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## VX in TX: Chemical Weapons Incineration and Environmental Injustice in Port Arthur, Texas

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## COMMENTS

### VX IN TX: CHEMICAL WEAPONS INCINERATION AND ENVIRONMENTAL INJUSTICE IN PORT ARTHUR, TEXAS

*Victoria R. Danta*

#### I. INTRODUCTION

To date, environmental protection policy and the courts that enforce it have been almost exclusively concerned with two basic issues: (1) what is an acceptable level of pollution; and (2) what kinds of legal rules are best suited for reducing pollution to that level?<sup>1</sup> By contrast, legislators have paid much less attention to the distributional effects of environmental protection policy, including the potential for distributional inequities.<sup>2</sup> While for most people in the United States, the threat of being exposed to hazardous wastes or harmful chemical agents is not an everyday concern, many low-income communities and communities of color live in fear of inhaling, ingesting or otherwise consuming potentially lethal chemical agents.<sup>3</sup> Accordingly, some have described modern environmentalism as “‘irrelevant’ at best and, at worst, ‘a deliberate attempt by a bigoted and selfish white middle-class society to perpetuate its own values and protect its own life style at the expense of the poor and the underprivileged.’”<sup>4</sup> They forcefully contend that existing

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1. Richard J. Lazarus, *Pursuing “Environmental Justice”: The Distributional Effects of Environmental Protection*, 87 NW. U. L. REV. 787, 787 (1993).

2. *Id.*; see also Alice Kaswan, *Environmental Justice: Bridging the Gap Between Environmental Laws and “Justice,”* 47 AM. U. L. REV. 221, 260 (1997).

3. Lazarus, *supra* note 1, at 788.

4. *Id.* (quoting James N. Smith, *The Coming of Age of Environmentalism in American Society*, in ENVIRONMENTAL QUALITY AND SOCIAL JUSTICE IN URBAN AMERICA 1 (James N. Smith ed., 1974)).

environmental protection policy inadequately reflects minority political interests and perpetuates institutional racism.<sup>5</sup>

Gradually, these prominent voices formed what today is known as the environmental justice movement.<sup>6</sup> Environmental justice is the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.”<sup>7</sup> It is also the equal distribution of environmental benefits and burdens within society; the ability of low-income communities and communities of color to speak for themselves; and the “development of a national and international movement of all peoples of color to fight the destruction and taking of their lands and communities.”<sup>8</sup>

Unfortunately, what few legal tools exist to achieve these goals are frequently applied in frustration of environmental justice.<sup>9</sup> For example, many federal actions that disparately impact low-income communities and communities of color are not subject to judicial review.<sup>10</sup> Accordingly, they are not redressable through any forum

5. Kaswan, *supra* note 2, at 258 (noting that minorities were excluded from some of the parks and public beaches created at the behest of environmentalists, and that some environmental groups excluded minorities from membership); *see also* Lazarus, *supra* note 1, at 806-11 (suggesting that environmental and land use laws have provided more environmental benefits to the white and the affluent while providing fewer benefits to or worsening the environmental conditions of the poor and communities of color).

6. National Resources Defense Counsel, The Environmental Justice Movement, <http://www.nrdc.org/ej/history/hej2.asp> (last visited April 25, 2010).

7. EPA, OFFICE OF FED. ACTIVITIES, “FINAL GUIDANCE FOR CONSIDERATION OF ENVIRONMENTAL JUSTICE IN CLEAN AIR ACT 309 REVIEWS (1999), *available at* [http://www.epa.gov/compliance/resources/policies/nepa/enviro\\_justice\\_309review.pdf](http://www.epa.gov/compliance/resources/policies/nepa/enviro_justice_309review.pdf).

8. DELEGATES TO THE FIRST NATIONAL PEOPLE OF COLOR ENVIRONMENTAL LEADERSHIP SUMMIT, THE PRINCIPLES OF ENVIRONMENTAL JUSTICE (EJ) (1991), *available at* <http://www.ejnet.org/ej/principles.pdf>.

9. Lazarus, *supra* note 1, at 806-11.

10. For example, under the National Environmental Policy Act, a court can only set aside a federal agency’s decision not to prepare an Environmental Impact Statement on a showing that the agency’s decision was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (2006); *see also* North Carolina v. FAA, 957 F.2d 1125, 1131 (4th Cir. 1992) (“An agency’s refusal to prepare an environmental

other than those provided by federal administrative agencies.<sup>11</sup> Additionally, some of the most powerful legal tools for achieving environmental justice require public and private actors to analyze the impact of their proposed actions, but do not impose any substantive requirement to avoid actions with adverse environmental, socioeconomic, cultural or health impacts.<sup>12</sup> Finally, even legal tools that, by their terms, allow environmental justice communities to speak for themselves do not ensure that all members of the affected public actually participate in the environmental review process.<sup>13</sup>

In May 2007, residents of Port Arthur, Texas, became unwitting victims in this struggle when they sought to enjoin the U.S. Army from transporting a potentially lethal VX nerve agent derivative (“CVXH”) from a chemical weapons storage depot in Newport, Indiana, to Veolia Environmental Services, in Port Arthur.<sup>14</sup> Unbeknownst to Port Arthur residents, the Army determined to incinerate CVXH within their community after a protracted and opaque decision-making process.<sup>15</sup> In *Sierra Club v. Gates*, plaintiffs argued that the Army illegally excluded them from the notice-and-comment procedures required by the National Environmental Policy Act (“NEPA”).<sup>16</sup> They also argued that the Army violated NEPA when it failed to complete an environmental risk assessment for the incineration project at Veolia.<sup>17</sup> However, when the case came before the District Court for the Southern District of Indiana, the Court held on the record that Plaintiffs were unable to prove a

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impact statement is arbitrary and capricious if its action might have a significant environmental impact.”).

11. See sources cited *supra* note 10.

12. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350-51 (1989) (“NEPA itself does not mandate particular results, but simply prescribes the necessary process. . . . Other statutes may impose substantive environmental obligations on federal agencies, but NEPA merely prohibits uninformed—rather than unwise—agency action.” (citations omitted)).

13. Peter L. Reich, *Greening the Ghetto: A Theory of Environmental Race Discrimination*, 41 U. KAN. L. REV. 271, 277-78 (1992) (citing Paul Mohai, *Black Environmentalism*, 71 SOC. SCI. Q. 744, 762 (1990) (examining the barrier against meaningful public participation created by the technical nature of environmental policy discussions)).

14. *Sierra Club v. Gates*, 499 F. Supp. 2d 1101, 1103 (S.D. Ind. 2007).

15. *Id.*

16. *Id.* at 1126.

17. *Id.*

likelihood of success on the merits.<sup>18</sup> Accordingly, it dismissed Plaintiffs' Motion for Preliminary Injunction without reaching the questions whether Plaintiffs would suffer irreparable harm, or whether Plaintiffs had an adequate remedy at law.<sup>19</sup> In an order dated August 8, 2008, the same Court granted the Government's Motion to Limit Judicial Review of Plaintiffs' NEPA allegations to the administrative record and permitted the Government to file an oversized brief to summarize the administrative record in response to Plaintiffs' Statement of Material Facts.<sup>20</sup> As a result, CVXH incineration continues in Port Arthur to this day.<sup>21</sup>

The following comment summarizes the District Court's opinion denying plaintiffs' Motion for Preliminary Injunction, identifies the environmental justice issues raised in *Sierra Club v. Gates*, and considers how the current legal infrastructure is inadequate to remedy environmental injustice.

