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# CERCLA, Causation, and Responsibility

John Copeland Nagle\*

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA")<sup>1</sup> and causation have enjoyed an uneasy coexistence. The tension between them results from the circumstances in which CERCLA became law. The Congress that enacted CERCLA considered two alternative liability schemes, both of which required that "polluters pay" for the cleanup of hazardous wastes.<sup>2</sup> The House proposed impos-

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1. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767, codified as amended at 42 U.S.C. §§ 9601-9675 (1988 and Supp. III, 1991); *see also* Superfund Amendments and Reauthorization Act of 1986 ("SARA"), Pub. L. No. 99-499, 100 Stat. 1613 (1986) (amending CERCLA). The statute is also known as the "Superfund" act because of the fund it created to pay for the cleanup of hazardous waste sites. *See* CERCLA § 111, 42 U.S.C. § 9611.

2. As EPA Administrator Carol Browner recently stated, "Superfund was structured on the principle that polluters should pay for cleanup." *Proposals to Reauthorize the Superfund Program: Hearings Before the Subcomm. on Transportation and Hazardous Materials of the House Comm. on Energy and Commerce*, 103d Cong., 2d Sess. (statement of EPA Administrator Carol Browner on Feb. 3, 1994) [hereinafter Browner Statement], available in LEXIS, LEGIS Library, CNGTST File; *see also* S. REP. NO. 848, 96th Cong., 2d Sess. 13 (1980) (stating that the goal of the Senate bill was "assuring that those who caused chemical harm bear the costs of that harm"), reprinted in 1 U.S. SENATE COMM. ON ENV'T & PUBLIC WORKS, A LEGISLATIVE HISTORY OF THE COMPREHENSIVE ENVTL. RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (SUPERFUND), PUBLIC LAW 96-510, 97th Cong., 2d Sess. 320 (1983) [hereinafter CERCLA LEGISLATIVE HISTORY]; 2 CERCLA LEGISLATIVE HISTORY, *supra*, at 64 (stating that the goal of the House bill was to recover the costs of hazardous wastes cleanups from the persons responsible for the problem). For a few of the many subsequent judicial expressions of this principle, *see, e.g.*, B.F. Goodrich Co. v. Murtha, 958 F.2d 1192, 1198 (2d Cir. 1992); United States v. Aceto Agric. Chems. Corp., 872 F.2d 1373, 1377, 1380 (8th Cir. 1989); United States v. Bliss, 667 F.

ing liability on those who "caused or contributed" to hazardous waste problems,<sup>3</sup> while the Senate looked to specifically designated "responsible parties."<sup>4</sup> The Senate prevailed.<sup>5</sup> The consequences of that choice for the traditional tort concept of causation, like many other questions left unanswered in the last-minute rush to enact CERCLA,<sup>6</sup> remained for the courts to discern.

The ensuing litigation produced a nearly unbroken line of decisions holding that establishing a defendant as a "responsible party" does not require proof of causation.<sup>7</sup> Instead, causation serves as a factor in the three statutory defenses, in apportioning liability, and in allocating liability among responsible parties.<sup>8</sup> Yet the consensus supporting this reading of CERCLA masks discomfort with the result. Interpreting CERCLA as precluding the need to establish causation<sup>9</sup> presents heightened concerns when courts read CERCLA as imposing joint and several liability<sup>10</sup> on responsible parties.<sup>11</sup> The criticism has increased as Congress once again struggles to amend the statute,<sup>12</sup> especially given Congress's failure to make any funda-

Supp. 1298, 1304 (E.D. Mo. 1987); *Violet v. Picillo*, 648 F. Supp. 1283, 1288 (D.R.I. 1986); *United States v. Wade*, 577 F. Supp. 1326, 1331 (E.D. Pa. 1983).

3. H.R. 7020, 96th Cong., 2d Sess. § 4(a) (1980) (adding Safe Drinking Water Act § 3071(a)(1)), reprinted in 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 391, 438.

4. S. 1480, 96th Cong., 2d Sess. § 4(a) (1980), reprinted in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 462, 485-88; see *infra* note 63 (listing responsible parties).

5. See *infra* note 63; see also *infra* part II.A (defining responsible parties).

6. For a description of the process by which a lame-duck Congress enacted CERCLA in December 1980 after the election of President Reagan, see Frank P. Grad, *A Legislative History of the Comprehensive Environmental Response, Compensation, and Liability ("Superfund") Act of 1980*, 8 COLUM. J. ENVTL. L. 1, 1-2 (1982).

7. See *infra* part II.A.

8. See *infra* part II.C-D, III.B.2.

9. See *infra* part II.C.

10. Joint and several liability permits a plaintiff to recover all of its damages from any defendant. See, e.g., *W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS* § 47, at 328-30 (5th ed. 1984).

11. See *infra* note 103.

12. As Representative Swift said in introducing the Clinton Administration's CERCLA reform bill, see *infra* note 26, "Superfund is the program everyone loves to hate." 140 CONG. REC. H283 (daily ed. Feb. 3, 1994). The criticisms identified by the EPA include inconsistent standards for cleanup, high transactions costs, perceived unfairness in the liability scheme, the confused relationship between federal and state authorities, inadequate community involvement, and impediments to economic redevelopment. Browner Statement, *supra* note 2; see also 139 CONG. REC. E3041 (daily ed. Nov. 24, 1993) ("Superfund cleanup costs too much, take too long and often impose unjust and

mental changes to the statute's liability scheme when last amended in 1986.<sup>13</sup>

Two recent CERCLA cases involving the Alcan Aluminum Company exemplify the courts' frustration, but also suggest a solution. In both cases,<sup>14</sup> the Second and Third Circuits agreed that the plaintiff<sup>15</sup> need not prove causation to establish the

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disproportionate costs on potentially responsible parties.") (statement of Rep. Upton). Many have singled out the liability scheme—the focus of this Article—for particular scorn. In the standard case:

EPA typically orders the larger polluters to clean up a site. They in turn sue smaller polluters, and their insurance companies, to recover some of the costs. In the end, the courts determine everyone's share. This liability system has become a cash cow for lawyers and has forced EPA and industry to spend more time and money finding culprits than cleaning up contaminated sites.

140 CONG. REC. S1059 (daily ed. Feb. 7, 1994) (statement of Sen. Baucus). The critics also target the retroactive nature of CERCLA liability for actions which, taken decades ago, satisfied contemporary standards. See, e.g., *Superfund Liability Issues: Hearings Before the Subcomm. on Transportation and Hazardous Materials of the House Comm. on Energy and Commerce*, 103d Cong., 2d Sess. [hereinafter *Superfund Liability Hearings*] (testimony of Dr. Benjamin F. Chavis, Jr. on Feb. 10, 1994), available in LEXIS, LEGIS Library, CNGTST File.

13. In 1986, SARA modified CERCLA's liability scheme by providing responsible parties with a right of contribution, CERCLA § 113(f), 42 U.S.C. § 9613(f), and by creating an "innocent landowner" defense to liability, CERCLA § 101(35), 42 U.S.C. § 9601(35). SARA also added provisions to encourage the settlement of CERCLA cases and to define the CERCLA liability of federal facilities. See generally Anne D. Weber, Note, *Misery Loves Company: Spreading the Costs of CERCLA Cleanup*, 42 VAND. L. REV. 1469, 1471-72 (1989) (listing SARA's contributions to CERCLA).

14. *United States v. Alcan Aluminum Corp.*, 990 F.2d 711 (2d Cir. 1993); *United States v. Alcan Aluminum Corp.*, 964 F.2d 252 (3d Cir. 1992). Because the case names are identical, the decisions will be abbreviated as *Alcan* (2d Cir.) and *Alcan* (3d Cir.) respectively. Commentary on the decisions includes Michael A. Brown, U.S. v. *Alcan: A Crack in the Wall of Joint and Several Liability*, 24 CHEM. WASTE LITIG. REP. 306 (1992); David M. Moore, *The Divisibility of Harm Defense to Joint and Several Liability Under CERCLA*, 23 ENVTL. L. REP. 10,529 (1993); Linda L. Rockwood & James L. Harrison, *The "Alcan" Decisions: Causation Through the Back Door*, 23 ENVTL. L. REP. 10,542 (1993); Michael Noone, Note, *Environmental Law—Third Circuit Reexamines Divisibility Under CERCLA—United States v. Alcan Aluminum Corp.*, 964 F.2d 252 (3d Cir. 1993), 66 TEMPLE L. REV. 307 (1993); Evan B. Westerfield, *When Less is More: A Significant Risk Threshold for CERCLA Liability*, 60 U. CHI. L. REV. 697 (1993); B. Todd Wetzel, Note, *Divisibility of Harm Under CERCLA: Does an Indivisible Potential or Averted Harm Warrant the Imposition of Joint and Several Liability?*, 81 KY. L. J. 825, 844-46 (1992-93).

15. The federal government was the plaintiff in both *Alcan* cases. *Alcan* (2d Cir.), 990 F.2d 711; *Alcan* (3d Cir.), 964 F.2d 252. CERCLA also permits private parties to sue responsible parties to clean up contaminated property. The same standards apply in many instances, but sometimes government plaintiffs face a different burden than private plaintiffs. Compare CERCLA

company as a "responsible party."<sup>16</sup> Yet both courts added that Alcan could avoid joint and several liability by introducing evidence that the courts should apportion the harm attributable to the company.<sup>17</sup> Further, the *Alcan* courts described scenarios in which a party may rely upon an absence of causation to escape *all* liability under CERCLA.<sup>18</sup> Causation thus reappeared "through the backdoor."<sup>19</sup>

The *Alcan* decisions offer a new way of thinking about how causation should relate to the "responsible party" liability scheme employed by CERCLA. Causation is a necessary prerequisite for assigning responsibility in tort law, even in strict liability regimes.<sup>20</sup> Nonetheless, courts have excused the victims<sup>21</sup> of hazardous waste injuries from proving causation under CERCLA because of the well-noted difficulties in determining the cause of injuries from hazardous substances.<sup>22</sup> The *Alcan* decisions offer a different, although not inconsistent, perspective by allowing a defendant to establish that it did not cause all or part of the plaintiff's injury, thereby avoiding responsibility for the part of the injury that it did not cause. Parts of CERCLA already reflect this approach,<sup>23</sup> but because other parts of the statute conflict with it,<sup>24</sup> Congress should amend the statute in several respects.

This Article considers the relationship between causation and responsibility in CERCLA. Part I describes what might have occurred if Congress had enacted the House version, which would have imposed liability on those who "caused or contributed" to hazardous waste contamination. This hypothetical dis-

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§ 107(a)(4)(A), 42 U.S.C. § 9607(a)(4)(A) (allowing government reimbursement for response costs that are "not inconsistent" with the National Contingency Plan (NCP)) with CERCLA § 107(a)(4)(B), 42 U.S.C. § 9607(a)(4)(B) (permitting private parties reimbursement for response costs that are "consistent" with the NCP).

16. *Alcan* (2d Cir.), 990 F. 2d at 721; *Alcan* (3d Cir.), 964 F.2d at 266; see also *infra* note 63 (listing responsible parties); part II.A (defining responsible parties).

17. *Alcan* (2d Cir.), 990 F. 2d at 722; *Alcan* (3d Cir.), 964 F.2d at 270; see also *infra* part II.C (defining apportionment).

18. *Alcan* (2d Cir.), 990 F.2d at 722; *Alcan* (3d Cir.), 964 F.2d at 270.

19. *Alcan* (2d Cir.), 990 F.2d at 722.

20. See *infra* notes 32-36 and accompanying text.

21. The "victims" include both the owners of property contaminated by hazardous wastes and the EPA acting on behalf of the general public, either of which may bring a CERCLA action to recover costs spent to clean up hazardous substances. See CERCLA § 107, 42 U.S.C. § 9607(j).

22. See *infra* notes 37-41 and accompanying text.

23. See *infra* part II.D.

24. See *infra* note 90 and accompanying text.

cussion permits a brief survey of the literature addressing the place of causation in common law tort litigation involving hazardous substances. Part II analyzes the responsible party scheme that Congress actually adopted and describes how the courts have struggled to frame a coherent liability scheme from the often incomplete statutory language. Part III argues that because responsibility should not attach when a party disproves causation, the existing CERCLA framework is overinclusive and does not accomplish its stated goal of imposing liability on "responsible parties."

This Article concludes by proposing three amendments to the CERCLA liability provisions to assure that a defendant who can show that it did not cause the plaintiff's injury will avoid responsibility for that injury. These amendments would eliminate from the liability scheme current owners and operators with no connection to the site at the time of the disposal of hazardous substances, would establish proof of the absence of causation as an absolute defense to liability, and would provide an early opportunity to apportion or allocate<sup>25</sup> liability among responsible parties, primarily based on the amount of the injury attributable to each party. These proposals, represented in part in proposed legislation to reform CERCLA,<sup>26</sup> would make the statute's liability scheme better serve its original purpose of imposing responsibility for cleanup costs on the parties that actually caused the contamination.

## I. THE CAUSATION MODEL

First, what might have been. The House's proposed bill imposed liability on persons who "caused or contributed to the re-

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25. See *infra* part II.C-D.

26. The Clinton Administration introduced its proposed "Superfund Reform Act of 1994" in February 1994. See S. 1834, 103d Cong., 2d Sess. (1994); H.R. 3800, 103d Cong., 2d Sess. (1994). In addition to amending CERCLA's liability provisions, see *infra* notes 183, 184, 200, 201, 207, 212-217 and accompanying text, the bill would require further community participation in cleanup decisions, S. 1834, *supra*, § 101, would facilitate voluntary response actions, *id.* § 128, would develop national cleanup standards, *id.* § 501, and would create an Environmental Insurance Resolution Fund to reduce litigation between responsible parties, *id.* § 802. The Administration's proposal is summarized at 140 CONG. REC. S1077-85 (daily ed. Feb. 7, 1994). For an overview of an alternative bill introduced by Representative Boucher, see 139 CONG. REC. E3118-20 (daily ed. Nov. 24, 1993).

lease or threatened release" of hazardous substances.<sup>27</sup> As one committee report explained:

The Committee intends that the usual common law principles of causation, including those of proximate causation, should govern the determination of whether a defendant "caused or contributed" to a release or threatened release . . . . Thus, for instance, the mere act of generation or transportation of hazardous waste, or the mere existence of a generator's or transporter's waste in a site with respect to which cleanup costs are incurred would not, in and of itself, result in liability under section 3071. The Committee intends that for liability to attach under this section, the plaintiff must demonstrate a causal or contributory nexus between the acts of the defendant and the conditions which necessitated response action under section 3041.<sup>28</sup>

Similarly, then-Representative Gore repeatedly stressed that the bill required proof of causation.<sup>29</sup>

Had Congress adopted the House's approach to causation, common-law principles of causation would have formed the basis for determining liability under CERCLA.<sup>30</sup> Under traditional tort causation principles, an injured party must demonstrate that a defendant's actions were both the cause in fact and the proximate cause of the plaintiff's injury.<sup>31</sup> Generally, to establish cause in fact, a plaintiff must show that the defendant's actions constituted "a substantial factor in bringing about the harm"<sup>32</sup> or that the harm would not have occurred

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27. H.R. 7020, 96th Cong., 2d Sess. § 3071(a)(D) (1980), *reprinted in* 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 438. The House passed H.R. 7020 in September 1980. *See* 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 391.

28. H.R. REP. NO. 1016, 96th Cong., 2d Sess., pt. I, at 33-34 (1980), *reprinted in* 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 64-65; *see also* 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 357 (statement of Rep. Madigan) (quoting committee report).

29. *See* 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 359-61 (statements of Rep. Gore).

30. These principles have been the subject of recent academic commentary, much of it addressing the specific problems of establishing causation in hazardous waste cases. H.L.A. HART & T. HONORE, CAUSATION IN THE LAW (2d ed. 1985); Daniel A. Farber, *Toxic Causation*, 71 MINN. L. REV. 1219 (1987); Ora F. Harris, Jr., *Toxic Tort Litigation and the Causation Element: Is There Any Hope of Reconciliation?*, 40 SW. L.J. 909 (1986); Jerry L. Mashaw, *A Comment on Causation, Law Reform, and Guerrilla Warfare*, 73 GEO. L.J. 1393 (1985); David Rosenberg, *The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System*, 97 HARV. L. REV. 849 (1984); *Symposium on Causation in the Law of Torts*, 63 CHI.-KENT L. REV. 397 (1987); Paul J. Zwier, *"Cause in Fact" in Tort Law: A Philosophical and Historical Examination*, 31 DEPAUL L. REV. 769 (1982).

31. KEETON ET AL., *supra* note 10, § 41, at 263-65.

32. RESTATEMENT (SECOND) OF TORTS § 431(a) (1965); *see also* KEETON ET AL., *supra* note 10, §§ 41, 42, at 267-68, 278.

"but for" the defendant's action.<sup>33</sup> According to the *Restatement (Second) of Torts*, whether the defendant's actions amounted to a "substantial factor" in producing the harm depends upon three considerations: (1) the extent to which the defendant's actions contributed to the harm, compared to the extent to which other forces contributed to the harm; (2) whether the defendant's actions created a force or series of forces that operated up to the time of the harm, or by contrast, whether the defendant's actions were harmless until acted upon by forces outside the defendant; and (3) the amount of time that elapsed between the defendant's actions and the harm.<sup>34</sup>

Proximate cause requires the plaintiff to establish that its injury was a reasonably foreseeable consequence of the defendant's actions, or that the injury was the direct consequence or foreseeable indirect consequence of the defendant's actions.<sup>35</sup> Given the effect of foreseeability, proximate cause "is merely the limitation which the courts have placed upon the actor's responsibility for the consequences of the actor's conduct."<sup>36</sup> Thus,

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33. KEETON ET AL., *supra* note 10, § 41, at 265-67. Professor Richard Wright has developed what he terms the "Necessary Element of a Sufficient Set" (NESS) test of causation: "a particular condition was a cause of (contributed to) a specific result if and only if it was a necessary element of a set of antecedent actual conditions that was sufficient for the occurrence of the result." Richard W. Wright, *Causation, Responsibility, Risk, Probability, Naked Statistics, and Proof: Pruning the Bramble Bush by Clarifying the Concepts*, 73 IOWA L. REV. 1001, 1019 (1988) (footnote and emphasis omitted).

