CERCLA Section 107: An Examination of Causation

Julie L. Mendel

Follow this and additional works at: http://openscholarship.wustl.edu/law_urbanlaw

Recommended Citation
Available at: http://openscholarship.wustl.edu/law_urbanlaw/vol40/iss1/7
CERCLA SECTION 107: AN EXAMINATION OF CAUSATION

INTRODUCTION

National attention has focused in recent years on environmental damage wrought by the improper treatment and disposal of hazardous waste. The comprehensiveness of the federal government’s response reflects the enormity of the problem, both in public health and in economic terms. Parties injured by hazardous waste may often resort to

1. See Belthoff, Private Cost Recovery Actions Under Section 107 of CERCLA, 11 Colum. J. Envtl. L. 141 (1986) (the inadequate disposal of hazardous wastes has piqued our nation’s environmental awareness); Comment, Personal Liability for Hazardous Waste Cleanup: An Examination of CERCLA Section 107, 13 B.C. Envtl. Aff. L. Rev. 643 (1986) (congressional responses to the growing problem of improper disposal of hazardous waste); see also infra note 2 and accompanying text discussing the magnitude of the hazardous waste disposal problem.

traditional common law tort theories to obtain relief from identifiable polluters. Plaintiffs relying upon common law theories typically assert nuisance, trespass, negligence, or strict liability claims. The plaintiff carries the burden to prove her prima facie case for each claim. The causation element, however, often creates proof problems. For that reason, at least one commentator has referred to causation as the "bête noire" of toxic tort litigation.

To complement common law remedies, both state and federal governments have enacted remedial environmental legislation. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) represents the key federal response aimed at facili-

3. See S. REP. No. 848, 96th Cong., 2d Sess., 1, 2 (1980) (Congress does not intend to supplant common law remedies through enactment of federal legislation); Belfiglio, Hazardous Wastes: Preserving the Nuisance Remedy, 33 STAN. L. REV. 675, 675-77 (1981) (same); see also Garber, Federal Common Law of Contribution Under the 1986 CERCLA Amendments, 14 ECOLOGY L.Q. 365, 367 (1987) (CERCLA does not supplant common law rights and remedies that otherwise exist for injured parties); Hinds, supra note 2, at 2 (discussing the variety of common law remedies available to an injured plaintiff); Johnson, Hazardous Waste Disposal: Is There Still a Role for Common Law?, 18 TULSA L.J. 448, 451 (1983) ("Traditionally, the law of torts has been the primary common law approach to environmental issues.").

4. See Belfiglio, supra note 3, at 676 n.7. See also R. HALL, T. WATSON, J. DAVIDSON & D. CASE, HAZARDOUS WASTES HANDBOOK §§ 14.6-.7, at 14-8 to 14-12 (5th ed. 1984). Common law continues to expand in the field of toxic torts. State courts and legislatures have eased the plaintiffs' burden of proof to be recompensed. Four theories have developed toward this end: (1) concert of action; (2) enterprise liability; (3) alternative liability; and (4) market share liability. Id. § 14.6, at 14-8 to 14-12.

Although this expansion will provide an injured plaintiff increased access to relief, it will pose added risks and costs of doing business for any company handling hazardous substances. Id. § 14.8, at 14-16.


6. Id.


8. See Johnson, supra note 3, at 451 n.5 (citing state statutes that have been enacted to remedy environmental pollution problems); State Superfund Statutes 1984, ENVTL. L. REP. (Envtl. L. Inst.) (Nov. 1983) (booklet outlining state Superfund statutes).

9. See S. REP. No. 848, 96th Cong., 2d Sess. 1, 12 (1980) ("[CERCLA] is not intended to replace other laws which aim to correct a variety of toxic chemical concerns . . . [including] [the] Clean Air Act, the Clean Water Act, the Toxic Substances Control Act, [and] the Solid Waste Disposal Act. . . .'').

10. Johnson, supra note 3, at 450.

11. 42 U.S.C. §§ 9601-9678 (1988). See Belthoff, supra note 1, at 144 (the purpose of CERCLA is to remedy the inadequacies of prior environmental legislation); Grad, supra note 2, at 2 (CERCLA sufficiently authorizes the clean-up of hazardous waste);
tating the prompt clean-up of hazardous waste and imposing liability upon responsible parties. CERCLA, however, only covers clean-up costs; it does not provide compensation for personal injuries or property damage.\textsuperscript{12}

Consistent with common law remedies, a plaintiff who asserts a CERCLA action under section 107(a) must carry the burden of making her prima facie case.\textsuperscript{13} Some courts\textsuperscript{14} construe section 107(a) of Comment, \textit{supra} note 1, at 643 (CERCLA primarily focuses on the clean-up of hazardous waste).

12. CERCLA § 309, Actions under State laws for damages from exposure to hazardous substances, provides in pertinent part:
   (a) State statutes of limitations for hazardous substances cases
      (1) EXCEPTION TO STATE STATUTES
         In the case of any action brought under State law for personal injury or property damages, which are caused or contributed to by exposure to any hazardous substance or pollutant or contaminant, released into the environment from a facility, if the applicable limitations period for such action (as specified in the State statute of limitations or under common law) provides a commencement date which is earlier than the federally required commencement date, such period shall commence at the federally required commencement date in lieu of the date specified in such State statute.

      (3) ACTIONS UNDER SECTION 9607
         Nothing in this section shall apply with respect to any case of action brought under Section 9607 of this chapter.

42 U.S.C. § 9658 (1988). That language indicates that any damages sought for personal injury or property must be brought under state or common law, not CERCLA.

13. \textit{See} United States v. Wade, 577 F. Supp. 1326, 1333 (E.D. Pa. 1983). Although not expressly spelled out in the statute, courts have interpreted § 107(a) to require a plaintiff to show four elements in order to establish a prima facie case: (1) the generator disposed of hazardous substance; (2) the act took place at a facility which contained at the time of discovery hazardous substances of the kind which the generator disposed; (3) there occurred a release or a threatened release of that or any hazardous substance; (4) such release triggered the incurrence of response costs. \textit{Id.}


CERCLA to require traditional common law proximate causation.\textsuperscript{15} Most courts, however, interpret section 107 to relieve a plaintiff from the burden of proving causation and instead permit recovery of response costs upon merely showing that a defendant released or threatened to release hazardous substances.\textsuperscript{16}

[Text continues]
Part I of this Note addresses the CERCLA causation element by examining CERCLA's legislative history and statutory scheme. Part II discusses the relevant case law. Finally, Part III provides an analysis of the standard of causation that courts should require for a plaintiff to satisfy her prima facie case under CERCLA.