In Part II, I deliver a brief history of the U.S. chemical weapons stockpile and detail the ways in which the U.S. chemical weapons stockpile poses a threat to human health and the environment. I also review the legal authority demanding destruction of the U.S. chemical weapons stockpile, including NEPA's procedural requirement that federal agencies issue an environmental impact statement for all major federal actions significantly affecting the quality of the human environment.

Part III catalogs the Army's decision to incinerate the U.S. chemical weapons stockpile and, later, to neutralize the stockpile using chemical processes. It also travels the rocky road to Port Arthur, TX, and enumerates the specific challenges to environmental justice that Port Arthur residents faced.

Finally, Part IV introduces the *Sierra Club* plaintiffs' legal claims and analyzes the District Court's opinion denying Plaintiffs' Motion for a Preliminary Injunction.

The comment concludes by suggesting ways prospective plaintiffs can adapt to and avoid outcomes like *Sierra Club v. Gates*.

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18. *Id.* at 1136.

19. *Id.*

20. *Sierra Club v. Gates*, 2008 WL 4368531, at \*1 (S.D. Ind. Sept. 22, 2008).

21. Incineration is ongoing as of May 7, 2009.

## II. CHEMICAL WEAPONS

### A. *A Brief History of the U.S. Chemical Weapons Stockpile*

The United States developed its chemical weapons stockpile in response to the threat posed by Germany during World War I.<sup>22</sup> By 1995, the American arsenal consisted of approximately 30,000 tons of chemical weapons,<sup>23</sup> stored at eight different locations throughout the U.S.<sup>24</sup> The majority of these weapons would be useless in a military attack.<sup>25</sup> Nevertheless, they have been in storage since chemical weapons production ceased in 1968.<sup>26</sup>

As the following paragraphs show, there are good reasons why the U.S. spends approximately \$63.8 million a year to monitor and inspect the stockpiles.<sup>27</sup> While there have been no serious incidents or accidents at any of the eight storage facilities to date,<sup>28</sup> the U.S. chemical weapons stockpile contains agents that are far more lethal than the chemical released in Bhopal, India, in 1984, which caused 25,000 deaths.<sup>29</sup> In fact, much of this stockpile is a military liability

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22. Germany first used poison gas in World War I during the Second Battle of Ypres. Two French divisions collapsed after being subjected to a German attack using chlorine gas. See Charles E. Heller, *Chemical Warfare in World War I: The American Experience, 1917-1918*, at 1, 8-10 (Combat Studies Institute, Leavenworth Papers No. 10 LEAVENWORTH PAPERS, 1984), available at [http://www.cgsc.edu/carl/download/csipubs/chemical/chem\\_pt1.pdf](http://www.cgsc.edu/carl/download/csipubs/chemical/chem_pt1.pdf).

23. *Chemical Weapons Working Group, Inc. v. U.S. Dep't of the Army*, 935 F. Supp. 1206, 1209 (D. Utah 1996).

24. Lawrence E. Rouse, *The Disposition of the Current Stockpile of Chemical Munitions and Agents*, 121 MIL. L. REV. 17, 18 (1988).

25. As of 1985, the United States chemical stockpile provided only a marginal deterrent capability. CHEMICAL WARFARE REVIEW COMMISSION, REPORT OF THE CHEMICAL WARFARE REVIEW COMMISSION 58 (1985). This was attributed largely to the age, design and unpredictability of individual weapons. *Id.* The U.S. Army Toxic and Hazardous Materials Agency has since reported that the retaliatory capability of the 1985 stockpile is ten percent useful, eighteen percent of limited use, eleven percent of no use and sixty one percent not in useful form. Rouse, *supra* note 24, at 17-18.

26. Rouse, *supra* note 24, at 18.

27. CHEMICAL WARFARE REVIEW COMMISSION, *supra* note 25. Note that the cost of continuously monitoring and inspecting the stockpiles has most likely risen since this report was issued in 1985.

28. Rouse, *supra* note 24, at 18 (citing National Research Council, *Disposal of Chemical Munitions and Agents: A Report*, at 30 (1984)).

29. *Id.* (citing Chemical Warfare Review Commission, *supra* note 25).

rather than an asset, due to age, uncertain toxicity and design unsuitability.<sup>30</sup>

### *B. Chemical Agents in the Stockpile*

The U.S. chemical weapons stockpile contains two major categories of agents: nerve agents (designated GA or Tabun, GB or Sarin, and VX), which are odorless, colorless and tasteless organophosphorus esters that attack the human nervous system directly in both liquid and vapor forms;<sup>31</sup> and vesicant or blister agents (designated H, HD, and HT), which cause damage to exposed skin or through inhalation.<sup>32</sup> Exposure to any of these agents can cause: skin burns; temporary and permanent blindness; shortness of breath; pinpoint pupils; increased salivation; abnormal tearing of the eyes; nausea and vomiting; involuntary defecation and urination; seizures; paralysis; coma; and death by asphyxiation.<sup>33</sup>

Additionally, studies have proven that blister agents are carcinogens and that exposed men suffer from abnormal sperm counts.<sup>34</sup> The chemical agents in the stockpile are housed in a broad range of rockets, bombs, mines and projectiles, most of which are stored in covered igloos.<sup>35</sup> Many of these weapons are at least

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30. Or according to one legal scholar, “a diverse and far-flung witch’s brew of lethality.” David A. Koplow, *How Do We Get Rid of These Things?: Dismantling Excess Weapons While Protecting the Environment*, 89 NW. U.L. REV. 445, 472 (1995).

31. Rouse, *supra* note 24, at 19.

32. *Id.*

33. *Id.*; see also Agency for Toxic Substances and Disease Registry, ToxFAQs for Nerve Agents, <http://www.atsdr.cdc.gov/tfacts166.html> (last visited Apr. 18, 2009) (discussing the risks associated with nerve agents, including possible sources of exposure and related health effects).

34. See Agency for Toxic Substances and Disease Registry, ToxFAQs for Sulfur Mustard, <http://www.atsdr.cdc.gov/tfacts49.html> (last visited Apr. 18, 2009) (discussing the risks associated with mustard gas, including possible sources of exposure and related health effects).

35. Including 4.2 inch mortar projectiles containing mustard agent, 105 millimeter artillery projectiles containing mustard and nerve agents GB and VX, bombs of 500, 600 and 750 pounds containing nerve agent GB, and aerial spray tanks containing nerve agent VX. Rouse, *supra* note 24, at 18.

twenty-five to forty years old,<sup>36</sup> and all of them have retained their lethality.<sup>37</sup>

Fortunately, a Congressional act, an international treaty, and a Presidential declaration have all directed the Army to destroy the existing chemical weapons stockpile.<sup>38</sup> As a result, the Army has committed to disposing of its chemical weapons stockpile by December 31, 2017.<sup>39</sup>

### C. Legal Authority Demanding Destruction

The Army's task is difficult but necessary. In 1986, Congress passed the Department of Defense Authorization Act, which required the Secretary of Defense to destroy all of the chemical weapons being stored throughout the country.<sup>40</sup> To satisfy the requirements of this Act, the Army must destroy all chemical weapons and agents, while providing:

- (1) maximum protection for the environment, the general public, and the personnel who are involved in the destruction process;
- (2) adequate and safe facilities designed solely for the destruction of the chemical agents; and
- (3) cleanup, dismantling, and disposal of the facilities when the disposal program is complete.<sup>41</sup>

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36. Rouse, *supra* note 24, at 18.