34. RESTATEMENT (SECOND) OF TORTS § 433 (1965).

35. KEETON ET AL., *supra* note 10, § 41, at 273; *see also id.* at 272-80. Under the Restatement, the fact that the harm resulting from the defendant's actions was not foreseeable does not excuse a defendant from liability unless hindsight reveals that it was highly extraordinary that the action brought about the harm. RESTATEMENT (SECOND) OF TORTS § 435. The Restatement instead limits responsibility by the term "substantial": "substantial" is intended to invoke a "reasonable person" test that asks if

the defendant's conduct has such an effect in producing the harm as to lead reasonable people to regard it as a cause, using that word in the popular sense, in which there always lurks the idea of responsibility, rather than in the so-called "philosophic sense," which includes every one of the great number of events without which any happening would not have occurred.

*Id.* § 431 cmt. a.

36. KEETON ET AL., *supra* note 10, § 41, at 264.

In a philosophical sense, the consequences of an act go forward to eternity, and the causes of an event go back to the dawn of human events, and beyond. But any attempt to impose responsibility upon such a basis would result in infinite liability for all wrongful acts, and would "set society on edge and fill the courts with endless litigation." As a practical matter, legal responsibility must be limited to those causes which are so closely related with the result and of such significance that the law is justified in imposing liability.



even if the defendant's actions in fact caused the plaintiff's injury, the law will not hold the defendant responsible for that injury unless there is a sufficient connection between the actions and the injury.

Both cause in fact and proximate cause are notoriously difficult to prove in hazardous waste cases because of three general problems. First, a site may include many different kinds of hazardous substances<sup>37</sup> that become even more difficult to identify when they commingle and migrate.<sup>38</sup> Furthermore, the many different kinds of hazardous substances often come from many different sources.<sup>39</sup> Finally, many years may elapse between the disposal of hazardous wastes and any resulting injuries.<sup>40</sup> In such cases, extended delay between disposal and injury can make it extremely difficult to find relevant documents or knowledgeable witnesses to waste disposal practices at a site.<sup>41</sup>

Several common law tort doctrines address situations in which causation proves difficult to determine.<sup>42</sup> "Alternative li-

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*Id.* (footnote omitted).

37. See *City of New York v. Exxon Corp.*, 766 F. Supp. 177, 198 (S.D.N.Y. 1991); *United States v. Bliss*, 667 F. Supp. 1298, 1309-10 (E.D. Mo. 1987); see also Mary Margaret Fabic, Note, *Pursuing a Cause of Action in Hazardous Waste Pollution Cases*, 29 *BUFF. L. REV.* 533, 541-42 (1980).

38. For example, in *United States v. South Carolina Recycling and Disposal, Inc.*, involving a storage facility containing 7,200 fifty-five gallon drums of different hazardous substances, it "would have cost in the range of \$2.5 million to attempt through analytical means to identify all waste types in the conglomerate of materials stored at the [site], approximately five times the cost of surface removal itself" 653 F. Supp. 984, 990, 993 n.6 (D.S.C. 1984), *aff'd in part, vacated in part*, *United States v. Monsanto Co.*, 858 F.2d 160 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989); see also *Violet v. Picillo*, 648 F. Supp. 1283, 1286 (D.R.I. 1986) (involving 10,000 barrels and containers).

39. *United States v. Chem-Dyne Corp.* involved 289 generators and transporters connected with the site, 572 F. Supp. 802, 811 (S.D. Ohio 1983). Two hundred parties were connected with the landfill in *B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1196 (2d Cir. 1992). The Alcan Aluminum Corporation was one of 83 parties involved with the waste disposal center in the Second Circuit case. *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 717 (2d Cir. 1993). A witness at a congressional hearing referred to over 25,000 defendants being named in some cases. *Superfund Liability Hearings*, *supra* note 12 (testimony of Harriet L. James, representing the National Federation of Independent Business, on Feb. 10, 1994).

40. For example, the hazardous wastes found at the Blackbird Mine in Idaho resulted from cobalt, copper, and gold mining that began in 1917, *Idaho v. Hanna Mining Co.*, 882 F.2d 392, 393 (9th Cir. 1989), and wastes were disposed at the site in *United States v. Rohm & Haas Co.*, 2 F.3d 1265, 1268 (3d Cir. 1993), beginning in 1917 as well.

41. See Harris, *supra* note 30, at 912; Fabic, *supra* note 37, at 542-43.

42. *Res ipsa loquitur* provides a related example, albeit focused more on an inference of negligence than an inference of causation. *Res ipsa loquitur* allows

ability" provides that when two or more defendants breach a duty to a plaintiff but uncertainty remains as to which defendant caused the injury, each defendant is jointly and severally liable unless it can prove that it did not cause the injury.<sup>43</sup> Thus, in *Summers v. Tice*,<sup>44</sup> the court held two hunters—who fired identical guns simultaneously—jointly and severally liable because neither hunter could prove which shot actually hit the plaintiff.<sup>45</sup> The assumption that the defendants are more likely than the plaintiff to know who caused the injury, and the desire to assure that the plaintiff can obtain a remedy, provide the dual justifications for the theory.<sup>46</sup> But stretching this common law tort theory to the CERCLA context proves difficult. In hazardous waste cases, the injury usually occurs over an extended period of time, a large number of possible defendants often exists, and only some defendants are likely to be joined in the case, so that the party who actually caused the injury may not be present in court.<sup>47</sup>

Courts also have applied a "concert of action" theory when a group of defendants have participated in "a common plan or design to commit a tortious act."<sup>48</sup> The usual example of the theory, which derives from the criminal concept of aiding and abetting, holds both drivers who agree to a drag race liable when

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a court to infer negligence from circumstantial evidence when ordinary experience suggests that the injury must have resulted from a particular action. See KEETON ET AL., *supra* note 10, § 39, at 244-48. For example, the escape of toxic gases from a building suggests that the owner of the building acted negligently, despite the plaintiff's inability to prove how the release occurred. *Id.* § 39, at 245 & n.32 (citing cases). Yet using *res ipsa loquitur* to determine hazardous waste liability may not achieve the doctrine's purpose. As one commentator observed, although *res ipsa loquitur* prevents a group of defendants from forming a "conspiracy of silence" about what actually happened, in cases involving abandoned hazardous waste sites "[t]he defendants are not necessarily in any better position than the government to show whose wastes were contained in the release." *Developments in the Law—Toxic Waste Litigation*, 99 HARV. L. REV. 1458, 1522 n.51 (1986).

43. RESTATEMENT (SECOND) OF TORTS § 433B(3) (1989).

44. *Summers v. Tice*, 199 P.2d 1 (Cal. 1948) (en banc).

45. *Id.* at 2-3.

46. See RESTATEMENT (SECOND) OF TORTS § 433B cmt. f (1989); *Summers v. Tice*, 199 P.2d at 4-5.

47. The same factors have discouraged courts from employing alternative liability in DES cases. See *Hymowitz v. Eli Lilly & Co.*, 539 N.E.2d 1069, 1074 (N.Y.), *cert. denied*, 493 U.S. 944 (1989); Laura A. Abrams, Comment, *The DES Dilemma: A Study in How Hard Cases Make Bad Law*, 59 U. CIN. L. REV. 489, 497-500 (1990).

48. KEETON ET AL., *supra* note 10, § 46, at 323; see RESTATEMENT (SECOND) OF TORTS § 876 (1989).

one hits a third party.<sup>49</sup> But there is no concert of action in most hazardous waste cases because the contamination results from the independent decisions of countless defendants over an extended period of time.

Two other common law doctrines go further, however. "Market share liability," developed in litigation over the injuries suffered by women whose mothers took the drug diethylstilbestrol (DES) during pregnancy, apportions liability by the size of a company's market share of the injurious product. In the leading case of *Sindell v. Abbott Laboratories*,<sup>50</sup> the California Supreme Court held that upon proof that the defendants were manufacturers of a substantial share of the drug on the market in which plaintiff's mother purchased the drug, "[e]ach defendant will be held liable for the proportion of the judgement represented by its share of that market unless it demonstrates that it could not have made the product which caused plaintiff's injuries."<sup>51</sup> While several courts have adopted different theories of market share liability,<sup>52</sup> each has applied the doctrine narrowly, limiting its effect to "cases in which all of the defendants produced an identical product, and the plaintiff ha[d] joined enough defendants to represent a substantial share of the market."<sup>53</sup>

Using this doctrine in the CERCLA context once again proves problematic. CERCLA cases rarely involve a group of de-

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49. RESTATEMENT (SECOND) OF TORTS § 876, at 315 (1989); see also Shackil v. Lederle Lab., 561 A.2d 511, 515 (N.J. 1989) (discussing concert of action theory in context of DES cases).

50. *Sindell v. Abbott Lab.*, 607 P.2d 924 (Cal.), cert. denied, 449 U.S. 912 (1980).

51. *Id.* at 937; KEETON ET AL., *supra* note 10, § 41, at 271; see also *id.* § 103, at 714 (discussing proof in market share liability cases).

52. See *Smith v. Cutter Biological, Inc.*, 823 P.2d 717 (Haw. 1991); *Conley v. Boyle Drug Co.*, 570 So. 2d 275 (Fla. 1990); *Hymowitz v. Eli Lilly & Co.*, 539 N.E.2d 1069 (N.Y.), cert. denied, 493 U.S. 944 (1989); *Martin v. Abbott Lab.*, 689 P.2d 368 (Wash. 1984) (en banc); *Collins v. Eli Lilly Co.*, 342 N.W.2d 37 (Wis.), cert. denied, 469 U.S. 826 (1984). By contrast, other courts have rejected market share liability theories. See *Mulcahy v. Eli Lilly & Co.*, 386 N.W.2d 67 (Iowa 1986) (en banc); *Zafft v. Eli Lilly & Co.*, 676 S.W.2d 241 (Mo. 1984) (en banc). For discussions of market share liability, pro and con, see Aaron D. Twerski, *Market Share—A Tale of Two Centuries*, 55 BROOK. L. REV. 869 (1989); Abrams, *supra* note 47, at 502-12; Petrina R. Albulessv, Note, *Market Share Liability—The California Roulette of Causation Eliminating the Identification Requirement*, 11 SETON HALL L. REV. 610 (1981); Andrew B. Nance, Note, *Market Share Liability: A Current Assessment of a Decade-Old Doctrine*, 44 VAND. L. REV. 395 (1991); Note, *Market Share Liability: An Answer to the DES Causation Problem*, 94 HARV. L. REV. 668 (1981).

53. *Developments*, *supra* note 42, at 1523; see also KEETON ET AL., *supra* note 10, § 103, at 714.

fendants that produced an identical substance.<sup>54</sup> Most market share liability theories, moreover, limit a defendant's liability to its share of the market,<sup>55</sup> while CERCLA permits joint and several liability for all of the plaintiff's damages.<sup>56</sup> As a result, a plaintiff may not be able to recover all of its damages under a market share approach, contrary to one of the goals of CERCLA.

Finally, academic writers favor a "probabilistic causation" theory specifically addressing hazardous substances cases.<sup>57</sup> Rather than imposing liability depending on the likelihood that a particular defendant caused the injury (as in market share liability), probabilistic causation permits plaintiffs to recover depending on the likelihood that they were injured by a particular product. A defendant is liable in proportion to the likelihood that it caused the plaintiff's injury.<sup>58</sup> Thus, under a probabilistic causation system, a plaintiff would recover 30 percent of its total damages from that defendant if a 30 percent likelihood exists that a defendant caused the plaintiff's injury.<sup>59</sup> Again, both the many different types of injuries and the many different activities that may have caused the injury make it difficult to employ a probabilistic causation system in hazardous substances cases.

These common law concepts provide the framework in which the courts would have determined CERCLA liability using the causation approach of the House bill.<sup>60</sup> Perhaps one of

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54. See *supra* note 39 and accompanying text.

55. KEETON ET AL., *supra* note 10, § 103, at 714.

56. See *infra* note 103 and accompanying text.

57. Farber, *supra* note 30, at 1220.

58. The proponents of probabilistic causation include Richard Delgado, *Beyond Sindell: Relation of Cause-In-Fact Rules for Indeterminate Plaintiffs*, 70 CAL. L. REV. 881, 899-902 (1982); *Developments*, *supra* note 42, at 1619-24; William M. Landes & Richard A. Posner, *Tort Law as a Regulatory Regime for Catastrophic Personal Injuries*, 13 J. LEGAL STUD. 417, 425-31 (1984); Rosenberg, *supra* note 30, at 881-87; Jack B. Weinstein, *The Role of the Court in Toxic Tort Litigation*, 73 GEO. L. J. 1389, 1392 (1985). Professor Daniel Farber argues against this consensus, favoring instead a "most likely victim" approach that would fully compensate those plaintiffs whose injuries were most likely caused by the defendant, while denying any compensation to those plaintiffs whose injuries were least likely caused by the defendant. Farber, *supra* note 30, at 1221.

59. Farber, *supra* note 30, at 1220-21.

60. Note, however, that the House bill would have imposed liability on a person who "caused or contributed to the release or threatened release" of hazardous substances. Inclusion of the words "or contributed to" seems to denote an expansion of the common law concept of causation and is similar to RCRA § 7003(a), 42 U.S.C. § 6973(a), but there is no evidence of what the House intended. H.R. 7020, 96th Cong., 2d Sess. § 3071(a)(D), *reprinted in* 2 CERCLA

these theories of causation would have gained currency under this approach. More likely, the liability standard adopted by the House bill would have created its own federal common law.<sup>61</sup> These arguments nonetheless remain hypothetical because Congress adopted an altogether different approach.

## II. THE RESPONSIBLE PARTY MODEL

The statute Congress enacted contained the Senate's approach to causation.<sup>62</sup> The Senate bill specified in the statute itself the precise elements of liability instead of simply relying on the common law understanding of those who "caused or contributed" to hazardous waste contamination. Courts reading the enacted language of CERCLA<sup>63</sup> have identified four elements of a private plaintiff's *prima facie* case: (1) the defendant falls

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LEGISLATIVE HISTORY, *supra* note 2, at 438 (emphasis added). Five opponents of the House bill complained that "a generator of hazardous waste could be interpreted to have 'contributed to' a release merely by generating the waste that was released. This would place an unfair burden on the waste generator. The mere fact of generating a hazardous waste should not make the generator liable." 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 98 (supplemental views of Reps. Broyhill, Devine, Collins, Loeffler and Stockman).

61. In fact, the House expected this. See 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 64.

62. See *supra* note 4.

63. CERCLA section 107(a) provides the following:

- (1) the owner and operator of a vessel or a facility,
- (2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,
- (3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and
- (4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance, shall be liable for—

(A) all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan;

(B) any other necessary costs of response incurred by any other person consistent with the national contingency plan;

(C) damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from such a release; and

(D) the costs of any health assessment or health effects study carried out under section 9604(i) of this title.

CERCLA § 107(a), 42 U.S.C. § 9607(a) (1988).

within any of the four categories of covered persons; (2) "a release, or threatened release" of a hazardous substance from a "facility" occurred; (3) the plaintiff incurred "response costs";<sup>64</sup> and (4) these costs were the "necessary costs of response . . . consistent with the national contingency plan."<sup>65</sup> The four categories of "responsible parties" liable for hazardous substance contamination include parties who are current owners or operators of a facility, those who owned or operated a facility at the time of disposal, those who arranged to dispose or treat hazardous substances at the facility, most notably the generators of the waste, and those who transported hazardous substances to the facility.<sup>66</sup> Finally, the statute enumerates three specific defenses that require a defendant to prove by a preponderance of the evidence that both the release and the consequent damages resulted from an act of God, an act of war, or an act of a third party completely unrelated to the defendant, provided that the defendant exercised due care and took precautions against the release.<sup>67</sup>

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64. In addition to response costs, CERCLA imposes liability for another type of injury—damage to natural resources—and provides a different causation requirement for such damages. 42 U.S.C. § 9607(a)(4)(C) (1988). One court has held that this provision requires that "the damage for which recovery is sought must still be causally linked to the act of the defendant." *Idaho v. Bunker Hill Co.*, 635 F. Supp. 665, 674 (D. Idaho 1986). The First Circuit distinguished *Bunker Hill* from actions to recover response costs, explaining that although the natural resources provision requires "a connection between the defendant and the damages to the natural resources," the general liability provision requires "a connection between the defendant and the response costs (and no mention is made of any damages at all)." *Dedham Water Co. v. Cumberland Farms Dairy, Inc.*, 889 F.2d 1146, 1154 n.7 (1st Cir. 1989).

65. See, e.g., *Dedham Water Co.*, 889 F.2d at 1150 (listing CERCLA elements). The same elements apply to an action brought by the government except that the necessary costs of response need only be "not inconsistent" with the National Contingency Plan. See CERCLA § 107(a)(4)(A), 42 U.S.C. § 9607(a)(4)(A) (1988). Most courts require the defendant to prove that the costs are not inconsistent with the National Contingency Plan, although a few courts have placed the burden on the government. See, e.g., *In re Bell Petroleum Servs., Inc.*, 3 F.3d 889, 906 n.23 (5th Cir. 1993) (citing cases).

66. CERCLA § 107(a), 42 U.S.C. § 9607(a) (1988). The third and fourth bases for liability are known as "generator" or "arranger" liability and "transporter" liability respectively. See, e.g., *Piccolini v. Simon's Wrecking*, 686 F. Supp. 1063, 1066 (M.D. Pa. 1988).

67. CERCLA § 107(b), 42 U.S.C. § 9607(b) (1988). SARA amended the third-party defense to protect "innocent landowners" who tried but did not learn about the contamination before they acquired the property. See CERCLA § 101(35), 42 U.S.C. § 9601(35) (1988). All three defenses are typically defenses to strict liability in other contexts. See *Louisiana-Pacific Corp. v. Beazer Materials & Servs., Inc.*, 811 F. Supp. 1421, 1427 (E.D. Cal. 1993).

The statutory language says nothing about the plaintiff's threshold need to establish that the defendant's actions caused—either in fact or proximately—the contamination at the site. The lack of attention to causation in CERCLA's language makes it difficult to determine the relevancy of causation in determining whether a company or an individual is a responsible party, in apportioning liability, and in allocating liability among responsible parties. The *Alcan* decisions help clarify these issues.