I. LEGISLATIVE HISTORY OF CERCLA

The Environmental Protection Agency (EPA) estimated in 1980 that the United States produces 57 million metric tons of hazardous waste, or about 600 pounds of hazardous waste per American each year.\(^{17}\) This amount was projected to grow at an annual rate of 3.5%.\(^{18}\) Moreover, the EPA found that industry disposed of an astonishing 90% of this waste in environmentally unsound ways.\(^{19}\) Although both common law theories and federal environmental legislation existed at that time, neither adequately addressed this critical problem.\(^{20}\)

In 1980, Congress sought to counter the burgeoning environmental menace posed by hazardous waste through the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.\(^{21}\)

---

\(^{17}\) S. REP. No. 848, 96th Cong., 2d Sess. 1 (1980).

\(^{18}\) Id.


\(^{20}\) H. R. REP. No. 1016, 96th Cong., 2d Sess., pt. 1, at 20, \textit{reprinted in} 1980 U.S. CODE CONG. & ADMIN. NEWS 6119, 6123. Some examples of federal legislation that have been enacted include the Clean Air Act, the Clean Water Act, the Toxic Substances Control Act, the Solid Waste Disposal Act, and the Resource Conservation and Recovery Act. \textit{Id.}

CERCLA primarily facilitates the prompt clean-up of hazardous waste sites by providing the necessary financing of both governmental and private responses. It also places the ultimate financial burden upon those parties responsible for the damage.

In particular, CERCLA section 107 imposes liability upon four categories of potentially responsible parties for hazardous waste clean-up costs. This section further authorizes courts to hold the responsible

---

42 U.S.C. § 9607(a) (1988). Section 107 provides:

Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section - -

(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
parties strictly liable for three kinds of costs incurred as a result of a release or a threatened release of hazardous waste: (1) governmental response costs, (2) private response costs, and (3) damages to natural resources.25

Nonetheless, CERCLA's standard of causation admits of certain ambiguity.26 Prior to CERCLA's passage, Congress specifically rejected a provision in the original House bill demanding a causation requirement in section 107(a).27 That House version contained a causation requirement imposing liability upon "any person who caused or contributed to the release or threatened release"28 of a hazardous substance. By contrast, the final compromise version contained no express causation requirement.29 Nevertheless, courts have consistently inter-

(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.

Id.

25. Comment, supra note 1, at 653-54 (discussing CERCLA's liability scheme).
28. See H.R. 7020, 96th Cong., 2d Sess. § 3071(a) (1980), quoted in Shore Realty, 759 F.2d at 1044. The House proposal is summarized as follows: [T]he 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. . . . [F]or 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.
29. See Shore Realty, 759 F.2d at 1044 (citing 126 CONG. REC. 31,981-82 (1980));
interpreted CERCLA as authorizing strict liability,\(^{30}\) and a majority have construed section 107(a)(3) to require only a minimal causal connection.\(^{31}\) The courts, however, have not yet reached a consensus in applying a uniform causation standard to all CERCLA claims.\(^{32}\)

### II. STATUTORY INTERPRETATION BY THE COURTS

CERCLA provides a right of action to governments and private individuals.\(^{33}\) Four elements make up a prima facie case under CER-

---


\(^{31}\) See supra note 16 and accompanying text citing pertinent case law.

\(^{32}\) See infra notes 47-93 and accompanying text discussing the cases that require only a minimal causal nexus for response costs. But cf. infra notes 130-44 discussing the cases that demand proximate cause with regard to costs for damages to natural resources.

CAUSATION UNDER CERCLA

To wit, a plaintiff must allege that (1) the defendant falls within one of the four categories of covered persons;\(^{35}\) (2) a "release or threatened release" of a hazardous substance\(^ {36}\) from the defendant's facility occurred;\(^ {37}\) (3) the release or threatened release "cause[d] the incurrence of response costs" by the plaintiff;\(^ {38}\) and (4) the plaintiff's costs were necessary costs of response consistent with the National Contingency Plan (NCP).\(^ {39}\)

In "one-site" CERCLA section 107 cases, where a substance contaminates the site of its release, courts consistently have refused to re-

\(^{34}\) See Developments, supra note 2, at 1511-42; Comment, supra note 1, at 653; see also, e.g., Amoco Oil Co. v. Borden, Inc., 889 F.2d 664, 668 (5th Cir. 1989) (to establish a prima facie case the plaintiff must prove: (1) That the site in question is a "facility"; (2) that the defendant is a responsible person; (3) that a release or threatened release of a hazardous substance has occurred; and (4) that the release has caused the plaintiff to incur response costs); Ascon Properties, Inc. v. Mobil Oil Co., 866 F.2d 1149, 1152-53 (9th Cir. 1989) (same); Southland Corp. v. Ashland Oil, Inc., 696 F. Supp. 994, 999 (D.N.J.) (same), reargued, 19 Envtl. L. Rep. (Envtl. L. Inst.) 20,738 (D.N.J. Nov. 23, 1988).


\(^{36}\) Section 101(14) of CERCLA defines a "hazardous substance" as:

(A) any substance designated pursuant to section 1321 (b)(2)(A) of title 33 [the Federal Water Pollution Control Act, or Clean Water Act], (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title [CERCLA], (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act [42 U.S.C. 6921] . . ., (D) any toxic pollutant listed under section 1317(a) of title 33.


\(^{37}\) Id. § 9607(a)(3). See supra note 24 for text of statute.