37. Inspections of chemical weapons have proven that these resilient chemicals possess a remarkably long shelf life. *Id.* at 17-22.

38. *See, e.g.*, Dept. of Def. Authorization Act of 1986, 50 U.S.C. § 1521 (2000); Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, Jan. 13, 1993, 1974 U.N.T.S. 316; President Bush, Statement on Chemical Weapons, 1 PUB. PAPERS 599 (May 13, 1991).

39. Ashlee Clark, "Depot Weapons Disposal Delayed, LEXINGTON HERALD-LEADER, NOV. 25, 2008," available at <http://www.cwwg.org/hl11.25.08.html> (last visited Apr. 18, 2009). Initially, the deadline set by Congress was September 30, 1994; following that, the Congress extended the deadline first to December 31, 2004, and then to December 31, 2007. Families Concerned about Nerve Gas Incineration v. U.S. Dep't of the Army, No. CV-02-BE-2822-E, at 2 (N.D. Ala. July 8, 2003) (mem. of op.), available at <http://www.cwwg.org/ALorder.pdf>.

40. 50 U.S.C. § 1521(a).

41. 50 U.S.C. § 1521(c)(1).

There are two exceptions to this mandate. First, the Secretary of Defense may defer the destruction of certain chemical agents and munitions in the event of war, a national emergency,<sup>42</sup> or if he or she determines that there has been a significant delay in the destruction process.<sup>43</sup> Second, the statutory date by which all weapons shall be destroyed may be altered to conform to the date determined by any treaty the U.S. ratifies banning possession of chemical agents and munitions.<sup>44</sup>

The Army is also under pressure from the International Convention on Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on their Destruction,<sup>45</sup> which bans the use of chemical weapons and requires signatory states to destroy their existing chemical weapons and chemical weapons productions facilities by April 29, 2007.<sup>46</sup>

Finally, in 1991, President George H. W. Bush issued a declaration, “foreswearing the use of chemical weapons for any reason, including retaliation, against any state, effective when [the CWC] enters into force[.]”<sup>47</sup>

Destruction of the U.S. chemical weapons stockpile is also subject to the procedural requirements<sup>48</sup> of NEPA, which:

declare[s] a national policy which will encourage productive and enjoyable harmony between man and his environment; . . . promote[s] efforts which will prevent or eliminate damage to the environment and biosphere and

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42. As declared by the President or Congress. 50 U.S.C. § 1621 (2000).

43. 50 U.S.C. § 1521(b)(3)(A) (2000).

44. 50 U.S.C. § 1521(b)(2).

45. Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, Jan. 13, 1993, 1974 U.N.T.S. 316, *available at* <http://www.opcw.org/chemical-weapons-convention/download-the-cwc>.

46. See Organization for the Prohibition of Chemical Weapons, Destruction of Chemical Weapons, <http://www.opcw.org/chemical-weapons-convention/about-the-convention> (last visited Apr. 18, 2009).

47. President Bush, Statement on Chemical Weapons, 1 PUB. PAPERS 599.

48. *Sierra Club-Black Hills Group v. United States Forest Serv.*, 259 F.3d 1281, 1287 (10th Cir. 2001) (holding that NEPA itself does not mandate particular results, but simply prescribes necessary process).

stimulate the health and welfare of man; [and enriches] the understanding of the ecological systems and natural resources important to the Nation[.]<sup>49</sup>

When Congress passed NEPA in 1969, it had two major purposes: (1) to build environmental considerations into the federal agency decision-making process;<sup>50</sup> and (2) to provide meaningful opportunity for public participation in the federal agency decision-making process.<sup>51</sup> Accordingly, NEPA ensures that federal agencies will not act on incomplete information, only to regret their decision later on.

To fulfill NEPA's requirements, a federal agency must prepare an environmental impact statement (an "EIS") for all "major federal actions"<sup>52</sup> significantly affecting the quality of the human environment.<sup>53</sup> EISs must include the environmental impact of the proposed action, as well as "all reasonable alternatives" to the proposed action, including the alternative of "no action."<sup>54</sup> Once a draft EIS is complete, the agency must solicit and respond to comments from the public and other federal, state, or local agencies.<sup>55</sup> In addition, agencies must "make diligent efforts to involve the public" by way of notification, public disclosure of comments and underlying documents, and public hearings or meetings.<sup>56</sup> The final EIS must include the agency's responses to

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49. 42 U.S.C. § 4321 (1970).

50. *Boston v. Volpe*, 464 F.2d 254 (1st Cir. 1972) (holding that NEPA also requires agencies to consider any and all environmental consequences, as well as additional environmental consequences not fully evaluated at outset of project or program); 42 U.S.C. §§ 4321-4370 (1970).

51. 42 U.S.C. § 4321 (1970).

52. Council on Environmental Quality, Environmental Impact Statement, 40 C.F.R. § 1502.4 (2009).

53. *Id.* § 1502.3.

54. *See Weinberger v. Catholic Action of Haw.*, 454 U.S. 139, 142 (1981). The alternatives section is the heart of the EIS. In it, agencies are directed to "emphasize real environmental issues and alternatives," and to comparatively assess those alternatives in an objective way. 40 C.F.R. §§ 1500.2(b), 1502.14(a)-(b).

55. 40 C.F.R. § 1503.1.

56. *Id.* § 1506.6. Furthermore, EPA regulations require at least one public meeting on all draft EISs. *Id.* at § 6.203(c)(3)(vi).

comments and is followed by a Record of Decision selecting one of the proposed alternatives.<sup>57</sup>

The Council on Environmental Quality further provides for a preliminary environmental assessment (an “EA”) when the significance of the environmental impact of an action is unclear.<sup>58</sup> Agencies may also be required to prepare a supplemental environmental impact statement (a “SEIS”), or a supplemental environmental assessment (a “SEA”) under NEPA.<sup>59</sup> According to the Council for Environmental Quality, agencies should prepare SEISs and SEAs whenever they uncover new information that is relevant to the environmental effects of a proposed project, or when substantial changes are made to an existing project that are relevant to its environmental impacts.<sup>60</sup> This is a discretionary procedure,<sup>61</sup> in which agencies apply a “rule of reason” to determine whether “new information is sufficient to show that the remaining [major federal action] will ‘affect the quality of the human environment’ in a significant manner or to a significant extent not already considered.”<sup>62</sup> Thus, even after proposed projects receive agency approval, agencies should continue to take a “hard look” at that project’s environmental consequences.<sup>63</sup>

Under the Administrative Procedure Act, courts are directed to uphold an agency’s decision whether or not to complete an EIS or SEIS unless it is arbitrary, capricious, or an abuse of discretion.<sup>64</sup> Under this limited standard of review, the agency’s decision will not be set aside until a court considers all relevant factors and independently concludes that there has been a “clear error of judgment.”<sup>65</sup>

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57. *Id.* §§ 1502.9, 1505.2.

58. *Id.* § 1501.3.

59. *Id.* §§ 1502.9(c)(1)(i)-(ii).

60. *Id.*

61. *See Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 377 (1989) (holding that the Court must defer to the informed discretion of the agency because analysis of the relevant evidence requires agency expertise).

62. *Id.* at 374 (quoting 42 U.S.C. § 4332(2)(C) (2008)).

63. *Id.*

64. *Id.* at 377 (quoting *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971) (abrogated by statute on other grounds)).

65. *Id.* at 378.

