HAZARDOUS WASTES: NEW RIGHTS AND REMEDIES?

THE REPORT AND RECOMMENDATIONS OF THE SUPERFUND STUDY GROUP

James R. Zazzali and Frank P. Grad***

This Article is an outgrowth of the § 301(e) Study Group Report. Summarizing the 800 page Report, the Article focuses on the essential findings and recommendations of the Study Group. It relies to a great extent on the detailed information and research material compiled in the preparation of the study. As a consequence, a significant portion of the Report is restated in this Article.

I. INTRODUCTION

In late 1980 the United States Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA)[1]. The legislation created what is now known as the Superfund, a trust fund to finance the expenditure associated with the cleanup of hazardous waste sites and toxic spills.[2]

CERCLA makes no provisions for the recovery of damages for personal injury and property damage resulting from exposure to hazardous wastes, although there was frequent reference to such individual injuries in the course of the legislative history.[3] An earlier bill discussed during the enactment of CERCLA provided for some such recovery,[4] including awards for the medical costs of injury,[5] but during the closing part of the 96th Congress, the "lame duck" session following the 1980 elections did not address these difficult issues.[6]

---

* B.S., Georgetown College; J.D., Georgetown Law Center; Chairman of the Superfund Study Group chartered by Congress; Former Attorney General for New Jersey; Currently an Associate Editor, New Jersey Law Journal; Partner, Zazzali, Zazzali & Kroll, Newark, New Jersey.

** B.A., Brooklyn College; J.D., Columbia Law School; Reporter for the Superfund Study Group; Joseph P. Chamberlin Professor of Legislation, Columbia Law School; Director, Legislative Drafting Research Fund, Columbia University.

[1] 42 U.S.C. §§ 9601-9657 (Supp. IV 1980).

[2] *Id.* § 9611.

[3] *E.g.*, S. REP. No. 848, 96th Cong., 2d Sess. 1, 13 (1980) (imposition of liability ensures "that those who caused chemical harm bear the cost of that harm"); *see* Grad, *A Legislative History of the Comprehensive Environmental Response, Compensation and Liability ("Superfund") Act of 1980*, 8 COLUM. J. ENVTL. L. 1 (1982).

[4] *E.g.*, S. 1480, 96th Cong., 1st Sess. § 4 (1980) [hereinafter cited as Senate Bill].

[5] *Id.*; Grad, *supra* note 3, at 13.

[6] *See* Grad, *supra* note 3, at 19.

Instead Congress, in section 301(e) of CERCLA, provided for the creation of a Study Group to deal with this contentious problem.[7] Congress authorized the Study and called for a Report precisely because the problem is a newly emerging one, involving some novel and serious injuries with extended latency periods, for which existing law offers few ready answers. It is clear from the provisions of section 301(e) that Congress was well aware of the difficulties likely to be encountered by private lawsuits for hazardous waste injuries. The Study Group authorization provides in part:

> (1) In order to determine the adequacy of existing common law and statutory remedies in providing legal redress for harm to man and environment caused by the release of hazardous substances into the environment, there shall be submitted to the Congress a study within twelve months of enactment of this Act.
>
> (2) This study shall be conducted with the assistance of the American Bar Association, the American Law Institute, the Association of American Trial Lawyers, and the National Association of State Attorneys General with the president of each entity selecting three members from each organization to conduct the study. The study chairman and one reporter shall be elected from among the twelve members of the study group.
>
> (3) As part of their review of the adequacy of the existing common law and statutory remedies, the study group shall evaluate the following:
>
> (A) the nature, adequacy, and availability of existing remedies under present law in compensating for harm to man from the release of hazardous substances;
>
> (B) the nature of barriers to recovery (particularly with respect to burdens of going forward and of proof and relevancy) and the role such barriers play in the legal system;
>
> (C) the scope of the evidentiary burdens placed on the plaintiff in proving harm from the release of hazardous substances, particularly in light of the scientific uncertainty over causation with respect to—
>
> (i) carcinogens, mutagens, and teratogens, and
>
> (ii) the human health effects of exposure to low doses of hazardous substances over long periods of time;
>
> (D) the nature and adequacy of existing remedies under present law in providing compensation for damages to natural resources from the release of hazardous substances;

---

[7] *See* Pub. L. No. 96-510, § 301(e), 94 Stat. 2767, 2807 (1980) (codified at 42 U.S.C. § 9651(e) (Supp. IV 1980)).

> (E) the scope of liability under existing law and the consequences, particularly with respect to obtaining insurance, of any changes in such liability;
>
> (F) barriers to recovery posed by existing statutes of limitations.
>
> (4) The report shall be submitted to the Congress with appropriate recommendations. Such recommendations shall explicitly address—
>
> (A) the need for revisions in existing statutory or common law, and
>
> (B) whether such revisions should take the form of federal statutes or the development of a model code which is recommended for adoption by the states.[8]

The United States Department of Justice requested that the four designated organizations appoint members to comprise the Study Group.[9] On June 8, 1981, the recently appointed members met at the Justice Department in Washington for their initial organizational meeting.[10]

The law which authorized the diverse composition of the Group indicates that no easy consensus was sought, but that Congress had intended to reflect a variety of interests in the Study Group. In fact, differing views and sharp dissensions on policy characterized many of the Group's deliberations.[11] It was probably also expected by some at

---

[8] *Id.*

[9] The following members of the Study Group were designated: by the American Law Institute: the Hon. Charles D. Breitel, Counsel, Proskauer, Rose, Goetz & Mendelsohn, New York, former Chief Judge of the New York Court of Appeals, Jeffrey O'Connell, Professor of Law, University of Virginia School of Law, and Professor Frank P. Grad; by the American Bar Association: Weyman I. Lundquist, Esq., Heller, Ehrman, White & McAuliffe, San Francisco, California, Frederick R. Anderson, Professor of Law, University of Utah College of Law, and George Clemon Freeman, Jr., Esq., Hunton & Williams, Richmond, Virginia; by the American Trial Lawyers Association: Richard F. Gerry, Esq., San Diego, California, President of ATLA, Norman J. Landau, Esq., New York, and Frederick M. Baron, Esq., Dallas, Texas; by the National Association of Attorneys General: Rufus L. Edmisten, Attorney General of North Carolina, Warren R. Spannaus, Attorney General of Minnesota, and former Attorney General of the State of New Jersey, James R. Zazzali. *See* Special Report to Congress, INJURIES AND DAMAGES FROM HAZARDOUS WASTES—ANALYSIS AND IMPROVEMENT OF LEGAL REMEDIES, IN COMPLIANCE WITH SECTION 301(e) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT OF 1980 BY THE "SUPERFUND SECTION 301(e) STUDY GROUP" Vols. I & II, 1, 17-18 (*reprinted as* Comm. Print for the Senate Comm. on Envtl. & Pub. Works, Serial No. 97-12, 97th Cong., 2d Sess., 1982) [hereinafter cited as REPORT]. The Study Group members were not expected to represent their respective designating organizations, nor were they expected to seek instruction or approval from those organizations.

[10] *Id.* at 18-19.

[11] *Id.* at 6-7.

the time of the enactment of the legislation that the differences in viewpoints among the four professional organizations which supplied the membership of the Group would lead to an inconclusive report. Nevertheless, the membership agreed that the public trust required the solution of the problem. Therefore, despite an inauspicious start and contrary to early expectations, the final Report reflects the substantial agreement of the Study Group.

The designees of the National Association of Attorneys General were the Attorneys General for New Jersey, Minnesota, and North Carolina. There were particularly compelling reasons for the designation of the New Jersey Attorney General. New Jersey's extensive experience with the toxic waste problem,[12] the autonomy which the New Jersey Attorney General possesses,[13] and the role which former New Jersey Attorneys General had played in the toxic waste area[14] indicate that the New Jersey Attorney General is in a position to make recommendations and judgments informed by experience in toxic waste issues.

When the Study Group met at the Justice Department in Washington on June 8 of 1981, it immediately and unanimously voted one of its members, the co-author, Professor Frank Grad, as Reporter for the Superfund section 301(e) Study Group.[15] The vote then took place for Chairman, a critical position in that the Chairman would be expected to provide focus to the deliberations on controversial questions. The difficulty of achieving agreement within the Group became

---

[12] *See* N.J. DEP'T OF ENVTL. PROTECTION, HAZARDOUS WASTE MANAGEMENT IN N.J. 3 (1982) (over 350 hazardous waste sites in New Jersey); OFFICE OF WATER AND WASTE MANAGEMENT, U.S. ENVTL. PROTECTION AGENCY, EVERYBODY'S PROBLEM: HAZARDOUS WASTE (1980) (Environmental Protection Agency estimates that New Jersey generates more hazardous waste than any other state); HAZARDOUS WASTE ADVISORY COMM'N REPORT TO GOVERNOR BRENDAN BYRNE 11 (1980) (approximately 10,000 generators of hazardous waste in New Jersey): *See generally* English, *Hazardous Waste Regulation: A Prescription For Clean Water*, 13 SETON HALL L. REV. 229 (1982).

[13] N.J. CONST. art. 5, § 4, para. 3 (creation of executive branch of government which includes nonelected Attorney General); *see* N.J. STAT. ANN. §§ 52:17A-4, :17B-4 (West 1970); *see also* Alexander v. New Jersey Power & Light Co., 21 N.J. 373, 380, 122 A.2d 339, 334 (1956); Keenan v. Essex County Bd. of Chosen Freeholders, 105 N.J. Super. 271, 280-81, 251 A.2d 785, 789-90 (Law Div. 1968).

