a series of recommendations beginning with overturning the Beville amendment, and continuing with regulation of this waste under either Subtitle C or Subtitle D of RCRA.

By regulating the waste under Subtitle C, the EPA would follow the life of CCRs from “the point of their generation to the point of their final disposition, including during and after closure of any disposal unit.”<sup>139</sup> Under Subtitle C, any facility would need to meet stricter requirements in terms of “siting, liners (with modification), run-on and run-off controls, groundwater monitoring, fugitive dust controls, financial assurance, corrective action, including facility-wide corrective action, closure of units, and post-closure care (with certain modifications).”<sup>140</sup> Furthermore, new regulations would oversee disposal in impoundments and dams. In essence,

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135. *See id.* (“Given the inherently discretionary nature of the decision, the complexities of the scientific analyses, and the controversy of the issue, EPA wants to ensure that the ultimate decision is based on the best available data, and is taken with the fullest possible extent of public input.”).

136. *Id.* at 35,135. As part of the proposed change, the EPA made direct statements regarding the risk to human health that CCRs pose, along with ecological risks. *Id.* at 35,167–68.

137. 40 C.F.R. § 261.11(a)(3) (2010).

138. For instance:

EPA reports that 36% of the States do not have minimum liner requirements for CCR landfills, and 67% do not have liner requirements for CCR surface impoundments . . . . It should also be recognized that while states currently have considerable expertise in their State dam safety programs, those programs do not tend to be part of State solid waste or clean water act programs, and so, oversight may not be adequately captured in EPA’s existing data. In several areas, there are these types of analytical tensions that warrant careful consideration by the public and EPA.

75 Fed. Reg. 35,133.

139. *Id.*

140. *Id.*

eliminating the Bevill Amendment and shifting regulation of CCRs to Subtitle C would answer all the questions raised by the TVA disaster—and thereby discount any claim of environmental injustice.

In comparison, regulation under Subtitle D would leave coal ash disposal in the hands of state and local authorities. Though the EPA has established rules regulating the disposal of Subtitle D waste such that no “reasonable probability of adverse effects on health or the environment”<sup>141</sup> results, these rules do not go far enough in terms of regulating the harmful constituents of CCRs. As the EPA made clear in its proposed rule, in regard to these Subtitle D wastes, the Agency “may act only if the handling, storage, treatment, transportation, or disposal of such wastes may present an imminent and substantial endangerment to health or the environment.”<sup>142</sup> The proposed rule goes on to explain the exact limits regulating CCRs under Subtitle D would have, namely an inability to oversee

the generation, transportation, storage, or treatment of such wastes prior to disposal. Moreover, EPA would not have administrative enforcement authority to enforce any RCRA subtitle D criteria for CCR facilities, authority to require states to issue permits for them or oversee those permits, nor authority for EPA to determine whether any state permitting program for CCR facilities is adequate.<sup>143</sup>

Here, the discrepancies in regulation are clear: under Subtitle C, the EPA would have expansive authority to ensure the threat CCRs and their constituent substances pose to the public is minimal and well-documented; under Subtitle D, that oversight could occur only upon the heightened standard of an imminent and substantial endangerment.

The EPA continues to return to the idea of regulating these substances, identifying the threat they pose year after year. However, the major deterrent to imposing such regulation is the high cost that will be borne by not only the coal-fire industry, but also the waste-disposal industry in implementing heightened strictures. These industries, as noted above, have lobbied heavily against any more substantial regulation. Furthermore, almost a year after the proposed rule was published, no final action has been taken. To avoid the pitfalls of past attempts to regulate these harmful

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141. EPA Criteria for Classification of Solid Waste Disposal Facilities and Practices, 40 C.F.R. pt. 257 (2011).

142. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residues from Electric Utilities, 75 Fed. Reg. 35,136 (June 21, 2010) (to be codified at 40 C.F.R. pts. 257, 261, 264, et al.).

143. *Id.*

substances, the EPA must adopt a rule that overturns the Bevill amendment and ensures proper disposal of these products: disposal under Subtitle C. Action must be taken regardless of the political muscle of these industries.

And indeed, the central problem here is not merely the misclassification of a hazardous substance, but the effect such a misclassification can have on a populace. As the EPA appears to adopt heartier considerations of environmental justice in its actions, its approval of the disposal of the present materials in an impoverished minority community with little in the way of institutional protections seems incongruous.

#### V. THE EPA'S GRANT OF POWER AND THE PROMISE OF ENVIRONMENTAL JUSTICE

When testifying before Congress on March 31, 2009, the EPA's acting regional administrator overseeing the TVA spill explained that the "EPA's overall objectives for our review and oversight are to ensure that the cleanup protects public health, is in full compliance with all applicable Federal law, proceeds in accordance with sound specific principles, is done as quickly as possible, consistent with prudent management, and restores the ecosystem."<sup>144</sup> The broad language of Mr. Meiburg reflects the broad grant of power the EPA holds under CERCLA, power that allows an EPA task force with "senior staffers from the Region's air, water, waste, and laboratory programs" to monitor and oversee all actions by the TVA and the Tennessee Department of Environment and Conservation.<sup>145</sup> Though the EPA holds a broad grant of power, one area of the administration of the cleanup remains overlooked: the absence of any environmental justice mandate.