\(^{39}\) 42 U.S.C. § 9607(a)(4)(B). See supra note 24 for text of statute. Consistency with various versions of the NCP is not an element of CERCLA § 107 liability. Rather, when liability is established, the court will then test the incurred response costs for consistency with the NCP in order to determine the extent of cost recovery to which the plaintiff is entitled. See, e.g., Shore Realty, 759 F.2d at 1047-48 (inclusion on the NCP is not required for the state to recover under CERCLA); United States v. Reilly Tar & Chem. Corp., 546 F. Supp. 1100, 1118-19 (D. Minn. 1982) (same).
quire plaintiffs to demonstrate proximate cause. Rather, courts require a lesser causation standard. This diminished standard presumably effectuates the statutory goals of promptly cleaning up contaminated sites and exacting recovery costs from responsible parties. Only a few courts, however, have addressed the causation standard with regard to response costs in "two-site" cases. Two-site cases are those in which released substances from one site contaminate an off-site facility. Short of requiring proximate cause, courts faced with this situation have adopted a variety of causation standards. As distinguished from CERCLA claims for response costs, however, plaintiffs seeking compensation for natural resource damages pursuant to CERCLA section 107(f) generally must prove proximate causation.

A. One-Site CERCLA Cases

United States v. Wade marks the first judicial determination on one-site injuries under CERCLA. In Wade, the Government brought an action in the Eastern District of Pennsylvania against owners, generators, and transporters of hazardous substances, alleging those persons responsible for creating an illegal dump site. The court, in holding the generator defendants liable, rejected their defense premised on traditional tort concepts of proximate causation.

40. See infra notes 47-93 and accompanying text for discussion of one-site CERCLA cases.
42. See supra notes 1-2 & 20-31 and accompanying text for a discussion of CERCLA's purposes and legislative history.
43. See infra notes 93-129 and accompanying text for discussion of two-site CERCLA cases.
44. See infra notes 47-144 and accompanying text illustrating different causation standards which courts impose.
45. See infra notes 47-129 and accompanying text for discussion of cases concerning response costs recovery under CERCLA.
46. See infra notes 130-44 and accompanying text for discussion of cases concerning recovery for damages to natural resources under CERCLA.
48. Id. See also supra note 40, § 14.01(5)(d), at 14-86.
50. Id. at 1332. The defendants argued that the Government must prove that each defendant's waste was actually present at the site and was the subject of a removal or remedial measure. Id. at 1331. They further contended that the Government must at http://openscholarship.wustl.edu/law_urbanlaw/vol40/iss1/7
In so ruling, the district court first considered the language of section 107.\textsuperscript{51} Section 107 imposes liability upon "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."\textsuperscript{52} The court noted section 107's ambiguities.\textsuperscript{53} Specifically, the court focused on Congress' use of the qualifier "such" in reference to hazardous substances contained at the site or facility.\textsuperscript{54} The court opined that "such," when read with the proceeding language, may require that the facility contain a particular defendant's waste.\textsuperscript{55} Alternatively, the court explained that it may merely require that hazardous substances "like" those found in the defendant's waste be present at the site.\textsuperscript{56} The court next surveyed CERCLA's scant legislative history and concluded that Congress intended that courts apply the less stringent causation standard.\textsuperscript{57} Finally, the court reasoned that to require a plaintiff to "fingerprint" wastes by identifying who generated each substance would eviscerate the statute.\textsuperscript{58}

The court determined, moreover, that the Government need not link its clean-up costs to the particular wastes that each generator sent to the site.\textsuperscript{59} To reach this result, the court distilled from section 107 a

\begin{itemize}
  \item \textsuperscript{51} \textit{Id}. at 1332-34.
  \item \textsuperscript{52} \textsuperscript{52} 42 U.S.C. § 9607(a)(4) (1988).
  \item \textsuperscript{54} \textit{Id}. at 1332.
  \item \textsuperscript{55} \textit{Id}.
  \item \textsuperscript{56} \textit{Id}.
  \item \textsuperscript{57} \textit{Id}. Courts customarily begin their statutory construction with the statute's language. When the terms of the statute are ambiguous, courts review the legislative history to interpret the language in a way consistent with congressional intent. \textit{See Gwaltney of Smithfield v. Chesapeake Bay Found.}, 484 U.S. 49, 56-58 (1987) (starting point for statutory analysis is the statute itself).
  \item \textsuperscript{58} \textit{Wade}, 577 F. Supp. at 1332. The court explained that the scientific techniques currently available can only determine that a site contains the same generic list of hazardous substances as those in a generator's waste. \textit{Id}.
  \item \textsuperscript{59} \textit{Id}.
\end{itemize}
four-part test representing the necessary elements of a prima facie case: (1) the generator disposed of its hazardous substances\(^\text{60}\) (2) at a facility containing hazardous substances similar to those disposed of by the generator\(^\text{61}\) (3) and such facility released a hazardous substance\(^\text{62}\) (4) which caused the incurrence of response costs.\(^\text{63}\)

Assessing the test and its components,\(^\text{64}\) the court concluded that the Government discharges its burden of proof regarding causation upon merely showing that a defendant disposed of hazardous waste which is found both at the defendant's plant and the disposal site.\(^\text{65}\) As support for this reading, the court noted that Congress deleted the proximate cause language from the original House bill, evidencing a legislative purpose to dilute the traditional common law causation requirement.\(^\text{66}\) Thus, the \textit{Wade} court dispensed with proximate causation as a prerequisite for liability under CERCLA.\(^\text{67}\)

Federal district\(^\text{68}\) and appellate\(^\text{69}\) courts concur that CERCLA requires a plaintiff to prove only a minimal causal nexus between a defendant's disposed of substance and the response costs incurred.\(^\text{70}\) For example, the Fourth Circuit in \textit{United States v. Monsanto Co.}\(^\text{71}\) affirmed the South Carolina District Court's decision in \textit{United States v.}}

---

\(^{60}\) \textit{See supra} note 36 for the definition of hazardous substance.


\(^{64}\) \textit{Wade}, 577 F. Supp. at 1333.

\(^{65}\) \textit{Id. See supra} note 24 for text of CERCLA § 107(a).

