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CERCLA Reauthorization 1994: Insuring the Cleanup of Hazardous Substance Pollution

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Authorizing legislation for the Comprehensive Environmental Response, Compensation and Liability Act of 1980¹ ("CERCLA" or, more popularly, "Superfund") will expire September 30, 1994.² Enacted more than a decade ago, the CERCLA program is ripe for scrutiny prior to reauthorization. The following questions deserve consideration: has the CERCLA program accomplished its goals, do the benefits of the CERCLA program justify the costs involved, and what administrative or legislative changes will maximize the benefits of the CERCLA program as compared to its costs. Definitive answers to these questions may be impossible to ascertain, but by focusing on basic risk management principles and the issue of insurance coverage for CERCLA cleanups, this article illustrates that inefficiencies and unnecessary costs will plague the cleanup program until CERCLA's site-specific, strict, retroactive, and joint and several liability scheme is discarded.

I. CERCLA UNDER SCRUTINY

A. Has the CERCLA Program Accomplished Its Goals?

As the United States Environmental Protection Agency (EPA) has noted, any consideration of CERCLA reauthorization options should begin with an examination of CERCLA's goals.³

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¹ 42 U.S.C. §§ 9601-9675 (1988 & Supp. 1992).

² The tax provisions that created and maintain the trust fund continue until December 31, 1995.

³ Office of Policy, Planning & Evaluation, U.S. EPA, Reauthorization Issue: Goals for Superfund 1 (1993) (a presentation to the National Advisory Council for Environmental

This examination requires speculation, however, since CERCLA does not contain an explicit recitation of its goals.⁴ Furthermore, the process of trying to glean Congress' intent from the language of the statute has resulted in numerous and somewhat contradictory goals being identified.⁵ For example, many goals such as effective reduction of risk to humans and the environment, resource restoration, and the polluter-pays principle seem to require a trade-off in the form of increased time and costs spent on clean-ups.⁶ Without prioritization of these conflicting goals, the overall accomplishments of the CERCLA program may be impaired.⁷

The two CERCLA objectives most frequently cited by courts as Congress's primary goals, speedy but effective response actions and putting the costs on the polluters,⁸ both contain this inherent conflict. The CERCLA program has so far failed to meet these goals, despite the courts' liberal construction⁹ of CERCLA's retroactive,¹⁰ strict,¹¹ and joint and several liability scheme,¹² designed to provide a large pool of funds from so-called "polluters"¹³ for rapid cleanup. The history of CERCLA reveals that

Policy and Technology (NAACEPT)) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW) [hereinafter "Goals for Superfund"].

⁴ *Id.*

⁵ *Id.* Such goals include the following: human health risk reduction, low cost/efficiency, ecological risk reduction, behavior modification/prevention of future pollution, speedy cleanup, addressing largest number of sites, public acceptance, environmental justice and fairness to communities, fairness by having polluters pay, permanence, fairness in allocating costs, consistency/predictability, state role in program technology innovation, resource restoration, economic redevelopment. *Id.* at 2-6 (goals drafted by EPA in preparation for reauthorization deliberations).

⁶ *Id.* at 6-7.

⁷ *Id.*

⁸ See 1 ALLAN J. TOPOL & REBECCA SNOW, SUPERFUND LAW AND PROCEDURE § 1.1, at 5-6 (1992).

⁹ *E.g.*, United States v. Reilly Tar & Chem. Corp., 546 F. Supp. 1100, 1112 (D. Minn. 1982) (stating that CERCLA should be given a liberal interpretation in order to follow Congressional intent).

¹⁰ *E.g.*, United States v. Northeastern Pharmaceutical & Chem. Co., 810 F.2d 726, 732-33 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987). CERCLA liability is retroactive in that parties can be liable for pre-CERCLA disposal activities that require post-CERCLA response actions. *Id.*

¹¹ *E.g.*, United States v. Monsanto Co., 858 F.2d 160, 167 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989).

¹² *E.g.*, United States v. Chem-Dyne Corp., 572 F. Supp. 802, 805-10 (S.D. Ohio 1983) (acknowledging that joint and several liability is appropriate under CERCLA).