[14] Attorneys General from this jurisdiction, in particular William F. Hyland, former President of the National Association, and John J. Degnan, have established a reputation for activism with the Association, especially with reference to toxic waste problems. This tradition continues under current Attorney General Irwin I. Kimmelman.

[15] Professor Grad, as law teacher and Director of the Columbia University Legislative Drafting Research Fund, has taught and written in the fields of environmental and public health laws. Additionally, he has amassed close to thirty years experience in legislative research and policy studies.

apparent from the first, when the meeting deadlocked three times in the vote for a Chairman. After the third vote, the other co-author happened to leave the room for a few minutes, and upon his return, was advised by the Study Group that he was the compromise choice as Chairman. He remained in that position in spite of his reluctance to assume the responsibility because he had only assumed the Office of Attorney General a few weeks earlier and had not as yet had the opportunity to gain a sound familiarity with the field.

The Study Group began its task by requesting the Reporter to prepare an outline of likely issues and problems encountered in the assertion of claims from injury arising from exposure to hazardous wastes. The discussion of these problems occupied the first several meetings of the Group. In the early stages of the Study, the Reporter and his staff at the Legislative Drafting Research Fund prepared numerous legal memoranda on available legal remedies and obstacles to recovery under both statutory and common law.[16] The discussion of such memoranda often suggested the need for further research, which would then be submitted to the Group members in advance of the next meeting. In the fall of 1981, based on Study Group discussions, the Reporter began to submit proposed segments of the final report to the Study Group for their consideration and analysis. In some instances, members of the Group prepared suggested revisions and redrafts of their own, to be discussed along with the Reporter's submissions. The process was detailed and thorough, and it is fair to say that no part or word of the final report escaped the detailed and critical review of the membership.[17]

As the preceding account of the procedures of the Study Group indicates, there was much opportunity for dialogue and debate. The debate was often intense, and sometimes heated, but invariably fruitful. The quality of the membership of the Group was exceptionally high, and though the individual members of the Group held strong convictions on a variety of subjects, they were also good lawyers, capable of compromise and yielding to persuasion. Although it is

---

[16] A major portion of the research memoranda is produced in REPORT, *supra* note 9, app. A-O.

The authors wish to acknowledge the assistance rendered by Patricia A. Porter, Associate Director of the Legislative Drafting Research Fund of Columbia University, and the student researchers whose names are referred to in REPORT, *supra* note 9, at 1. The authors also wish to acknowledge the assistance rendered to the Study Group by Edwin Stier, former Director of the New Jersey Division of Criminal Justice.

[17] The Study Group held meetings in different locations in the United States so as to facilitate as full attendance as possible. *See id.* at 19.

likely that no member of the Group concurred with the Report in its entirety, it is important to note that the Study Group, in spite of its diversity, managed to agree on most major recommendations, as well as on most matters of detail. While a number of members felt compelled to submit separate "Comments"[18] to the Report, these comments were generally concerned with specific aspects of the Report and did not dissent from the core of the two-tier remedial proposal.[19]

The Report of the Study Group, entitled *Injuries and Damages from Hazardous Wastes—Analysis and Improvement of Legal Remedies*, was transmitted on July 1, 1982, to Vice-President Bush, as President of the Senate, and Thomas P. O'Neill, Jr., as Speaker of the House.[20] It attempts to remain faithful to its congressional mandate, i.e., the study and analysis of available causes of actions for the recovery for personal injuries and property and environmental damage resulting from the exposure to hazardous waste, the examination of the adequacy of available remedies, and existing barriers to recovery, concluding with appropriate recommendations to the Congress. This Article will focus on the essential findings and recommendations of the Report. We will first summarize the findings and then restate the most significant portions of the recommendations.

II. Dimension and Complexity of Hazardous Waste Problem

The discussion of legal issues relating to injuries from hazardous wastes must proceed in a setting of factual and legal uncertainty.[21] Despite these uncertainties, the Study Group advised that a three step process be undertaken to assess the magnitude of the problem: 1) location of hazardous waste dump sites, 2) analysis of the contents of these sites, and 3) evaluation of the likelihood of exposure and injury from the sites.[22]

Currently, there are widely differing estimates on the number of sites that contain hazardous wastes.[23] These estimates range from a

---

[18] *Id.* at 7; *see infra* note 19.

[19] *See* Report, *supra* note 9, at 284-359. Even the two most critical comments supported the establishment of an administrative compensation remedy while preserving an opportunity for recourse to plenary common law actions. *See id.* at 295, 299 (comments of Charles D. Breitel); *id.* at 305, 308-10, 321-25 (comments of George C. Freeman, Jr.).

[20] Letter from Study Group to the Hons. George Bush and Thomas P. O'Neill (July 1, 1982), *reprinted in* Report, *supra* note 9, at 3 (giving brief description of format of Report).

[21] The uncertainty of the inquiry is increased by the fluctuating definitions of hazardous wastes and substances. Further complications are possible because the definitions differ for purposes of providing regulatory standards and allowing individual compensation. Report, *supra* note 9, at 24-25.

[22] *Id.* at 25.

[23] *Id.* at 21-22.

low of 4,802 sites, based on an industry sponsored study, to a high of 50,000 sites, based on a Government sponsored study.[24] Several factors contribute to the difficulty in achieving a consensus on site identification. For example, not only have sites been abandoned,[25] but there are inadequate records on past disposal practices.[26] Thus, some dumps may only be discovered by accident, others may never be discovered.[27]

Once a site is identified, analyzing the contents of the site presents additional barriers, because there are limitations inherent in the sampling process itself.[28] Since there exists a danger of substance release during sampling, only a finite number of samples can be taken.[29] These samples, therefore, may not reflect the contents of the entire site and thus, may not always prove accurate.[30] Moreover, present testing procedures cannot identify all chemicals and chemical byproducts.[31] Concurrently, determination of the level of toxicity to humans erects yet another obstruction in site identification.[32] Adverse health effects may not appear for fifteen or twenty years or longer

---

[24] *Id.* at 21. Chemical Manufacturer's Association (CMA) produced the low figure on the basis of a phone survey of state environmental agencies. *Id.* at 22. The CMA report provides no information on the method used by states to arrive at their reported figures, or whether the states submitted preliminary or final data. *Id.* Fred C. Hart Associates compiled the high estimate as a result of a study from EPA regional office reports. *Id.* The data collection resulted, primarily from an extrapolation of figures relative to only 232 sites combined with information on annual national output of hazardous waste. *Id.* Thus, both sets of figures are subject to serious doubt. *Id.*

[25] *Id.* at 25; *see* SUBCOMM. ON OVERSIGHT AND INVESTIGATION, HOUSE COMM. ON INTERSTATE AND FOREIGN COMMERCE, 96TH CONG., 1ST SESS., WASTE DISPOSAL SITE SURVEY, XXIV (Comm. Print 1979) [hereinafter cited as SUBCOMM. SITE SURVEY].

[26] REPORT, *supra* note 9, at 25-26. In a survey of the 53 largest chemical companies, on the average, most records dated back only to 1968. SUBCOMM. SITE SURVEY, *supra* note 25, at XIII. *See generally* Maugh, *Just How Hazardous Are Dumps?*, 215 SCIENCE 490 (1982).

[27] REPORT, *supra* note 9, at 26; *see* Langner, *Hazardous Wastes: Ghosts of a Prodigal Past*, 82 TECH. REV. 10 (1980) (industrial waste site containing substances dating back 100 years discovered during land development excavation).

[28] REPORT, *supra* note 9, at 26; *see also* SENATE COMM. ON ENV'T AND PUBLIC WORKS, 96TH CONG., 2D SESS., A REPORT FROM THE SURGEON GENERAL AND A BRIEF REVIEW OF SELECTED ENVTL. CONTAMINATION INCIDENTS WITH A POTENTIAL FOR HEALTH EFFECTS 24-25 (Comm. Print 1980). [hereinafter cited as REPORT FROM SURGEON GENERAL].

[29] REPORT, *supra* note 9, at 24.

[30] *Id.* at 45-50; *see Love Canal: Health Studies and Relocation Joint Hearings Before the Subcomm. on Oversight and Investigations of the House Comm. on Interstate and Foreign Commerce and the Subcomm. on Environment, Energy and Natural Resources of the House Comm. on Government Operations*, 96th Cong., 2d Sess. 32-33 (1980) (state-of-the-art insufficient to detect effects of hazardous waste disposal on human health).

[31] REPORT, *supra* note 9, at 45-50.

[32] *Id.* at 23. The level of the toxicity increases, for example, as the level of the substance increases in terms of quantity present at a site. Thus, " 'virtually all substances become toxic at sufficiently high levels.' " *Id.* (quoting Senkan & Stauffer, *What To Do With Hazardous Waste*, 84 TECH. REV. 34, 40 (1981)).

because of the long latency period which is often present.[33] If, during this latency period, an individual is exposed to other toxic substances, the causal link between the adverse health effects and any one hazardous substance is put into issue.[34] It is also possible that different wastes at one site will react synergistically to create a compound more toxic than any of the substances on their own.[35]

Once identification and analysis is completed, the final process involves evaluation of the likelihood of exposure and injury.[36] In conducting the evaluation it is necessary to examine several methods of exposure, including "direct contact, fire and explosion, groundwater contamination via leachate, surface water contamination via runoff or overflow, air pollution via open burning, evaporation and wind erosion and poison via the food chain."[37] Groundwater seepage is the most common mode of human exposure.[38] The determination of the path followed by pollutants in underground water is difficult and uncertain and prediction of the movement of underground plume of hazardous waste is equally unreliable.[39] Further, drilling of test wells for monitoring creates the risk of further aquifer contamination.[40] Monitoring for exposure becomes even more difficult because the base line concentrations of chemical substances are already high in certain population areas.[41] The scientific problem of estimating the number of victims is so great because the uncertainties multiply at each step of the process of determining the number of persons exposed and the causal link between exposure and injury.