Environmental justice, in its simplest terms, requires that "all individuals should have equal access to environmental protection and equal opportunity to enjoy environmental benefits."<sup>146</sup> The EPA definition of environmental justice, on the other hand, calls for "fair" treatment, with the possibility of "disproportionate effects," and the agency focuses on the effects on a population of people, rather than on issues of race<sup>147</sup>—though

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144. *Response to Kingston Coal Ash Release Before the H. Comm. On Transp. and Infrastructure and the Subcomm. on Water Res. and the Env't*, 111th Cong. 6–7 (2009) (statement of Stan Meiburg, Acting Regional Administrator, Region 4, U.S. Evtl. Prot. Agency).

145. *Id.* at 7.

146. EDUARDO LAU RHODES, ENVIRONMENTAL JUSTICE IN AMERICA 18 (Indiana University Press, 2003).

147. *Id.* at 19; see also FINAL GUIDANCE, *supra* note 6, § 1.1 (stating the definition of environmental justice as: "The fair treatment and meaningful involvement of all people regardless of

the issues of race are often, as here, underlying the geographic locations involved.<sup>148</sup> The legal roots of the environmental justice movement—though traced to the civil rights movement of the 1960’s and earlier<sup>149</sup>—found a new life in President William Jefferson Clinton’s Executive Order 12,898.<sup>150</sup> The Executive Order focused federal agencies’ attention on the “high and adverse human health or environmental effects” that can occur nationwide, and encouraged those agencies to adopt the tenets of environmental justice into their operating policies.<sup>151</sup>

A year later, the EPA aligned its approach to environmental justice with the President’s Executive Order.<sup>152</sup> EPA’s then-Administrator, Carol Browner,<sup>153</sup> explained that the strategy of the EPA regarding environmental justice focused on working with “minority and low-income communities” to protect the public’s health and environment.<sup>154</sup> This memorandum set out comprehensive objectives for regulation, compliance, and enforcement to address the disproportionate and disparate effects on these communities.<sup>155</sup> Most of the action the EPA proposed centered on data collection and analysis, with specific attention paid to community outreach efforts.<sup>156</sup> However, though the EPA opened the debate on environmental justice, the exact method of agency action to remedy environmental injustice remained

race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.”)

148. See ENVTL. JUSTICE RES. CTR. AT CLARK ATLANTA UNIV., POPULATION DENSITY AND RACE WITHIN 5 MILES OF ARROWHEAD LANDFILL, *available at* [http://www.ejrc.cau.edu/Statements%2010-27-09/Attachment\\_1\\_Population\\_Map.pdf](http://www.ejrc.cau.edu/Statements%2010-27-09/Attachment_1_Population_Map.pdf) (showing predominantly black population within five miles of landfill).

149. Congressman John Lewis, *Foreword*, in UNEQUAL PROTECTION: ENVIRONMENTAL JUSTICE & COMMUNITIES OF COLOR, vii–x (Robert D. Bullard, ed., Sierra Club Books 1994).

150. Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 16, 1994).

151. FINAL GUIDANCE, *supra* note 6, § 1.1.2.

152. CAROL BROWNER, ADM’R, U.S. ENVTL. PROT. AGENCY, EPA’S ENVIRONMENTAL JUSTICE STRATEGY 1 (1995) [hereinafter EPA EJ STRATEGY], *available at* [http://www.epa.gov/compliance/ej/resources/policy/ej\\_strategy\\_1995.pdf](http://www.epa.gov/compliance/ej/resources/policy/ej_strategy_1995.pdf).

153. Until recently, Ms. Browner served as the Director of the White House Office of Energy and Climate Change Policy. See John Broder, *Title, but Unclear Power, for a New Climate Czar*, N.Y. TIMES, Dec. 11, 2008, <http://www.nytimes.com/2008/12/12/us/politics/12climate.html> (“Much remains unknown, and perhaps undecided, about Carol M. Browner’s new position as White House coordinator of energy and climate policy.”).

154. EPA EJ STRATEGY, *supra* note 152, at 1.

155. *Id.* at 13.