#### A. CAUSATION AND THE DEFINITION OF RESPONSIBLE PARTIES

The absence of any specific causation provision in the statutory language has not deterred defendants from arguing that CERCLA requires a plaintiff to establish that the defendant's actions—which could be the ownership or operation of a facility, the disposal of hazardous waste generated by the defendant, or the transportation of such waste—were the cause in fact of the plaintiff's injury. The *Alcan* cases illustrate these arguments.<sup>68</sup> The Alcan Aluminum Corporation contended that CERCLA required the government to prove that the company's emulsion caused the release and the government's response costs.<sup>69</sup> The

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68. Alcan unsuccessfully advanced two other defenses besides causation. It argued that CERCLA contains a minimum amount requirement, so that liability does not attach to a de minimis amount of a hazardous substance. Both courts rejected this argument, as had previous courts. See *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 720 (2d Cir. 1993); *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 259-61 (3d Cir. 1992); see also *Amoco Oil Co. v. Borden, Inc.*, 889 F.2d 664, 669 (5th Cir. 1989); *Louisiana-Pacific Corp. v. ASARCO, Inc.*, 735 F. Supp. 358, 361 (W.D. Wash. 1990); *United States v. Nicolet, Inc.*, 712 F. Supp. 1205, 1207 (E.D. Pa. 1989). Alcan also argued that its wastes were not hazardous according to EPA reporting requirements. Again, both courts disagreed. See *Alcan* (2d Cir.), 990 F.2d at 720-21; *Alcan* (3d Cir.), 964 F.2d at 261-64. But see generally *Westerfield*, *supra* note 14.

69. 990 F.2d at 720; 964 F.2d at 264. Alcan manufactured aluminum sheet and plate products at a plant in Oswego, New York. During the manufacturing process, the company used an emulsion consisting of deionized water and mineral oil to cool and lubricate aluminum ingots. *Alcan* (3d Cir.), 964 F.2d at 256. The used emulsion also contained fragments of the aluminum ingots that broke off during the manufacturing process. *Id.* Alcan attempted to filter the hazardous substances contained in those fragments before disposing of the emulsion so that it could reuse the emulsion, but small quantities of hazardous substances remained. *Id.* The federal government sued Alcan, along with 82 other defendants, for arranging to dispose of 4.6 million gallons of the emulsion at a waste disposal center in Oswego. The federal government also sued Alcan, along with nineteen other defendants, for arranging to dispose of over 2.3 million gallons of the emulsion at a site in Pittston, Pennsylvania. *Alcan* (2d Cir.), 990 F.2d at 717; *Alcan* (3d Cir.), 964 F.2d at 256-57. In both cases, all parties except Alcan settled with the government, which then sought to collect the balance of the

Second and Third Circuits rejected this argument,<sup>70</sup> as had virtually every previous court to consider the question.<sup>71</sup> The *Alcan* courts offered several rationales to demonstrate Congress's intention that CERCLA not require proof of causation. Other rationales simply show why such a scheme makes sense.

The text, structure, and history of the statute indicate that CERCLA does not require proof of causation. Most importantly, the statute itself specifies who is liable, and the statutory language says nothing about showing cause in fact.<sup>72</sup> The absence of a causation requirement suggests that Congress intended none, notwithstanding indications in the legislative history that the common law should resolve unanswered liability issues.<sup>73</sup> The silence of the statute acquires added meaning when compared with the House version, which made proof of causation the

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cleanup costs from *Alcan*. *Alcan* (2d Cir.), 990 F.2d at 717; *Alcan* (3d Cir.), 964 F.2d at 257.

70. *Alcan* (2d Cir.), 990 F.2d at 721; *Alcan* (3d Cir.), 964 F.2d at 266.

71. Like the *Alcan* decisions, most of these other decisions involved waste generators. See *Beazer*, 811 F. Supp. at 1430; *United States v. Marisol, Inc.*, 725 F. Supp. 833, 840 (M.D. Pa. 1989); *United States v. Bliss*, 667 F. Supp. 1298, 1309-10 (E.D. Mo. 1987); *Violet v. Picillo*, 648 F. Supp. 1283, 1292-93 (D.R.I. 1986); *United States v. South Carolina Recycling and Disposal, Inc.*, 653 F. Supp. 984, 992-93 (D.S.C. 1984), *aff'd in part, vacated in part*, *United States v. Monsanto Co.*, 858 F.2d 160 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989); *United States v. Wade*, 577 F. Supp. 1326, 1331-34 (E.D. Pa. 1983). Owners have fared equally poorly in making causation arguments. See *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1044-45 (2d Cir. 1985); *United States v. Cauffman*, 15 ENVTL. L. REP. 20,161 (C.D. Cal. 1984).

72. The courts have been especially insistent about this point. See *Alcan* (3d Cir.), 964 F.2d at 264 ("The statute does not, on its face, require the plaintiff to prove that the generator's *hazardous substances* themselves caused the release or caused the incurrence of response costs; rather, it requires the plaintiff to prove that the *release or threatened release* caused the incurrence of response costs, and that the defendant is a generator of hazardous substances at the facility."); *Dedham Water Co. v. Cumberland Dairy Farms, Inc.*, 889 F.2d 1146, 1152 (1st Cir. 1989) ("A literal reading of the statute imposes liability if releases or threatened releases from defendant's facility cause the plaintiff to incur response costs; it does *not* say that liability is imposed only if the defendant causes actual contamination of the plaintiff's property."); *United States v. Monsanto Co.*, 858 F.2d 160, 168 (4th Cir. 1988) ("The traditional elements of tort culpability on which the site-owners rely simply are absent from the statute. The plain language of section 107(a)(2) extends liability to owners of waste facilities regardless of their degree of participation in the subsequent disposal of hazardous waste."), *cert. denied*, 490 U.S. 1106 (1989).

73. See 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 686 (statement of Sen. Randolph) ("It is intended that issues of liability not resolved by this act, if any, shall be governed by traditional and evolving principles of common law.").



sole determining consideration in establishing liability.<sup>74</sup> The speed with which Congress drafted the compromise CERCLA language, and the absence of any legislative history or other indication of *why* Congress chose the Senate "responsible party" approach instead of the House "cause or contribute" approach, precludes any authoritative claims about the congressional purpose in enacting the statute as now written. The sparse legislative history is murky on this point.<sup>75</sup> Nonetheless, that the statute simply says what it says, and does not say what the House would have said, provides powerful support for finding evidence of cause in fact unnecessary. Also, the inclusion of three statutory causation-based affirmative defenses suggests that Congress did not intend to impose the burden of establishing causation on the plaintiff.<sup>76</sup>

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74. See *Monsanto*, 858 F.2d at 170 n.17 ("Congress specifically declined to include a similar nexus requirement in CERCLA. . . . The legislature thus eliminated the element of causation from the plaintiff's liability case."); accord *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 264-65 (3d Cir. 1992); *Dedham Water Co.*, 889 F.2d at 1153; *Shore Realty Corp.*, 759 F.2d at 1044-45; *Bliss*, 667 F. Supp. at 1309 n.10; *United States v. Stringfellow*, 661 F. Supp. 1053, 1060 (C.D. Cal. 1987); *Violet*, 648 F. Supp. at 1291-92; *South Carolina Recycling*, 653 F. Supp. at 992 n.4; *Wade*, 577 F. Supp. at 1333-34.

75. Compare 126 CONG. REC. 31,969 (1980) (remarks of Rep. Broyhill) (arguing against the bill because "[t]here is no language requiring any causal conviction [presumably he meant connection] with a release of a hazardous substance") with 126 CONG. REC. 30,972 (1980) (remarks of Sen. Helms) ("The Government can sue a defendant under the bill only for those costs and damages that it can prove were caused by the defendant's conduct."). The Second Circuit in *Shore Realty Corp.* dismissed Senator Helms's comments as "fighting a rearguard action by that remark, or, more likely, he may have been referring to the causation defenses in § 9607(b)." 759 F.2d at 1045 n.19. While this explanation is plausible, the fact that CERCLA's legislative history is confusing and contradictory, see, e.g., *Dedham Water Co. v. Cumberland Dairy Farms, Inc.*, 805 F.2d 1074, 1080 (1st Cir. 1986), provides an equally likely explanation. Of course, others have debated the extent to which legislative history can ever answer questions about congressional purpose. See, e.g., John Copeland Nagle, *Severability*, 72 N.C. L. REV. 203, 249 n.225 (1993) (listing recent academic commentary on the use of legislative history).

76. See *infra* part III.B.2. The court in *Monsanto* considered these defenses as evidence that Congress "allocated the burden of disproving causation to the defendant who profited from the generation and inexpensive disposal of hazardous waste." 858 F.2d at 170; see also *Alcan* (3d Cir.), 964 F.2d at 265 (asserting that "[i]mputing a specific causation requirement would render these defenses superfluous"); *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1043 (2d Cir. 1985) (stating that "a causation requirement makes superfluous the affirmative defenses provided in section 9607(b)"); *Violet v. Picillo*, 648 F. Supp. 1283, 1292 (D.R.I. 1986) (concluding that an interpretation of CERCLA requiring a causation element "would reduce the CERCLA defenses to statutory surplusage"). By contrast, the court in *Louisiana-Pacific Corp. v. Beazer Materials & Servs., Inc.* insisted that reading the statute to require a plaintiff to prove causation

The *Alcan* and other courts have described additional reasons that explain why Congress might not have wanted to impose a causation requirement, although these reasons offer no independent evidence that Congress consciously made that choice. The first explanation, the difficulty a plaintiff encounters in trying to prove that the actions of a particular defendant were the cause in fact of the hazardous substances, especially at sites where many companies and individuals contributed substances, could defeat CERCLA's purpose of assuring prompt cleanup.<sup>77</sup> Courts frequently have referred to the impossibility or prohibitive expense of "fingerprinting" hazardous wastes.<sup>78</sup> For example, the *Monsanto* court assumed that "Congress knew of the synergistic and migratory capacities of leaking chemical waste, and the technological infeasibility of tracing improperly disposed waste to its source."<sup>79</sup> This difficulty in proving causation argues strongly for establishing a liability scheme

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would not render the statutory defenses superfluous. The *Beazer* court, however, relied on its minority view that CERCLA does not require proof of a causal nexus between an actual release and a plaintiff's response costs. 811 F. Supp. 1421, 1429 n.16 (E.D. Cal 1993).

77. See *Alcan* (3d Cir.), 964 F.2d at 264-65; *Monsanto*, 858 F.2d at 170; *Bliss*, 667 F. Supp. at 1309-11. A related argument claims that a reduced causation standard fulfills the congressional goal of placing the cost of hazardous waste cleanups on the industries that handle hazardous substances. See *Bliss*, 667 F. Supp. at 1311.

78. The district court in *Wade* stated that "to require a plaintiff under CERCLA to 'fingerprint' wastes is to eviscerate the statute." 577 F. Supp. at 1332; see also *O'Neil v. Picillo*, 883 F.2d 176, 179 n.4 (1st Cir. 1989); *Monsanto*, 858 F.2d at 169 n.15; *United States v. Marisol*, 725 F. Supp. 833, 840 (M.D. Pa. 1989); *Bliss*, 667 F. Supp. at 1309-10; *Artesian Water Co. v. New Castle County*, 659 F. Supp. 1269, 1282 (D. Del. 1987), *aff'd*, 851 F.2d 643 (3d Cir. 1988); *Violet v. Picillo*, 648 F. Supp. 1283, 1292 n.8 (D.R.I. 1986); *Developments*, *supra* note 42, at 1522.

79. 858 F.2d at 170. Another court explained that "[t]he statute takes into account the synergistic potential of improperly managed hazardous substances and essentially presumes a contributory 'causal' relationship between each of the hazardous substances disposed at a site and the hazardous conditions existing at the site." *United States v. South Carolina Recycling & Disposal, Inc.*, 653 F. Supp. 984, 992 n.5. (D.S.C. 1984), *aff'd in part, vacated in part*, *United States v. Monsanto Co.*, 858 F.2d 160 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989). In fact, some members of Congress acknowledged the causation difficulties inherent in establishing liability for hazardous waste contamination. See 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 75 (testimony of EPA Assistant Administrator Thomas C. Jorling); see also *id.* at 82 (testimony of Mr. Jorling). Causation received more attention with respect to the provisions in the Senate bill which would have permitted the recovery of individual medical expenses resulting from hazardous substance contamination, but those provisions were excluded from CERCLA as enacted. See S. REP. NO. 848, 96th Cong., 2d Sess. 108-115 (1980), *reprinted* in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 305, 415-22 (supplemental views of Sen. Stafford); *id.* at 119-20, *reprinted* in 1

that does not require such proof, but proof difficulties alone do not lead necessarily to an inference that Congress knowingly drafted CERCLA to exclude a causation requirement. Rather, difficulties of proof help explain *why* Congress wrote the statute as it did.

Other arguments experience similar limitations. Some courts have worried that polluters could act to circumvent liability if they required plaintiffs to establish causation. "[I]f the current owner of a site could avoid liability merely by having purchased the site after chemical dumping had ceased, waste sites certainly would be sold, following the cessation of dumping, to new owners who could avoid the liability otherwise required by CERCLA."<sup>80</sup> This rationale does not explain, however, why anyone eagerly would buy such a site. Presumably, the polluting owner either must sell the property at a greatly reduced price to attract a willing purchaser or show that others would pay for the cleanup. Moreover, even if the succeeding owner would not be liable, the polluting owner still would be liable for the plaintiff's costs of cleaning up the site.<sup>81</sup>

Finally, courts have submitted that interpreting CERCLA as requiring a plaintiff to prove causation would punish those who are careful and reward those who are not.<sup>82</sup> If a generator becomes liable only when it knows the whereabouts of its waste disposal, then the generator has an incentive simply to give its wastes to a transporter and not ask any questions.<sup>83</sup> This also may prove true, but the reasoning provides an inadequate justification for reading CERCLA to exclude altogether a causation requirement.

#### B. PRINCIPLES OF CAUSATION INHERENT IN THE RESPONSIBLE PARTY SCHEME

Although identifying a responsible party under CERCLA does not require proof that the defendant's actions caused the plaintiff's injury, causation plays a more subtle role in the statu-

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CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 426-27 (additional views of Sens. Domenici, Bentsen, and Baker).

80. *Shore Realty*, 759 F.2d at 1045.

81. See *infra* note 91 and accompanying text.

82. See *Violet*, 648 F. Supp. at 1292. Congress plainly intended to create an incentive to use greater care in handling and disposing of hazardous wastes. See S. REP. NO. 868, 96th Cong., 2d Sess. 15 (1980), reprinted in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 322.

83. *Violet*, 648 F. Supp. at 1292.

tory scheme.<sup>84</sup> Consider three events: the defendant's actions, the release of hazardous substances, and the plaintiff's injury. The statutory definition of "responsible party" and other parts of CERCLA's liability provisions require showing a nexus between the first and the second events, and also between the second and the third events. CERCLA, however, does not require a direct connection between the first and third events.

First, CERCLA requires a relationship between a defendant's actions and the release (or threatened release) of hazardous substances at a site. The nature of that relationship depends upon the category of responsible party into which the defendant falls. Each category, in turn, is based on an inherent nexus between that party and the injury suffered by the plaintiff.<sup>85</sup> For generators, the nexus comes from a showing that a defendant produced hazardous substances that were shipped to the site, and that hazardous substances like those of the generator (or the generator's own wastes) existed at the site when a release of hazardous substances occurred.<sup>86</sup> For transporters,

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84. See, e.g., Scott Wilsdon, Note, *When a Security Becomes a Liability: Claims Against Lenders in Hazardous Waste Cleanup*, 38 HASTINGS L.J. 1261, 1261 (1987) ("[T]he judicial trend has been to extend liability to parties whose connection to waste disposal may be less than obvious." (footnote omitted)); see also *Louisiana-Pacific Corp. v. Beazer Materials & Servs.*, 811 F. Supp. 1421, 1430 (E.D. Cal. 1993) ("CERCLA does not import traditional tort notions of causation, but rather imposes a nexus requirement." (citations omitted)); *Louisiana-Pacific Corp. v. ASARCO, Inc.*, 735 F. Supp. 358, 362 (W.D. Wash. 1990) ("CERCLA does not *eliminate* a common law causation standard, but rather it *reduces* the causation standard.").

85. The required nexus between the defendant and the release of hazardous substances also depends upon the identification of the appropriate site at which the release occurred. CERCLA imposes liability for releases "from a facility." CERCLA § 107(a), 42 U.S.C. § 9607(a); see also CERCLA § 101(9), 42 U.S.C. § 9601(9) (defining "facility"). Courts generally give the term "facility" a broad reading. See, e.g., 3550 *Stevens Creek Assocs. v. Barclays Bank of California*, 915 F.2d 1355, 1360 n.10 (9th Cir. 1990), *cert. denied*, 111 S. Ct. 2014 (1991). Thus, in *United States v. Bell Petroleum Servs., Inc.*, No. MO-88-CA-05, 1989 WL 165534, at \*4-\*5 (W.D. Tex. Sept. 20, 1989), *rev'd on other grounds sub nom. In re Bell Petroleum, Inc.*, 3 F.3d 889 (5th Cir. 1993), the district court refused to treat the soil and an aquifer as two separate facilities, instead holding that the defendant was responsible for releases from both the soil and the aquifer. *Accord Beazer*, 811 F. Supp. at 1431.

86. See, e.g., *United States v. Monsanto*, 858 F.2d 160, 169 n.15 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989); *United States v. Mottolo*, 695 F. Supp. 615, 625 (D.N.H. 1988); *Violet*, 648 F. Supp. at 1289. The precise nexus required for generator liability remains somewhat confusing. Some writers indicate that the generator's own wastes must have been at the site when the release occurred, even if the plaintiff cannot prove that the generator's wastes were part of the release. See *Developments, supra* note 42, at 1521 ("The wastes need only have been present at the site at the time the release occurred.").

the plaintiff must show that the defendant brought wastes to

Such a requirement poses a troubling question: What if the wastes disposed of by the generator at the site are no longer there, either due to removal or migration? The *Wade* court could not fathom that a generator could escape liability in that manner. See *United States v. Wade*, 577 F. Supp. 1326, 1333 (E.D. Pa. 1983). The court's concerns seem misplaced, however, because the plaintiff's response costs in such a situation are completely unrelated to the defendant's actions. Thus, if a defendant can prove that none of its wastes still reside at the site because its wastes have migrated or been destroyed, that defendant should not be liable. See *Folino v. Hampden Color & Chem. Co.*, 832 F. Supp. 757, 764 (D. Vt. 1993); *United States v. Conservation Chem. Co.*, 619 F. Supp. 162, 237 (W.D. Mo. 1985).