The court specified that the release referred to in § 107(a) is "of 'a' hazardous substance." \textit{Wade}, 577 F. Supp. at 1333. The use of "a" suggested that the released substance need not be one contained in every generator's wastes. \textit{Id.} The use of "such," however, in the paragraph concerning substances found at the site suggested that the list of wastes sent by the generator must at least be present at "the" site, though not necessarily among the substances released, before that generator may be held liable. \textit{Id.}

\(^{66}\) \textit{Wade}, 577 F. Supp. at 1334.

\(^{67}\) \textit{Id.}

\(^{68}\) \textit{See supra} note 16 citing federal district court CERCLA cases that do not require proximate cause.

\(^{69}\) \textit{See id.}

\(^{70}\) \textit{See generally Developments, supra} note 2, at 1520-84.

South Carolina Recycling & Disposal, Inc. (SCRDI), thus attenuating the CERCLA section 107(a)(4) causation element.

In SCRDI, the Government sued owners, operators, generators and transporters of hazardous waste under CERCLA. The Government claimed that the defendants disposed of hazardous waste which released and threatened to release at a site used for waste brokering and recycling. After examining section 107(a), the court cited Wade's casual nexus analysis with approval. The court claimed that the statute's express terms defined and limited the Government's burden of proof. In holding for the Government, the SCRDI court explained that CERCLA "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 of at a site and the hazardous conditions existing at the site."

73. Id. at 992.
74. Id. at 989.
75. Id. at 990. In SCRDI, an environmental hazard of staggering proportions developed shortly after the incorporation of waste brokering and recycling operation. Id. Approximately 7200 55-gallon drums of hazardous substances accumulated at the site. Id. The drums were randomly and haphazardly stacked upon one another. Id. Deterioration of the drums caused their hazardous contents to leak and ooze onto the ground and other drums. Id. Fires and explosions broke out because the substances mixed with external elements and other hazardous substances. Id.
76. See supra notes 33-39 and accompanying text for discussion of a prima facie CERCLA case.
77. SCRDI, 653 F. Supp. at 992. See supra notes 47-67 and accompanying text for discussion of the Wade analysis.
78. SCRDI, 653 F. Supp. at 992.
79. Id. at 992 n.5. The court also noted that the defendant may rebut the presumption of a "causal" relationship under § 107(b) of CERCLA. Id. To rebut the presumption, the defendant must show that the conditions at the site were caused solely by a person unrelated contractually to that defendant. Id. Section 107(b) provides:
There shall be no liability under subsection (a) of this section for a person otherwise liable who can establish by a preponderance of the evidence that a release or threat of release of a hazardous substance and the damages resulting therefrom were caused solely by:
(1) an act of God;
(2) an act of war; or
(3) an act or omission of a third party... 42 U.S.C. § 9607(b) (1988). In SCRDI, none of the defendants provided evidence to satisfy that requirement. SCRDI, 653 F. Supp. at 992 n.5.
Although the SCRDI court purportedly followed Wade’s test for causation, it opened a possible loophole for generators. The court noted that generators may avoid liability by proving that their wastes were removed from the contaminated site before the government initiated clean-up operations. Nevertheless, proof of complete removal of hazardous wastes presents a formidable task for CERCLA defendants.

While courts generally apply the Wade test in CERCLA cases involving generator liability, the Second Circuit in New York v. Shore Realty Corp. extended the test to owners and operators. In Shore Realty, the court held Shore strictly liable for the state’s response costs without regard to causation. The court examined the structure of

81. See S. Cooke, supra note 41, § 14.01(5)(a).
82. SCRDI, 653 F. Supp. at 993 n.6.
83. S. Cooke, supra note 41, § 14.01(5)(d), at 14-91 (a defendant can avoid liability if she can show that all of her wastes were removed prior to the government’s clean-up). See also United States v. Ottati & Goss, Inc., 630 F. Supp. 1361, 1403 (D.N.H. 1985) ("Under CERCLA, there is no allowance for leaving 'some' or a 'few' drums; the statute holds liable and penalizes anyone who left such hazardous waste on the site where such waste was or had to be removed by the government." (citing 42 U.S.C. § 9607(a)); Developments, supra note 2, at 1521 (government experts concede that it is virtually impossible for a defendant to rebut presumption of causation).
85. 759 F.2d 1032 (2d Cir. 1985). In Shore Realty, the State of New York sued the corporation and Donald LeoGrande, the officer and stockholder who controlled and directed all corporate decisions, to clean up the contaminated site. Id. at 1037. At the time of acquisition, LeoGrande knew about the storage of more than 700,000 gallons of hazardous waste on the premises. Id. Nevertheless, the corporation acquired the site from the state for land development purposes. Id.
86. Id.
87. Id. at 1044. The court additionally noted that a finding that CERCLA § 107(a) imposes strict liability does not rebut Shore’s causation argument. Id. at 1044 n.17. Traditional tort law has often imposed strict liability while recognizing a causation defense. See W. Prosser & W. Keeton, supra note 5, § 79, at 560; see also supra note 16 and accompanying text discussing strict liability.
section 107 and reasoned that a causation requirement would render the affirmative defenses provided in section 107(b) superfluous.\textsuperscript{88} Absent a clear congressional command, the \textit{Shore Realty} court refused to interpret the statute to require proximate cause.\textsuperscript{89} The court further maintained that Congress' rejection of a causation requirement from the original House bill supported its conclusion.\textsuperscript{90} Thus, in one-site cases, the plaintiff is spared the burden of showing that a waste generator\textsuperscript{91} or a site owner or operator\textsuperscript{92} proximately caused the alleged harms as a part of its prima facie case under CERCLA.\textsuperscript{93}