## III. DESTRUCTION OF THE U.S. CHEMICAL WEAPONS STOCKPILE

Prompted by the dangers of continued storage and the legal pressure to destroy the U.S. chemical weapons stockpile, the Army began experimenting with means of destroying chemical weapons. Initially, the United States contemplated some disposal methods that, in retrospect, were “foolish, impractical, or environmentally unacceptable.”<sup>66</sup> For example, many weapons were buried in ordinary public or military landfills with “shockingly poor procedures” for posting hazard warnings or recording release activity.<sup>67</sup> The Army burned others in open pits,<sup>68</sup> or dumped them off the Alaskan, Californian and Floridian coasts.<sup>69</sup> It was even thought possible to place chemical weapons in a large, solid cavern and detonate a nuclear weapon, instantly vaporizing the remaining chemical weapons stockpile.<sup>70</sup> (However, the Army rejected disposal by nuclear explosion, due to the difficulty of determining an acceptable site, obtaining necessary approvals, and overcoming questionable public acceptance.)<sup>71</sup>

In 1979, the Army constructed a Chemical Agents Munitions Disposal pilot system in Tooele, Utah, to assess incineration as a method of disposing chemical weapons.<sup>72</sup> Pursuant to NEPA, the Army assessed the environmental impact of incinerating chemical

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66. Koplou, *supra* note 30, at 515-16.

67. *Id.* at 515 (citing U.S. Army Chemical Materiel Destruction Agency, Interim Survey & Analysis Report on Non-Stockpile Chemical Materiel Program 16 (1993)). *But see* Rouse, *supra* note 24, at 34 (explaining that, while colorful, it is unfair to characterize the Army’s procedure for posting hazard warnings or recording release activity as “shockingly poor,” because “until recently, monitoring devices simply did not exist that could measure emissions at the extremely low levels necessary to evaluate the destructive efficiency of various techniques”).

68. *See* Graham S. Pearson & Richard S. Magee, *Critical Evaluation of Proven Chemical Weapon Destruction Technologies*, 74 PURE APPL. CHEM. 187, 194 (2002); *see also* Rouse, *supra* note 24, at 35 (“A 1979 open-pit burning of ‘smokepots’ . . . which are far less toxic than any agents in the inventory, apparently caused some nearby residents to seek hospital treatment after inhaling the fumes released”).

69. *See* Pearson & Magee, *supra* note 68, at 199.

70. *See* Tariq Rauf, *Cleaning Up with a Bang*, THE BULLETIN OF ATOMIC SCIENTISTS, Jan-Feb. 1992 at 9, 47.

71. *Id.*

72. *Chemical Weapons Working Group, Inc. v. U.S. Dep’t of the Army*, 935 F. Supp. 1206, 1210 (D. Utah 1996); *see also* Rouse, *supra* note 24, at 18.

weapons as compared with continued storage.<sup>73</sup> The Army completed a Final Programmatic EIS in 1988, in which they decided to use on-site incineration to destroy the chemical weapons.<sup>74</sup> This conclusion was based in part on the Army's considerable experience with large-scale incineration of agent materials. By 1988, the Chemical Agents Munitions Disposal pilot system had incinerated 75,000 pounds of GB, 8,000 pounds of VX, and 38,000 items of munitions.<sup>75</sup> The Army had also been operating an incineration facility at Johnson Atoll for six years, during which time the Army destroyed over 2,000,000 pounds of agent and over 9,000,000 pounds of drained containers.<sup>76</sup> Fortunately, operation of both facilities was generally successful.<sup>77</sup>

*A. Opposition to Incineration and the Army's Decision to Use Other Disposal Methods*

The Army's decision to use on-site incineration to dispose of the chemical weapons stockpile was met with staunch opposition.<sup>78</sup> Opponents argued for alternative methods of disposal, claiming that on-site incineration negatively affected human health and the environment.<sup>79</sup> Specifically, they argued that incinerators create toxic waste, like dioxins, which would then be released into the environment.<sup>80</sup>

In 1996, Plaintiffs Chemical Weapons Working Group, the Sierra Club, and the Vietnam Veterans of America Foundation filed suit against the Army. They sought to enjoin the Army's proposed operation of the Tooele Chemical Agent Disposal Facility in Tooele, Utah.<sup>81</sup> Among Plaintiffs' claims were that the Army violated NEPA when it:

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73. *Chemical Weapons*, 935 F. Supp. at 1210.

74. *Id.*

75. *Id.* at 1209; *see also* Rouse, *supra* note 24, at 18.

76. *Chemical Weapons*, 935 F. Supp. at 1210.

77. *Id.*

78. ELIZABETH CROWE & MIKE SCHADE, *LEARNING NOT TO BURN: A PRIMER FOR CITIZENS ON ALTERNATIVES TO BURNING HAZARDOUS WASTE 3* (2002), available at <http://www.cwwg.org/learningnottoburn.pdf>.

79. *Id.*

80. *Chemical Weapons*, 935 F. Supp. at 1213 (acknowledging that the incinerators create and release dioxins); CROWE & SCHADE, *supra* note 78, at 3.

81. *Chemical Weapons*, 935 F. Supp. at 1213.

- (1) neglected to complete a SEIS taking into account new information that had become available regarding the incineration programs;<sup>82</sup>
- (2) improperly assessed risks associated with dioxin exposure;<sup>83</sup> and
- (3) failed to consider the recent development of alternative disposal technologies.<sup>84</sup>

A hearing was held over several days from July 22 through August 2, 1996, after which the court denied Plaintiffs' motion for a preliminary injunction.<sup>85</sup> Less than three weeks later, trial incineration of chemical agents commenced at the Tooele Chemical Agent Disposal Facility.<sup>86</sup> During this time, the Army limited the Tooele Chemical Agent Disposal Facility's operations to identifying possible problems—a practice Plaintiffs decried as “trial-and-error” management.<sup>87</sup> Plaintiffs initiated a second motion for preliminary injunction on January 11, 1997.<sup>88</sup> Together, these two motions for preliminary injunctive relief were the only times that a court would consider the merits of Plaintiffs' NEPA claims.

Nevertheless, the Army decided not to expand its chemical weapons incineration program. Apparently, in 1994, Congress earmarked additional federal funds for the Army to “aggressively consider development of incineration alternatives.”<sup>89</sup> By 2002, there were four alternative technologies that could be used instead of incineration at any of the eight storage sites: (1) neutralization and biological treatment; (2) neutralization and supercritical water oxidation; (3) neutralization, neutralization and supercritical water oxidation, and gas phase chemical reduction; and (4) Silver II electrochemical oxidation—all of which have proved successful.<sup>90</sup>

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82. *Id.* at 1208.

83. *Id.* at 1213.

84. *Id.* at 1214.

85. *Id.* at 1209.

86. *Chemical Weapons Working Group, Inc. v. U.S. Dep't of the Army*, 963 F. Supp. 1083, 1086 (D. Utah 1997).

87. *Id.* at 1086-1087.

88. *Id.* at 1086.

89. *Sierra Club v. Gates*, 499 F. Supp. 2d 1101, 1106 (S.D. Ind. 2007).

90. *CROWE & SCHADE*, *supra* note 78, at 3.