Additionally, a plaintiff need not establish a direct nexus between the generator's hazardous wastes and the response costs. See *Arizona v. Motorola, Inc.*, 805 F. Supp. 742, 746 (D. Ariz. 1992); *United States v. Western Processing Co.*, 734 F. Supp. 930, 936 (W.D. Wash. 1990); *United States v. Stringfellow*, 661 F. Supp. 1053, 1059-61 (C.D. Cal. 1987). The statutory language says only that a release of "a hazardous substance," not necessarily the one produced by the defendant, must occur. CERCLA § 107(a)(4), 42 U.S.C. § 9607(a)(4) (emphasis added). Thus, some commentators have said that the statute "imposes liability without requiring proof that the defendant's own wastes or even wastes of the same type were part of a release." See *Developments, supra* note 42, at 1521. The statute's reference to "a hazardous substance," as opposed to the hazardous substance attributable to the defendant, has prompted some courts to hold that a defendant that satisfies one of the statutory definitions of "responsible party" is liable for the costs of cleaning up any hazardous substances at the site. See *United States v. South Carolina Recycling & Disposal Co.*, 653 F. Supp. 984, 992 n.3 (D.S.C. 1984), *aff'd in part, vacated in part*, *United States v. Monsanto Co.*, 858 F.2d 160 (1988), *cert. denied*, 490 U.S. 1106 (1989); *Violet*, 648 F. Supp. at 1292-93; *Wade*, 577 F. Supp. at 1333. Some courts, however, require the hazardous substances contained in the release to be similar to those produced by the defendant. The *Monsanto* court explained that the statutory reference to "such hazardous substances" denotes hazardous substances alike, similar, or of a like kind to those that were present in a generator defendant's waste or that could have been produced by the mixture of the defendant's waste with other waste present at the site." 858 F.2d at 169; see also *United States v. Atlas Minerals & Chems., Inc.*, 797 F. Supp. 411, 416 n.8 (E.D. Pa. 1992); *United States v. Marisol*, 725 F. Supp. 833, 840 (M.D. Pa. 1989); *Violet*, 648 F. Supp. at 1292; *Wade*, 577 F. Supp. at 1332-33.

A generator is also liable even in the absence of any showing that it knew where its wastes were being disposed. See *Monsanto*, 858 F.2d at 169 n.15 (holding that plaintiffs must "present evidence that a generator defendant's waste was shipped to a site and that hazardous substances similar to those contained in the defendant's waste remained present at the time of release"); see also *Mottolo*, 695 F. Supp. at 626; *Violet*, 648 F. Supp. at 1290-93; *Conservation Chem.*, 619 F. Supp. at 234; *Ward*, 618 F. Supp. at 895; *Wade*, 577 F. Supp. at 1333 n.3. The justification for not imposing a site-selection requirement is that the generator could have acted to exercise control over where the hazardous substances were disposed, presumably someplace where no (or at least less) threat of a release existed. See *O'Neil v. Picillo*, 682 F. Supp. 706, 720 n.2 (D.R.I. 1988). Nonetheless, courts have held generators liable if a transporter disobeyed an instruction to take the hazardous wastes somewhere else. See *Violet*, 648 F. Supp. at 1293-94.

the site, that those wastes existed at the site when a release occurred,<sup>87</sup> and that the transporter selected the site.<sup>88</sup> For a current owner or operator, a plaintiff must show only that the defendant currently owns or operates the site.<sup>89</sup> Consequently, a current owner or operator is liable even if it had no relationship to the site when disposal of the hazardous wastes occurred.<sup>90</sup> In contrast, to find a past owner or operator of a facility liable, a plaintiff must show that disposal of the hazardous wastes took place during the period of past ownership or operation.<sup>91</sup> If no "disposal"<sup>92</sup> of hazardous substances occurred

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87. See *Mottolo*, 695 F. Supp. at 623-24 n.4; *United States v. Bliss*, 667 F. Supp. 1298, 1307 (E.D. Mo. 1987); *Conservation Chemical Co.*, 619 F. Supp. at 191; *South Carolina Recycling*, 653 F. Supp. at 1005-06.

88. See *Alcatel Info. Sys., Inc. v. Arizona*, 778 F. Supp. 1092, 1095 (D. Ariz. 1991); *United States v. Western Processing*, 756 F. Supp. 1416, 1419-20 (W.D. Wash. 1991); *South Carolina Recycling*, 653 F. Supp. at 1005; *United States v. Ottati & Goss, Inc.*, 630 F. Supp. 1361, 1402-05 (D.N.H. 1985); see also Steven Ferrey, *The Toxic Time Bomb: Municipal Liability for the Cleanup of Hazardous Waste*, 57 GEO. WASH. L. REV. 197, 233-34 (1988). One writer, however, has argued that a transporter should be liable even if it did not select the disposal site. Alice Theresa Valder, Note, *The Erroneous Site Selection Requirement for Arranger and Transporter Liability Under CERCLA*, 91 COLUM. L. REV. 2074 (1991).

89. The statutory definition of "owner or operator" as "any person owning or operating [a] facility," CERCLA § 101(20)(A)(ii), 42 U.S.C. § 9601(20)(A)(ii), is little help. Owners include individuals, e.g., *Mottolo*, 695 F. Supp. at 623; successor corporations, e.g., *Bliss*, 667 F. Supp. at 1307-08; and corporate stockholders who actively participated in the operation of a facility, e.g., *Kelley v. Thomas Solvent Co.*, 725 F. Supp. 1446, 1457-58 (W.D. Mich. 1988). Operators include those who controlled, or had the ability to control, the actions at a site when the disposal took place. See, e.g., *Kaiser Aluminum & Chem. Corp. v. Catellus Dev. Corp.*, 976 F.2d 1338, 1341-42 (9th Cir. 1992); *Nurad, Inc. v. William E. Hooper & Sons Co.*, 966 F.2d 837, 842 (4th Cir.), cert. denied, 113 S. Ct. 377 (1992); *CPC Int'l v. Aerojet-General Corp.*, 731 F. Supp. 783, 788 (W.D. Mich. 1989); *Idaho v. Bunker Hill Co.*, 635 F. Supp. 665, 671-72 (D. Idaho 1986).

90. See *United States v. R.W. Meyer, Inc.*, 889 F.2d 1497, 1507 (6th Cir. 1989) (stating that current owners or operators are "deemed responsible for some of the harm"), cert. denied, 494 U.S. 1057 (1990); *Artesian Water Co. v. New Castle*, 659 F. Supp. 1269, 1280 (D. Del. 1987) (holding that CERCLA "applies to all current owners and operators regardless of whether they owned or operated the facility when hazardous substances were disposed of there"), *aff'd*, 851 F.2d 643 (3d Cir. 1988); *South Florida Water Management Dist. v. Montalvo*, No. 88-8038-CIV-Davis, 1989 U.S. Dist. LEXIS 17555, at \* 5 (S.D. Fla. Feb. 14, 1989) (ruling that owners are liable even if they did not contribute to the contamination because "Congress clearly intended that the current landowner be considered to have 'caused' part of the harm").

91. See, e.g., *United States v. Taylor*, No. 1:90-CV:851, 1993 U.S. Dist. LEXIS 19082, at \*55 (W.D. Mich. Dec. 9, 1993); *United States v. Conservation Chemical Co.*, 619 F. Supp. 162, 253 (W.D. Mo. 1985).

92. Disposal can mean more than the initial introduction of a hazardous substance to a site. A disposal may occur when a defendant moves hazardous

during the period of the defendant's ownership or operation, the defendant avoids liability.<sup>93</sup>

Second, CERCLA requires a relationship between the release of hazardous substances and the plaintiff's injury. One reason traditional causation analysis differs under CERCLA stems from the nature of the injury in these cases. Injury in the CERCLA context means the response costs, or the expenditure of funds to clean up the site, not necessarily damage to property worked by the contamination itself.<sup>94</sup> In other words, once a party has expended funds to clean up a site,<sup>95</sup> that party has

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substances during work on the land at the site. *See, e.g.,* Tanglewood East Homeowners v. Charles-Thomas, Inc., 849 F.2d 1568, 1573 (5th Cir. 1988) (finding that § 6903(3)'s definition of disposal "does not limit disposal to a one-time occurrence—there may be other disposals when hazardous materials are moved, dispersed, or released during landfill excavations and fillings). A disposal also may occur if hazardous substances that previously were placed at a site continue to migrate through the site. The courts, however, are divided over such "passive disposals." *Compare Nurad*, 966 F.2d at 844-47 (holding that migration is a disposal); *Stanley Works v. Snydergeneral Corp.*, 781 F. Supp. 659, 662-64 (E.D. Cal. 1990) (same) *with* *United States v. Petersen Sand & Gravel*, 806 F. Supp. 1346, 1350-53 (N.D. Ill. 1992) (holding that migration is not a disposal); *Snediker Developers Ltd. Partnership v. Evans*, 773 F. Supp. 984, 988-89 (E.D. Mich. 1991) (same).

93. *See* *Cadillac Fairview/California, Inc. v. Dow Chem. Co.*, 21 Env't Rep. Cas. (BNA) 1108, 1113 (C.D. Cal. March 5, 1994).

94. As the court in *ASARCO* explained:

There is a distinction between "causing a release" and "causing response costs." In other words, liability does not attach because the defendant caused "a release," but because it caused "response costs."

While a defendant may often cause both, it is the causing of response costs that subjects a party to liability under CERCLA.

*Louisiana-Pacific Corp. v. ASARCO, Inc.*, 735 F. Supp. 358, 362 (W.D. Wash. 1990); *see also* *Dedham Water Co. v. Cumberland Farms Dairy, Inc.*, 889 F.2d 1146, 1154 n.8 (1st Cir. 1989); *Artesian Water*, 659 F. Supp. at 1282. Indeed, the court in *Dedham Water Co.* reversed the district court for failing to consider "whether defendant's releases (or threatened releases) might nonetheless have caused the plaintiff to incur 'response costs' even though those releases did not *in fact* contaminate the wells." 889 F.2d at 1157.

95. In addition to the costs of actually cleaning up the site, "response costs" include the costs of studies conducted prior to actual cleanup activities, *e.g.,* *Amoco Oil Co. v. Borden, Inc.*, 889 F.2d 664, 672 (5th Cir. 1990); and depending on the circuit, attorneys' fees. *Compare* *Donahey v. Bogle*, 987 F.2d 1250, 1256 (6th Cir.) (allowing recovery of attorneys' fees), *cert. denied*, 114 S. Ct. 636 (1993); *General Elec. Co. v. Litton Indus. Automation Sys., Inc.*, 920 F.2d 1415, 1422 (8th Cir. 1990) (same), *cert. denied*, 499 U.S. 937 (1991), *with* *In re Hemingway Transp., Inc.*, 993 F.2d 915, 934-35 (1st Cir.) (refusing recovery of attorneys' fees), *cert. denied*, 114 S. Ct. 303 (1993); *Stanton Road Assocs. v. Lohrey Enterprises*, 984 F.2d 1015, 1018-19 (9th Cir. 1993) (same), *cert. granted*, 114 S. Ct. 633 (1993), *and cert. dismissed*, 114 S. Ct. 652 (1993); *see also* *FMC Corp. v. Hewlett Packard Co.*, 998 F.2d 842 (10th Cir. 1993) (holding that some attorneys' fees are recoverable while others are not). The Supreme Court has agreed

suffered a compensable injury for purposes of the statute. If the costs are expended to respond to a threatened release, the statute plainly requires the plaintiff to prove that the threatened release caused the response costs.<sup>96</sup> Similarly, if the costs are expended to respond to an actual release, most courts require a plaintiff to prove that the release caused the response costs, even though the text of the statute does not explicitly impose such a requirement.<sup>97</sup> A private plaintiff<sup>98</sup> can only recover response costs that are "consistent with the national contingency plan (NCP),"<sup>99</sup> which courts usu-

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to decide the attorneys' fees question in *Key Tronic Corp. v. United States*, 984 F.2d 1025 (9th Cir.), cert. granted, 114 S. Ct. 633 (1993).

96. CERCLA § 107(a)(4), 42 U.S.C. § 9607(a)(4).

97. The text imposes liability at sites "for which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance." *Id.* The placement of the comma makes it unclear whether the "causes the incurrence of response costs" requirement applies to both releases and threatened releases or only to the latter. Most courts, however, do not limit the causation requirement to threatened releases. See *Dedham Water Co.*, 889 F.2d at 1152; *Amoco Oil*, 889 F.2d at 670 (suggesting that a contrary holding would subject a defendant to liability even when there is no threat to the environment); *Louisiana-Pacific Corp. v. Beazer Materials & Servs.*, 811 F. 1421, 1424-26 (E.D. Cal. 1993) (holding that costs incurred once the EPA notified the plaintiff that it would be conducting its own study were not necessary); *United States v. Stringfellow*, 661 F. Supp. 1053, 1060 (C.D. Cal. 1987); *Artesian*, 659 F. Supp. at 1278, 1282 & n.22, 1283 & n.25 (applying the "substantial factor" test of causation); see also *Arizona v. Motorola, Inc.*, 805 F. Supp. 742, 746 (D. Ariz. 1992) (describing issue but finding it unnecessary to resolve it).

Some courts, however, do not require a showing of cause, but instead only require that the release have "some connection" with the response costs. In *Beazer*, the court reasoned that "the most natural reading of the statutory language is that the causation language modifies only [the threatened release] phrase," 811 F. Supp. at 1427, and that such a reading was not irrational because "Congress could well have assumed that an actual release would inevitably result in the incurrence of response costs while believing a threatened release would not necessarily do so," *id.* at 1428. The court also held that "if the plaintiff is unable to demonstrate some nexus between the defendant and the incurred response costs, those costs are not necessary and are unlikely to have been incurred in response to the NCP." *Id.* at 1430. The dispute thus centers on the degree of connection between the defendant and the release, not the existence of a connection. In any event, the Administration bill would fix this problem by clarifying that both actual and threatened releases must cause the incurrence of response costs. See S. 1834, 103d Cong., 2d Sess. § 404(c) (1994) (amending 42 U.S.C. § 9607(a)(4)).

98. CERCLA § 107(a)(4)(B), 42 U.S.C. § 9607(a)(4)(B). Unlike a private plaintiff, the government can recover response costs as long as they are "not inconsistent with the national contingency plan." CERCLA § 107(a)(4)(A), 42 U.S.C. § 9607(a)(4)(A). The National Contingency Plan describes the procedures required by the EPA for cleaning up a site. 40 C.F.R. pt. 300 (1993).

99. Some courts have questioned the appropriateness of any response at all. See *Louisiana-Pacific Corp. v. ASARCO*, 735 F. Supp. 358, 362 (W.D. Wash.



ally determine during the remedy and cost phase or during the allocation phase, not as a defense during the liability phase.<sup>100</sup>

CERCLA thus requires that a responsible party must have some connection to the costs incurred by a plaintiff in cleaning up hazardous substances. That connection, however, falls well short of the proof of causation required in traditional tort litigation. Consequently, the many parties that satisfy the statutory definition of "responsible party" typically raise causation arguments when they try to limit their liability in apportionment and allocation determinations.

### C. CAUSATION AS A FACTOR IN APPORTIONMENT

The two *Alcan* courts expressed discomfort with their conclusion that causation is not an element of the statutory definition of a responsible party. After the Second Circuit rejected *Alcan's* causation and other defenses, the court acknowledged that "one would suppose there is no limit to the scope of CERCLA liability," a result the court described as "harsh."<sup>101</sup> The Third Circuit expressed concern that its conclusions regarding causation "would initially appear to lead to unfair imposition of liability," and that "CERCLA seemingly would impose liability on every generator of hazardous waste, although that generator could not, on its own, have caused any environmental harm."<sup>102</sup>

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1990) ("[T]he relevant factual inquiry here should focus on whether the shot deposited by USGI at B & L justified any response actions."); *United States v. Western Processing Co.*, 734 F. Supp. 930, 933 (W.D. Wash. 1990) ("An insubstantial release cannot cause the incurrence of response costs because the incurrence of such costs would not be 'appropriate' under the NCP."). If the court finds no appropriate costs, then no injury has occurred, and no liability attaches to the defendant. See *Hatco Corp. v. W.R. Grace Co.-Conn.*, 801 F. Supp. 1309, 1326 (D.N.J. 1992) ("[A] defense that no proper response costs have been incurred is essentially a defense that plaintiff has not been damaged within the meaning of CERCLA."); *United States v. Atlas Minerals and Chems., Inc.*, 797 F. Supp. 411, 415 (E.D. Pa. 1992) ("If a party can demonstrate that *all* of the costs the EPA seeks to recover are inconsistent with the NCP, courts will dismiss the case.").

100. See, e.g., *Mid Valley Bank v. North Valley Bank*, 764 F. Supp. 1377, 1389 (E.D. Cal. 1989); *United States v. Mottolo*, 695 F. Supp. 615, 630 (D.N.H. 1988).

101. *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 721 (2d Cir. 1993).

102. *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 267 (3d Cir. 1992). For similar judicial expressions of concern about the fairness of the statutory scheme, see *O'Neil v. Picillo*, 883 F.2d 176, 179 (1st Cir. 1989); *United States v. Monsanto*, 858 F.2d 160, 173 (4th Cir. 1988) (noting that the court "shar[ed] the appellants' concern that they not be ultimately responsible for reimbursing more than their just portion of the governments' response costs"),

The concerns arise in large part from the courts' consistent reading of CERCLA as imposing joint and several liability on each responsible party in most instances.<sup>103</sup> With joint and several liability, a court could hold a defendant with little connection to the site liable for all of the cleanup costs, a result many courts have decried as unfair.<sup>104</sup>

So both *Alcan* courts allowed causation to be "brought back into the case—through the back door, after being denied entry at the front door—at the apportionment stage."<sup>105</sup> They did so by

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*cert. denied*, 490 U.S. 1106 (1989); *Mottolo*, 695 F. Supp. at 629-30 n.15; *United States v. A & F Materials Co.*, 578 F. Supp. 1249, 1256 (S.D. Ill. 1984); *United States v. Wade*, 577 F. Supp. 1326, 1339 (E.D. Pa. 1983). EPA Administrator Browner has acknowledged that "the liability scheme has often been criticized as being unfair and economically inefficient." Browner Statement, *supra* note 2.