¹³ CERCLA identifies four broad categories of potentially responsible parties (PRPs): (1) current owners and operators of CERCLA sites; (2) owners and operators at the time of disposal of a hazardous substance; (3) generators of hazardous substances; and (4) transporters of hazardous substances. 42 U.S.C. § 9607(a)(1)-(4) (1988 & Supp. 1992).

the polluter-pays principle leads to extensive litigation, delaying cleanup indefinitely at most sites.¹⁴ After thirteen years of CERCLA, less than four percent of the sites listed on the National Priority List (NPL) have been deleted as completely cleaned up.¹⁵ In addition, the government has not been particularly successful at making the polluters pay the costs of the CERCLA program.¹⁶ In light of these problems, the upcoming reauthorization represents an opportunity for Congress to reexamine the goals of the CERCLA program, prioritize them, and make them an explicit part of the statute.

B. Do the Benefits of the CERCLA Program Justify the Costs Involved?

To be fair, the CERCLA program has resulted in the cleanup of a small percentage of hazardous substance disposal sites, and progress is slowly being made at others.¹⁷ In addition, over three thousand emergency removal actions have been taken at various NPL and non-NPL sites, theoretically reducing "immi-

¹⁴ JOHN F. SPISAK, FIVE CENTS ON THE DOLLAR 5 (1993) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW); see also Rudy Abramson, *The Superfund Cleanup: Mired in Its Own Mess*, L.A. TIMES, May 10, 1993, at A1 (quoting former Rep. Dennis Eckert (D-Ohio), one of the original drafters of CERCLA, as saying: "What we frankly thought was, that [the liability scheme] was so onerous that [PRPs] would rush to the EPA, settle, and put their liability behind them. The reality is that we created a system that is incapable. We created a program designed to fail. People do not come forward, they do not cash in. They lie in the weeds.").

¹⁵ U.S. EPA, SUPERFUND REAUTHORIZATION: NACEPT SUBCOMMITTEE HANDBOOK at II-4 to II-5 (1993) (49 sites deleted out of 1252 sites listed as of June 16, 1993) [hereinafter "NACEPT HANDBOOK"]. Remedial construction has been completed at only 169 NPL sites (including the 49 deleted sites); long-term operation and maintenance of cleanup technologies may continue at some sites for decades. *Id.* A thousand or more new sites have yet to be added to the NPL. See *id.* at I-2 (citing EPA and University of Tennessee estimates).

¹⁶ See SPISAK, *supra* note 14, at 2 (government has spent over \$21 billion on CERCLA program, but has only recovered or had private parties commit to pay just over \$1 billion—thus "five cents on the dollar"). Due to relatively recent settlements committing PRPs to perform future cleanups themselves, EPA now asserts that polluters are committed to pay over \$7.4 billion. See *Superfund Reauthorization: Hearings before the Subcomm. on Superfund Recycling, and Solid Waste Management of the Senate Comm. on Environment and Public Works*, 103d Cong., 1st Sess. 145 (1993) (testimony of Carol M. Browner, Administrator, EPA) and *Superfund Program: Hearings before the Subcomm. on Transportation and Hazardous Materials of the House Comm. on Energy and Commerce*, 103d Cong., 1st Sess. pt 1, at 471 (1993) (statement of Carol M. Browner, Administrator, EPA) [hereinafter "Browner Statement"]. Even at the higher EPA estimate, the program will have only recovered one-third of the government's costs.

¹⁷ NACEPT HANDBOOK, *supra* note 15, at II-4 to II-5.

ment or immediate threats to public health or the environment."¹⁸ Most people would agree that these actions have benefited our society.¹⁹ But at what cost?²⁰

Cleanup costs alone under the current program could reach \$40 billion by the year 2000 and \$300 billion by the year 2020, *not including* cleanup costs for federal facilities.²¹ In addition, the CERCLA program has resulted in massive transaction and litigation costs, which may actually exceed the already enormous costs of cleanup.²² Such litigation involves potentially responsible parties ("PRPs") attempting to avoid the harsh yoke of CERCLA liability, PRPs arguing among themselves regarding the appropriate allocation of costs, and PRPs and insurance companies disputing who should ultimately pay the high costs of cleanup and defense.