B. \textit{Two-Site CERCLA Cases}

In contrast to the many one-site decisions,\textsuperscript{94} relatively few courts have addressed causation under CERCLA for incidents of two-site pollution.\textsuperscript{95} The Third Circuit first discussed the causation question in \textit{Artesian Water Co. v. Government of New Castle County}.\textsuperscript{96} In \textit{Artesian}, a water company sought recovery for its response costs in monitoring and evaluating the impact on its wells of leachate from an adjacent landfill.\textsuperscript{97} Applying a substantial factor rule\textsuperscript{98} of causation, the court

\begin{itemize}
  \item \textsuperscript{88} \textit{Shore Realty}, 759 F.2d at 1044. \textit{See supra} note 24 for text of § 9607(b).
  \item \textsuperscript{89} \textit{Shore Realty}, 759 F.2d at 1045.
  \item \textsuperscript{90} H.R. 7020, 96th Cong., 2d Sess. § 3071(a) (1980).
  \item \textsuperscript{91} \textit{See supra} notes 74-83 and accompanying text discussing the \textit{SCRDI} case.
  \item \textsuperscript{92} \textit{See supra} notes 85-93 and accompanying text for discussion of the \textit{Shore Realty} case.
  \item \textsuperscript{93} \textit{See supra} notes 34-38 and accompanying text for the prima facie test.
  \item \textsuperscript{94} \textit{See supra} notes 47-93 for a discussion of one-site CERCLA generator cases.
  \item \textsuperscript{95} \textit{See} Dedham Water Co. v. Cumberland Farms Dairy, Inc., 889 F.2d 1146 (1st Cir. 1989)(holding proximate causal nexus is not required for plaintiff to establish her prima facie case to recover response costs). \textit{But see} Artesian Water Co. v. Government of New Castle County, 851 F.2d 643 (3d Cir. 1988) (holding that a substantial factor test applies to determine the causation element required for a plaintiff to prove her prima facie case).
  \item \textsuperscript{97} \textit{Id.} at 1276.
  \item \textsuperscript{98} W. \textit{Prosser} & W. \textit{Keeton}, \textit{supra} note 5, § 41, at 267. The substantial factor rule of causation is as follows: The defendant's conduct is a cause of the event if it was a material element and a substantial factor in bringing it about. Whether it was a substantial factor is for the jury to determine, unless the issue is so clear that reasonable persons could not differ. \textit{Id.} The substantial factor test greatly differs from the \textit{Wade} causation scheme. Under the substantial factor test, a defendant's conduct must in fact cause injury to the plaintiff in order for the defendant to be liable. \textit{Id.} By contrast, the \textit{Wade} test merely requires that the defendant release or threaten to release a hazardous substance which is found both at the defendant's facility and the plaintiff's site. In
found the plaintiff entitled to relief.\textsuperscript{99} The court stated first that CERCLA's strict liability scheme requires that a plaintiff demonstrate a causal connection between the defendant's released substance and the response costs incurred.\textsuperscript{100} The court then rejected a "but-for" causation test\textsuperscript{101} because more than two causes acted concurrently to bring about the harm. Further, any one of the causes, acting alone, would have produced the same injury.\textsuperscript{102} Accordingly, the court ruled that if the release or threatened release of contaminants from the defendant's site is a substantial factor in causing a plaintiff to incur response costs, then the court will hold the defendant liable under CERCLA.\textsuperscript{103}

Unlike the Third Circuit,\textsuperscript{104} the First Circuit declined to adopt the common law substantial factor test for two-site CERCLA actions.\textsuperscript{105} In \textit{Dedham Water Co. v. Cumberland Farms Dairy, Inc.},\textsuperscript{106} a public water utility\textsuperscript{107} sued the owner of a truck maintenance facility,\textsuperscript{108} alleging addition, the plaintiff must incur response costs resulting from the released substance. United States v. Wade, 577 F. Supp. 1326, 1333 (E.D. Pa. 1983).

\textsuperscript{99} \textit{Artesian}, 659 F. Supp. at 1283.

\textsuperscript{100} \textit{Id.} at 1282. See, e.g., New York v. Shore Realty Corp., 759 F.2d 1032, 1044 n.17 (2d Cir. 1985); Idaho v. Bunker Hill Co., 635 F. Supp. 665, 674 (D. Idaho 1986). The court further required that Artesian show that it incurred costs as a result of the release or threatened release of hazardous substances from the site. \textit{Artesian}, 659 F. Supp. at 1282.

\textsuperscript{101} W. PROSSER & W. KEETON, supra note 5, § 41, at 266. The "but for" causation test provides that "[t]he defendant's conduct is a cause of the event if the event would not have occurred but for that conduct; conversely, the defendant's conduct is not a cause of the event, if the event would have occurred without it." \textit{Id.}

\textsuperscript{102} \textit{Artesian}, 659 F. Supp. at 1283.

\textsuperscript{103} \textit{Id.} In \textit{Artesian}, other factors contributed to the contamination of the site. Those factors included pollutants from the Delaware Sand and Gravel landfill, saltwater intrusion, and the Delaware Department of Natural Resources and Environmental Control's aquifer management policy. \textit{Id.}

\textsuperscript{104} See supra notes 96-103 and accompanying text for discussion of the \textit{Artesian} case.

\textsuperscript{105} \textit{Dedham Water Co. v. Cumberland Farms Dairy, Inc.}, 889 F.2d 1146 (1st Cir. 1989).


\textsuperscript{107} \textit{Dedham Water}, 889 F.2d at 1148. Dedham Water is a regulated public water utility supplying drinking water to approximately 40,000 persons in Dedham and Westwood, Massachusetts. \textit{Id.}

\textsuperscript{108} \textit{Id.} Cumberland Farms, a truck maintenance facility located in Canton, Massachusetts, used substantial quantities of solvents and degreasers containing volatile organic chemicals (VOCs). \textit{Id.} Its mechanics regularly dumped these solvents and liquid

\url{http://openscholarship.wustl.edu/law_urbanlaw/vol40/iss1/7}
ing that chemical discharges from Cumberland Farm's facility caused ground water contamination. Dedham Water sought monetary relief, claiming entitlement to response costs under CERCLA.

The United States District Court for the District of Massachusetts found Cumberland Farms not liable under CERCLA. The court held that in order to recover damages, a plaintiff in a two-site case must prove that the defendant's hazardous substances actually migrated to and contaminated the plaintiff's site. In reaching its conclusion, the court first examined the language of section 107(a). The court read the language to expressly require a causal link between the plaintiff's injury and the defendant's release or threatened release of hazardous substances. Next, the court distinguished one-site CERCLA cases from two-site cases. For two-site cases, the court concluded that CERCLA requires the following standard of causation: Whether the defendant's releases of hazardous substances had any effect at all upon

wastes directly into drains and catch basins which were connected to a drainage pipe. The drainage pipe, owned by Cumberland Farms and known as the Northwest Storm Sewer Outfall, discharged directly into a drainage ditch which flowed toward the White Lodge Well Field, approximately 1000 feet north of Cumberland Farms. Ultimately the solvents discharged into the Neponset River.