It seems that government and scientific sources agree that it will be impossible to produce an accurate estimate of the number of hazardous waste injuries likely to emerge until more accurate information is gathered about the scope of the hazardous waste problem in general, and until scientific advances produce more concrete information about the relationship between exposure and injury. In spite of

---

[33] *Id.*

[34] *Id.*

[35] *Id.* The Study Group noted the importance in developing epidemiological studies capable of accurately assessing these unknown substances. *Id.* at 24 & n.18; *see* REPORT FROM SURGEON GENERAL, *supra* note 28, at 28-35.

[36] REPORT, *supra* note 9, at 27.

[37] *Id.* (quoting Hazardous Waste Fact Sheet, ENVTL. PROTECTION J., Feb., 1979, at 12)).

[38] *Id.* at 28. *See generally* U.S. COUNCIL ON ENVTL. QUALITY, CONTAMINATION OF GROUNDWATER BY TOXIC ORGANIC CHEMICALS (1981); R. DEWIEST, GEOHYDROLOGY 165-68 (1965).

[39] REPORT, *supra* note 9, at 29.

[40] *Id.*

[41] *See* Maugh, *supra* note 26, at 492-93.

strong efforts by the Study Group, little data, or even estimates, could be obtained on the actual number of persons exposed or the true magnitude of risk for serious injury and disease. Congress faced a similar situation during enactment of CERCLA. Just as Congress acted to protect against uncertain risks of injury, policy makers will need to make similar decisions on an assessment that is largely unquantifiable.

III. Analysis of Existing Legal Remedies and Barriers to Recovery

A. *Recurring Problems and Barriers*

The Study Group analyzed available common law and statutory remedies in considerable detail, drawing both on federal and state legal sources and authorities. In analyzing legal remedies for injuries and damages caused by hazardous wastes, the Study Group followed the direction of the Superfund and thus focused on remedial measures for releases of hazardous substances into the environment through wastes and spills.[42] Accordingly, the remedies discussed in the Report are limited to damages for personal injury, environmental damage, and property damages resulting from the spills of hazardous substances and improper disposal of hazardous waste.

The Study Group first focused on recurring problems that face an injured plaintiff regardless of the cause of action selected. These problems include the statute of limitations, the joinder or combination of parties, and the proof of causation. The statute of limitations presents a potential pervasive bar to recovery[43] in states which have not

---

[42] *Compare* Report, *supra* note 9, at 41 ("emphasis of this report . . . is on remedying the adverse consequences of improper disposal, improper transportation, spills, and improperly maintained or closed disposal sites") *with* Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-519, 94 Stat. 2767 (introductory statement) (purpose of Act is "[t]o provide for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and the cleanup of inactive hazardous waste disposal sites").

[43] "Statutory limitations periods are "designed to promote justice by preventing surprises through the revival of claims that have been allowed to slumber until evidence has been lost, memories have faded, and witnesses have disappeared. The theory is that even if one has a just claim it is unjust not to put the adversary on notice to defend within the period of limitation and that the right to be free of state claims in time comes to prevail over the right to prosecute them." American Pipe & Constr. Co. v. Utah, 414 U.S. 538, 554 (1974) (quoting Order of R.R. Telegraphers v. Railway Express Agency, Inc., 321 U.S. 342, 348-49 (1944)). *See generally* McGovern, *Toxic Substances Litigation in the Fourth Circuit*, 16 U. Richmond L. Rev. 247 (1982).

adopted a discovery rule. States applying a liberal discovery rule postpone accrual of the action until the plaintiff discovers or reasonably should have discovered the injury.[44] In the absence of a rule, the action accrues and the statute begins to run at the time of injury.[45] Since most personal injuries resulting from toxic waste exposure have a long latency period,[46] plaintiffs residing in states without a discovery rule may lose the right to bring a lawsuit before they learn of their injuries.[47] Determining the liability of defendants[48] and the appropriateness of joinder of defendants[49] are problems peculiar to the hazardous waste injury claims. During the long latency period of the injury,[50] use or ownership of the site is likely to have changed. Thus, the issue whether the present owner or user is responsible for the effects of conditions caused by an earlier owner or user needs to be resolved.[51] An inquiry arising from this problem is among whom should liability be apportioned.[52] Because a plaintiff will oftentimes be unable to identify which of several owners or users has contributed to his injury,[53] it is likely that the plaintiff will lose his case unless a theory of

---

[44] REPORT, *supra* note 9, at 43-44; *see, e.g.*, S.C. CODE ANN. § 15-3-535 (Law. Co-op Supp. 1980). Variations of the discovery rule include postponing accrual of the action until the plaintiff ascertains or reasonably should have ascertained the causal connection between the injury and exposure to the hazardous substance, *e.g.*, Warrington v. Charles Pfizer & Co., 274 Cal. App. 2d 564, 80 Cal. Rptr. 130 (Ct. App. 1969), or until the plaintiff realizes that he has a cause of action. *E.g.*, City of Miami v. Brooks, 70 So. 2d 306 (Fla. 1954); Lopez v. Sawyer, 62 N.J. 267, 300 A.2d 563 (1973).

[45] *See* REPORT, *supra* note 9, at 43.

[46] *See supra* note 23 and accompanying text.

[47] *See* REPORT, *supra* note 9, at 43.

[48] Proving causation is a plaintiff's most serious obstacle in establishing a defendant's liability. *See infra* notes 61-68 and accompanying text.

[49] A victim of hazardous waste exposure generally has a cause of action against one or more of the following: the disposer, the owner or lessee of land on which the hazardous condition exists, or a class of persons deemed responsible for the creation of the hazard. REPORT, *supra* note 9, at 46.

[50] *See supra* note 33 and accompanying text.

[51] REPORT, *supra* note 9, at 46.

[52] The general rule has been that a current owner not responsible for the condition is liable to injured parties if he knew or should reasonably have known of the condition on the land. RESTATEMENT (SECOND) OF TORTS § 373 (1965); *id.* § 804A (1979). The trend, however, is towards limiting the liability of current owners unless that owner associates himself with the maintenance or creation of the condition. *E.g.*, Philadelphia Chewing Gum Corp. v. Commonwealth, 35 Pa. Commw. 443, 387 A.2d 142 (Commw. Ct. 1978), *aff'd sub nom.* National Wood Preserver v. Commonwealth, 489 Pa. 221, 414 A.2d 37 (1980). A few states have enacted legislation imposing liability on a subsequent landowner not responsible for creating a nuisance but who fails to abate the hazardous condition. *See* CAL. CIV. CODE § 3483 (West 1980); IDAHO CODE § 52-109 (Bobs Merrill 1981); *see also* REPORT, *supra* note 9, at 46-53.

[53] *See supra* notes 49-51 and accompanying text.

joint liability is adopted,[54] or unless the burden of proof is shifted to the defendants to show which one caused the injury.[55]

Joinder of similarly situated plaintiffs[56] solves problems which arise in hazardous waste litigation. Because of the complexities inherent in hazardous waste cases,[57] the cost of pursuing an action erects a substantial barrier to a plaintiff's recovery. Joinder of plaintiffs reduces the cost of litigation to individual plaintiffs and avoids inevitable trial delays resulting from a large number of claims and repetitive

---

[54] *See, e.g.*, CAL. HEALTH & SAFETY CODE § 25363 (b) (West 1980); N.C. GEN. STAT. § 143-215. 94 (1978) (only statutes providing for apportionment among all persons controlling, causing, or contributing to discharge of hazardous wastes).

[55] *See* REPORT, *supra* note 9, at 39. At common law, to maintain an action the plaintiff has the burden of proving that it is more likely than not that the conduct of the defendant was a substantial factor in bringing about the injurious result. *See* W. PROSSER, LAW OF TORTS § 64, at 414-15 (4th ed. 1971). States have adopted different theories of liability which shift the "burden of apportionment." *See* REPORT, *supra* note 9, at 54-56. The concert of action theory holds that a party is liable if he performs tortious acts with others in pursuit of a common goal. *See* RESTATEMENT (SECOND) OF TORTS § 876(a) (1979). The conduct of the parties can imply an agreement, and parties properly joined under the theory are jointly and severally liable for damages to the plaintiff. *Id.* § 876(a) comment a. Under the theory, all defendants are jointly and severally liable for the plaintiff's injuries, and the burden switches to the individual defendants to prove their lack of responsibility for the injury. REPORT, *supra* note 9, at 56-58; *see* RESTATEMENT (SECOND) OF TORTS § 433B(2), (3) (1965). Alternative liability may be especially useful in hazardous waste cases in which several parties cause an injury that is theoretically apportionable but in reality indivisible, *see* Borel v. Fibreboard Paper Prods. Corp., 493 F.2d 1076 (5th Cir. 1974), or in a situation in which several tortfeasors were involved in an action but only one did in fact cause injury. *See* Summers v. Tice, 33 Cal. 2d 80, 199 P. 221 (1948). A problem with alternative liability is that it will not be applied unless all potential defendants are joined. REPORT, *supra* note 9, at 59; *see* Namm v. Charles E. Frosst & Co., 178 N.J. Super. 19, 31-32, 427 A.2d 1120, 1127-28 (App. Div. 1981).