Finally, the CERCLA program has cost our society in many indirect but substantial ways: time wasted on litigation and excessive studies and paperwork; distrust of government and industry caused by the frustration of local communities in the failed program; higher prices on goods manufactured by PRP industries, higher unemployment, and reduced competitiveness with foreign

¹⁸ *Id.* at II-5.

¹⁹ *See, e.g.*, Browner Statement, *supra* note 16, at 472 (Benefits from CERCLA are that "the most serious threats to local communities at contaminated sites have been abated, many sites are being restored to productive use, and investments in advanced cleanup technologies are helping reduce cleanup costs and open export markets to U.S. companies.").

²⁰ Ms. Browner stated the cost for these benefits:

It is just as clear, however, that we are paying a very high price for these benefits. We are paying a high price in terms of administrative and cleanup costs incurred by EPA, and a high price in terms of the transaction and cleanup costs incurred by companies and state and local governments potentially liable for contamination. We are paying a high price in terms of uncertainty and wasted time. We are paying a high price in terms of the basic fairness — or unfairness — of the program. Finally, we are paying a high price in terms of the anxiety and frustration of local communities concerned about delays in cleaning up contaminated sites.

Id. at 473.

²¹ NACEPT HANDBOOK, *supra* note 15, at I-2 (citing EPA and University of Tennessee estimates).

²² *E.g.*, SPISAK, *supra* note 14, at 5 & n.2 (citing Office of Technology Assessment estimates that almost 60% of CERCLA program costs are transaction or litigation costs); NACEPT HANDBOOK, *supra* note 15, at IV-8 (citing an April 1992 study by the Rand Corporation that determined that 88% of insurance company CERCLA outlays are transaction costs — 42% for coverage disputes, 37% for defending policyholders, and 9% for internal costs).

manufacturers;²³ and higher prices on insurance policies and the lack of pollution coverage.²⁴ Despite the best efforts of Congress, the courts, and the EPA, "polluters" do not bear the entire cost of the CERCLA program.²⁵ If Congress reauthorizes CERCLA, legislative and administrative changes must be made to maximize the benefits of the program while minimizing the costs to society.

C. What Administrative or Legislative Changes Will Maximize the Benefits of the CERCLA Program as Compared to Its Costs?

Discussions regarding appropriate legislative or administrative changes to the CERCLA program have touched on a large number of issues. Some proposals have focused on limiting the liability of specific groups of PRPs: municipalities,²⁶ lenders and trustees, and *de minimis* and *de micromis* parties (through expedited settlements).²⁷ Other proposals focus on encouraging voluntary cleanups by providing incentives to settle early²⁸ and using mixed funding so that the Superfund covers orphan sites and orphan shares.²⁹

²³ SPISAK, *supra* note 14, at 4; see also *Superfund Reauthorization: An Opportunity to Rectify Major Problems*, 24 *Env't Rep. (BNA)* 1020, 1024 (Oct. 1, 1993) (CERCLA puts companies doing business in the United States at "serious economic disadvantage"); John W. Johnstone, Address at Yale University as part of the John M. Henske Distinguished Lecture Series in Chemical Engineering (Sept. 30, 1991), in *WORKING PAPERS ON SUPERFUND REFORM: PROBLEM DEFINITION & POLITICAL MAPPING* 136 (1992) (large portion of CERCLA costs are passed on to American consumers, but because of foreign competition, American companies "eat" the rest of costs).

²⁴ *E.g.*, Katherine T. Eubank, Note, *Paying the Costs of Hazardous Waste Pollution: Why Is the Insurance Industry Raising Such a Stink?*, 1991 *U. ILL. L. REV.* 173, 174 & nn.10-11.

²⁵ SPISAK, *supra* note 14, at 4 ("In effect, consumers are already paying an invisible Superfund 'tax' buried in the price of goods and services, higher unemployment and reduced economic competitiveness which totals billions of dollars each year.").

²⁶ *E.g.*, NACEPT, Discussion Draft on Municipal Liability Reform (Oct. 4, 1993) (on file with the *JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW*).