103. "Perhaps the most controversial aspect of the debate over the virtues and excesses of CERCLA is the EPA's ability to impose joint and several liability . . ." Noone, *supra* note 14, at 307. CERCLA itself does not specify whether or not it imposes joint and several liability. Indeed, Congress eliminated a provision in the original Senate bill that would have required that joint and several liability be imposed in all CERCLA cases. 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 486. This last minute change, however, has been construed simply as providing that liability be determined under common law principles, providing joint and several liability is appropriate in certain cases. The deletion has not been seen as a deliberate rejection of joint and several liability in all cases. See *Wade*, 577 F. Supp. at 1337-38; *United States v. Chem-Dyne*, 572 F. Supp. 802, 807-08 (S.D. Ohio 1983). In 1986, a House committee endorsed this reading of the law. See H.R. REP. NO. 253(I), 99th Cong., 2d Sess. 79-80 (1986), reprinted in 1986 U.S.C.A.N. 2835, 2861-62. The ongoing struggle to determine when joint and several liability should be imposed is discussed in *In re Bell*, 3 F.3d at 894-904; *Monsanto*, 858 F.2d at 171 & n.23; *Chem-Dyne*, 572 F. Supp. at 804-08; Wetzel, *supra* note 14, at 831-34; *Developments*, *supra* note 42, at 1524-35; Eric P. Jorgenson, Note, *Joint and Several Liability for Hazardous Waste Releases Under Superfund*, 68 VA. L. REV. 1157 (1982). The courts continue to be divided about "the timing of the resolution of the divisibility question, whether equitable factors should be considered, and whether a defendant can avoid liability for all, or only some portion, of the damages." *In re Bell*, 3 F.3d at 901.

104. See *In re Bell*, 3 F.3d at 897; *United States v. Rohm & Haas Co.*, 2 F.3d 1265, 1279-80 (3d Cir. 1993); *Amoco Oil Co. v. Borden, Inc.*, 889 F.2d 664, 670 (5th Cir. 1989); *Atlas*, 797 F. Supp. at 419; *O'Neil v. Picillo*, 682 F. Supp. 706, 725 (D.R.I. 1988); *United States v. Stringfellow*, 661 F. Supp. 1053, 1060 (C.D. Cal. 1987); *A & F*, 578 F. Supp. at 1256-57; see also Noone, *supra* note 14, at 307. One corporate executive, for example, has complained that his company had to pay all of the cleanup costs at a site where his company was involved for only five months of the site's six year life. *Proposals to Reauthorize the Superfund Program: Hearings Before the Subcomm. on Transportation and Hazardous Materials of the House Comm. on Energy and Commerce*, 103d Cong., 2d Sess. (testimony of Robert N. Burt on Feb. 3, 1994), available in LEXIS, LEGIS Library, CNGTST File.

105. *Alcan* (2d Cir.), 990 F.2d at 722.

adding "a common law gloss onto the statutory framework"<sup>106</sup> to "infuse fairness into the statutory scheme without distorting its plain meaning or disregarding congressional intent."<sup>107</sup> Specifically, they relied on the *Restatement (Second) of Torts* principles concerning joint and several liability which permit the apportionment of liability for divisible harms.

Section 433A of the *Restatement* first asks whether a harm is divisible (and thus subject to apportionment) or indivisible (and not subject to apportionment).<sup>108</sup> If there are distinct harms or if there is a way to determine the contribution of each cause to a single harm, courts should apportion damages for the harm between the causes.<sup>109</sup> Thus, the Second Circuit held that under § 433A of the *Restatement* where two or more joint tortfeasors act independently and cause a distinct or single harm, for which there is a reasonable basis for division according to the contribution of each, then each is liable for damages only for its own portion of the harm. In other words, the damages are apportioned. But when each tortfeasor causes a single indivisible harm, then damages are not apportioned and each is liable in damages for the entire harm.<sup>110</sup> Applying this test, the Third Circuit held that if Alcan could show that the harm caused by its wastes was divisible, "it should only be liable for that portion of the harm fairly attributable to it."<sup>111</sup>

Three new ideas emerged from the *Alcan* decisions. Before *Alcan*, courts accepted the theoretical possibility that a defend-

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106. *Id.* at 721.

107. *Alcan* (3d Cir.), 964 F.2d at 268.

108. RESTATEMENT (SECOND) OF TORTS § 433A (1965). Thorough discussions of the application of the *Restatement* rule to CERCLA appear in *In re Bell*, 3 F.3d at 895-97; Wetzel, *supra* note 14, at 835-38; Frank Prager, *Apportioning Liability For Cleanup Costs Under CERCLA*, 6 STAN. ENVTL. L.J. 198, 199-208 (1986-87).

109. RESTATEMENT (SECOND) OF TORTS § 433A (1965).

110. *Alcan* (2d Cir.), 990 F.2d at 722.

111. *Alcan* (3d Cir.), 964 F.2d at 269. In a subsequent case, the Third Circuit added that if a defendant "were able to prove that none of the hazardous substances found at the site were fairly attributable to it, we might conclude that apportionment was appropriate and [the defendant's] apportioned share would be zero." *United States v. Rohm & Haas Co.*, 2 F.3d 1265, 1280 (3d Cir. 1993). The Second Circuit opinion in *Alcan* is somewhat confusing on this issue, but it reaches the same result. At one point in its opinion, the Second Circuit wrongly suggested that Alcan could escape "any liability for response costs" if it proved that the hazardous wastes it disposed of "contributed at most to only a divisible portion of the harm." *Alcan* (2d Cir.), 990 F.2d at 722. Later, though, the Second Circuit correctly indicated that Alcan could not escape all liability for its divisible harm, but would instead be liable for its reasonable apportionment of responsibility. *Id.*

ant could prove that it caused a divisible harm, but primarily because of the problems posed by commingled wastes, no court actually had held a harm divisible.<sup>112</sup> By contrast, both *Alcan* courts rejected the government's argument that the commingling of hazardous wastes necessarily produces an indivisible harm.<sup>113</sup> Instead, the courts agreed that the divisibility of the harm was an intensely factual question that prevented summary judgment on the issue in both cases.<sup>114</sup> The courts granted Alcan the opportunity on remand to distinguish the harm caused by its wastes from the harm caused by wastes disposed of by others, through evidence of relative toxicity, migratory potential, degree of migration, and the synergistic capacities of the hazardous waste.<sup>115</sup> This approach recognized that the Restatement calls for apportionment when "there is a reasonable basis for determining the contribution of each cause to a single harm," and not just when defendants cause "distinct harms."<sup>116</sup> The *Alcan* courts, however, did not determine the relevancy at the apportionment stage of equitable factors like

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112. Earlier cases holding that CERCLA liability is joint and several if the harm is indivisible include *United States v. Kayser-Roth*, 910 F.2d 24, 26 (1st Cir. 1990), *cert. denied*, 498 U.S. 1084 (1991); *United States v. R.W. Meyer, Inc.*, 889 F.2d 1497, 1507 (6th Cir. 1989), *cert. denied*, 494 U.S. 1037 (1990); *O'Neil v. Picillo*, 883 F.2d 176, 178 (1st Cir. 1989), *cert. denied*, 493 U.S. 1071 (1990); *United States v. Monsanto Co.*, 858 F.2d 160, 172 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989); *United States v. Marisol, Inc.*, 725 F. Supp. 833, 842 (M.D. Pa. 1989); *United States v. Mottolo*, 695 F. Supp. 615, 629 (D.N.H. 1988); *United States v. South Carolina Recycling & Disposal, Inc.*, 653 F. Supp. 984, 994 (D.S.C. 1984), *cert. denied*, 490 U.S. 1106 (1989); *United States v. Wade*, 577 F. Supp. 1326, 1337-38 (E.D. Pa. 1983); *United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 811 (S.D. Ohio 1983). Several commentators noted, though, that "no defendant has ever successfully invoked the divisibility defense in any reported decision." Moore, *supra* note 14, at 10,529; see also Noone, *supra* note 14, at 311. The court in *In re Bell Petroleum* describes the difficulty in establishing divisibility in the context of commingled wastes. 3 F.3d 889, 895 n.7 (5th Cir. 1993).

113. *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 722 (2d Cir. 1993); *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 270 n.29 (3d Cir. 1992).

114. See *Alcan* (2d Cir.), 990 F.2d at 722; *Alcan* (3d Cir.), 964 F.2d at 269. Indeed, the actual decision in both *Alcan* cases was to deny the government's motion for summary judgment on liability. *Alcan* (2d Cir.), 990 F.2d at 725; *Alcan* (3d Cir.), 964 F.2d at 271.

115. *Alcan* (2d Cir.), 990 F.2d at 722; *Alcan* (3d Cir.), 964 F.2d at 270 n.29, 271; see also *Monsanto*, 858 F.2d at 173 n.26; *Chem-Dyne Corp.*, 572 F. Supp. at 811. The way in which these factors affect the divisibility determination is analyzed in Moore, *supra* note 14, at 10,531; Rockwood & Harrison, *supra* note 14, at 10,548; Noone, *supra* note 14, at 319.

116. RESTATEMENT (SECOND) OF TORTS § 433A(1) (1965). The comments to the Restatement contain several examples of how apportionment should work

those considered in allocating liability among responsible parties.<sup>117</sup>

Equally important, the timing of the causation inquiry troubled both *Alcan* courts. Before the *Alcan* decisions, courts routinely imposed joint and several liability because they did not apportion damages.<sup>118</sup> The Third Circuit, by contrast, suggested consideration of the apportionment issue at the initial liability stage, before a determination of joint and several liability.<sup>119</sup> The court expressed concern that the "logical consequence of delaying the apportionment determination may well be drastic, for it seems clear that a defendant easily could be strong-armed into settling when other defendants have settled in order to avoid being held liable for the remainder of the response costs."<sup>120</sup> The Second Circuit, although it preferred the Third Circuit's "common sense approach," thought that fixing liability first for enforcement purposes and then later litigating the contribution from other responsible parties, "may be contrary to the statutory dictates of CERCLA."<sup>121</sup> The Fifth Circuit's subsequent decision in *In re Bell Petroleum Services*,

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in pollution cases. See *In re Bell Petroleum*, 3 F.3d at 895-96; Prager, *supra* note 108, at 206 n.26; Noone, *supra* note 14, at 311, 320.

117. See *Alcan* (2d Cir.), 990 F.2d 711; *Alcan* (3d Cir.), 964 F.2d 252; see *infra* part II.D. Courts and writers disagree about the use of equitable factors in determining divisibility. Compare Noone, *supra* note 14, at 322 (recommending use of equitable factors) with *In re Bell Petroleum*, 3 F.3d at 901-02 (arguing against use of equitable factors); *United States v. Rohm & Haas Co.*, 2 F.3d 1265, 1280-81 (3d Cir. 1993) (same); Moore, *supra* note 14, at 10,532 (same).

118. See *supra* note 103 and accompanying text.

119. See *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 270 n.29 (3d Cir. 1992). The court thus rejected the government's argument that divisibility is relevant only in a CERCLA § 113(f)(1) contribution action, not in a § 107(a)(1) action to recover response costs. *Id.*; accord *Hatco Corp. v. W.R. Grace & Co.*, 801 F. Supp. 1309, 1330-31 (D.N.J. 1992).

120. *Alcan* (3d Cir.), 964 F.2d at 270 n.29; see also *United States v. Monsanto Co.*, 858 F.2d 160, 176-77 (4th Cir. 1988) (Widener, J., dissenting), *cert. denied*, 490 U.S. 1106 (1989).

121. See *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 723 (2d Cir. 1993). One writer responds that "to the extent that one of CERCLA's purposes is to 'expedite civil actions,' resolution of divisibility issues early in the litigation will likely accomplish that purpose, because it will resolve what are usually the most significant issues that impede settlement." Rockwood & Harrison, *supra* note 14, at 10,547 (footnote omitted). Similarly, another writer explains that "[b]ecause the divisibility defense challenges the application of joint and several liability to a particular defendant, divisibility of harm may be an appropriate affirmative defense during the liability phase of litigation." Moore, *supra* note 14, at 10,530.

*Inc.*<sup>122</sup> stated its preference for an early resolution but left the matter in the discretion of the trial court.<sup>123</sup>

Finally, the *Alcan* courts described a way in which Alcan could escape *any* liability at the site. The Second Circuit held that Alcan could escape liability if the company showed that its hazardous wastes—even when combined with other wastes—“did not contribute to the release and clean-up costs that followed.”<sup>124</sup> The court thus “adopt[ed] a special exception to the usual absence of a causation requirement” which “is applicable only to claims, like Alcan’s, where background levels are not exceeded.”<sup>125</sup> The Third Circuit’s discussion of Alcan’s argument that its wastes did not exceed background levels indicates that the court would agree with the Second Circuit’s position, but the Third Circuit remanded the issue to the district court without reaching that issue.<sup>126</sup>

The *Alcan* decisions indicate that “the time has come to take CERCLA divisibility arguments seriously,”<sup>127</sup> and because causation is fundamental to determining divisibility and apportionment, it resurfaces as a key issue. Yet the *Alcan* courts seemed apologetic for allowing causation “in through the back door” at the apportionment stage. Moreover, neither decision addressed the final opportunity to consider causation in CERCLA cases—the allocation of liability among defendants identified as responsible parties.

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122. *In re Bell Petroleum Servs. Inc.*, 3 F.3d 889 (5th Cir. 1993).

123. *Id.* at 901.

124. *Alcan* (2d Cir.), 990 F.2d at 722. *Alcan* argued that “it was technically impossible for its waste to have contributed to a release, because its waste diluted the other waste at the site, and the metals in its waste were below ambient levels.” *Rockwood & Harrison*, *supra* note 14, at 10,546.

125. *Alcan* (2d Cir.), 990 F.2d at 722; *see also id.* (“[C]ausation—with the burden on the defendant—is reintroduced only to permit a defendant to escape payment where its pollutants did not contribute more than background contamination and also cannot concentrate.”). The statute itself provides that a removal or remedial action is inappropriate for a release “of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found.” CERCLA § 104(a)(3)(A), 42 U.S.C. § 9604(a)(3)(A) (1988); *see also Amoco Oil Co. v. Borden, Inc.*, 889 F.2d 664, 670 (5th Cir. 1990) (discussing concern over establishing liability for naturally occurring substances).

126. *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 270 & n.29 (3d Cir. 1992). In particular, the court stated that “if Alcan proves the emulsion did not or could not, *when mixed with other hazardous wastes*, contribute to the release and the resultant response costs, then Alcan should not be responsible for *any* response costs.” *Id.* at 270.

127. Noone, *supra* note 14, at 325.

## D. CAUSATION AS A FACTOR IN ALLOCATING LIABILITY

Causation operates as a key element in allocating liability among responsible parties.<sup>128</sup> The compelling arguments against reading CERCLA to require proof of causation in the initial determination of responsibility<sup>129</sup> disappear at the next step of allocating liability among responsible parties. CERCLA section 113(f) thus authorizes a defendant found liable for response costs to seek contribution from other responsible parties.<sup>130</sup> Section 113(f) provides that "[i]n resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the court determines are appropriate."<sup>131</sup> Some courts have relied on this provision in allocating liability among responsible parties even in the absence of a formal contribution action.<sup>132</sup>

Most courts examine the factors contained in an amendment to the House bill added by then-Representative Gore. Of the six so-called "Gore factors,"<sup>133</sup> five relate to causation.<sup>134</sup> Although the final version of CERCLA did not include the Gore

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128. Some courts use the term "apportionment" to describe two different proceedings: the initial determination of the divisibility of harm among different causes, and following the imposition of joint and several liability, the determination of how much each responsible party must pay. See *United States v. Stringfellow*, 661 F. Supp. 1053, 1060 (C.D. Cal. 1987). This Article refers to the first phase as "apportionment" and the second phase as "allocation." Accord *Moore*, *supra* note 14, at 10,532.

129. See *supra* notes 37-41 and accompanying text.

130. CERCLA § 113(f), 42 U.S.C. § 9613(f)(1) (1988).

131. *Id.*

132. See, e.g., *Weyerhaeuser Co. v. Koppers Co.*, 771 F. Supp. 1420, 1426 (D. Md. 1991). But see *United States v. Rohm & Haas Co.*, 2 F.3d 1265, 1280-81 (3d Cir. 1993).

133. These factors include the following:

(i) the ability of the parties to demonstrate that their contribution to a discharge release or disposal of a hazardous waste can be distinguished;

(ii) the amount of the hazardous waste involved;

(iii) the degree of toxicity of the hazardous waste involved;

(iv) the degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste;

(v) the degree of care exercised by the parties with respect to the hazardous waste concerned, taking into account the characteristics of such hazardous waste; and

(vi) the degree of cooperation by the parties with Federal, State, or local officials to prevent any harm to the public health or the environment.

2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 440. The Senate bill contained a similar list except that it omitted factor (v). See S. REP. NO. 848, 96th Cong., 2d Sess. 38-39 (1980), reprinted in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, 345-46.

factors, in the absence of any statutory direction, courts have relied on those factors as evidence of legislative intent regarding allocation of liability.<sup>135</sup> The Gore factors are not exclusive, though, and courts have considered other factors, such as the financial resources of the parties involved,<sup>136</sup> the benefits the parties received from their activities,<sup>137</sup> and the knowledge the parties had of the contaminating activities.<sup>138</sup> The resulting inquiry thus focuses not only on causation, but also on fault—a negligence concept foreign to the initial determination of responsibility under CERCLA.

The allocation of liability in *Hastings Buildings Products, Inc. v. National Aluminum Corp.*<sup>139</sup> illustrates the process. National Aluminum ("National") operated a manufacturing plant in Hastings, Michigan between 1969 and April 1986. Hastings Buildings Products ("Hastings") bought the plant and began operating it in May 1986. The state discovered contaminated tanks at the site about the time of the sale and Hastings brought suit. The court held that both National and Hastings were responsible parties under CERCLA, but that National should be responsible for 75% of the cleanup costs while Hastings should be responsible for 25% of the costs. The court reasoned that "National had a greater degree of involvement in the generation, treatment and storage of the hazardous waste," and that Hastings "merely inherited a system of storage and non-treatment

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134. Factors (i) and (iv) are directly related to causation. Factors (ii), (iii), and (v) can relate to causation. Only factor (vi) is unrelated.