A fourth theory, market share liability, is also similar to alternative liability. Market share liability does not require the defendants to have acted in concert, and switches to the defendants the burden of proving no responsibility for the plaintiff's injuries. *See* Sindell v. Abott Laboratories, 26 Cal. 3d 605, 607 P.2d 933, 163 Cal. Rptr. 140 (1980). Unlike alternative liability, however, all potential defendants need not be joined (only a substantial percentage of the market need be joined) and the defendant's liability would be limited to the percentage of the market of the hazardous material held by the particular defendant. REPORT, *supra* note 9, at 63-64. It is important to note, however, that the cause of action under which a plaintiff brings suit may affect whether a particular apportionment theory is applicable. *Id.* at 56. For a more detailed discussion of the four theories of apportionment of liability, see *id.* at 53-66.

[56] The issue of joining proper plaintiffs is less complex than proper parties defendant because the definition of the chosen cause of action generally defines who may recover in the action. *See* REPORT, *supra* note 9, at 67. Moreover, while the precise nature of injury may differ, elements of exposure or causation are generally similar enough to satisfy the "commonality of interest" requirement of joinder. FED. R. CIV. P. 20; *see* REPORT, *supra* note 9, at 67-68.

[57] *See supra* notes 21-43 and accompanying text.

presentation of medical and scientific evidence.[58] Several procedural devices may be employed for joinder of plaintiffs,[59] but these devices are not uniformly available.[60]

A major recurring issue, regardless of the particular cause of action, is that of proof of causation. The plaintiff must prove in each case that there is a causal nexus between the injury and the environmental condition for which the defendant is allegedly responsible.[61] The issue of proof of causation is rendered more difficult by a number of recurring circumstances. In the case of exposure to a hazardous waste disposal site, the plaintiff may find it difficult to pinpoint responsibility because the site has usually received a variety of hazardous wastes from a variety of sources over an extended period of time.[62] The problem will be rendered even more complicated because of the long latency periods frequently associated with injuries from hazardous waste exposures.[63] During a ten-to-forty year latency period, the site may have changed ownership several times—and the plaintiff too has probably moved about to different locations, thereby potentially exposing himself to a variety of other environmental influences or toxic exposure.[64] Proof of causation will require large amounts of

---

[58] REPORT, *supra* note 9, at 52-53. The cost of securing expert medical and scientific testimony necessary to prove causation is expensive and may be prohibitive to a single plaintiff. *See infra* note 46; *see also* Beshada v. Johns-Manville Prods. Corp., 90 N.J. 191, 447 A.2d 539 (1982).

[59] Federal rules (or analogous state rules) provide for voluntary joinder of parties sharing a "commonality of interests," FED. R. CIV. P. 20, and for the consolidation of similar actions for joint trial. FED. R. CIV. P. 42(a). Another approach to joinder of parties is the offensive use of collateral estoppel. *See, e.g.*, Hart v. American Airlines, Inc., 61 Misc. 2d 411, 304 N.Y.S.2d 810 (Sup. Ct. 1969).

Additionally, class actions have been used in pollution cases. *See, e.g.*, Pruitt v. Allied Chem. Corp., 85 F.R.D. 100 (E.D. Va. 1980) (toxic pollution of Chesapeake Bay); Biechele v. Norfolk & W. Ry., 309 F. Supp. 354 (N.D. Ohio 1969) (coal dust air pollution). A majority of the Group, however, maintained that the class action device is inappropriate in mass tort claims seeking damages for personal injuries. REPORT, *supra* note 9, at 68; *see* Yandle v. PPG Indus., 65 F.R.D. 566 (E.D. Tex. 1974) (class action inappropriate for massive tort claim because common questions did not predominate over uncommon questions and different legal theories advanced by plaintiffs and defendants); *see also* Note, *Mass Accident Class Actions*, 60 CALIF. L. REV. 1615 (1972). For a general discussion of class actions in the context of mass toxic torts, see REPORT, *supra* note 9, app. N, at 1-41.

[60] *See* REPORT, *supra* note 9, at 53-54.

[61] *See* RESTATEMENT (SECOND) OF TORTS § 430 (1965).

[62] See *supra* notes 25 & 26 and accompanying text.

[63] REPORT, *supra* note 9, at 70. Another difficulty in proving causation is the plaintiff's possible exposure to several hazardous environmental conditions, thus making it difficult to pinpoint which exposure caused the injury. *Id.*

[64] See *supra* notes 35-37 and accompanying text.

sophisticated medical and scientific testimony to demonstrate the epidemiologic or statistical correlation between certain diseases and certain environmental exposures. The nature of the exposure itself—whether by air, water, ingestion, inhalation or other contact—may require testimony, so as to show that the kind of exposure, its duration or frequency, and its intensity, could or did produce the kind of disease or injury suffered by the plaintiff. Medical testimony on the etiology of the disease is necessary to show how the particular substance caused the condition in issue.[65] Reliance on Government data[66] and creation of rebuttable presumptions such as those that exist under workers' compensation[67] may eventually serve useful probative purposes.[68] It is clear, however, that proof of the causal connection between exposure and injury is an almost overwhelming barrier to recovery, particularly in smaller cases (regardless of their merit) because the cost of mounting the massive probative effort and the arrays of technical and scientific evidence will be prohibitive.

B. *Available Statutory and Common-Law Causes of Action*

The Study Group examined virtually all federal and state statutory remedies and all common-law tort remedies available to private plaintiffs.[69] It found no federal statutes which expressly provide remedies for personal injury due to hazardous waste exposure in non-occupational settings.[70] Federal legislation does provide limited sources of funding for personal injury and property damage incurred as a result of environmental pollution, generally in the form of trust funds[71] or regulations requiring evidence of financial responsibility including liability insurance from owners and operators of hazardous

---

[65] REPORT, *supra* note 9, at 70-71; *see supra* note 58 and accompanying text; *see also* REPORT FROM SURGEON GENERAL, *supra* note 28.

[66] Various Government agencies collect scientific data in connection with the Federal Insecticide, Fungible, and Rodenticide Act, 7 U.S.C. §§ 135-136 (1976 & Supp. V 1981); the Toxic Substances Control Act, 15 U.S.C. §§ 2601-2629 (1976 & Supp. V 1981); the Federal Food, Drugs and Cosmetic Act, 21 U.S.C. §§ 301-392 (1976 & Supp. V 1981); the Occupational Health and Safety Act, 29 U.S.C. §§ 651-678 (1976 & Supp. V 1981); and the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-8987 (1976 & Supp. IV 1980).

[67] In workers' compensation cases, for example, the burden of proof to show that the claimant's injury did not arise at his employment is shifted to the defendant. *See, e.g.*, Rayford v. National Union of Hosp. & Nursing Home Employees, 56 A.D.2d 975, 394 N.Y.S.2d 738 (1977) (mem.).

[68] *See* REPORT, *supra* note 9, at 71.

[69] *Id.* at 72-117.

[70] *Id.* at 72-75.

[71] *See* 42 U.S.C. §§ 9611-9614, 9631-9641 (Supp. IV 1980).

waste disposal facilities.[72] Reliance on the federal common law of nuisance is severely limited in light of recent Supreme Court decisions holding that comprehensive water pollution control legislation preempted the federal common law of nuisance.[73] Moreover, following *Middlesex County Sewerage Authority v. National Sea Clammers Association*,[74] there is no basis for reliance on implied private rights of action derived from federal pollution control statutes.

State statutes creating a private right of action for damages caused by hazardous waste are rare. Only four states have enacted legislation establishing this cause of action,[75] while only one state has eased the plaintiff's burden of proof for causation.[76] Statutory causes of action for property damages resulting from hazardous waste disposal are equally restricted.[77] In a few states, relief is available from a fund established by hazardous waste legislation.[78] Two states have

---

[72] CERCLA, Pub. L. No. 96-510, § 108(b)(1), 94 Stat. 2767, 2786 (1980) (codified at 42 U.S.C. § 9608(b)(1) (Supp. IV 1980)); Resource Conservation and Recovery Act of 1976 (RCRA); Pub. L. No. 94-580, § 3004, 90 Stat. 2795, 2807-08 (codified at 42 U.S.C. § 6924 (1976)).

[73] REPORT, *supra* note 9, at 87; *see* Middlesex County Sewerage Auth. v. National Sea Clammers Ass'n, 453 U.S. 1 (1981); Milwaukee v. Illinois, 451 U.S. 304 (1981).

[74] 453 U.S. 1 (1981) (refusal to imply private cause of action absent contrary congressional intent when environmental statute expressly provides particular remedy).

[75] Alaska has adopted legislation which holds a party controlling hazardous substances strictly liable for damages caused whenever the substance enters the property of another. ALASKA STAT. § 46.03.824 (1980). North Carolina's legislation holds parties strictly liable for damages caused by discharge of hazardous materials into the state's waters. N.C. GEN. STAT. §§ 143-215.77(18), 143-215.93 (1980). North Dakota and Rhode Island have adopted a negligence per se approach which imposes liability on parties for hazardous waste damage when the parties acted in violation of states environmental laws. N.D. CENT. CODE § 32-40-06 (1980); R.I. GEN. LAWS § 23-19.1-22 (1980).

[76] Pennsylvania's solid waste management statute establishes a rebuttable presumption of causation for "all damages, contamination or pollution within 2500 feet of the perimeter of the area where the hazardous waste activities have been carried out." PA. STAT. ANN. tit. 35, § 6018.611 (Purdon Supp. 1982)).