*B. The Rocky Road to Port Arthur, Texas*

After Congress appropriated additional funds for the Army to aggressively consider development of alternatives to incineration, the Government published a Final EIS in 1998 to pilot test a chemical neutralization plan for VX at the chemical weapons depot in Newport, Indiana.<sup>91</sup> As described by the 1998 Final EIS, the plan was to neutralize VX at a Newport Chemical Agent Disposal Facility, to be built adjacent to the chemical weapons depot in Newport, Indiana.<sup>92</sup> Using caustic neutralization, the Army planned to subject CVXH to supercritical water oxidation to eliminate remaining organic compounds.<sup>93</sup> In February and April 1999, the Edgewood Chemical Biological Center published two reports on the residual VX concentration in various aspects of CVXH.<sup>94</sup> These reports, and subsequent studies by the National Research Center,<sup>95</sup> confirmed the presence of residual VX in CVXH, even after supercritical water oxidation was performed.<sup>96</sup> Accordingly, the Army evaluated off-site waste management of CVXH for cost and scheduling benefits, as a contingency plan in case of startup problems with supercritical water oxidation.<sup>97</sup>

In part in response to these studies, and in other part in response to the terrorist attacks of September 11, 2001, the Army published a Final EA and a Final Finding of No Significant Impact regarding the VX destruction process proposed for the chemical weapons depot in Newport, Indiana.<sup>98</sup> The Final EA compared a “no-action” alternative to disposal of CVXH at an off-site treatment, storage and disposal facility.<sup>99</sup> At this time, the Army also stated that CVXH would be scheduled as a “hazardous waste,” unless the supercritical water oxidation treatment option was employed. In the latter case, any CVXH effluent would be delisted and classified as non-hazardous.<sup>100</sup>

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91. *Sierra Club*, 499 F. Supp. 2d at 1104.

92. *Id.*

93. *Id.*

94. *Id.*

95. *Id.* at 1105.

96. *Id.*

97. *Sierra Club*, 499 F. Supp. 2d at 1105.

98. *Id.*

99. *Id.*

100. *Id.*

It is worth noting that both the Final EA and the Final Finding of No Significant Impact contained only cursory descriptions of the general risk of traffic accidents in the transport of CVXH to an off-site treatment, storage and disposal facility.<sup>101</sup> Moreover, neither document was site- or treatment-method specific, i.e., the documents did not identify or analyze any particular location to which the CVXH would be shipped and treated, or any particular method of CVXH treatment that would be used.<sup>102</sup> While the Army recognized that some human or environmental impacts that would be avoided or reduced at the chemical weapons depot in Newport, Indiana, could be transferred to the locality of some yet to be selected off-site treatment, storage and disposal facility, the Army made clear that individual evaluations were beyond the documents' scope.<sup>103</sup> Nevertheless, between October 2002 and April 2007, the Army materially relied on the documents during its decision-making process.<sup>104</sup>

Later, the Army refined several aspects of their disposal plan, including discussing the potential impacts to the human population and environmental resources of CVXH transportation along two routes from the chemical weapons depot in Newport, Indiana, to a treatment, storage and disposal facility in Stillwater, New Jersey.<sup>105</sup> The resulting Transportation Analysis included a characterization of CVXH, with a comparison of the wastewater to the Indiana Department of Environmental Management's standard for the maximum allowable VX concentration level.<sup>106</sup> The Transportation Analysis, like the Final EA and Final Finding of No Significant Impact, assumed that there would not be detectable amounts of VX in the CVXH.<sup>107</sup> Additionally, the Transportation Analysis:

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101. Complaint at 27, *Sierra Club v. Gates*, 499 F. Supp. 2d 1101 (S.D. Ind. 2007).

102. *Id.*

103. *Sierra Club*, 499 F. Supp. 2d at 1106.

104. *Id.*

105. *Id.*

106. *Id.*

107. Complaint, *supra* note 101, at 28.

- (1) identified the Stillwater facility as a treatment, storage and disposal facility capable of treating and disposing of the CVXH load;<sup>108</sup>
- (2) established an “upper bound” on the distances and travel times that would be needed during the off-site shipping campaign;<sup>109</sup> and
- (3) analyzed the environmental impacts for two different routes from Newport, Indiana, to the Stillwater, New Jersey.<sup>110</sup>

However, the transportation analysis left open the possibility that the Army would select another facility that would pass near fewer people and fewer environmental resources.<sup>111</sup>

On May 18, 2007, the Army first disclosed in the public portion of the administrative record that it planned to ship CVXH from the chemical weapons depot in Newport, Indiana, to a treatment, storage and disposal facility in Port Arthur, Texas (Veolia).<sup>112</sup> The plan specifically identified a single route from Newport, Indiana, to Port Arthur, Texas, and enumerated specific dangers to land, air and water if an accident were to occur during transit.<sup>113</sup> However, no new ecological risk assessment was performed by the Army or Veolia Environmental Services at that time, and no such assessment was reviewed by the EPA.<sup>114</sup> In fact, most citizens of Port Arthur learned of this project in a local press release synchronized with the departure of the first CVXH convoy for Veolia’s incinerator.<sup>115</sup>

#### IV. *SIERRA CLUB V. GATES*

In response to these developments, the Sierra Club; the Chemical Weapons Working Group; Citizens Against Incineration at Newport;

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108. *Sierra Club*, 499 F. Supp. 2d at 1106.

109. *Id.* at 1106-07.

110. *Id.* at 1107.

111. *Id.*

112. *Id.* at 1135.

113. *Id.*

114. *Sierra Club*, 499 F. Supp. 2d at 1135.

115. American Public Health Association, Selected New Publications on Environmental Public Health and Environmental Justice Topics, <http://www.apha.org/membergroups/newsletters/sectionnewsletters/environ/spring07/publications.htm> (last visited Apr. 25, 2009).

Community In-Power Development Association; Sara Morgan; Leonard Akers; Hilton Kelley; Moya Green; and Anisha Swallow (collectively, the “Plaintiffs”) sought a Motion for Preliminary Injunction to enjoin Secretary of Defense Robert M. Gates, Secretary of the Army Pete Green, the U.S. Department of Defense and the U.S. Department of the Army (collectively, the “Government”); and Veolia Environmental Services Inc. (“Veolia”) from (1) “continuing shipments of CVXH from the chemical weapons depot in Newport, Indiana, to Veolia’s incineration facility in Port Arthur, Texas;”<sup>116</sup> and (2) “incinerating CVXH in Port Arthur, Texas.”<sup>117</sup>

Plaintiffs argued that the Government was required to prepare a site-specific SEA or SEIS to assess the incineration program’s effects on human health and the environment in Port Arthur.<sup>118</sup> Furthermore, Plaintiffs accused the Government of failing to comply with the NEPA requirement that there be an opportunity for public review and comment on the specific action proposed and selected, including the ultimate receiving location for CVXH and actual treatment method to be used.<sup>119</sup>

When Plaintiffs filed their Motion for a Preliminary Injunction,<sup>120</sup> they were between a rock and an especially hard place: in addition to being cognizant of the substantive threats CVXH transportation and incineration posed to human health and the environment, Plaintiffs were victims in a classic environmental justice struggle over information, participation and equal treatment. They seized on NEPA’s broad scope and procedural requirements to eliminate information asymmetry, encourage public participation, and reduce the likelihood of any further disparate impacts<sup>121</sup>—only to find that

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116. *Sierra Club*, 499 F. Supp. 2d at 1102-03; Complaint, *supra* note 101, at 58-59.

117. *Sierra Club*, 499 F. Supp. 2d at 1102-03; Complaint, *supra* note 101, at 58-59.

118. *Sierra Club*, 499 F. Supp. 2d at 1101-02.