In early 1979, Dedham Water discovered hazardous substances in two of its wells. Based upon a survey it made of surrounding surface waters, Dedham Water believed that Cumberland Farms caused the contamination. Subsequently, Dedham Water informed the Massachusetts Department of Environmental Quality Engineering (DEQE) of the contamination. The DEQE then assumed responsibility for the investigation. In April, Dedham Water closed the two contaminated wells. The DEQE notified Cumberland Farms that hazardous substances also contaminated its wells. In addition, the DEQE requested Cumberland Farms to analyze the water and send them the results so proper remedial action could be taken. Ultimately, Cumberland Farms shut down the effected well. Dedham Water took various steps to prevent contamination of its other wells including retaining an engineering firm to make recommendations. Id. at 1149. The firm recommended that Dedham Water build a water treatment plant. Id. In March 1987, Dedham Water approved the recommendation and constructed a plant.

109. Id.
110. Id. at 1146. See supra note 38 for the definition of response costs under CERCLA.

112. Id. at 1224.
113. Id.
114. Id. See supra note 24 for text of § 107(a)(4).
115. Dedham Water, 689 F. Supp. at 1225-26. See supra text accompanying notes 40-44 for definitions of one-site and two-site CERCLA cases respectively.
the plaintiff's site. After hearing extensive expert testimony from both sides, the court decided that Cumberland Farms did not in fact cause Dedham Water's facility to become contaminated. Accordingly, Cumberland Farms was not held liable for response costs incurred by Dedham Water.

The First Circuit Court of Appeals reversed the district court's decision. The court held that a plaintiff need not prove that the defendant's waste actually contaminated the site as a precondition to recovery. Rather, the plaintiff merely must establish that the defendant's releases or threatened releases of hazardous substances caused the plaintiff to incur response costs. As with the court below, the First Circuit focused on the wording of CERCLA section 107(a). The court stated that a literal reading would not restrict liability to cases where the defendant causes actual contamination of a plaintiff's property. In making its determination, the court reasoned that the absence of proximate cause language in CERCLA evinced a congressional intent that strict liability attach to releases or threatened

116. Dedham Water, 689 F. Supp. at 1226. The court explained that the causation issue involves two distinct questions: (1) "whether groundwater from defendant's side of the Neponset River is drawn under the river into the White Lodge Well #3 (WL-3); and [2] whether contaminants from the Cumberland Farms site entered the groundwater and then were drawn under the Neponset River to WL-3." Id. at 1229.

The parties agreed that groundwater flows under the river. Id. The critical issue became "whether contaminants from the Cumberland Farms site ever reached the groundwater and thereafter found their way to WL-3." Id. at 1229-30.

117. Id. at 1233. The court summarized the three significant factors that tended to prevent VOCs discharged into the Cumberland Farms storm drainage system from reaching groundwater: (1) "the capture of VOCs by the petroleum distillates dumped on the ground or into the drainage system; [2] the layer of peat underlying the ditch; and [3] the process of volatilization or evaporation of VOCs from the site's surfaces, as well as from the surface waters of the ditch." Id.

Nonetheless the court considered other potential contaminant sources. It concluded that the evidence demonstrated that the Shield Company and the sewer leak represent the likely upgradient sources which caused the contamination. Id.

118. Id. at 1235.

119. See supra notes 111-18 and accompanying text discussing the district court's decision in Dedham Water.


121. Id. at 1154.

122. Id. at 1153.

123. Id. at 1152.

124. Id. See supra note 24 for text of CERCLA § 107.
releases of hazardous substances causing response costs.125 The court further maintained that CERCLA imposes liability upon classes of persons regardless of causation.126 Finally, the court noted that a majority of the CERCLA cases do not require a plaintiff to show traditional proximate cause.127 Thus, the First Circuit joined with the weight of authority128 relieving plaintiffs from the burden of proving that the defendant actually contaminated their property.129

C. Causation for Recovery of Natural Resource Damages

The section 107(a)(4) causation scheme encompasses both claims for response costs and claims for natural resource damages.130 Curiously, courts have applied section 107(a)(4) differently with respect to the two types of claims.131 Whereas courts do not require plaintiffs to prove proximate cause in cases involving response costs,132 the few courts133 to address the issue in the natural resource damage context uniformly require proof of proximate cause under CERCLA section 107(f).134

125. Dedham Water, 889 F.2d at 1152.
126. Id. at 1153.
127. Id.
128. See supra notes 16 & 47-93 and accompanying text discussing case law requiring only a minimal causal nexus under CERCLA.
129. Dedham Water, 889 F.2d at 1154. The court, however, remanded the case for a new trial to determine whether Dedham Water incurred response costs as a result of Cumberland Farm's released substances. Id.
130. United States v. Price, 577 F. Supp. 1103, 1113 (D.N.J. 1983) ("The heading used for § 107, 'Liability' denotes an intention to have this section define liability for the entire act.").
131. See infra notes 136-44 and accompanying text discussing CERCLA cases regarding natural resource damages which apply a proximate cause standard. But see supra notes 16 & 47-93 and accompanying text discussing CERCLA cases concerning response costs requiring only a minimal causal nexus.
132. See supra notes 47-129 and accompanying text regarding CERCLA cases concerning response costs.
134. 42 U.S.C. § 9607(f) (1988). 42 U.S.C. § 9607(f) provides in pertinent part: "There shall be no recovery under the authority of subparagraph (C) of subsection (a) of this section where such damages and the release of a hazardous substance from which such damages resulted have occurred wholly before December 11, 1980." Id.
Unlike other CERCLA provisions, section 107(f) bars recovery for damages to natural resources which occurred prior to CERCLA's enactment, applying prospectively only.\textsuperscript{135}