[77] The four state statutes which create a cause of action for personal injuries resulting from hazardous waste disposal are equally applicable in claims seeking relief for property damage. *See supra* note 76. In addition to these four jurisdictions, Maine and Massachusetts have enacted legislation establishing a cause of action which is limited to claims for property damage resulting from hazardous waste disposal. ME. REV. STAT. ANN. tit. 38, § 1306-C(5) (Supp. 1981); MASS. ANN. LAWS ch. 21, § 27(14) (Michie/Law Co-op 1981). The Pennsylvania law easing the plaintiff's burden of proof in personal injury actions also applies to property damage actions. *See supra* note 76. A Massachusetts statute which has a similar provision easing a plaintiff's burden of proof of causation is limited to actions for property damage. MASS. ANN. LAWS ch. 21C, § 10 (Michie/Law Co-op 1980).

[78] For example, New Jersey has established a fund designed to pay for the cleanup of hazardous waste discharge which provides that "the fund shall be strictly liable . . . for all . . .

enacted legislation requiring operators and owners of hazardous waste sites to be able to compensate private parties who incur damages from hazardous waste disposal.[79]

Even if a state does not expressly create a private right of action, a plaintiff may rely on hazardous waste statutes as a vehicle for state courts to imply a cause of action against defendants found to be in violation of state hazardous waste laws.[80] Even if a court refuses to imply a private cause of action, it may find that a violation of a statutory standard establishes negligence per se.[81] Finally, absent a preemptive environmental statute, a number of states grant a private cause of action under state public nuisance laws.[82]

An examination of statutory remedies reveals that there is virtually no possibility of an effective private cause of action brought on the basis of a pollution control statute. Therefore, to recover for hazardous waste injuries, a plaintiff must currently rely on common-law tort causes of action. The Report examines these actions, including negligence, trespass, private and public nuisance actions, and strict liability.[83] It finds that all of them have some useful applications in suits for hazardous waste injuries—subject, however, to the usual barriers of proof of causation, statute of limitations, and allocation and apportionment of liability.

A private action for negligence could arise out of the improper disposal of hazardous wastes, improper transportation of such wastes,

---

damages" caused by the discharge. N.J. STAT. ANN. § 58:10-23.11g (a) (West 1982); *accord* FLA. STAT. ANN. § 403.725(1) (West Cum. Supp. 1983) (establishing fund to pay for property damage caused by hazardous waste disposal).

[79] FLA. STAT. ANN. § 403.724(1), (3) (b)-(d) (West Cum. Supp. 1981); OKLA. STAT. ANN. tit. 63, § 1-2008(B) (West Cum. Supp. 1982-1983). Eleven other states require some evidence of financial responsibility, however, only five of these states require finances to be available for liability, and "liability" is left largely undefined. *E.g.*, MISS. CODE ANN. § 17-17-27(1)(h) (Cum. Supp. 1982). *See generally* REPORT, *supra* note 9, app. E, at 4-5.

[80] REPORT, *supra* note 9, at 90; *cf.* Sherman v. Field Clinic, 74 Ill. App. 3d 21, 28-29, 392 N.E.2d 154, 161 (App. Ct. 1979) (finding implied cause of action against defendant violative of state debt collection statutes).

[81] *See* Orthopedic Equip. Co. v. Eutsler, 276 F.2d 455 (4th Cir. 1960) (violation of duty created by Federal Food, Drug, and Cosmetic Act is negligence per se under Virginia common law); Freeman v. Olin Corp., CV 80-M-5057 (N.D. Ala. Aug. 14, 1981) (violation of duty created by Alabama Pesticide Act establishes claim of negligence per se); *see also* W. PROSSER, *supra* note 55, § 36, at 200-04. Some jurisdictions held that violations of statutory standards merely establish some evidence of negligence. *Id.* § 36, at 201; *see also* Morris, *The Relation of Criminal Statutes to Civil Liability*, 46 HARV. L. REV. 453 (1933).

[82] For a list of the states granting a private cause of action under a public nuisance statute, see REPORT, *supra* note 9, app. H, at 18-19. Five states limit a plaintiff's remedy to abatement of the nuisance. *Id.* app. H, at 20.

[83] *Id.* at 96-132. *See generally* F. GRAD, TREATISE ON ENVIRONMENTAL LAW § 4A.05 (1981).

the occurrence of negligently caused spills, and the negligent contamination of water.[84] Negligence focuses on conduct in breach of a duty of due care rather than on conditions.[85] Thus, to establish a cause of action in negligence, one must show that the defendant was under a duty to conform to a standard of conduct, that he breached the established duty, that the conduct was the proximate cause of the injury, and that the plaintiff suffered actual loss or damage.[86]

The cause of action for trespass has some significant applications in private actions involving air pollution and runoff of liquid wastes or contamination of groundwater. The nature and characteristics of trespass, however, belie its effectiveness as a remedy in hazardous waste cases. Trespass requires an invasion with another's exclusive possessory interest in land.[87] Thus, if the injury is unrelated to the invasion of property or if the plaintiff is not in possession of the property, he cannot sue in trespass. In addition, the defendant must intentionally, negligently, or as a result of hazardous activity cause the interference with another's property.[88]

A private nuisance is an unreasonable interference with a plaintiff's use and enjoyment of his land.[89] The resolution of private nuisance cases requires a balancing of the equities, i.e., a weighing of the plaintiff's interest against the social and economic utility of the defendant's activities which cause the interference.[90] A private plaintiff may sue for damages flowing from a public nuisance, defined as an unreasonable interference with a general right of the public,[91] only if his injury differs in kind from that suffered by the general public.[92]

The Study Group concluded that strict liability for injury due to hazardous waste is the most viable theory of recovery because of the dangerous nature of hazardous waste disposal.[93] Widespread acceptance of strict liability in theory, however, has not meant uniform application of the principle.

---

[84] REPORT, *supra* note 9, at 97.

[85] W. PROSSER, *supra* note 55, § 31, at 145.

[86] *Id.* § 31, at 143.

[87] *Id.* § 13, at 69.

[88] RESTATEMENT (SECOND) OF TORTS §§ 158, 165 (1965). *But see* REPORT, *supra* note 9, app. I, at 1-2 (discussing advantages of trespass cause of action).

[89] RESTATEMENT (SECOND) OF TORTS § 821D (1979); *see, e.g.*, King v. Columbia Carbon Co., 152 F.2d 636 (5th Cir. 1945).

[90] Boomer v. Atlantic Cement Co., 26 N.Y.2d 219, 256 N.E.2d 870, 309 N.Y.S.2d 312 (1970).

[91] RESTATEMENT (SECOND) OF TORTS § 821B (1) (1979).

[92] *Id.* § 821C(1).

[93] REPORT, *supra* note 9, at 110, 130.

Four general strict liability formulations have developed among the several states. Each formulation focuses on different factors in a strict liability inquiry.[94] An early formulation of the doctrine, strict liability for a "non-natural" use of land, considered the appropriateness of the activity by reviewing the manner and relationship of the activity to its surrounding.[95] Courts applying this formulation must, therefore, balance the competing interests of the parties. Courts also engage in balancing in cases decided under a second formulation of strict liability—the "ultrahazardous" doctrine of the *Restatement*.[96] This formulation, emphasizing unavoidable risk and unusual usage, shifts the focus of the inquiry from the locale of the activity to the dangerous nature of the activity.[97] The *Restatement (Second)* formula of strict liability, adopting an "abnormally dangerous" activity test,[98] requires a balancing of numerous factors such as the utility of the activity, the foreseeability of harm, and the appropriateness of the locale of the activity.[99] The Study Group concluded that this form of strict liability takes on some of the characteristics of negligence. It also encourages a determination of liability on a case-by-case basis, which tends to complicate and prolong litigation.[100] A recent formulation of strict liability focuses on the "magnitude of the risk" of harm created by the activity.[101] Rejecting notions of fault, duty of care, and responsibility inherent in earlier formulas, this application concentrates on risks actually created, and not just risks and benefits known when the action occurred.[102]

The Study Group indicated its preference for a formulation of strict liability based on the magnitude of the risk, deemphasizing such elements as the locale of the activity or the foreseeability of harm relied on in alternative applications of the doctrine.[103] A magnitude of the risk theory seems especially appropriate in cases of hazardous

---

[94] *Id.* at 110.

[95] *See* Rylands v. Fletcher, L.R. 3 (H.L. 330) (1868) (original formulation of "non-natural" use doctrine).

[96] RESTATEMENT (SECOND) OF TORTS §§ 519-520 (1977).

[97] REPORT, *supra* note 9, at 116.

[98] RESTATEMENT (SECOND) OF TORTS §§ 519 comment b, 520 & comment a (1977).

[99] *Id.* § 520.

[100] REPORT, *supra* note 9, at 120.

[101] *See* New Jersey v. Ventron Corp., No. C-2996-75 (N.J. Super. Ct. Ch. Div. Aug. 27, 1979), *modified and remanded*, 182 N.J. Super. 210, 440 A.2d 445 (App. Div. 1981).

[102] REPORT, *supra* note 9, app. K, at 12-13.

[103] *Id.* at 123.

waste disposal in which the risk is great and the environmental damage ubiquitous.[104]

The Study Group's analysis emphasized the application of strict liability to spread the costs of injury and to impose liability on those who economically benefit from the polluting activity[105] and who are in the best position to reduce or eliminate the risk.[106] As in the case of products liability, reliance on strict liability eases the economic burden on those harmed and provides greater predictability of liability.[107] The Report noted, however, that a theory of strict environmental liability does not resolve the problem of proof of causation,[108] and it is not at all clear that all states would impose strict liability for damages caused by hazardous waste.[109]

The Study Group concluded that although causes of action do exist for some plaintiffs under some circumstances, *a private litigant faces substantial barriers in an action for damages from hazardous waste exposure, particularly where the individual claims are small.*[110] The difficulty of recovery for valid claims is magnified by procedural barriers and by the cost of litigation, with proof of causation affecting every aspect of the litigation process.[111] Plaintiffs who are willing to undertake the major costs of litigation would be aided substantially by an easing of burdens in regard to causation, apportionment of damages, and statutes of limitations.[112] Persons with smaller claims, however, are unlikely to recover at all unless further steps are taken to reduce both legal and economic barriers to their recovery.[113] This supplies the basis for the Tier One compensation remedy recommended by the Study Group in Part IV of the Report.