135. See *In re Hemingway Transport, Inc.*, 993 F.2d 915, 921-22 n.4 (1st Cir.), cert. denied, 114 S. Ct. 303 (1993); *Environmental Transp. Sys., Inc. v. Ensco, Inc.*, 969 F.2d 503, 508 (7th Cir. 1992); *United States v. R.W. Mayer, Inc.*, 932 F.2d 568, 576 n.1 (6th Cir. 1991) (Guy, J., concurring); *US Steel Supply Inc. v. Alco Standard Corp.*, 36 Env't Rep. Cas. (BNA) 1330, 1341 (N.D. Ill. 1992); *United States v. Western Processing Co.*, 734 F. Supp. 930, 934-35 (W.D. Wash. 1990); *United States v. A & F Materials Co.*, 578 F. Supp. 1249, 1256-57 (S.D. Ill. 1984); see also *Allied Corp. v. ACME Solvents Reclaiming, Inc.*, 691 F. Supp. 1100, 1116-17 (N.D. Ill. 1988) (rejecting argument that the House committee's 1986 endorsement of *Chem-Dyne* constituted rejection of the Gore factors). For a general discussion of the factors considered by courts and a proposed economic model for cost allocation, see John C. Butler et al., *Allocating Superfund Costs: Cleaning Up the Controversy*, 23 ENVTL. L. REP. 10, 133 (1993).

136. See *B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1206 (2d Cir. 1992).

137. See *Weyerhaeuser Co. v. Koppers Co.*, 771 F. Supp. 1420, 1426 (D. Md. 1991); *South Florida Water Mgmt. Dist. v. Montalvo*, No. 88-8038-CIV-Davis, 1989 U.S. Dist. LEXIS 17555, at \*7-\*8 (S.D. Fla. Feb. 14, 1989).

138. See *Weyerhaeuser Co.*, 771 F. Supp. at 1426.

139. *Hastings Buildings Products, Inc. v. National Aluminum Corp.*, 1992 U.S. Dist. LEXIS 11533 (W.D. Mich. 1992).



that had been determined by National."<sup>140</sup> The court next noted that National had used the offending system for eight years while Hastings had used it for only eight months.<sup>141</sup> National's actions therefore produced a more substantial cause of the contamination than Hastings. The court further relied on the greater degree of care exercised by Hastings.<sup>142</sup>

In short, CERCLA as currently written demands the threshold result reached by the Second and Third Circuits in the *Alcan* cases: the statute does not require proof that a defendant's actions caused the contamination. On the other hand, the *Alcan* courts rightly treated causation as a factor in allocating liability among responsible parties. This result entirely satisfied neither *Alcan* nor the government, but the Second Circuit properly noted that the courts must take CERCLA as written.<sup>143</sup>

Yet the *Alcan* decisions simply beg the question of what CERCLA should provide. Perhaps CERCLA should require proof of causation before imposing liability. Or perhaps proof of the absence of causation should suffice to exonerate a defendant. The uneasiness of the Second and Third Circuits with their conclusions that causation is irrelevant for purposes of CERCLA liability provides only the most recent evidence of the need to reexamine the role of causation in the statute.

### III. A "NO CAUSATION, NO RESPONSIBILITY" PROPOSAL

Congress designed CERCLA's responsible party scheme to impose liability for the costs of cleaning up hazardous substances contamination on those parties responsible for such contamination.<sup>144</sup> Under traditional tort principles, causation has formed part of a determination of responsibility.<sup>145</sup> Yet CERCLA does not require proof that the defendant's actions caused

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140. *Id.* at \*12-\*13.

141. *Id.* at \*13.

142. *Id.* at \*13-\*14. By contrast, the court in *Weyerhaeuser* held the past owner liable for 40% of the costs, and the actual operator liable for 60% of the costs. 771 F. Supp. at 1426-27; *see also* South Florida Management Dist. v. Montalvo, No. 88-8038-CIV-Davis, 1989 U.S. Dist. LEXIS 17555, at \*10-\*11 (S.D. Fla. Feb. 14, 1989) (holding owner liable for 25% and sources of contaminants liable for 75%); *Amoco Oil Co. v. Dingwell*, 690 F. Supp. 78, 86-87 (D. Me. 1988) (commenting that party that caused environmental damages "should bear a greater portion of the cleanup costs").

143. *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 717 (2d Cir. 1993).

144. *See supra* note 2.

145. *See supra* notes 30-41 and accompanying text.

the plaintiff's injury. Instead, less stringent causation concepts inhere in the responsible party scheme, and causation plays a significant role in the statutory defenses and in the apportionment and allocation phases.<sup>146</sup> Instances remain, however, in which responsibility for cleanup costs attaches to parties who can prove that they did not cause the contamination at the site. In still more instances, responsibility exceeds a party's "fair share" of cleanup costs.

This Article contends that the problems in determining causation in hazardous substances cases justify excusing the plaintiff from establishing causation, but they do not justify holding a party responsible for cleanup costs when that party affirmatively can prove that it did not cause the contamination. If a party can prove that it did not pollute a site, it should not have to pay. The same principle suggests that a party that caused some contamination at the site should be able to limit its liability if it can prove the extent of the contamination it caused. Accordingly, because CERCLA as presently written sometimes contradicts its stated goal of imposing liability on those parties responsible for hazardous waste contamination, Congress should amend CERCLA to better relate responsibility to causation.

#### A. CAUSATION AND RESPONSIBILITY

The concepts of causation and responsibility are interrelated and not readily distinguished. Causation emphasizes an objective inquiry into the relationship between certain events, such as a defendant's actions and a plaintiff's injury, while responsibility involves a more subjective value judgment, such as the circumstances in which a defendant should be liable for the plaintiff's injury.<sup>147</sup> CERCLA's effort to reconcile these two concepts proves internally inconsistent. Even though causation

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146. See *supra* part II.B-C.

147. Recent writings on the nature of responsibility include Kenneth S. Abraham, *Individual Action and Collective Responsibility: The Dilemma of Mass Tort Reform*, 73 VA. L. REV. 845, 906-07 (1987) (concluding that the shift toward collective responsibility has not been a sensible development); J.M. Balkin, *The Rhetoric of Responsibility*, 76 VA. L. REV. 197 (1990) (describing how the characterization of the facts of a case are important in deciding responsibility); Leslie Bender, *Feminist (Re)torts: Thoughts on the Liability Crisis, Mass Torts, Power, and Responsibilities*, 1990 DUKE L.J. 848 (advocating a liability scheme based on a feminist theory of responsibility); Robert A. Baruch Bush, *Between Two Worlds: The Shift from Individual to Group Responsibility in the Law of the Causation of Injury*, 33 UCLA L. REV. 1473 (1986) (endorsing the shift to group responsibility).

plays a role in defining the categories of responsible parties, in the statutory defenses, and in the apportionment and allocation phases, the statute imposes responsibility in some circumstances in which a defendant disproves causation.

But CERCLA's schizophrenic approach to causation and responsibility is not unique. Other writers and courts contend that causation is a fundamental element of responsibility even though they impose responsibility when no evidence of causation exists,<sup>148</sup> as best illustrated by Timothy Lytton's thoughtful essay on responsibility.<sup>149</sup> Lytton differentiates between models of responsibility based on awareness and models based on participation. Under an awareness model like traditional tort law, responsibility attaches only if an individual is aware that its actions could cause harm to others.<sup>150</sup> Under a participation model, responsibility attaches whenever an individual participates in practices that contribute to another's injury.<sup>151</sup> Lytton

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148. See *supra* part II; see *infra* notes 149-171 and accompanying text.

149. Timothy D. Lytton, *Responsibility for Human Suffering: Awareness, Participation, and the Frontiers of Tort Law*, 78 CORNELL L. REV. 472 (1993).

150. *Id.* at 472-83. Lytton elaborates as follows:

The central distinguishing feature of responsibility under the paradigm of awareness is *awareness of a potential for the type of harm that results*. According to this model, determining a person's responsibility for the suffering of others requires examination of his decision to act. To incur responsibility, a person's process of deliberation in choosing to act must include an awareness of the possibility for injurious consequences. Under the paradigm of awareness, one must choose to harm another, or at least choose to run the risk of doing so, in order to be responsible for any resulting injury. . . .

According to the paradigm of awareness, holding a person responsible for harm that she did not or could not have known about would be unfair.

*Id.* at 474-75.

151. *Id.* at 471. Lytton adds the following:

According to this approach, an individual who chooses to act in a way that contributes to the suffering of another is responsible for that person's suffering. This is so regardless of whether the actor considered the possibility of harm when determining how to act. More precisely, while choosing to act entails that a person have in mind *some* consequence or purpose of his action, it does not require that he be aware of *any particular* consequence. According to the paradigm of participation, a person should be responsible for even unanticipated harms. . . . According to the paradigm of participation, when an individual suffers due to the actions of another, it seems only fair to place responsibility for the harm on the injurer. To place responsibility on the victim compounds the initial injury, for "blaming the victim" is itself a form of inflicting further harm. . . .

Thus, according to the paradigm of participation, when injury is caused by another person's actions, the innocence of a victim demands that responsibility fall on the injurer.

*Id.* at 477-78 (footnotes omitted).

holds up CERCLA as an example of the participation model because responsibility "rests upon a generator's participation in the dumping of hazardous substances at the site in question, regardless of how substantially, directly, or knowingly it is connected with the substances that were actually the subject of the clean-up."<sup>152</sup>

Yet CERCLA's imposition of responsibility on "responsible parties," even when such parties can prove that they did not harm the plaintiff, exposes an inconsistency in Lytton's claim that CERCLA represents an example of the participation model. On the one hand, Lytton seems to acknowledge the need to establish causation in both models.<sup>153</sup> On the other hand, Lytton cites the New York Court of Appeals' unique theory of market share liability in *Hymowitz v. Eli Lilly & Co.*<sup>154</sup> as another example of the participation model. *Hymowitz* broke ranks from earlier market share cases by holding a DES manufacturer liable to the extent of its share of the relevant market even if the manufacturer could prove that its product did not cause the plaintiff's injury.<sup>155</sup> Chief Judge Wachtler explained the court's theory:

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152. *Id.* at 495-97. Lytton's other examples are dram-shop liability statutes, the market share liability case of *Hymowitz v. Eli Lilly & Co.*, 539 N.E.2d 1069 (N.Y.), *cert. denied*, 493 U.S. 944 (1989), and civil liability for pornography. Lytton, *supra* note 149, at 492-502. For a discussion of *Hymowitz*, see *infra* text accompanying notes 155-156.

153. Lytton explains that "in both paradigms causation—that harm 'result from' a choice of action or participation—is necessary in order for responsibility to attach." *Id.* at 474. Thus, in the awareness model, the plaintiff must prove not only that the defendant caused the plaintiff's injury, but further must show that the defendant was aware (or should have been aware) of the foreseeable consequences of his or her actions. The participation model equally relies on causation by imposing responsibility "when an individual suffers *due to the actions of another*." *Id.* at 477 (emphasis added); see also *id.* at 477 ("[R]esponsibility under the paradigm of participation requires only that a person's action contribute causally to another's harm." (footnote omitted)). Lytton also writes that under the paradigm of responsibility a defendant whose actions "contribute[ ] to the suffering of another is responsible for that person's suffering." *Id.* (emphasis added) (footnote omitted). This is reminiscent of the "cause or contribute" standard of the House bill, which imposed liability depending on common law standards, including causation. See *supra* notes 27-30 and accompanying text.

154. *Hymowitz v. Eli Lilly & Co.*, 539 N.E.2d 1069 (N.Y. 1989). For academic commentary on *Hymowitz*, see Symposium, *The Problem of the Indeterminate Defendant: Market Share Liability Theory*, 55 BROOK. L. REV. 863 (1989); Abrams, *supra* note 47, at 503-12; Andrew B. Nace, Note, *Market Share Liability: A Current Assessment of a Decade-Old Doctrine*, 44 VAND. L. REV. 395, 420-31 (1991).

155. 539 N.E.2d at 1078. Other market share decisions permit a defendant to escape liability if it can prove that its product could not have caused the

[B]ecause liability here is based on the over-all risk produced, and not causation in a single case, there should be no exculpation of a defendant who, although a member of the market producing DES for pregnancy use, appears not to have caused a particular plaintiff's injury. It is merely a windfall for a producer to escape liability solely because it manufactured a more identifiable pill, or sold only to certain drug stores. These fortuities in no way diminish the culpability of a defendant for marketing the product, which is the basis for liability here.<sup>156</sup>

*Hymowitz* thus posits that the risk to the general public created by selling the dangerous product is enough to impose liability, so evidence regarding the actual effects of that product is irrelevant.

Lytton fails to reconcile his reliance on *Hymowitz* with his statements about the necessity of proof of causation under the participation model. Although Lytton states that "cause is an essential feature of responsibility" under the participation model,<sup>157</sup> *Hymowitz* "totally eliminated the causation requirement."<sup>158</sup> To the extent that CERCLA imposes responsibility on manufacturers and other parties who can prove that they did not cause a particular plaintiff's injury, CERCLA is more like *Hymowitz* than Lytton's general description of the paradigm of participation. Indeed, Lytton finds the *Hymowitz* approach similar to CERCLA. In both situations, says Lytton, "liability is grounded on. . . an assumption that participation in a particular practice contributes causally to specific harms."<sup>159</sup>

CERCLA, however, rests on a different theoretical foundation than *Hymowitz*. Participation alone suffices under *Hymowitz* but not under CERCLA. Whereas a DES manufacturer is liable under *Hymowitz* for selling DES to pregnant wo-

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plaintiff's injury. See *Smith v. Cutter Biological Inc.*, 823 P.2d 717, 729 (Haw. 1991); *Conley v. Boyle Drug Co.*, 570 So. 2d 275, 286 (Fla. 1990); *Martin v. Abbott Lab.*, 689 P.2d 368, 382 (Wash. 1984) (en banc); *Collins v. Eli Lilly Co.*, 342 N.W.2d 37, 52 (Wis.), cert. denied, 469 U.S. 826 (1984); *Sindell v. Abbott Lab.*, 607 P.2d 924, 937 (Cal.), cert. denied, 449 U.S. 912 (1980). One could provide such proof through evidence that the defendant did not market the type of DES taken by the plaintiff's mother, *Conley*, 570 So. 2d at 286, or that the plaintiff's mother took DES pills of a different size or color or from a different store than that of a particular manufacturer. *Hymowitz*, 539 N.E.2d at 1085 (Mollen, J., concurring in part, dissenting in part). The majority in *Hymowitz* was concerned that such evidence would allow "a manufacturer with a large market share to avoid liability in many cases just because it manufactured a memorably shaped pill." *Id.* at 1079 n.3. Of course, a "memorably shaped pill" would be just as likely to implicate a particular manufacturer as it would to exculpate the manufacturer.

156. 539 N.E.2d at 1078 (footnote omitted).

157. Lytton, *supra* note 149, at 474.

158. Abrams, *supra* note 47, at 509.

159. Lytton, *supra* note 149, at 501 (footnote omitted).

men, the mere act of selling a hazardous product or generating hazardous substances does not result in CERCLA liability. CERCLA requires some connection between the hazardous substances and a specific site in which hazardous substances have been disposed.<sup>160</sup> CERCLA also contains three statutory defenses that enable some defendants to escape liability in certain situations when they can show that they did not cause any of the harm.<sup>161</sup> Whereas *Hymowitz* requires participation, CERCLA requires "participation plus."

*Hymowitz* divorces responsibility from causation by imposing liability depending on the amount of risk a manufacturer created. Yet if causation has no bearing on responsibility, CERCLA as written is underinclusive. In the broadest sense of responsibility, all consumers who benefit from the activities that produce hazardous wastes share in the responsibility for that waste.<sup>162</sup> The original funding of Superfund in part by general tax revenues reflects this theory of responsibility.<sup>163</sup> Alterna-

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160. See *supra* note 85 and accompanying text.

161. CERCLA § 107(b), 42 U.S.C. § 9607(b) (1988). Lytton argues that although the statutory defenses resemble the model of awareness, the defenses are so narrow that they "will not, in practice, exonerate defendants with an even minimal level of participation in hazardous waste dumping at the site." Lytton, *supra* note 149, at 497. The existence of such defenses, however, is inconsistent with the model of participation and raises a question about whether Congress intended CERCLA to embody the model that Lytton describes.

162. To some extent we are all responsible for the past lax practices of industry and government. That we, through our representatives in government, tolerated standards and practices that allowed wholesale dumping of untreated chemicals and other forms of hazardous waste onto our land, and into our water and air, bespeaks of our lack of forethought as a society. To the extent these cheaper, though harmful waste disposal practices lowered the prices we paid for consumer products or government services, or created wealth for great numbers of shareholders of publicly traded companies, the inescapable fact remains that we all benefitted directly from this conduct.

*Hatco Corp. v. W.R. Grace & Co.*, 801 F. Supp. 1309, 1314 (D.N.J. 1992). The Senate committee report specifically disavowed this approach. See S. REP. NO. 848, 96th Cong., 2d Sess. 19 (1980), reprinted in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 326 ("Taxpayers too often are asked to remedy problems they do not help create. Relying on general revenues to clean up past industrial mistakes could be interpreted by some as a public policy precedent, implying that the longer it takes for problems to appear, the less responsible those who cause the problem are for the solution."); accord 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 405, 409 (letter from EPA Administrator Douglas M. Costle).

163. For a general description of the source of the Superfund, see Grad, *supra* note 6, at 12; Elizabeth F. Mason, *Contribution, Contribution Protection, and Nonsettlor Liability Under CERCLA: Following Laskin's Lead*, 19 B.C. ENVTL. AFF. L. REV. 73, 79 n.34 (1991); see also *United States v. R.W. Meyer, Inc.*, 889 F.2d 1497, 1500 (6th Cir. 1989) (noting that sources of Superfund mon-

tively, to the extent that certain activities are inherently more likely to cause hazardous substances contamination, those engaging in such activities should be responsible for those substances. The part of the Superfund's original funding scheme that included taxes on the industries most frequently involved with hazardous substances follows this theory of responsibility.<sup>164</sup> By contrast, CERCLA's present responsible parties scheme purports to impose liability on those who are responsible for contamination at a particular site, but in practice that scheme imposes liability on some parties who can prove that they did not cause the contamination. Further, those who engaged in the same activities elsewhere and those who benefited from those activities are excused from liability.

Thus, CERCLA's liability scheme does not resemble *Hymowitz*, nor should it. *Hymowitz* could look at participation alone because it involved one product used for one purpose. Rarely can one say the same about a CERCLA site.<sup>165</sup> By asserting that a party should be liable even if it had no connection to the substances which required the cleanup,<sup>166</sup> the *Hymowitz* approach could require, for example, a generator whose asbestos was disposed on the plaintiff's property to pay for the cleanup of an entirely unrelated dioxin problem at that site. Faced with

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ies include general revenue appropriations, environmental taxes, costs recovered from responsible parties, and penalties and punitive damages), *cert. denied*, 494 U.S. 1057 (1990).