119. *Id.* Plaintiffs also asserted claims under the Resource Conservation and Recovery Act (RCRA), the Defense Authorization Act (DAA) and Indiana and Texas state law against all Defendants. However, claims under NEPA against the Government formed the backbone of Plaintiffs’ complaint and, therefore, are the primary focus of this note.

120. *Id.* at 1101.

121. *Id.* at 1102-03.

the Court was unwilling to consider the bulk of their legal claims.<sup>122</sup> Determining on the record that Plaintiffs failed to show a likelihood of success on the merits,<sup>123</sup> the court denied Plaintiffs' motion for a preliminary injunction and allowed CVXH incineration to proceed.<sup>124</sup>

*A. Summary of the District Court's Opinion Denying Plaintiffs' Motion for a Preliminary Injunction*

It is certainly worth noting, as the Court did, that a preliminary injunction is an extraordinary remedy that will only issue on a clear showing of need.<sup>125</sup> To obtain a preliminary injunction, plaintiffs have the burden to show (1) a likelihood of success on the merits; (2) irreparable harm if the injunction is denied; and (3) the inadequacy of any remedy at law.<sup>126</sup> Even if plaintiffs make this threshold showing, a reviewing court must also balance the hardship on plaintiffs if the injunction is wrongfully denied against the hardship on defendants if it is wrongfully granted.<sup>127</sup> Accordingly, obtaining a preliminary injunction is a significant obstacle on any set of facts.

Plaintiffs' alleged environmental injustice in each of the following ways: (1) unequal distribution of environmental benefits and burdens in an environmental justice community;<sup>128</sup> and (2) restriction on an environmental justice community's ability to speak for itself.<sup>129</sup> Specifically, Plaintiffs contended that Port Arthur residents were already exposed to a variety of potentially dangerous industrial pollutants and, as a low-income community and a community of color, qualified as an environmental justice community for which special protections were required.<sup>130</sup> They also argued that the Government violated their rights as U.S. citizens when it denied them the opportunity, from July 2002 to May 2007, to review, supplement, or submit comments on the administrative record, or to engage in

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122. *Id.* at 1101-02.

123. *Id.* at 1136.

124. *Sierra Club v. Gates*, 499 F. Supp. 2d at 1136.

125. *See Cooper v. Salazar*, 196 F.3d 809, 813 (7th Cir. 1999) (citing *Mazurek v. Armstrong*, 520 U.S. 968, 972 (1997)).

126. *See Ty, Inc. v. Jones Group Inc.*, 237 F.3d 891, 896 (7th Cir. 2001).

127. *Id.*

128. Complaint, *supra* note 101, at 41-45.

129. *Id.* at 58-59.

130. *Id.* at 41-45.

political behavior that could otherwise have influenced the decision-making process.<sup>131</sup>

The court divided these allegations into two parts: (1) that the government failed to assess properly the environmental impact of production process incidents and/or process changes at the Newport, Indiana, facility; and (2) that the Government failed to assess properly the environmental impact of its decision to transport CVXH from Newport, Indiana, to Port Arthur, Texas, and to incinerate CVXH at Veolia.<sup>132</sup> Accordingly, the court translated, NEPA obliged the Government to prepare a site- and treatment-specific SEA or SEIS for its waste management operations in Port Arthur, Texas.<sup>133</sup> In general, the Government contended that (1) it properly assessed the environmental impact of production process incidents and/or process changes at the Newport, Indiana, facility; and (2) that it properly characterized CVXH as a caustic hazardous waste for which a NEPA analysis is not required.<sup>134</sup>

Thereafter, the court stated the law relevant to Plaintiffs' NEPA allegations. First, it acknowledged that NEPA "is designed to prevent or eliminate damage to the environment and the biosphere by focusing Government and public attention on the environmental effects of proposed agency action."<sup>135</sup> Second, it noted that NEPA ordinarily requires that an agency disseminate information about its proposed action such that the public and other government agencies may react to the effects of the proposed action in a meaningful time frame.<sup>136</sup> Finally, it explained that there are actions that are categorically excluded from ordinary NEPA analysis, including certain of the Army's hazardous materials/hazardous waste management operations.<sup>137</sup> Thus, when the Army scheduled CVXH as a caustic hazardous waste, it placed CVXH waste management

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131. *Id.* at 23-32, 41-45.

132. *Sierra Club*, 499 F. Supp. 2d at 1126-27.

133. *Id.* at 1127.

134. *Id.*

135. *Id.*

136. *Id.*

137. Specifically, "routine management, to include transportation, distribution, use, storage, treatment, and disposal of solid waste, medical waste, radiological and special hazards. . . and/or hazardous waste that complies with EPA, Army or other regulatory agency requirements." 32 C.F.R. § 651.28(h)(4).

operations within the realm of Army actions for which EISs are not required.<sup>138</sup>

Next, the court set forth the scope of judicial review for agency action under the Administrative Procedure Act. In essence, the Court asked only whether the decision was based on consideration of the relevant factors and whether there has been a clear error of judgment.<sup>139</sup> Furthermore, the Court gave deference to the Government's factual findings when it decides whether or not the environmental impacts of its actions are significant. The Seventh Circuit has stated that "[t]he only role for a court in applying the arbitrary and capricious standard in the NEPA context is to '[e]nsure that the agency has taken a "hard look" at environmental consequences.'"<sup>140</sup>

Finally, the court applied these standards to each of Plaintiffs' NEPA allegations. With respect to Plaintiffs' argument that the Government violated NEPA when it failed to assess properly the environmental impact of new information revealed from process incidents and/or from process changes at the chemical weapons depot in Newport, Indiana, the Court concluded that:

- (1) "the Army properly considered all the available evidence when it concluded that CVXH safely could be classified as a caustic hazardous waste"<sup>141</sup>;
- (2) "that the Government took the necessary 'hard look'" when it decided that process incidents "posed no new significant threat"<sup>142</sup> to human health or the environment; and
- (3) "that the Government's decision not to supplement its earlier [Final EA and Final Finding of No Significant Impact]. . . because of [] process change[s] was not unreasonable, arbitrary or capricious."<sup>143</sup>

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138. *Sierra Club*, 499 F. Supp. 2d at 1127.

139. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 378 (1989).

140. *Highway J Citizens Group v. Mineta*, 349 F.3d 938, 953 (7th Cir. 2003) (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n. 21 (1976)).

141. *Sierra Club*, 499 F. Supp. 2d at 1130.

142. *Id.*

143. *Id.* at 1131.

Thereafter, the court addressed Plaintiffs' argument that the Government unreasonably proceeded with shipments of CVXH from the chemical weapons depot in Newport, Indiana, to Veolia without performing an EA or an EIS. While the court agreed with Plaintiffs that "the most troubling aspect of the Government's decision with respect to shipment of CVXH to Veolia for incineration [was] the apparently short time in which the Government made this decision and the lack of transparency to the public in the decision-making process,"<sup>144</sup> it concluded that the Government's environmental assessment process was not unreasonable, arbitrary, or capricious.<sup>145</sup> The Final EA (1) affirmatively disclosed that CVXH would be classified as a hazardous waste;<sup>146</sup> (2) stated that "the permitted off-site [treatment, storage and disposal facility] selected for treatment and disposal of NECDF waste streams would. . . ensure that the facility is safely treating the hydrolysate in accordance with applicable federal, state and local regulations;"<sup>147</sup> and (3) was provided to the public for comment.<sup>148</sup>

Furthermore, there was testimony in the record that the Army "believed Veolia had a public meeting regarding its intent to enter into a contract with the Government to incinerate CVXH."<sup>149</sup> Based on this record, the court concluded that the Army properly applied the appropriate NEPA regulatory scheme to its decision-making process and was not unreasonable, arbitrary or capricious in its decision to not supplement the Final EA and Final Finding of No Significant Impact before it began shipments of CVXH to Veolia for incineration.<sup>150</sup> Accordingly, the court denied Plaintiffs' Motion for Preliminary Injunction.<sup>151</sup>

### B. Analysis

*Sierra Club v. Gates* is a prototypical case in which the Plaintiffs—members of an environmental justice community—became unwitting

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144. *Id.* at 1132.