---

[104] *Id.* The Study Group noted that hazardous waste exposure most likely always causes some damage to humans and the environment; the only issue is how much damage. *Id.*

[105] *Id.*; *see* Beshada v. Johns-Manville Prods. Corp., 90 N.J. 191, 206-07, 447 A.2d 539, 547-48 (1982); Calabresi & Hirschoff, *Toward a Test for Strict Liability in Torts*, 81 YALE L.J. 1055, 1060 (1972).

[106] REPORT, *supra* note 9, at 124; *see* R. POSNER, ECONOMIC ANALYSIS OF LAW 1-10 (1972); W. PROSSER, *supra* note 55, § 75, at 495. *See generally* Calabresi, *Some Thoughts of Risk Distribution and the Law of Torts*, 70 YALE L.J. 499 (1961).

[107] REPORT, *supra* note 9, at 124.

[108] *Id.*

[109] *Id.* app. K, at 3.

[110] *Id.* at 130.

[111] *See id.* at 131.

[112] *Id.* at 132.

[113] *Id.*

IV. The Recommendations of the Superfund § 301(e) Study Group

To summarize the recommendations briefly, the Study Group issued a two-tier remedial proposal. The first step of the proposal, Tier One, provides no-fault compensation for personal injury resulting from hazardous waste, to be managed by the several states under a federal program.[114] This compensation plan, operating in a similar manner to workers' compensation, would provide full recovery for a person's medical expenses and, with certain limits, recovery for two-thirds of a person's loss of earnings. Death benefits for close surviving dependents would also be provided. In addition, injured persons would have the choice of proceeding with a personal injury claim under existing tort law, but the amount of any compensation award recovered by the claimant in Tier One must be deducted from, and be paid back out of, any judgment or settlement in a Tier Two plenary action.[115] A person electing to seek compensation under both tiers must repay the Tier One compensation award out of any payment obtained in the personal injury action. A person who recovers under both tiers would also be required to pay certain costs if the court found that the settlement or award in Tier Two did not substantially exceed the compensation award at Tier One. This provision is intended to avoid frivolous claims.[116]

A number of recommendations are addressed to the states to improve available tort remedies. Although the Proposal does not provide for no-fault compensation for private property and environmental damage under Tier One, the Study Group recommended that procedural and substantive improvements also be adopted in these actions. The Study Group further recommended that more Superfund monies be allocated for state cleanup of hazardous waste sites than has been available in the two years since passage of the Superfund legislation. Finally, the Group urges that more preventive measures be implemented to avoid the need for remedial action.

---

[114] *Id.* at 193-254.

[115] While the Study Group unanimously recommended a two-tier approach, the difficult issue of access from Tier One to Tier Two was resolved by a 9 to 3 vote holding that recovery at Tier One should not bar access to Tier Two. *Id.* at 197-98. Alternatives such as binding election between the two tiers and unlimited access to both tiers were suggested by individual members. *Id.* at 200-01. The membership realized that a dual recovery scheme without limits would increase the cost to the system. A plaintiff with unlimited access to both systems would be free to gamble on a lawsuit after already recovering administrative compensation. *Id.* at 201-02. A number of members of the Group would have preferred to leave access to Tier Two to judicial discretion after compensation had been awarded at Tier One. *Id.* at 286-88 (Joint Statement of Messrs. Anderson, Breitel, Freeman & O'Connell).

[116] *Id.* at 198. If the action at Tier Two does not result in a judgment or settlement which exceeds the total amount of the compensation award by 25% or more, the judge would have the discretion to assess the costs of the action and expert witnesses against the plaintiff. *Id.* at 197-98.

The material which follows discusses the major aspects of the Group's Ten Recommendations. The Recommendations establish a two tier recovery system. The Second through Eighth Recommendations apply solely to Tier One compensation. The Ninth and Tenth Recommendations address Tier Two tort claims.

The Report's First and Second Recommendations establish a standardized method by which injury claims for hazardous waste exposures are intitiated. The Study Group recommended the Tier One compensation system in order to overcome the substantial obstacles faced by an injured person bringing a lawsuit, and in recognition of the present judicial system's inability to deal with a large number of claims. Tier One is a risk sharing system[117] operating somewhat like employment-related, workers' compensation insurance systems.[118] The proposed compensation system is clearly not work-related, however, and covers all persons exposed to hazardous wastes in a non-occupational manner.[119]

The Tier One remedy provides compensation without a showing of fault.[120] The administrative compensation plan is to be established by federal legislation,[121] but would mainly be operated by the states pursuant to federal law.[122] The purpose of the plan is to provide certain, though limited, compensation to meet the medical and eco-

---

[117] *See infra* notes 138-42 and accompanying text.

[118] In New Jersey, for example, workers' compensation is funded by an industry wide contribution system, N.J. STAT. ANN. § 34:15-94 (West 1959), and an uninsured employer default assessment. *Id.* § 34:15-79.

[119] REPORT, *supra* note 9, at 209. The Study Group specifically recommended that forthcoming legislation expressly exclude injury due to occupational exposure. *Id.*; LARSON, THE LAW OF WORKMEN'S COMPENSATION § 65.10 (state statutory workers' compensation remedy intended as sole relief for occupational injury or disease). *See generally* Note, *Compensating Victims of Occupational Diseases*, 93 HARV. L. REV. 916 (1980) (overview of existing schemes for occupational disease victims).

[120] REPORT, *supra* note 9, at 196. Proposals have also been made for the use of no-fault rationale in other areas. *See, e.g.*, Ehrenzweig, *Compulsory "Hospital-Accident" Insurance: A Needed First Step Toward the Displacement of Liability for "Medical Malpractice,"* 31 U. CHI. L. REV. 64 (1964) (no-fault liability in medical field); O'Connell, *Expanding No-Fault Beyond Auto Insurance: Some Proposals*, 59 VA. L. REV. 749 (1973) (no-fault liability in products liability, medical malpractice, and other torts). *But see* Corboy, *The Expanding Universe of Jeffrey O'Connell: Backing Into A Brave New World*, 1976 U. ILL. L.F. 74.

[121] REPORT, *supra* note 9, at 240. The Report proposed that a federal agency be assigned the task of overseeing the state's compliance with the federal law. Suggested federal agencies included the Environmental Protection Administration and the Social Security Administration. *Id.*

[122] *Id.* at 206. This method is utilized throughout federal legislation. *See, e.g.*, Clean Water Act, 33 U.S.C. § 1342 (1976 & Supp. V 1981) (state implementation of National Pollutant Discharge Elimination System); Clean Air Act, 42 U.S.C. § 7410 (Supp. IV 1980) (state implementation plans for national primary and secondary ambient air quality standards).

nomic needs of injured persons, in addition to a prompt method of recovery and cost allocation.[123]

The Tier One compensation system would cover injuries resulting from exposure to hazardous waste sites, improper transportation and spills, excluding occupational exposure covered under the workers' compensation system. The coverage of the plan would thus be coextensive with the coverage of CERCLA.[124] Compensation would be available both for exposure to old, or even abandoned "orphan" sites, for which no present opportunity for recovery exists, as well as to active or new sites.[125]

The Third Recommendation outlines a proposed filing process. The claimant must file the claim no later than three years after discovery of the injury,[126] so as to respond to the long latency periods of many hazardous waste injuries.[127] The provision would apply whether the discovery of the injury occurred before or after the effective date of the federal law that would establish the compensation plan. To establish a claim, the claimant must offer proof of exposure, proof of disease or injury, and proof of causation.[128] Proof of causation is to be eased considerably by reliance on appropriate rebuttable presumptions.

The Fourth Recommendation suggests adoption of two kinds of rebuttable presumptions. The first rebuttable presumption requires a showing that the defendant was *engaged* in a waste activity, the claimant was *exposed* to such waste, and the claimant *suffered* a resulting injury.[129] Upon proof that the claimant was *exposed to a waste and suffered injury which is known to result from such exposure,* the rebuttable presumption then arises that the exposure proximately caused the death, injury, or disease, and that the source of such exposure was responsible.[130] Presumptive proof that the injury is known to result from such exposure could also be demonstrated by reliance on Toxic Substance Documents, to be prepared by the federal agency authorized to administer the compensation system, on the

---

[123] REPORT, *supra* note 9, at 206; *see infra* notes 141 & 142 and accompanying text.

[124] REPORT, *supra* note 9, at 207; *see supra* note 42 and accompanying text.

[125] REPORT, *supra* note 9, at 208.

[126] *Id.* at 209. The Study Group adopted the rule that the claim must be brought within three years after the disease or injury and its cause were discovered or reasonably should have been discovered. *Id.*

[127] *Id.*

[128] *Id.* at 209-10. Diagnostic proof can be aided through the use of the disease registry established under CERCLA, 42 U.S.C. § 4604(i) (Supp. IV 1980).

[129] REPORT, *supra* note 9, at 213-14.