164. See 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 63 (testimony of EPA Assistant Administrator Thomas C. Jorling) ("The fee system [in the Senate bill] is based upon the belief that the fee should come, to the extent possible, from those segments of industry and consumers most responsible for imposing risks upon society."); *United States v. A & F Materials Co.*, 578 F. Supp. 1249, 1252 (S.D. Ill. 1984) (finding "a clear legislative intent to impose on the chemical industry financial responsibility under that Act"). Others have argued, though, that the industries selected to be taxed represented only a fraction of the entities that have contributed to hazardous waste contamination. See *Harris*, *supra* note 30, at 962. In any event, Congress expected the cost to be passed on to the ultimate consumers. See S. REP. NO. 848, 96th Cong., 2d Sess. 20 (1980) (noting that a fee on feedstocks can be passed on to consumers), reprinted in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 327; *id.* at 408 (letter from EPA Administrator Douglas Costle) ("Virtually all the costs of the fee system can be passed through the chain of commerce to the ultimate consumer of the final products made from the chemicals subject to the fee without significant economic impact.").

165. See *supra* notes 37-41 and accompanying text.

166. Lytton, *supra* note 149, at 496.

such results, even the defenders of *Hymowitz* expect courts to limit its approach to DES cases.<sup>167</sup>

Yet CERCLA, like *Hymowitz*, may result in responsibility even when a party disproves causation. Once again, however, the principle underlying *Hymowitz* conflicts with CERCLA. Liability under *Hymowitz* is several but not joint. A DES manufacturer must pay the portion of damages equal to its proportion of the market—no less (even if causation could be disproved), and no more (even if other manufacturers have disappeared). As the *Hymowitz* court explained, having “eschewed exculpation to prevent the fortuitous avoidance of liability, and thus, equitably, we decline to unleash the same forces to increase a defendant’s liability beyond its fair share of responsibility.”<sup>168</sup> CERCLA, by contrast, usually imposes joint and several liability.<sup>169</sup> As a result, not only can CERCLA impose liability on parties who have little or no causal relationship to a plaintiff’s injury, but the joint and several nature of that liability also can result in a party with little causal nexus to hazardous wastes being required to pay a substantial part of the cleanup costs.

The “polluter pays” premise of CERCLA thus requires a connection between a defendant and the site of hazardous waste contamination not required by Lytton’s model of participation or *Hymowitz*. Several parts of the statutory scheme reveal that Congress wanted to focus the responsibility for the cleanup of hazardous wastes on the parties that had some causal link to that contamination.<sup>170</sup> Other parts of CERCLA show that Congress wanted to excuse from responsibility those parties who can prove that they did not cause the contamination.<sup>171</sup> Thus, the instances in which a court can deem a party responsible despite disproving causation, as in *Hymowitz*, render the CERCLA language anomalous and ripe for change.

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167. See *Hymowitz v. Eli Lilly & Co.*, 539 N.E.2d 1069, 1075 (N.Y. 1989) (“We stress, however, that the DES situation is a singular case, with manufacturers acting in a parallel manner to produce an identical, generically marketed product, which causes injury many years later, and which has evoked a legislative response reviving previously barred actions.”); see also Twerski, *supra* note 51, at 875-76 (predicting narrow application of market share theory); Nance, *supra* note 154, at 434-35 (advocating limited use of market share theory). The court in *Shackil v. Lederle Laboratories*, 561 A.2d 511 (N.J. 1989), for example, refused to impose market share liability on the manufacturers of a diphtheria-pertussis-tetanus (DPT) vaccine because of the chilling effect that such liability would have on the development of needed vaccines. *Id.* at 528-29.

168. *Hymowitz*, 539 N.E.2d at 1078.

169. See *supra* note 103 and accompanying text.

170. See *supra* part II.B.

171. See *supra* note 59 and accompanying text; see *infra* part III.B.2.



B. A PROPOSAL TO MAKE CERCLA CONSISTENT WITH A "NO CAUSATION, NO RESPONSIBILITY" MODEL

CERCLA has other problems besides the fairness of its liability scheme,<sup>172</sup> and therefore, perhaps Congress should rethink the entire statute.<sup>173</sup> This Article has more modest aims. It accepts the statutory premise that those who are responsible for hazardous waste contamination should pay the costs of cleaning up that contamination.<sup>174</sup> It also recognizes the difficulty in establishing causation in hazardous wastes cases. Rather than requiring proof of causation to impose responsibility, this Article recommends declining to impose liability if the defendant can prove that it did not cause the plaintiff's injury. To meet this end, Congress should amend the CERCLA liability scheme in three respects. First, the statute should hold owners or operators liable only if the disposal of hazardous substances occurred at a site during the party's ownership or operation of the site. Current owners or operators should not be liable, provided that they satisfy certain limited conditions, if no causal connection links activities during the period of their control with the disposal of hazardous wastes at the site. Second, proof that a defendant's activities did not cause the plaintiff's injury should provide an absolute defense to liability. Congress therefore should replace the three existing causation-based defenses with one complete defense based on the absence of causation. Third, the statute specifically should provide that causation is the primary factor in dividing liability among responsible parties, and it should offer an early opportunity for such determinations.

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172. Others have recommended that the cleanup of hazardous waste sites should be funded by various taxes instead of by the "responsible parties." See *Superfund Liability Hearings*, *supra* note 12 (testimony of Dr. Benjamin F. Chavis, Jr. on Feb. 10, 1994); John J. Lyons, *Deep Pockets and CERCLA: Should Superfund Liability Be Abolished?*, 6 STAN. ENVTL. L.J. 271, 332-44 (1986-87). But see TERRY L. ANDERSON & DONALD R. LEAL, *FREE MARKET ENVIRONMENTALISM* 148-49 (1991) (arguing against a tax system). A related proposal would establish an administrative forum to determine responsibility for cleanup costs to replace the current litigation system. See Mashaw, *supra* note 30, at 1393-96; Harris, *supra* note 30, at 948-64. But see Abraham, *supra* note 147, at 845, 898-906 (defending the traditional tort system supplemented by expanded insurance).

173. That this Article does not address these issues should not be thought to suggest that all is well with the rest of the statute. For the EPA's list of criticisms, see *supra* note 12.

174. See *supra* note 2 and accompanying text.

## 1. Liability of Current Owners or Operators

CERCLA presently holds current owners and operators responsible for the costs of cleaning up a site even if all of the hazardous wastes were disposed of at the site prior to their arrival.<sup>175</sup> Indeed, because a plaintiff easily can identify the current owner and operator and prove that it is a responsible party, the current scheme creates the incentive to sue current owners and operators first, and often as the sole defendant.<sup>176</sup> But the difficulty of proving causation does not justify imposing liability on current owners and operators when these parties have not disposed of hazardous substances during their involvement with the site.<sup>177</sup> Past owners and operators, after all, are not liable if no disposal occurred during their ownership or operation.<sup>178</sup>

CERCLA's imposition of liability on all current owners and operators presents three general problems. It conflicts with the statutory goal of imposing liability on the parties actually responsible for the disposal of hazardous substances.<sup>179</sup> It creates

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175. See *supra* text accompanying notes 89-90.

176. The courts consistently have rejected attempts to require a plaintiff to join all potentially responsible parties in a suit, reasoning that common law joint and several liability schemes impose no such requirement. See *United States v. Marisol*, 725 F. Supp. 833, 843 (M.D. Pa. 1989); *Kelley v. Thomas Solvent Co.*, 714 F. Supp. 1439, 1450 (W.D. Mich. 1989); *United States v. Dickerson*, 640 F. Supp. 448, 450 (D. Md. 1986); see also *United States v. Atlas*, 797 F. Supp. 411, 413 n.2 (E.D. Pa. 1992) (rejecting mandatory joinder by reasoning that Fed. R. Civ. P. 14 provides for impleader and that defendant may file a third party claim).

177. Regardless of causation, other common law doctrines have been cited to support current owner and operator liability. CERCLA's legislative history relies on cases imposing strict liability on the owner of property containing abnormally dangerous conditions. See *City of Phoenix v. Garbage Servs. Co.*, 827 F. Supp. 600, 604 (D. Ariz. 1993); 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 339-41; 2 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 346-50, 361-62. See generally *KEETON ET AL.*, *supra* note 10, § 78 (describing history and current status of doctrine). The use of that doctrine suffers from the same three problems listed *infra* at notes 179-182 and accompanying text. Alternatively, the common law imposes liability on property owners for maintaining a nuisance. See *KEETON ET AL.*, *supra* note 10, at §§ 86-91. CERCLA liability, however, exceeds common law nuisance liability because the common law demands "some causal connection . . . between the nuisance and the landowner beyond mere ownership of the property on which the nuisance originates." Lyons, *supra* note 172, at 297; see also *id.* at 287-89 (describing how CERCLA liability exceeds common law nuisance liability of predecessor landowners).

178. See *Cadillac Fairview/California, Inc. v. Dow Chem. Co.*, 21 Env't Rep. Cas. (BNA) 1108, 1113 (C.D. Cal. March 5, 1994).

179. A broad reading of "disposal" can encompass an owner or operator that did not introduce hazardous substances to the property. See *supra* note 92. An expansive definition of "disposal" could undermine the proposal here, but the

a substantial chilling effect on property transactions, especially in urban areas in greatest need of economic revitalization and where much industrial activity or hazardous waste disposal occurred in the past.<sup>180</sup> Finally, even if a current owner or operator ultimately succeeds in allocating most of the costs to the parties who actually caused the hazardous substances contamination, the current owner and operator must assume the transactions costs of bringing those parties into the litigation.<sup>181</sup> The existing statutory innocent landowner defense falls far short of remedying any of these problems.<sup>182</sup>

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question of what constitutes a "disposal" also involves scientific issues beyond the scope of this Article.

180. EPA Administrator Browner has expressed her concern as follows:

[T]he market value of older industrial sites can be depressed, because the specter of Superfund liability diminishes the attractiveness of investing in industrial areas. Many claim that prospective owners who want to develop property have an economic incentive to use undeveloped, or "greenfield," sites to avoid potential Superfund liability, thereby contributing to suburban sprawl and exacerbating chronic unemployment often found in inner-city industrial areas.

Browner Statement, *supra* note 2. For similar concerns, see Senator Lautenberg, 140 CONG. REC. S1085 (daily ed. Feb. 7, 1994); Representative Upton, 139 CONG. REC. E3041 (daily ed. Nov. 24, 1993), and NAACP leader Dr. Benjamin Chavis, Jr., *Superfund Liability Hearings*, *supra* note 12 (testimony of Dr. Chavis on Feb. 10, 1994); see also Robin Paul Malloy, *Equity Participations and Lender Liability Under CERCLA*, 15 COLUM. J. ENVTL. L. 63, 64 (1990) (analyzing "the potentially devastating impact of liability for cleanup costs" that CERCLA imposes on lenders in real estate development). The current system thus raises an environmental justice issue. See 140 CONG. REC. S1079 (daily ed. Feb. 7, 1994) ("[S]ince the poor and many minority groups tend to be concentrated in older urban centers or rural areas where polluted real estate is usually found, they may bear disproportionately greater health and environmental risks."). See generally Richard J. Lazarus, *Pursuing "Environmental Justice": The Distributional Effects of Environmental Protection*, 87 NW. U. L. REV. 787 (1992) (examining distributional implications of environmental protection laws on racial minorities).

181. See *O'Neil v. Picillo*, 883 F.2d 176, 179 (1st Cir. 1989), *cert. denied*, 493 U.S. 1071 (1990); *United States v. SCA Servs. of Ind., Inc.*, 827 F. Supp. 526, 531-32 (N.D. Ind. 1993); Browner Statement, *supra* note 2; *Superfund Liability Hearings*, *supra* note 12 (testimony of Katherine N. Probst on Feb. 10, 1994); Lynette Boomgaarden & Charles Breer, *Surveying the Superfund Settlement Dilemma*, 27 LAND & WATER L. REV. 84, 91 (1992); Lyons, *supra* note 172, at 312-32.

182. Congress added the innocent landowner defense in 1986. CERCLA § 101(35), 42 U.S.C. § 9601(35) (1988). EPA Administrator Browner has admitted that "this provision of the law has not functioned effectively." Browner Statement, *supra* note 2. As another writer put it, "while it appears to be an oasis for the innocent purchaser of contaminated property who desperately needs help in the strict liability desert of CERCLA, it frequently turns out to be a mirage for those who seek to assert it." L. Jager Smith, Jr., Note, *CERCLA's Innocent Landowner Defense: Oasis or Mirage?*, 18 COLUM. J. ENVTL. L. 155, 157 (1993); see also *id.* at 160-70 (analyzing cases).

Accordingly, Congress should amend CERCLA's list of responsible parties to include only those owners and operators—present or past—who owned or operated a facility at a time when hazardous substances were disposed there. Under such an amendment, current owners and operators would not be liable if all of the disposals at the site predated their ownership or operation of the facility. This approach would be more consistent with the principles of causation, it would eliminate the disincentive to purchase industrial property in depressed urban areas, and it would enable current owners and operators to avoid costly litigation. The Administration's bill, which incorporates a similar approach with a number of needed safeguards, would achieve the same results.<sup>183</sup>

Removing current owners and operators from CERCLA liability is this Article's simplest yet most controversial recommendation. The principle objection results from the appearance that current owners and operators would receive an undeserved windfall if they obtained property knowing of its contamination and paid an accordingly reduced price. But Congress can take separate measures to discourage sham transactions in which a party pays a reduced price for contaminated property and then forces other parties to pay for the cleanup of the contamination. For example, the Administration bill permits the government to obtain a lien on the property based on the increase in its fair

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183. See *supra* note 26 and accompanying text. Under the Administration bill, a "bona fide prospective purchaser" escapes liability provided certain conditions are satisfied. The "active disposal" of hazardous substances must occur prior to acquiring ownership; the new owner must conduct an environmental audit of the site and must provide all required notices concerning hazardous substances; the new owner must exercise due care and must cooperate with necessary response actions (including permitting access to the site); and the new owner must not be affiliated with any responsible party liable for cleaning up the site. S. 1834, 103d Cong., 2d Sess. § 605(i) (1994) (adding 42 U.S.C. § 9601(39)). For a summary of the provision, see 140 CONG. REC. S1079 (daily ed. Feb. 7, 1994). One commentator worries, however, that "[t]he conditions to be a 'bona fide prospective purchaser' are sufficiently onerous and time-consuming to limit greatly the number of persons to which it would apply." Steven M. Jawetz, *The Superfund Reform Act of 1994: Success or Failure is Within EPA's Sole Discretion*, 24 *Env'tl L. Rep.* 10161, 10166 (1994). The Administration proposal is also limited to current owners who acquire property after the provision becomes law, see *id.*; the principles set forth in this Article support the extension of similar treatment to all current owners and operators. By contrast, under the proposed Contaminated Sites Reclamation Act of 1994 introduced by Representative Upton, current owners and operators would remain presumptively liable but the innocent landowner defense would be expanded. See 139 CONG. REC. E3042 (daily ed. Nov. 24, 1993).

market value as a result of the cleanup.<sup>184</sup> A New Jersey statute takes another approach by barring the sale of contaminated industrial property until the cleanup is eliminated.<sup>185</sup>

Further, the current CERCLA liability scheme creates perverse incentives of its own. A current owner or operator who did not know of the contamination when it obtained the property and thus paid a higher price for the property suffers an undeserved penalty under the current scheme. And removing current owners and operators from CERCLA liability eliminates the existing incentive to engage in a different kind of sham transaction. Under the present CERCLA liability scheme, a property owner is liable regardless of whether disposals occurred during the period of ownership, but the property owner can escape liability simply by selling its property and thus becoming a past owner—who is not liable if no disposal took place while it was an owner. The amendment proposed by this Article avoids these results.

## 2. "No Causation" as a Defense

Congress also should amend CERCLA to allow proof that a defendant did not cause a plaintiff's injury to operate as a complete defense. CERCLA presently contains three causation-based defenses that cover limited instances in which a defendant can prove that it did not cause the plaintiff's injury.<sup>186</sup> Contrary to one court's holding, the statutory defenses do not simply "shift the burden of the proof of causation to the defendants."<sup>187</sup> The defendant must prove each defense by a preponderance of the evidence, and the acts encompassed by each defense must be the *sole* cause of the plaintiff's injury.<sup>188</sup> As a result, the statutory defenses are so narrow that few defendants have been able to prove one of the defenses.<sup>189</sup>

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184. S. 1834, 103d Cong., 2d Sess. § 403(b) (1994) (adding 42 U.S.C. § 9607(n)). The lien would expire as soon as all response costs are recovered or as soon as the lien is satisfied. *Id.*; see also 140 CONG. REC. S1079 (daily ed. Feb. 7, 1994) (explaining Administration proposal).

185. N.J. STAT. ANN. § 13:1K-9 (West 1991). For an overview of New Jersey's Environmental Cleanup Responsibility Act (ECRA), see *Cooper Dev. Co. v. First Nat'l Bank*, 762 F. Supp. 1145, 1148-50 (D.N.J. 1991). In 1993, the New Jersey legislature substantially amended ECRA and renamed it the Industrial Site Recovery Act. 1993 N.J. Sess. Law Serv. ch. 139, §§ 1-4 (West).

186. CERCLA § 107(b), 42 U.S.C. § 9607(b) (1988).

187. *Violet v. Picillo*, 648 F. Supp. 1283, 1293 (D.R.I. 1986).

188. CERCLA § 107(b), 42 U.S.C. § 9607(b) (1988).

189. See *Ferrey*, *supra* note 88, at 238 ("extremely limited defenses"); James W. Spertus, *Holding Environmental Consultants Liable for Their Negligence: A*

Taking each defense in turn, the "act of God" defense has received almost no attention from courts or commentators.<sup>190</sup> In one case, the court found that the defense did not apply because heavy rainfall was foreseeable, damage was preventable, and rain was not the sole cause of the release.<sup>191</sup> The courts have read the identical act of God defense in the Clean Water Act to exclude similar natural phenomena.<sup>192</sup> The applicability of the defense as interpreted by the courts is, at best, obviously limited.