²⁷ *E.g.*, Johnstone, *supra* note 23, at 124; NACEPT, Position Paper on Liability 5-6 (Oct. 4, 1993) (on file with the *JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW*).

²⁸ *E.g.*, Henry L. Diamond, *A Lawyer's View of Superfund Problems: Promote Hazardous Site Cleanup By Increasing Voluntary Private Participation* (Feb. 1992), in *WORKING PAPERS ON SUPERFUND REFORM: PROBLEM DEFINITION AND POLITICAL MAPPING* 16-34 (1992); Nancy W. Newkirk, *Recommendations Regarding Proposed Superfund Reauthorization Issues* (Feb. 1992), in *WORKING PAPERS ON SUPERFUND REFORM: PROBLEM DEFINITION AND POLITICAL MAPPING* 40-50 (1992).

²⁹ SPISAK, *supra* note 14, at 7-8, 10-11 (Superfund should also cover municipal and *de minimis* shares); *Administration Called 'Inconsistent' on CERCLA Reauthorization Legislation*, 24 *Env't Rep. (BNA)* 1135 (Oct. 15, 1993) (proposal of Chemical Manufacturers

Another group of proposals aims at making the cleanup process more efficient, in terms of both time and dollars spent. These suggestions include using national or presumptive cleanup standards and remedies,³⁰ requiring the EPA to follow a cleanup budget and a new method for prioritization of sites,³¹ and considering future property uses and other "how clean is clean" issues when determining cleanup standards at particular sites.³² Debate over CERCLA reauthorization also has raised several social issues, including environmental equality in terms of preventing disproportionate impacts on disenfranchised groups and increased community involvement,³³ an increased state role in enforcement and selection of remedies,³⁴ and redevelopment of contaminated properties and neighborhoods with such properties.³⁵

Some of the most hotly debated proposals are those calling for changes in CERCLA's site-specific, retroactive, strict, and joint and several liability scheme. For example, several commenta-

Association (CMA)); *Treasury Department Liability Proposal Is Criticized by Congressional Leaders*, 24 Env't Rep. (BNA) 1067 (Oct. 8, 1993) (Treasury proposal); Johnstone, *supra* note 23, at 135-36.

³⁰ *Witnesses Tell Senate Panel They Support Replacement of ARARs with National Standards*, 24 Env't Rep. (BNA) 878 (Sept. 17, 1993) (EPA proposal); Diamond, *supra* note 28, at 22-28; Newkirk, *supra* note 28, at 48-50; NACEPT, Discussion Draft on Remedy Selection Reform 1-2 (Oct. 4, 1993) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW).

³¹ SPISAK, *supra* note 14, at 17-18; NACEPT HANDBOOK, *supra* note 15, at IV-12 to IV-13 (summarizing 1992 study called *Breaking the Backlog: Improving Superfund Priority Setting* by Center for Technology, Policy & Industrial Development); *NAACP Joins Groups Seeking Superfund Reform, Including Elimination of Retroactive Liability*, 24 Env't Rep. (BNA) 1209 (Oct. 29, 1993) [hereinafter *NAACP Joins Groups*] (proposal drafted by Benjamin F. Chavis, Jr., NAACP Executive Director, John W. Johnstone, president of Olin Corp., and Joseph W. Brown, president of Talegen Holdings, formerly Crum and Forster Insurance Cos.).

³² *E.g.*, Newkirk, *supra* note 28, at 44-48; *NAACP Joins Group*, *supra* note 32, at 1209; NACEPT, Discussion Draft on Remedy Selection Reform 2 (Oct. 4, 1993) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW).

³³ *E.g.*, *NAACP Joins Groups*, *supra* note 31, at 1209; Superfund Subcomm., NACEPT, Preliminary discussion draft of the Environmental Justice/Community Issues Subgroup 1-6 (Oct. 4, 1993) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW).

³⁴ *E.g.*, NACEPT, Discussion Draft on State Role in Managing Cleanup Work Under CERCLA (Oct. 4, 1993) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW).