[130] *Id.* at 214.

basis of scientific data, and adopted in accordance with established administrative standards.[131] These documents would be relied on exclusively in a Tier One recovery.[132] Such a document could also be relied on to provide presumptive rebuttable proof of such other aspects of the disease as its disabling effect, likely duration and other consequences. The issue of the use of presumptions proved to be difficult and is discussed at great length in the Report, as it was by the Study Group.[133]

The Fifth Recommendation proposed that the compensation award provide full recovery of all reasonable medical expenses and an amount for loss earnings (*not* limited to wages or salary). Recovery would be limited to two-thirds of regular earnings, up to a limit set by Congress, suggested under current economic conditions at $2,000 per month, for as long as the disability continues.[134] The amount is to be reduced by collateral receipts from other public programs, such as Medicare and Medicaid.[135] Provision is also made for death benefits and injuries, such as genetic damage, that are not recognized under present tort law.[136] Pain and suffering, however, are not compensible under Tier One.[137] The compensation award recommended would fully compensate members of the public with incomes of $36,000 or less (after taxes). The purpose was to provide full compensation for persons below the level at which they would be likely to provide their

---

[131] Toxic Substance Documents will be based upon scientific studies and incorporate information collected in connection with other federal regulations. Each document would be a compilation of evidentiary data on specific hazardous substance or waste and the health dangers each presents. The Group suggested inclusion of elements of exposure, the disease or diseases resulting from exposure, and independent factors related to exposure and disease. *Id.* at 214-19.

[132] *Id.* at 217. Concern was expressed that the use of rebuttable presumptions might facilitate unduly the recovery of judgments in a Tier Two action and create more evidentiary barriers for a litigant than these presumptions would resolve. *Id.* at 218; *see infra* note 151 and accompanying text.

[133] REPORT, *supra* note 9, at 214. For a general discussion of the various legal aspects, constitutional limitations, and analogous use of presumptions, see *id.* at 220-33, app. M, at 1-22.

[134] *Id.* at 234. The Recommendation proposed that the claimant should be entitled to additional compensation for injury discovered after the Tier One proceeding. *Id.* at 234-35.

[135] REPORT, *supra* note 9, at 234. A minority of members of the Group had recommended that other collateral sources, such as private insurance proceeds, also be deducted. *Id.* at 238. *See generally* Fleming, *The Collateral Source Rule and Loss Allocation in Tort Law*, 54 CAL. L. REV. 1478 (1966); Note, *Unreason in the Law of Damages: The Collateral Source Rule*, 77 HARV. L. REV. 741 (1964); Comment, *The Collateral Source Rule: Double Recovery and Indifference to Societal Interests in the Law of Tort Remands*, 2 U. PUGET SOUND L. REV. 197 (1978).

[136] REPORT, *supra* note 9, at 234. Death benefits would be awarded to dependents in an amount related to the decedent's regular earnings and normal life expectancy and the degree of dependency of claimants. *Id.*

[137] *Id.* at 235.

own income protection by insurance. This would also have the result of disposing of more claims at Tier One rather than proceeding to Tier Two.

The Sixth Recommendation characterized the program as a grant-in-aid scheme. States which assume the administration of the program would thus be entitled to contribution to the cost of its administration from federal grants.[138] The states would use their own compensation machinery, subject to federal review, to see that the objectives of the program are achieved.[139] After payment of the compensation claim, the state agency would be subrogated to the rights of the claimant. States would then be in a position to assert the claim against the owner, lessee, or user of the disposal site, or against any other party responsible for causing the condition that resulted in the exposure.[140] Foreseeing problems of retroactivity, the Group recommended that subrogation claims only be asserted prospectively. Older claims, therefore, would be paid out of the fund without subrogation.[141]

The Seventh Recommendation provides for the creation of a fund from industry contribution to finance Tier One compensation awards. This fund would be analogous to CERCLA's Superfund, subsidized by federal contributions or taxes, and replenished to some extent through the collection of subrogation claims.[142]

Finally, the judicial review of compensation awards is contained in the Eighth Recommendation. The Study Group recommended that the adequacy and grant or denial of a compensation award be subject

---

[138] The suggested contribution is as follows: 80% federal, including legal expenses, and 20% state. *Id.* at 234.

[139] *Id.* at 240. It was suggested that federal supervision could be patterned after the NPDES program of the Clean Water Act, 33 U.S.C. § 1342 (1976 & Supp. V 1981), or the permit program of RCRA. 42 U.S.C. § 6925 (1976 & Supp. IV 1980). *See generally* REPORT, *supra* note 9, at 240-43. Federal powers would be limited, thus leaving much discretion to the state. *Id.* at 241.

State agencies such as workers' compensation boards or environmental control agencies may be utilized to implement the program as long as the goal of nationwide uniformity is maintained. *Id.* at 242.

[140] REPORT, *supra* note 9, at 241.

[141] *Id.* at 241-45. For a discussion of the constitutional issues raised by retroactivity, see *id.* app. L, at 285-305.

[142] *Id.* at 245-46. Similar to CERCLA, the fund should be established by contributions from, or taxes on, the production of hazardous or toxic chemicals and crude oil, and by a tax on the deposit of hazardous wastes. Further study is recommended to establish whether the class of industries taxed under CERCLA should be expanded. *Id.* at 245. In addition, Congress should consider increasing the tax on industries or seeking contributions from general revenues should the fund become depleted. *Id.* at 247.

to judicial review by the appropriate state court.[143] In addition, a claimant would be entitled to appeal the state court's interpretation of the forthcoming federal guidelines. A reversal of the state court by the federal supervisory agency would be subject to review in the federal court of appeals for the circuit in which the state is located.[144]

The Ninth and Tenth Recommendations discuss the Tier Two proposal, suggesting necessary revisions to common-law and statutory remedies for hazardous waste exposure. Similar to Tier One, the Ninth Recommendation urges the unified adoption of a discovery rule, i.e., that the cause of action accrues from the time the plaintiff discovers or should have discovered the injury and its cause.[145] The Study Group also recommended the adoption of liberal joinder rules so as to allow complex issues of causation and liability to be tried together, leaving such issues as individual damages to separate trial if necessary.[146]

Substantive and procedural rules should be revised to shift the burden of damage apportionment to the defendants proven to have contributed to the risk or injury.[147] Additionally, revision should include the adoption of a rule of joint and several liability.[148] Moreover,

---

[143] *Id.* at 252. State courts would review the compensation award according to the provisions prescribed in § 706 of the Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (1976).

[144] REPORT, *supra* note 9, at 252. In the interest of national uniformity, questions relating to interpretation of the federal guidelines are appropriately subject to federal review. *Id.* at 253-54.

[145] *Id.* at 256. The Recommendation is intended to cover the repeal of the statutes of repose which have the same effect as statutes of limitations in barring claims. *Id.*

[146] *Id.* at 256-57; *see supra* notes 56-60 and accompanying text.

[147] REPORT, *supra* note 9, at 258. The Study Group expressed the view that an expanded approach to the "concert of action" theory of apportionment would be the most appropriate approach in a hazardous waste case. *Id.* at 262; *see supra* note 55. In addition to adopting a theory of apportionment, alternative approaches such as "channelling" responsibility to a designated party should be examined by the several states. *See* Price-Anderson Act, 42 U.S.C. § 2210 (1976 & Supp. IV 1980).

Concern was expressed over the impact on the insurance industry which would be generated by the imposition of strict liability on numerous firms or by channelling apportionment to a single, hazardous waste handler. The Study Group obtained the opinion of eight insurance specialists regarding the feasibility of insuring liabilities under these proposals. REPORT, *supra* note 9, at 173-87. Comments from the specialists were generally positive and there were no assertions that the industry could not or would not insure the liabilities. *Id.* at 174. The specialists did express concern with unlimited access to Tier Two because of the potential prohibitory expenses and concluded that a system calling for binding election between the two remedies would be more readily insurable. *Id. See generally* Schmalz, "Superfunds" and "Tort Law Reform"—Are They Insurable (report to § 301(e) Study Group) (copy in the file of the Columbia University Legislative Drafting Research Fund).

[148] REPORT, *supra* note 9, at 258. The Report recommends that any revision of apportionment contain a *de minimus* exception—a "one drum defense"—to provide the necessary element of fairness to joint and several liability. *Id.*

laws relating to a landowner's obligations for the maintenance of hazardous waste condition and the issue of a subsequent owner's responsibility should be clarified.[149] Finally, the Ninth Recommendation proposes that the several states apply a theory of strict liability which would focus on the nature of the hazardous waste activity and the magnitude of the risk of injury.[150] The Report, however, rejects extensive use of Tier One rebuttable presumptions[151] and class suits in a Tier Two personal injury claim.[152]

The Tenth Recommendation addresses the problems peculiar to actions for environmental and private property damage. The Study Group found that property-related actions, involving less complex medical and scientific issues, do not require the rapid resolution necessary for issues relating to personal injury.[153] Therefore, the Group recommended that environmental and property damage claims be subject to state review under state law.[154] Nevertheless, recognizing the farreaching environmental impact of hazardous waste, the Group recommended that states adopt the appropriate procedural and substantive changes suggested in the Ninth Recommendation. In addition, the Group suggests that class actions may be more suitable to private property damage claims.[155] The Tenth Recommendation further suggests that states develop remedial actions to provide relief for property damage which is not effectively recoverable in individual suits. Individual suits do not effectively provide relief for certain property damage.[156] Consequently, states must develop remedial programs[157] and assert claims against the Superfund[158] to compensate

---

[149] *Id.* at 259. The Recommendation does not suggest that an owner without knowledge of or consent to the condition be subject to liability. *Id.*

[150] *Id.* at 260; *see supra* notes 101-09 and accompanying text.

[151] The Study Group indicated that the application of rebuttable presumptions in a court proceeding concerning hazardous waste injury should be left to the development of the several states. It was noted, however, that state courts might consider the proposed "Toxic Substance Documents," see *supra* notes 131 & 132 and accompanying text, as valid evidentiary authority in a personal injury suit. REPORT, *supra* note 9, at 265.