145. *Id.*

146. *Id.*

147. *Sierra Club*, 499 F. Supp. 2d at 1132.

148. *Id.*

149. *Id.* at 1133.

150. *Id.*

151. *Id.* at 1136.

victims in a struggle between law and justice. An analysis of the black-letter administrative law underlying the District Court's opinion is beyond the scope of this comment, which is principally an exploration of the environmental justice issues raised by *Sierra Club v. Gates*. For now, it is sufficient to state either (1) that NEPA adequately promotes environmental justice, but was erroneously applied by the Court to produce an environmentally unjust outcome; or (2) that the Court correctly applied NEPA and the result was an environmentally unjust outcome. Under this first explanation, prospective plaintiffs should account for "environmental justice vacuums" in preparation for litigation and develop concrete *ex ante* and *ex post* strategies for combating environmental injustice. Under the second explanation, NEPA should be reformed in several important ways to adequately reflect environmental justice principles.

Which explanation is most likely? Several commentators have already addressed whether NEPA is effective as a tool for addressing environmental injustice. Unfortunately, their answer has been a resounding, "Somewhat."<sup>152</sup> Despite its more obvious limitations, NEPA can be used to achieve environmental justice in several important ways. First, NEPA's broad and flexible public participation provisions empower environmental justice communities by enabling them to provide input into the federal government's decision-making process.<sup>153</sup> As Stephen M. Johnson, Associate Professor of Law at Mercer University School of Law, explains:

In many cases minority and low-income communities are disparately impacted by government actions because the communities do not have a voice in the decision-making process, and the communities lack the influence or political power of special interest groups that may support the government action. Broad and flexible public participation provisions, like those in NEPA, empower communities and provide them with a voice in the decision-making process.<sup>154</sup>

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152. See Stephen M. Johnson, *NEPA and SEPA's in the Quest for Environmental Justice*, 30 *LOY. L.A. L. REV.* 565, 577-76, 604 (1997).

153. *Id.* at 572.

154. *Id.*

Second, the NEPA review process is useful as an information-gathering, educational and organizational tool.<sup>155</sup> To illustrate, CEQ regulations require federal agencies to make available to the public all relevant NEPA documents, together with any public or agency comments the Army received on these documents.<sup>156</sup> Recipients of these documents:

- (1) are alerted early on if the federal agency fails to recognize the significance of certain facts under review;
- (2) have the opportunity to convey to the agency its level of opposition to, or concern over federal agency action; and
- (3) possess a focal point around which community organizers can galvanize public support.

Finally, NEPA advances environmental justice by ensuring that administrative agencies consider socio-economic and health effects<sup>157</sup> and by delaying government actions that may disparately impact environmental justice communities.<sup>158</sup> Although NEPA's unequivocal intent is not just to file detailed impact studies which will fill governmental archives and add weight to court's files, completed EISs are almost always detailed impact studies that fill governmental archives and add weight to court's files. In other words, NEPA compliance is costly and time-consuming.<sup>159</sup> And it provides communities with valuable time to organize and gather information about a proposed action's potentially adverse impacts.<sup>160</sup>

It is important to consider that NEPA would not remedy past injustices. Nor would NEPA guarantee for environmental justice communities a favorable, or even a fair outcome.<sup>161</sup> However, NEPA has the potential to make government decision-making more accountable, thereby ensuring for the public that government decisions are democratically legitimate. While these provisions, in

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155. *See id.*

156. *Id.* at 577.

157. *Id.* at 579.

158. *Id.* at 578.

159. *See id.* at 579.

160. *Id.*

161. This is because NEPA requires only environmentally informed decision-making and not environmentally sound outcomes.

theory, could be used to achieve environmental justice, NEPA is subject to several practical and legal constraints that vastly limit its effectiveness.<sup>162</sup>

First, if it is the case that NEPA adequately promotes environmental justice, but was erroneously applied in *Sierra Club v. Gates* to produce an environmentally unjust outcome, prospective plaintiffs must account for “environmental justice vacuums” in preparation for litigation. Additionally, they should develop concrete *ex ante* and *ex post* strategies for combating environmental injustice.

I use the term “environmental justice vacuums” to refer to all legal outcomes where statutory procedures exist to combat environmental injustice, but are not utilized due to indifference, invidious intent, or other practical difficulties. Perhaps the strongest environmental justice vacuums occur when Courts permit agency practice to stultify NEPA’s broad and flexible public participation provisions. For example, NEPA review documents are often released in highly technical forms, containing complex scientific or technical data that is not written in plain language.<sup>163</sup> Courts that sanction this practice make it necessary for environmental justice communities to hire technical consultants and lawyers merely to translate the documents,<sup>164</sup> who often require large fees. Furthermore, even documents written in plain English may be inaccessible to a community impacted by the action addressed, if the impacted community does not speak English as a primary, or even secondary language. In response, courts should interpret NEPA to require that decision-makers translate relevant materials, if a proposed action would impact a community in which a significant percentage of the members do not speak English.<sup>165</sup> Finally, courts effectively exclude members of the public from meaningful participation when they allow federal agencies to hold public meetings and hearings during normal work hours, or in locations that are inaccessible to community members via public transportation.<sup>166</sup> As I will argue, environmental

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162. Johnson, *supra* note 152, at 588.

163. Reich, *supra* note 13, at 277-78 (citing Paul Mohai, *Black Environmentalism*, 71 SOC. SCI. Q. 744, 762 (1990))(examining the barrier against meaningful public participation created by the technical nature of environmental policy discussions).

164. Johnson, *supra* note 152, at 601.

165. *Id.* at 602-03.

166. *Id.* at 603.

justice advocates can prevent these vacuums by developing *ex ante* and *ex post* strategies for dealing with environmental injustice.

*Ex ante* strategies refer to series of actions environmental justice communities can take before concrete injury, or before a violation of legal rights has occurred. Such strategies for dealing with environmental injustice can reduce the impact of, or even the likelihood that environmental injustice will occur, by enabling environmental justice communities to speak for themselves. Such strategies include grassroots organizing, lobbying federal agencies to adopt public community-benefits agreements, encouraging environmental and civic education, and establishing “watchdog”-style news reporting—all of which can (and do) take place on the community level. Organizers can also build coalitions with like-minded non-profit organizations, or else local institutions that share the community’s outcome preferences without sharing its underlying values. This increases access to *ex post* strategies for dealing with environmental injustice, when cash and legal expertise are scarce.