Of district court cases ruling on natural resource damage relief, \textit{Idaho v. Bunker Hill Co.}\textsuperscript{136} serves as a landmark case of sorts. In \textit{Bunker Hill}, the state sought recovery from an operations facility for damages allegedly caused to natural resources for over a century.\textsuperscript{137} The United States District Court for the District of Idaho held the past owner and operator defendants liable for releases and damages occurring after CERCLA's enactment.\textsuperscript{138} It also held the defendants liable for releases occurring prior to CERCLA's enactment that resulted in post-enactment damage.\textsuperscript{139}

In articulating a standard for recovery, the court maintained that strict liability requires a plaintiff to show causal linkage between the defendant's harmful act and the harm allegedly suffered.\textsuperscript{140} The court further noted that intent was irrelevant to the causation analysis.\textsuperscript{141} The court pointed out that Congress expressly indicated in both House and Senate reports that a plaintiff must prove actual causation for her prima facie CERCLA case.\textsuperscript{142} Finally, the court reasoned that because

\textsuperscript{135.} \textit{Bunker Hill}, 635 F. Supp. at 675. Courts unanimously agree that CERCLA is retroactive in nature. This section, applying prospectively only, stands as an exception to the rule.

\textsuperscript{136.} 635 F. Supp. 665 (D. Idaho 1986).
\textsuperscript{137.} \textit{Id.} at 674.
\textsuperscript{138.} \textit{Id.} at 675.
\textsuperscript{139.} \textit{Id.}

\textsuperscript{141.} \textit{Bunker Hill}, 635 F. Supp. at 674.
\textsuperscript{142.} \textit{Id.}
CERCLA imposes liability upon past owners and operators, damages occurring "post-enactment" are recoverable even though the defendant's releases occurred "pre-enactment." In short, the Bunker Hill court adopted common law principles of proximate causation when determining liability for damages to natural resources.

III. ANALYSIS

A. A Watered-Down Standard of Causation: Strengths and Weaknesses

By interpreting CERCLA to require only a weakened standard of causation for recovery of reponse costs, courts relieve plaintiffs of a potentially substantial burden in establishing their prima facie case. A weaker standard properly recognizes that the commingling of wastes often occurs at disposal sites, thus making the task of identifying particular substances difficult and expensive. Assuming a plaintiff could identify each of the released substances, she would still need to determine which generators produced which substances and calculate their respective fractional contributions. Some commentators have argued that requiring a plaintiff to "fingerprint" every chemical would unduly burden her cost recovery actions, eviscerate the statute, and defeat the congressional purpose of indemnification.

On the other hand, speculative links between the pollution and the damage unfairly disadvantage many targeted defendants. Clean-up costs usually fall within the multi-million dollar range. In many instances, however, a defendant's facility may not have produced hazardous substances found at a particular site. Arguably, a diluted

---


145. *Developments, supra* note 2, at 1529.

146. *Id.*

147. *Id.*

148. *See* Huber, *Environmental Hazards and Liability Law*, in LIABILITY PERSPECTIVES AND POLICY 128, 141 (Brookings Institution 1988) (the question of the defendant's causation of the injury can rarely be answered precisely in cases involving "diffuse, mass exposure, long latency risks").

149. *Id.* at 145.

150. *Id.*
causation standard risks punishing the innocent if the test merely requires showing first that a responsible party disposed of hazardous substances which were in fact released or threaten to be released, and second that a similar substance is found at the contaminated site. ¹⁵¹ Finally, by imposing liability upon targeted defendants for minimally substantiated claims, courts ignore CERCLA's underlying policy that responsible parties foot the clean-up bill. ¹⁵²

Beyond defeating congressional policy, a watered-down causation standard raises serious public policy concerns. ¹⁵³ For example, a majority of insurance companies no longer provide coverage for pollution liability because links between pollution and damage are so speculative that adjusters cannot rationally price policies. ¹⁵⁴ Also, the potential risk of multi-million dollar lawsuits prompted some companies involved in the clean-up of hazardous waste sites to abandon the business altogether. ¹⁵⁵ Other companies condition their continuation of operations on indemnification agreements with the government. ¹⁵⁶ No single business or insurance company is large or wealthy enough to absorb typically enormous CERCLA damages and maintain its business on solid economic footing. ¹⁵⁷ All told, CERCLA liability is as likely "to make life more dangerous as it is to make life safer." ¹⁵⁸

In contrast with the above, courts have not diluted the CERCLA section 107(a)(4) causation element regarding claims for natural resource damages. ¹⁵⁹ Rather, courts require a plaintiff to satisfy a traditional common law standard of proximate causation. ¹⁶⁰ This disparity cuts against assertions that only a weakened causation standard would fully effectuate CERCLA's objectives. ¹⁶¹

¹⁵¹. See supra notes 16 & 47-93 and accompanying text discussing CERCLA cases requiring minimal causation.
¹⁵². See supra notes 1-3 & 17-32 and accompanying text for discussion of CERCLA's legislative history and its underlying policy objectives.
¹⁵³. See Huber, supra note 148, at 146-54 discussing the negative impact of CERCLA liability on insurance companies and other industries.
¹⁵⁴. Id. at 146.
¹⁵⁵. Id.
¹⁵⁶. Id.
¹⁵⁷. Id. at 148.
¹⁵⁸. Id.
¹⁵⁹. See supra notes 130-44 and accompanying text for a discussion of CERCLA cases regarding natural resource damages.
¹⁶⁰. Id.
¹⁶¹. See supra notes 16 & 47-93 and accompanying text for a discussion of cases
B. Alternative to a Diluted Causation Standard

At present, a majority of courts require a minimal causal nexus to satisfy the prima facie case in CERCLA actions for response costs.\(^{162}\) The same courts, however, typically require plaintiffs to demonstrate proximate cause in CERCLA actions for damages to natural resources.\(^{163}\) For the sake of doctrinal clarity and consistency, courts should impose a single causation standard under section 107(a).\(^{164}\) The standard that courts should require is the traditional notion of proximate cause.\(^{165}\)

First, CERCLA’s legislative history supports the use of proximate causation.\(^{166}\) The original House of Representatives bill that was to

indicating that a minimal causation standard would effectuate CERCLA’s goals. But see supra notes 136-44 and accompanying text for a discussion of CERCLA cases requiring proximate cause. For a discussion of the original version of the House report expressly requiring a proximate cause test, see supra note 28 and accompanying text.