[152] *Id.* at 261; *see supra* note 59.

[153] REPORT, *supra* note 9, at 268-69.

[154] *Id.* at 267.

[155] *Id.*

[156] *Id.* at 269; *see supra* note 89.

[157] For instance, the construction of water supply systems to replace contaminated well water would be a more efficient remedy than compensating individual landowners in private suits. *See* REPORT, *supra* note 9, at 268.

[158] The Report suggests two means of asserting claims against Superfund. Section 111 (b) and (c) of CERCLA provide reimbursement to the states for the costs of replacing destroyed natural resources and such public environmental assets as the waters and subsurface waters of the state. 42 U.S.C. § 9611(b), (c) (Supp. IV 1980). In the alternative, states could seek replacement of

adequately private landowners for their property loss. The Study Group concluded its recommendations by urging the Federal Government to intensify its commitment to the Superfund and clarify its intent to make monies available to states undertaking the cleanup of hazardous waste sites.[159]

V. The Response to the § 301(e) Study Group Report

Unlike many committee study reports which die aborning, the § 301(e) Study Group Report has clearly contributed to the congressional awareness of the hazardous waste problem. Two recent bills introduced evidence this awareness, as well as demonstrate congressional appreciation of the factual and legal complexities surrounding the problem.[160]

The first bill, the Environmental Poisoning Compensation Act, was introduced by Senator George Mitchell (D-Maine) on July 15, 1981,[161] and again introduced on September 30, 1982,[162] by Senator Robert Stafford (R-Vermont) as an amendment to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).[163] The Mitchell/Stafford bill would amend the Superfund law to cover personal injuries from any release of a hazardous substance.[164] Although the Report was recognized as a "benchmark in developing legislation to help thousands . . . exposed to poisonous toxic chemicals,"[165] the bill rejected the Tier One compensation plan. In addition to relying on existing common-law remedies, victims would also have a federal cause of action against a responsible party.[166] This would extend the cause of action currently provided under section 111(b) of CER-

---

destroyed natural resources, such as contaminated private water supplies, by filing a claim under § 107 of CERCLA, 42 U.S.C. § 9607 (Supp. IV 1980), on behalf of its citizens, in a representative capacity as *parens patriae*. Report, *supra* note 9, at 269-70.

[159] Report, *supra* note 9, at 270-71.

[160] *See* H.R. 7300, 97th Cong., 2d Sess., 128 Cong. Rec. H 8490 (daily ed. Oct. 1, 1982) [hereinafter H.R. 7300]; S. 1486, 97th Cong., 1st Sess., 127 Cong. Rec. S 7694 (daily ed. July 15, 1981) [hereinafter S. 1486]; *see also Compensation for Exposure to Hazardous Substances: Hearing Before Subcomm. on Investigations and Oversight of the House Comm. on Science and Technology*, 97th Cong., 2d Sess. 133 (1982) (statement of Frank Grad on the Superfund § 301(e) Study Group).

[161] S. 1486, *supra* note 160, at 1.

[162] H.R. 5203, 97th Cong., 2d Sess., 128 Cong. Rec. S 12948 (daily ed. Sept. 30, 1982). Senator Stafford now chairs the Senate Committee on Environment and Public Work, the committee to which this bill was referred.

[163] 7 U.S.C. §§ 136-136y (1976 & Supp. V 1981).

[164] S. 1486, *supra* note 160, at 1.

[165] 128 Cong. Rec. S 12947 (daily ed. Sept. 30, 1982) (statement by Chairman Stafford).

[166] S. 1486, *supra* note 160, § 2(b), at 2.

CLA[167] to pursue those who damage federal or state natural resources.[168] The Mitchell/Stafford legislation would thus continue to use the existing legal standards of causation, in which a claimant must demonstrate the relationship between the exposure and the disease by the weight of credible evidence.

Although the Mitchell/Stafford bill would limit recovery for personal injury to existing legal remedies, it does propose a financing scheme similar to that contained in the Report. Compensation would be available for any out-of-pocket medical expenses, including diagnostic services, rehabilitation costs and burial costs from a fund to be financed primarily from an industry tax on feedstocks and oil and secondarily from direct federal appropriations.[169]

The second piece of proposed legislation, which closely reflects the Study Group Recommendation, goes much further than simply amending existing Superfund legislation to provide for a personal injury claim. This bill, introduced in the House on October 1, 1982 by John J. LaFalce (D-New York), would create a comprehensive, administrative compensation mechanism for hazardous waste exposure claims.[170]

The proposed Toxic Victims Compensation Act would establish a Compensation Board which would certify persons as victims of a hazardous substance release and then award compensation.[171] The bill requires the Environmental Protection Agency (EPA) to develop "hazardous substances release studies," to state whether it reasonably believes that a release has occurred and has created a potential for injury or damage, and to estimate the probable extent of injury or damage.[172] Similar to the Report's proposed Toxic Substance Documents,[173] the EPA studies would constitute "conclusive evidence" to support claims, and would thereby create a rebuttable presumption in favor of the claimant.[174] The EPA would be subrogated to the rights of

---

[167] 42 U.S.C. § 9611(b) (Supp. IV 1980).

[168] S. 1486, *supra* note 160, at 3; *see* 128 CONG. REC. S 12948 (daily ed. Sept. 30, 1982).

[169] S. 1486, *supra* note 160, at 3. The Mitchell proposal would provide a fund of $3 billion over 10 years. *Id.* Similarly, the Stafford bill proposed a $5 billion fund over a 10 year period. 128 CONG. REC. S 12948 (daily ed. Sept. 30, 1982). Under both versions, however, 88% of the funds would come from an industry tax and the remainder would be federally financed.

[170] H.R. 7300, *supra* note 160, at 2-3. Representative LaFalce currently represents the Love Canal area. The bill, providing for "liability and compensation for personal injury, illness, and economic loss resulting from releases of hazardous substances into the environment," 128 CONG. REC. H 8507 (daily ed. Oct. 1, 1982), was referred jointly to the House Committees on the Judiciary, Education and Labor, and Energy and Commerce. *Id.*

[171] H.R. 7300, *supra* note 160, at 19-22.

[172] *Id.* at 14-16.

[173] *See supra* notes 131 & 132 and accompanying text.

[174] H.R. 7300, *supra* note 160, at 14-16.

the claimants, allowing it to seek reimbursement from the responsible parties.[175] Claimants would be subject to a three year statute of limitations, which would run from the date the injury or damage was or reasonably should have been known to exist.[176]

As in the Study Group proposal, the administrative remedy would not be exclusive. Compensation under the administrative scheme would be substantially the same as proposed by the Study Group, except that compensation for lost wages would be limited to 80% of the actual loss or 80% of the statewide average wage, whichever is less.[177] If the claimant chooses to file suit in court as well, damages for pain and suffering, relocation, and property damage would be available.[178] Moreover, duplicative awards for personal injury would have to be reimbursed to the fund.[179]

The response from Congress indicates the acknowledgment of a problem to which no easy answers are available. Proposed legislation recognizes the manifold issues facing the public, the industry, and the judiciary. There is yet another and more serious problem which the Study Group and the Report do not address. It is one thing to examine the effects of hazardous waste and to propose improvements in existing legal rights and remedies. It is something else again to address the problem of the *causes* of these injuries and damages, in contradistinction to aiding victims because of the *effects*. As one of the members of the Study Group has stated:

> The significant lesson learned from this (the Group's work) is that future emphasis—economic, legislative, legal—should focus on avoiding toxic injury problems. . . . Today and tomorrow's efforts and legislation should concentrate on having generators of hazardous waste develop ways to make them benign. Emphasis should be on the treatment of waste materials to make them safe.
>
> . . . It is not farsighted to justify current industrial activity on the grounds that economic pressures at home or from abroad mandate that we permit today what we can anticipate will be a greater problem tomorrow. . . . It would be nice if one could anticipate that free-market economic forces, left unfettered, would lead to the goals we seek. That has not happened. It is unlikely to happen when short-term gain conflicts with long-term problems and costs.

---

[175] *Id.* at 29-31.
[176] *Id.* at 12.
[177] *Id.* at 26.
[178] *Id.* at 7-8.
[179] *Id.* at 29.

> It is difficult to ask that we act now to protect future generations. It is, however, both wiser and kinder to do this than for us to ask those yet unborn to pay for what we enjoy. . . .
>
> Unless we live within the capabilities of our resources and knowledge, we are putting at risk the futures of others. One of the sound tenets of our economic system has been that one saves now to invest for the future, for oneself and others. Unless we adopt this prudence in our approach to toxic injury and damage, we run the risk of bankrupting the lives and futures of others.[180]

With those observations we agree but further discussion is for another time, another place. Whether or not government ever will meet the larger question of cause, we must now address and redress effects. As stated recently:

> Government is deeply into the business of damage control. It devises and administers programs to tend the casualties of business cycles, assembly line conditions, industrial pollution, and urban decay or city blights. By definition, welfare and health programs do not reform the basic structure of power, production, or ownership: they treat its victims.[181]

Individual victims cannot be ignored today in the hope that government may decide to protect the common weal tomorrow.

This Report is not to be viewed as the final word on the subject. Problems of regulating hazardous substances and hazardous waste are likely to be with us for a long time. Legal and technical solutions, too, will take time to develop, to take account of the experience gathered in their initial application. Law reform and the development of sound legislation has always been a continuing development. We view the Study Group Report as a significant step in an incremental process.

---

[180] REPORT, *supra* note 9, at 350-52 (final comments by Weyman I. Lundquist).

[181] Editorial, DEMOCRACY, Spring 1983, at 4.