³⁵ Charles W. Powers, *Property and Land Use as the Key to Cleaning Up Hazardous Waste Sites* (Feb. 1992), in WORKING PAPERS ON SUPERFUND REFORM: PROBLEM DEFINITION AND POLITICAL MAPPING 85-117 (1992); Superfund Subcomm., NACEPT, Preliminary discussion draft of the Environmental Justice/Community Issues Subgroup 7-9 (Oct. 4, 1993) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW).

tors have suggested that joint and several liability be modified or replaced by an allocation system, in an effort to reduce the litigation costs of contribution actions.³⁶ Surprisingly, several diverse interests have also found common ground in proposing to replace CERCLA's retroactive liability with a public works program (Superfund-led cleanups funded by a broad-based tax or fees on insurance policies).³⁷ Although a public works program would nullify the polluter-pays principle for old sites, proponents of eliminating retroactive liability argue that a public works program will eliminate most of CERCLA's litigation costs, as well as treating fairly those who disposed of hazardous substances without breaking any laws.³⁸

Which of these proposals will maximize benefits and minimize costs? Those proposals which will reduce or eliminate litigation and other transaction costs seem to be the most promising from an intuitive standpoint. To form a more logical answer, this article examines CERCLA from a risk management viewpoint, which emphasizes cost-efficiency. From this point of view, the ex-

³⁶ SPISAK, *supra* note 14, at 10 (reserve joint and several liability only for willful violations of federal environmental laws); *Insurance Group Backs Treasury Proposal, Is Willing to Pay \$300 Million Annual Share*, 24 Env't Rep. (BNA) 1175 (Oct. 22, 1993) (Treasury proposal); *Municipal Representative Sees Merit in Industry Groups' Liability Proposal*, 24 Env't Rep. (BNA) 848 (Sept. 10, 1993) (CMA proposal, calling for binding allocation by administrative law judges); *see also Non-Binding Allocation System Will Not Achieve Meaningful Reform, Chemical Manufacturers Say*, 24 Env't Rep. (BNA) 1540 (Dec. 24 1993) (CMA comparison of binding versus non-binding allocation systems); NACEPT, *Position Paper on Liability 2-5* (Oct. 4, 1993) (informal binding allocation process rather than contribution litigation) (on file with the JOURNAL OF NATURAL RESOURCES & ENVIRONMENTAL LAW).

³⁷ *Businesses Willing to Pay New Taxes, Fees to Support Liability Reform, Witnesses Say*, 24 Env't Rep. (BNA) 1313 (Nov. 12, 1993) (National Environmental Trust Fund (NETF) proposal, backed by insurance industry; Treasury proposal, backed by American Insurance Association's Superfund Improvement Project; elimination of retroactive liability supported by Printing Industries of America, Inc.); *Insurance Group Backs Treasury Proposal, supra* note 36, at 1175 (insurance group and various business groups support elimination of retroactive liability in favor of public works); *Insurance, Municipal, Business Groups Seek Clinton's Support of Treasury Proposal*, 24 Env't Rep. (BNA) 1141 (Oct. 15, 1993) (in addition to insurance and business groups, Local Governments for Superfund Reform supports public works program); *NAACP Joins Groups, supra* note 31, at 1209 (joint proposal by NAACP, Olin Corp., and Talegen Holdings, formerly Crum and Forster Insurance Cos.); *see also* SPISAK, *supra* note 14, at 11-15 (encourage private cleanups and mitigate harshness of retroactive liability by reimbursing private remediation expenses attributable to pre-1980 activities).

³⁸ *See, e.g.,* SPISAK, *supra* note 14, at 3 ("polluter pays" principle focuses on wrong people, because most PRPs were not breaking law or consciously harming environment; rather, they were simply making goods and providing services sought by American consumers).

cessively high litigation costs associated with CERCLA represent risk management choices by PRPs and insurers. Why do these parties choose to spend (waste?) so much money and time on litigation rather than applying resources directly to cleaning up polluted sites and preventing further pollution? Why do insurers, professional risk takers, refuse to pay for CERCLA liability already incurred or refuse to provide insurance against future liability?