Prospective plaintiffs should also petition federal agencies, like the U.S. Army, to undertake new rulemaking procedures when a proposed agency action would disparately impact an environmental justice community. Although in the vast majority of cases, the agency undertakes rulemaking because of a statutory command compelling the rulemaking, or because of internal agency determinations that a rulemaking is appropriate under one of the agency’s statutory authorizations, internal agency deliberations are routinely influenced by outside individuals.<sup>167</sup> For example, private or “public interest” groups frequently lobby agencies to adopt rules they desire, using procedures tailored to their interests.<sup>168</sup> Of course, an agency that has not shown any interest in adopting or amending a rule before receiving a petition for rulemaking is unlikely to change its mind merely because someone has petitioned it. Nevertheless, another section of the APA has been interpreted as requiring an

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167. The Administrative Procedure Act provides that administrative agencies must give interested persons the right to petition for the issuance, amendment, or repeal of a rule. 5 U.S.C. § 553(e) (1966). Some agencies have promulgated procedural rules for the presentation of such petitions. *Laminators Safety Glass Ass’n v. Consumer Product Safety Commission*, 578 F.2d 406 (D.C. Cir. 1978).

168. The Administrative Procedure Act also permits organizations representing the concerns of their members to file rule-making petitions. *Flint Ridge Development Co. v. Scenic Rivers Ass’n of Oklahoma*, 426 U.S. 776 (1976).

agency to respond to petitions in a timely fashion.<sup>169</sup> Afterwards, if the agency rejects the petition, that rejection is judicially reviewable.<sup>170</sup>

Finally, prospective plaintiffs should acknowledge that courts, and other government actors to which they address their concerns, frequently misunderstand the nature of “injury” in environmental justice claims. They should therefore make explicit that environmental justice requires meaningful participation, in addition to equal distribution of environmental benefits and burdens within society. In *Sierra Club v. Gates*, the District Court treated Plaintiffs’ NEPA and environmental justice claims as though Plaintiffs were principally concerned with the effect of CVXH incineration on the quality of human health and the environment.<sup>171</sup> While this was a significant issue, Port Arthur residents were also injured the very instant that the Army committed itself to a course of action without first consulting the public—precisely the type of injury that NEPA hopes to avoid.<sup>172</sup> Although Plaintiffs articulated claims of inadequate public participation, it would have been to Plaintiffs’ advantage to make explicit that the relief they requested included the “irreparable” injury of being excluded from the decision-making process at the time their inclusion was morally required. This would have made it eminently more difficult for the court to summarily dispatch with the remaining factors in the test for a preliminary injunction, in the event it determined that Plaintiffs could show a likelihood of success on the merits.<sup>173</sup>

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169. 5 U.S.C. § 553(e).

170. This is another element the expected effect of which is to ensure that agency actions are not arbitrary, capricious, an abuse of discretion or otherwise democratically illegitimate. As a general principle, when agencies act under the shadow of judicial review, they are more likely to take precautions in excess of those that are statutorily prescribed, or come to more facially reasonable decisions.

171. *Sierra Club v. Gates*, 499 F. Supp. 2d 1101, 1126-27 (S.D. Ind. 2007).

172. *See supra* Part II.C.

173. Of course, this would not free plaintiffs from Chief Judge McKinney’s observation that, other than expert testimony that “the area adjacent to the Veolia facility is the relatively affluent community of Taylor Landing, the Court has no information from which to conclude that these concerns were not adequately addressed by the [Environmental Protection Agency] and the [Veolia’s Clean Air Act] during the repermitting process in 2004.” *Sierra Club*, 499 F. Supp. 2d at 1135-36. This statement is logically infirm for the principal reason that no reasonable person could expect a community to meaningfully participate in a

*Second*, if instead it is the case that the District Court correctly applied NEPA to produce an environmentally unjust outcome, NEPA should be reformed in several important ways to adequately reflect environmental justice principles.

For example, a revised NEPA should ensure that federal agencies use formal procedures<sup>174</sup> to address potential impacts of proposed agency actions in environmental justice communities. This would ensure the informed and meaningful public participation that environmental justice requires. Under applicable administrative law statutes, a federal agency can in one rulemaking proceeding eliminate the need to consider an issue in all subsequent cases.<sup>175</sup> This saves time and resources that might be used in multiple adjudications of the issue and promotes consistent resolution of questions likely to be repeated.<sup>176</sup> However, these advantages come at the price of the lack of individuated consideration necessary to achieve environmental justice. As previously mentioned, environmental justice requires (1) the equal distribution of environmental benefits and burdens within society; and (2) that environmental justice communities speak for themselves.<sup>177</sup> In theory, using informal rulemaking procedures to eliminate the need to consider an issue in all subsequent cases could ensure that environmental benefits and burdens are equally distributed within

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decision-making process they did not have reason to know was occurring. As previously noted, the Army first disclosed in the public portion of the administrative record that it planned to incinerate CVXH in Port Arthur, Texas in 2007. This was a full three years after Veolia Environmental Services Inc. went up for re-permitting.

174. Similar to the procedures set forth in §§ 556 and 557 of the APA. 5 U.S.C. §§ 556-57.

175. *See* *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519 (1978) (upholding Nuclear Regulatory Commission's rulemaking proceedings that would specifically deal with the question of consideration of environmental effects associated with the uranium fuel cycle in the individual cost-benefit analyses for light water cooled nuclear power reactors).

176. *See, e.g.*, Charles H. Koch, *ADMINISTRATIVE LAW AND PRACTICE*, §2.12 *The Choice Between Adjudication and Rulemaking*, 1 *Admin. L. & Prac.* § 2.12 (2d ed.) (discussing the efficiency and fairness advantages of rulemaking in the development of public policy) (come back and find out what this is considered); David Shapiro, *The Choice of Rulemaking or Adjudication in the Development of Administrative Policy*, 78 *HARV. L. REV.* 921 (1965)(forcefully arguing in favor of rulemaking over adjudication in the development of public policy).

177. *See supra* notes 10, 12.

society. However, using informal rulemaking procedures to eliminate the need to consider an issue in all subsequent cases almost never satisfies the environmental justice tenet that communities speak for themselves. In other words, environmental justice demands public participation in excess of informal rulemaking procedures, unless every individual, in every community likely to be affected by a prospective agency action has notice of and the opportunity to participate in notice-and-comment rulemaking. To the extent this is impractical, formal adjudication and formal rulemaking should take statutory preference over informal adjudication and informal rulemaking.

NEPA should also be amended to impose substantive requirements on federal agency action. In its current form, NEPA requires federal agencies to consider the effects of their actions, but does not prohibit the government from taking actions that have adverse environmental, socioeconomic, cultural or health impacts.<sup>178</sup> As Professor William Rodgers has noted, “[p]rocess, without more, is fundamentally a toothless exercise, committed only to the perfection of forms.”<sup>179</sup> Accordingly, Congress should craft changes to NEPA that would specifically prohibit the federal government from taking an action that “significantly affects the human environment,” if there is a practicable alternative that has less adverse impacts on the human environment.<sup>180</sup> Failing this, NEPA should be amended to require meaningful public participation earlier in the decision-making process.

Finally, NEPA reform should address the how private actions fit within the NEPA framework, and clarify the circumstances under which an alternative government decision-making processes are the functional equivalent of the NEPA process. As a result, many of the actions that fall outside of the NEPA process today, and which may disparately impact environmental justice communities in the future, would be subject to NEPA’s EIS or EA requirements.

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178. *Sierra Club-Black Hills Group v. United States Forest Serv.*, 259 F.3d 1281, 1287 (10th Cir. 2001).

179. William H. Rodgers, Jr., *NEPA at Twenty: Mimicry and Recruitment in Environmental Law*, 20 ENVTL. L. 485, 494 (1990).

180. Johnson, *supra* note 152, at 599.