156. *Id.* at 5–10. This resulted from an extensive discussion on the importance and objectives of “public participation, accountability, partnerships, outreach and communication with stakeholders” with an equally extensive discussion of the importance and objectives of “data collection, analysis and access.”

foggy at best.<sup>157</sup> Indeed, the mainstream environmental movement—broadly summarized—has long focused on various issues that did not include the “environmental plight or burden on the poor or minorities,” leaving the public health and welfare issues that walk hand-in-hand with environmental justice issues beyond the scope of environmental litigation.<sup>158</sup>

The EPA’s policy reflected a subtle reluctance to address head-on the issues of environmental justice—perhaps, since it is a topic that is difficult to define but, employing a phrase from Justice Stewart, you will know it when you see it.<sup>159</sup> In recent years, the EPA and numerous environmental groups<sup>160</sup> expanded the analysis of environmental justice and their response reaction to specific instances of alleged injustice.<sup>161</sup> The EPA’s current means of addressing claims of environmental injustice aims to ensure “potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.”<sup>162</sup> Where the EPA fails to measure up to their own mandate, however, they leave the door open to citizen response. Thus, public involvement, and the effect of certain agency decisions guided by relevant statutes may develop into environmental justice—or more accurately, environmental injustice—claims.

The EPA examines these claims methodologically, that is, by interpreting the problem (Phase 1), collecting data (Phase 2), assessing adverse environmental and human health effects or impacts (Phase 3), and finally assessing the potential for a disproportionately high impact that severely impacts a community, with a strong emphasis placed on

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157. Rhodes, *supra* note 146, at 31.

158. *Id.* at 32.

159. *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J., concurring) (referring to obscenity and acknowledging that “I know it when I see it, and the motion picture involved in this case is not that.”).

160. *Environmental Justice*, ENVTL. DEFENSE FUND, <http://www.edf.org/page.cfm?tagID=57> (last updated Jan. 9, 2006); *Greenaction Supports Principles of Environmental Justice!*, GREENACTION, <http://greenaction.org/org/ejprinciples.shtm> (last visited Apr. 3, 2011); *NRDC: Environmental Justice*, NAT. RESOURCES DEF. COUNCIL, <http://www.nrdc.org/ej/> (last visited Apr. 2, 2011); *Sierra Club Environmental Policies—Environmental Justice*, SIERRA CLUB, <http://www.sierraclub.org/policy/conservation/justice.aspx> (last visited Apr. 2 2011).

161. See BARRY HILL, OFFICE OF ENVTL. JUSTICE, U.S. ENVTL. PROT. AGENCY, TOOLKIT FOR ASSESSING POTENTIAL ALLEGATIONS OF ENVIRONMENTAL INJUSTICE (2004) [hereinafter TOOLKIT], available at <http://www.epa.gov/compliance/ej/resources/policy/ej-toolkit.pdf> (In its preface, the TOOLKIT describes the goals of environmental justice, then outlines and gives examples of how communities can make “allegations of environmental injustice [which] describe situations in which communities believe the goal [of environmental justice] has not been achieved because of their belief of disproportionate exposure to environmental harms and risks.”).

162. *Id.* at 9.

incorporating the public.<sup>163</sup> In the case of the Kingston spill, the cleanup and subsequent involvement of the town of Uniontown, Alabama, showcases the prospective and actual involvement community members can have in the process; however, the events surrounding the choice of the Arrowhead Landfill exemplify the limited impact community members had on EPA decision-making.

### CONCLUSION

Essentially, the issues of CCR regulation and environmental justice are intertwined in this case. There is no doubt that the community of Perry County must bear the brunt of the cleanup efforts for the TVA disaster, but it remains unclear the exact impact they will feel. The discrepancy between Alabama's and other states' approach to acceptance of coal ash disposal led to the targeted choice of Arrowhead Landfill as the dumping ground for the Kingston Facility Ash. Though CERCLA provides extensive measures by which the EPA can impose stringent requirements on the cleanup, when the cleanup shifts to disposal with future oversight—thereby falling under RCRA—the laws provide little support for communities who may be wary of accepting today's ash (and the cash) with tomorrow's problems. Environmental justice, and the EPA's proposed acceptance of those principals, at least calls upon the EPA to address the possible impact the ash could have on the Perry community. Furthermore, where the EPA has acknowledged—through its proposed rule overturning the Beville amendment—its concerns with these substances, the agency must act with greater care and attention to its own mandates. No doubt this waste, and other like substances, must come to rest in some community, but when a minority population with little income is asked to carry the entire burden, environmental justice requires those making decisions regarding the cleanup to at least ask questions about the just outcome of their present choices. By re-classifying the coal ash as hazardous under RCRA, the EPA would have greater authority over the finality of the cleanup to ensure that future generations in our communities can avoid the problems of today. However, failure to enact such a rule will leave the residents of Perry

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163. *See id.* at 19–22 (noting the flexible nature in addressing claims and ensuring the ultimate equal protection for all populations: “The defining issue is, rather, whether a particular community is likely to suffer from disproportionately greater environmental effects, or impacts, regardless of demographics.”). Inherent in the EPA's approach to the environmental injustice claims is the race neutral and economic neutral formulation—rather, the EPA focuses on impact or likely impact on a community, regardless of the community.

County with little in the way of safeguards—safeguards promised them through the President Clinton’s Executive Order and the EPA’s own mandates.