162. See supra notes 16 & 47-93 and accompanying text for a discussion of CERCLA cases regarding response costs requiring only a minimal causal nexus for a plaintiff’s prima facie case.

163. See supra notes 130-44 and accompanying text for a discussion of CERCLA cases regarding recovery for natural resource damages.

164. See generally Weinstein, The Role of the Court in Toxic Tort Litigation, 73 GEO. L.J. 1389, 1391 (1985) (a single substantive controlling law will let the parties know what they will face in litigation).

165. See Huber, supra note 148, at 154. Huber reasons that “[t]he simplest and most readily available solution that is affordable, stable, and predictable is a return to rigorous standards of proof within the liability system. Regrettably, that also appears to be socially unacceptable to both the public and the courts.” Id. See also Black & Lilienfeld, Epidemiologic Proof in Toxic Tort Litigation, 52 FORDHAM L. REV. 732 (1984) (outlining elements of scientifically rigorous proof in toxic tort litigation); Epstein, Two Fallacies in the Law of Joint Torts, 73 GEO. L.J. 1377 (1985) (plaintiffs should return to traditional causation principles. Recent attempts to expand them through “market share liability” and “joint and several liability” concepts have proved economically inefficient). But cf. Elliott, Goal Analysis v. Institutional Analysis of Toxic Compensation Systems, 73 GEO. L.J. 1357, 1357 (1985). According to Elliott, “Criminal law should be used to deter wrongful behavior. Compensation should be available without proof of causation but such compensation would be limited and would operate outside the traditional tort system. Only those plaintiffs who can establish causation could utilize traditional tort remedies for toxic tort relief.” Id. See also, Symposium, Introduction, 73 GEO. L.J. 1355, 1355 (1985) (“Legal requirement of causation is irrelevant because judges and juries are effectively ignoring any such requirement in order to reach socially desirable results. Instead we should turn our attention to reconstructing our tort system around the idea of compensation.”); Weinstein, supra note 164, at 1389 (“The judiciary must help allocate compensation to victims of toxic torts. The judge should play the role of the manager of mass disaster litigation.”).

166. See supra notes 17-32 and accompanying text regarding CERCLA’s legislative history.
become CERCLA provided for proximate causation. Because the Ninety-Sixth Congress debated this issue during its closing days, assurance of CERCLA's passage demanded compromise. Many members of Congress feared that postponing CERCLA's enactment would result in less stringent legislation. Under the circumstances, this ambiguity-producing omission suggests at most that Congress intended for the judiciary to set the standard of causation under section 107.

In addition to effectuating congressional intent, a proximate cause test serves CERCLA's underlying policy of allowing a plaintiff to recover costs only from responsible parties. By requiring a causal nexus, courts will spare many innocent defendants from potentially crippling liability. That result would encourage businesses and industries involved with hazardous waste disposal to continue and expand operations rather than to shut down completely. Those businesses and industries, moreover, would continue to protect our environment and enhance our economic welfare. Thus, a proximate cause standard would enable a plaintiff to recover from responsible parties and increase the involvement of businesses in the treatment of hazardous waste.

Not only would a proximate cause test carry out congressional intent and policy, but also a uniform causation test would produce consistency and predictability in the law. First, section 107 is the only liability scheme in CERCLA. That suggests Congress intended only

167. See supra notes 27 & 28 and accompanying text for discussion of original House version of CERCLA.
168. See Grad, supra note 2, at 1-2.
169. See supra notes 17-32 and accompanying text for a discussion of CERCLA's legislative history.
170. See Huber, supra note 148, at 154. By requiring a plaintiff to demonstrate a causal nexus between each particular defendant's harm and the resulting injury to a plaintiff's facility, it is unlikely that innocent defendants will incur liability. Id. See supra notes 1-3 & 17-32 and accompanying text regarding CERCLA's legislative history and underlying policy concerns.
171. Weinstein, supra note 164, at 1391.
172. "If the government paid more attention to the mitigation of risk - - if it didn't leave Superfund liability hanging over everyone's head - - new companies would emerge to clean up." Morgenson & Eisenstodt, Profits Are for Rape and Pillage, FORBES, Mar. 5, 1990, at 100 (quoting Roger Feldman, head of project finance at the Washington, D.C. law firm of McDermott, Will & Emery).
173. Id.
one causation test to cover all CERCLA actions. Second, although a majority of courts have adopted similar minimal causation requirements in one-site cases where the remedy is response costs, courts in two-site cases apply a variety of tests. This disparity is patently unfair and may promote forum shopping. That eventuality defeats the purpose of enacting federal law. Therefore, a uniform proximate cause test for all CERCLA claims would put parties on notice regarding what they will face in litigation and what they can expect its outcome to be.

C. Conclusion

Courts should reverse the current trend of requiring a plaintiff to prove only minimal causation pursuant to CERCLA section 107. Instead, courts should strive for certainty and uniformity in CERCLA's application and require a plaintiff to demonstrate proximate cause in all CERCLA actions. As the government and private parties discover greater numbers of abandoned waste sites and initiate clean-up operations, litigation involving cost recovery certainly will increase. This underscores the need to promote CERCLA's underlying policies ensuring the prompt clean-up of disposal sites and the imposition of liability upon responsible parties. Adopting a proximate cause test would best effectuate CERCLA's purpose.

Julie L. Mendel*

---

174. See supra notes 94-129 and accompanying text for a discussion of two-site CERCLA cases.

175. Belthoff, supra note 1, at 163-65.

176. See supra notes 94-129 and accompanying text for a discussion of two-site CERCLA cases.

177. See supra notes 47-93 and accompanying text for a discussion of one-site CERCLA cases.


179. See supra notes 1-3 & 17-32 and accompanying text for discussion of CERCLA policy objectives and legislative history.

180. See supra note 165 and accompanying text for a discussion of possible CERCLA causation reforms.

* J.D. 1991, Washington University. I gratefully acknowledge my father, Vernon M. Mendel, Esquire, who inspired me to pursue the study of law.