The "act of war" defense proves more intriguing. CERCLA itself does not define an "act of war." The term "act of war" in CERCLA is inherently less specific than the related defense in the Federal Tort Claims Act which applies to "[a]ny claim arising out of combatant activities of the military . . . during time of war."<sup>193</sup> It is highly doubtful that any hazardous waste contamination at manufacturing sites in the continental United States resulted from actual combat. On the other hand, a broad reading of CERCLA's act of war defense might encompass manufacturing and other production activities that were necessary to support the war effort.<sup>194</sup> The only court interpreting the defense, however, rejected such a broad reading of an "act of war."<sup>195</sup>

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*Proposal for Change*, 64 S. CAL. L. REV. 1145, 1152 (1991) ("extremely narrow defenses"). Congress apparently intended such a limited application. See 1 CERCLA LEGISLATIVE HISTORY, *supra* note 1, at 72 (testimony of EPA Assistant Administrator Thomas C. Jorling) (the statutory defenses are "very limited"). The same factors typically excuse liability in common law tort litigation, even in strict liability schemes. See *Louisiana-Pacific Corp. v. Beazer Materials & Servs., Inc.*, 811 F. Supp. 1421, 1427 (E.D. Cal. 1993) (citing *KEETON ET AL.*, *supra* note 10, § 79, at 563-64).

190. CERCLA defines an "act of God" as "an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight." CERCLA § 101(1), 42 U.S.C. § 9601(1).

191. *United States v. Stringfellow*, 661 F. Supp. 1053, 1061 (C.D. Cal. 1987).

192. See *Liberian Poplar Transports, Inc. v. United States*, 26 Cl. Ct. 223, 226 (1992) (finding that discharge of oil during thunderstorms could have been prevented by monitoring weather reports); *St. Paul Fire & Marine Ins. Co. v. United States*, 4 Cl. Ct. 762, 768 (1984) (finding that soil settlement beneath oil storage tanks was not an act of God); *Sabine Towing & Transp. Co. v. United States*, 666 F.2d 561, 564-65 (Cl. Ct. 1981) (finding that runoff of melted snow was not an act of God because it did not result in an abnormal flow rate).

193. 28 U.S.C. § 2680(j).

194. For one such argument, see G. Nelson Smith, III, *The "Act of War" Defense Under CERCLA*, FED. FACILITIES ENVTL. J. 267, Autumn 1991, at 267.

195. *United States v. Shell Oil Co.*, 841 F. Supp. 962, 967 (C.D. Cal. 1993) ("[T]he term 'act of war' as used in section 107(b)(2) of CERCLA cannot reasonably be construed to cover either the government's wartime contracts to

The third CERCLA causation defense has been the subject of much more litigation.<sup>196</sup> It exonerates a defendant if the contamination results from the acts of a third party who was not in a contractual or other relationship with the defendant, provided the defendant exercised due care and took precautions to guard against the foreseeable actions of any third party. Many defendants have sought to avail themselves of this defense; few have succeeded.<sup>197</sup> The requirement that the contamination be "solely" the result of a third party most often dooms efforts to invoke this defense because of the defendant's possibly tangential involvement at the site.<sup>198</sup>

The existing CERCLA causation defenses identify only certain instances in which a defendant can prove that its activities did not cause the plaintiff's injury. No reason exists for limiting the statutory defenses to these instances. Instead, CERCLA should contain one defense that encompasses any showing that the defendant's activities did not cause the plaintiff's injury. Such a defense may not have a significantly different practical effect from the existing scheme. Proving that one's acts did not cause hazardous waste contamination and proving that someone, or something, else's acts did cause the contamination often may amount to the same thing.<sup>199</sup> Yet no justification exists for

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purchase aviation fuel from the oil companies or its regulation of the oil companies' production of aviation fuel.").

196. See, e.g., *United States v. Monsanto*, 858 F.2d 160, 168-69 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989); *Louisiana-Pacific Corp. v. ASARCO, Inc.*, 735 F. Supp. 358, 363 (W.D. Wash. 1990); *United States v. Stringfellow*, 661 F. Supp. 1053, 1061 (C.D. Cal. 1987); *Violet v. Picillo*, 648 F. Supp. 1283, 1293 (D.R.I. 1986); *United States v. Maryland Bank & Trust Co.*, 632 F. Supp. 573, 581-82 (D. Md. 1986); Stacey A. Kipnis, Comment, *The Conflict Between CERCLA and FIRREA: Environmental Liability of the Resolution Trust Corp.*, 39 UCLA L. Rev. 439, 456 (1992); Weber, *supra* note 13, at 1476-78.

197. *Lincoln Properties, Ltd. v. Higgins*, 823 F. Supp. 1528, 1542 (E.D. Cal. 1992), is a notable recent exception.

198. See *CPC Int'l, Inc. v. Aerojet-Gen. Corp.*, 777 F. Supp. 549, 581 (W.D. Mich. 1991); *United States v. Marisol*, 725 F. Supp. 833, 838 (M.D. Pa. 1989) (striking Marisol's defense alleging that a third party was the proximate cause—not the sole cause—of plaintiff's injury); see also Kipnis, *supra* note 196, at 456-57, 463-66 (noting the difficulty in establishing this defense); Weber, *supra* note 13, at 1476 (same).

199. One commentator has suggested that "[a]lthough a defendant could theoretically rebut the presumption of causation by showing that all the chemicals in a release were produced by another generator sharing the disposal site—thus demonstrating that the release was caused solely by the act of a contractually unrelated third party—government experts have conceded that it is virtually impossible to prove such an assertion." *Developments*, *supra* note 42, at 1521 (citing *United States v. Wade*, 577 F. Supp. 1326, 1332 (E.D. Pa. 1983)) ("The government's experts have admitted that scientific technique has not ad-

imposing responsibility on *any* party who can establish that it did not cause a plaintiff's injury. Nor should such a defendant have to expend the transactions costs and wait until the allocation phase to establish that it has no liability. A comprehensive "no causation" defense would avoid these results by eliminating the loopholes in the existing statutory scheme.<sup>200</sup>

Furthermore, such a defense would provide a significant incentive to defendants to develop the technology necessary to identify particular hazardous substances at a site.<sup>201</sup> Although one may question the utility of a statutory provision that deflects a defendant's technical efforts from remedying a problem to disproving liability, the fruits of such research likely will assist in remedial work as well. The technology that enables a defendant to identify a hazardous substance in order to demonstrate that it came from someone else might also be the technology that enables others to identify and remedy the contamination. Indeed, if such techniques for "fingerprinting" wastes develop, the arguments against excluding proof of causation from a *prima facie* case under CERCLA weaken markedly.<sup>202</sup> Thus, if one could easily and inexpensively ascertain causation, the day may come when it will be appropriate to consider whether CERCLA should require a plaintiff to prove that a particular defendant's actions caused the plaintiff's injury.

### 3. Dividing Liability Among Responsible Parties

Causation already plays an important role, both at the apportionment stage and at the allocation stage, in determining the appropriate division of liability among responsible par-

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vanced to a point that the identity of the generator of a specific quantity of waste can be stated with certainty.")).

200. No comparable provision exists in the Administration bill. The bill, however, exempts "de micromis" generators and transporters that contributed a "truly tiny" volume of wastes to a site. S. 1834, *supra* note 26, § 403(a) (adding 42 U.S.C. § 9607(a)(5)); 140 CONG. REC. S1080 (daily ed. Feb. 7, 1994). *But see Superfund Liability Hearings*, *supra* note 12 (testimony of Harriet James on Feb. 10, 1994) (criticizing the cutoff amount for determining a "de micromis" contribution as too low). The Administration bill also facilitates EPA's ability to settle with "de minimis" parties. *See* S. 1834, 103d Cong., 2d Sess., § 408(k) (1994) (adding 42 U.S.C. § 9622(g)(1)(A); *see also* 140 CONG. REC. S1080 (daily ed. Feb. 7, 1994)).

201. CERCLA already has spurred technological developments in the cleanup of hazardous substances, *see* Browner Statement, *supra* note 2, and the Administration's proposed bill would encourage further growth. *See* S. 1834, *supra* note 26, § 604 (1994) (authorizing the use of the Superfund to pay half of the costs of innovative cleanup technologies that prove unsuccessful).

202. *See supra* notes 37-41 and accompanying text.



ties.<sup>203</sup> Courts determine that role, however, on an ad hoc basis because the statute itself says little about how to apportion or allocate liability. For example, different courts have produced strikingly different results when they balanced mere ownership of a facility against actual operation of the facility or against generation of the hazardous substances.<sup>204</sup> Equally problematic, lengthy litigation is needed to obtain a final determination of the relative liability of responsible parties, which delays the actual cleanup of hazardous substances and results in tremendous transactions costs.

CERCLA should adopt a system by which responsible parties may obtain an early determination that they are liable for the amount of harm that they caused. Although there is no easy way to compare the causal contributions of owners to generators, or transporters to operators,<sup>205</sup> CERCLA should make the relative role of each responsible party that caused the injury the primary factor in dividing liability among defendants.<sup>206</sup> The Gore factors offer a good starting point, and Congress should add to CERCLA a similar provision with more detailed guidance aimed at dividing liability among responsible parties according to the costs attributable to that party.

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203. See *supra* part II.C-D.

204. See *supra* note 142. Moreover, some courts have said that the Gore factors, *supra* note 133, which guide most courts in allocating liability, do not apply if the defendants fall within different categories of responsible parties. See *Weyerhaeuser Co. v. Koppers Co.*, 771 F. Supp. 1420, 1426 n.9 (D. Md. 1991) (stating that "the contribution-to-the-harm analysis may not be applicable in apportioning liability among different classes of defendants"); *South Florida Water Mgmt. Dist. v. Montalvo*, No. 88-8038-CIV-Davis, 1989 U.S. Dist. LEXIS 17555, at \*6 n.2 (S.D. Fla. Feb. 14, 1989) (stating that the Gore factors apply between operators and generators, not owners and generators).

205. Robert N. Strassfeld, *Causal Comparisons*, 60 *FORDHAM L. REV.* 913 (1992), provides a general analysis of the difficulties of comparing different causes of injury. For similar discussions in the CERCLA context, see Mason, *supra* note 163, at 93-100; Dale Guariglia, Comment, *Apportionment and Contribution Under the "Superfund" Act*, 53 *UMKC L. REV.* 594, 615-22 (1985).

206. Colorado Attorney General Gale Norton takes the opposite view, stating that it is inadvisable "to tie the allocator's hands by mandating factors in the statute." *Superfund Liability Hearings*, *supra* note 12 (testimony of Gale Norton on Feb. 10, 1994). Similarly, the Environmental Defense Fund believes that any allocation of liability among responsible parties at Superfund sites "can only be a rough exercise in equity." *Id.* (testimony of William J. Roberts, representing the Environmental Defense Fund). As discussed above, this Article maintains that causation should play the central role in determining responsibility for cleanup costs, and the difficulty in achieving that end should not dissuade Congress from providing such direction. Further, allocation of liability to those defendants who did not cause the harm at issue does not qualify as even "rough" justice.

Both the Administration bill and Representative Boucher's bill address these issues. Both bills would adopt the Gore factors.<sup>207</sup> The bills differ, however, in their approach to expediting the determination of each defendant's liability. The Administration bill proposes a nonbinding allocation scheme in which the EPA first identifies potentially responsible parties. A neutral "allocator" selected by the parties or by the EPA then considers the evidence in light of the Gore factors and issues a proposed allocation of liability among the parties. Finally each party chooses whether or not to settle on that basis, provided the EPA accepts the allocator's report.<sup>208</sup> Thus, instead of being jointly and severally liable for the entire cost of cleaning up a site, a responsible party who agreed to the allocation scheme would be held liable only for the cleanup costs that it caused.<sup>209</sup> If, however, a party decides not to settle based on the amount determined by the allocator, it will be jointly and severally liable for all response costs that remain.<sup>210</sup> The specter of joint and several liability gives this voluntary allocation scheme an attractive carrot and a powerful stick. The corollary is that some of the costs of the cleanup would go unrecovered from the responsible parties. The Administration bill would rely on the Superfund—and thus, the taxpayers—to pay for cleanups when the responsible parties cannot be located or are unable to pay for the cleanup.<sup>211</sup> The bill would place a \$300 million annual limit on

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207. See S. 1834, *supra* note 26, § 409 (adding CERCLA § 122a(d)(3)); 139 CONG. REC. E3118 (daily ed. Nov. 24, 1993) (describing the Boucher bill). The Administration bill also would empower the EPA to add other factors by regulation, S. 1834, *supra* note 26, § 409; the Boucher bill permits consideration of any other appropriate equitable factor. 139 CONG. REC. E3118, *supra*.

208. S. 1834, *supra* note 26, § 409 (adding CERCLA § 122a(c)-(d)). For a description of the allocation process, see 140 CONG. REC. S1081-82 (daily ed. Feb. 7, 1994).

209. A somewhat similar alternative would amend CERCLA to emphasize that the imposition of joint and several liability is discretionary, not mandatory. A few renegade courts, e.g., *United States v. A & F Materials Co.*, 578 F. Supp. 1249, 1256-57 (S.D. Ill. 1984), have already read CERCLA in this fashion, and other writers have endorsed this approach. See Rockwood & Harrison, *supra* note 14, at 10,544; Noone, *supra* note 14, at 312-13, 322-23. By contrast, the Fifth Circuit in *In Re Bell Petroleum* analyzed but ultimately rejected the A & F Materials approach, 3 F.3d 889, 899-902 & n.13 (5th Cir. 1993).

210. S. 1834, *supra* note 26, § 409 (adding CERCLA § 122a(i)(1)).

211. The alternative in cases involving private party plaintiffs would be to deny recovery of the full amount of the cleanup costs, a result contrary to the goals of many in Congress. See S. REP. NO. 848, *supra* note 2, at 13, reprinted in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 320 ("To establish provisions of liability any less than strict, joint, and several liability would be to condone a system in which innocent victims bear the actual burden of releases, while those who conduct commerce in hazardous substances which cause such dam-

the Superfund's total payment of the costs of such "orphan shares."<sup>212</sup>

Although this approach would be a substantial improvement over the current scheme, several limitations threaten its utility. The allocation procedure only applies to sites listed on the National Priorities List (NPL), the worst hazardous waste sites in the country.<sup>213</sup> All other sites would remain subject to the existing confusion and complaints. Further, the orphan shares are likely to exceed \$300 million, so the funds must come from elsewhere or this approach will not clean up even the NPL sites.<sup>214</sup> The EPA's ability to veto an allocator's conclusions creates another potential for collapse. Finally, many have questioned the efficacy of a nonbinding allocation scheme in reducing transactions costs, in providing certainty, and in accelerating actual cleanup work.<sup>215</sup>

The Boucher bill, by contrast, would establish a binding allocation scheme. A panel of administrative law judges would determine the allocation, and the results would bind the parties under an "arbitrary and capricious" standard.<sup>216</sup> As a result, the costs of making the allocation determination probably would increase with the creation of a new bureaucratic system, but all parties would gain increased certainty knowing that everyone else will have to live with the results.

The success of either scheme depends on the incentives it provides to participants.<sup>217</sup> That, in turn, largely depends on the fairness—or even the perceived fairness—of the mediators

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age benefit with relative impunity."); see also *id.* at 33-34, reprinted in 1 CERCLA LEGISLATIVE HISTORY, *supra* note 2, at 340-41 (advocating strict liability for hazardous activities).

212. S. 1834, *supra* note 26, § 409 (1994) (adding CERCLA § 122a(e)).

213. *Id.* (adding CERCLA § 122a(a)(1)).

214. See *Superfund Liability Hearings*, *supra* note 12 (testimony of Dennis Minano, representing the American Automobile Manufacturers Association, on Feb. 10, 1994); *id.* (testimony of Bernard J. Reilly, representing the Chemical Manufacturers Association, on Feb. 10, 1994). But see *id.* (testimony of William J. Roberts, representing the Environmental Defense Fund, on Feb. 10, 1994) (asserting that the Superfund should not pay more of the orphan shares).

215. Organizations as divergent as the Environmental Defense Fund, *id.* (testimony of William J. Roberts, representing the Environmental Defense Fund, on Feb. 10, 1994), and the Chemical Manufacturers Association, *id.* (testimony of Bernard J. Reilly, representing the Chemical Manufacturers Association), have expressed serious concerns about a nonbinding allocation scheme. See *id.*

216. See 139 CONG. REC. E3119-20 (daily ed. Nov. 24, 1993).

217. See 140 CONG. REC. S1059 (daily ed. Feb. 7, 1994) (statement of Sen. Baucus).

who determine the relative liability of the responsible parties. To the extent that such determinations appear ad hoc or based on inappropriate factors, the process will suffer. For this reason, the factors used to determine the proper allocation of liability play a crucial role. With such factors, responsible parties will better predict their liability and allocators more readily will determine liability. If the role of a responsible party operates as the principle factor in determining relative liability, then Congress will realize CERCLA's goal of making "polluters pay."

### CONCLUSION

The role causation plays in CERCLA's responsible party scheme has frustrated courts interpreting the statute. The *Alcan* decisions serve as only the most recent indication that the courts fear the statute can produce inequitable results. Yet the difficulty in proving causation supports a system in which the plaintiff need not identify exactly who caused the hazardous substances contamination before recovering its damages. The solution proposed in this Article, while not placing plaintiffs in the difficult position of showing who caused the harm, frees defendants who can establish that they did not cause the environmental harm.

The recommended amendments to CERCLA all follow from this basic principle. They are thus preferable to many of the proposed statutory fixes now sought by groups of aggrieved defendants. Banks,<sup>218</sup> municipalities,<sup>219</sup> mining companies,<sup>220</sup> environmental consultants,<sup>221</sup> federal agencies,<sup>222</sup> and other groups<sup>223</sup> each have sought special protection from CERCLA's liability scheme. Each group argues that it does not have responsibility for environmental contamination. For each group that succeeds in rewriting CERCLA to escape liability, the pressure increases on the disfavored groups that remain within the statute's coverage.

CERCLA needs fixing. Congress now has the opportunity to respond to the statute's critics and to rewrite the problematic parts of the statutory scheme. The amendments proposed in

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218. 140 CONG. REC. S1080 (daily ed. Feb. 7, 1994).

219. *Id.*

220. *See American Steel Institute v. EPA*, 886 F.2d 390, 393 (D.C. Cir. 1993).

221. Spertus, *supra* note 189, at 1147, 1164.

222. 140 CONG. REC., *supra* note 218, at S1081.

223. *Id.* at S1058-81.

this Article focus on the areas in which CERCLA departs from common law causation principles. The amendments will not completely remedy CERCLA's ills, but they should assure a coherent relationship between CERCLA, causation, and responsibility.