II. ANALYSIS OF CERCLA UNDER RISK MANAGEMENT PRINCIPLES

Risk management principles are relevant to the reauthorization of CERCLA, because effective risk management treats risks in a manner that will allow a particular person or business to survive future losses with minimal financial consequences ("costs").³⁹ Risk management principles explain why PRPs and insurers engage in apparently counterproductive and costly litigation rather than limiting costs by paying directly for cleanups. These principles also may suggest appropriate changes to the CERCLA program that will reverse this unfortunate trend.

A. *Efficient Risk Management Depends Upon Accurate Risk Assessment and the Ability to Control Risky Activities*

1. Basic Risk Management Transactions

Risk management defines "risk" as both "[t]he possibility of harm or loss" and "uncertainty regarding loss."⁴⁰ The law of large numbers explains the difference between these concepts.⁴¹ A particular entity may know the probability of a loss occurring, but loss to a particular entity is not certain until it actually occurs, even if the probability of loss is ninety-nine percent.⁴² However, losses become more predictable when individual entities are considered as a group—the larger the number of entities, the greater the ability to predict (and prepare) for losses.⁴³ As discussed below, the law of large numbers makes insurance an efficient risk management tool.

Individual entities face five risk management options: (1) retaining the risk, thus suffering the costs of any loss that occurs;

³⁹ Eubank, *supra* note 24, at 188.

⁴⁰ *Id.* at 88 & n.170 (citing DELL'S THE AMERICAN HERITAGE DICTIONARY 594) (4th ed. 1987) and R. MEHR ET AL., PRINCIPLES OF INSURANCE 19 (8th ed. 1985).

⁴¹ *Id.*

⁴² *See id.*

⁴³ *Id.*

(2) transferring the risk and costs of any loss to another entity; (3) avoiding the risk by avoiding the activity that may lead to a loss; (4) reducing the risk by either implementing safety features during the risky activity or predicting losses more accurately through the law of large numbers; or (5) using a combination of the first four options.⁴⁴ Someone must ultimately retain the risk if a risky activity is pursued.⁴⁵

Rational risk management decisions occur when entities choose options that maximize benefits compared with costs. An entity should retain a risk when expected losses are small enough to bear comfortably, or when the benefits of the risky activity are sufficiently large to cover losses.⁴⁶ Conversely, the entity should transfer or avoid a risk when the loss would endanger the survival of the entity; such is usually true for liability risks.⁴⁷ Transference of risk may be cost effective when the transferee, often an insurer, can predict losses more accurately than the transferor. This enables the transferee to prepare for and survive any losses.⁴⁸ Finally, the entity that retains the risk should reduce the risk if the cost of safety measures is less than the benefits of preventing or mitigating losses.⁴⁹

Before entities can make cost-efficient risk management decisions, they must have the ability to assess accurately the probability of a loss and the probable amounts of any losses. Furthermore, they must have the ability to control risky activities. As discussed below, accurate risk assessment is especially important in the insurance context.

2. Insurance as a Risk Management Tool

Insurance plays two important roles in risk management. First, insurers (professional transferee entities) charge insureds premiums in exchange for covering specified risks of loss.⁵⁰ The insurers then "either spread the risks through reinsurance or retain the risks in risk pools."⁵¹ Risk pools are groups of similar

⁴⁴ Eubank, *supra* note 24, at 188-90.

⁴⁵ *Id.* at 188.

⁴⁶ *Id.*

⁴⁷ *Id.* at 188-89.

⁴⁸ *Id.* at 189.

⁴⁹ EUBANK, *supra* note 24, at 189.

⁵⁰ *Id.* at 192.

⁵¹ *Id.*

risks, through which the insurer can take advantage of the law of large numbers and accurately predict losses.⁵² This arrangement benefits both the insureds who do not have to bear potentially ruining losses, and the insurers who get paid for their service.⁵³ Establishment of a risk pool provides a large source of funds for the payment of losses, while allowing the insurer to spread those losses among all the insureds in the form of premiums, rather than an unlucky few bearing all the losses.⁵⁴

Insurers also play an important role by encouraging insureds to reduce risks through safety measures.⁵⁵ Through the processes of rate making and underwriting, both of which involve assessment of individual risks in light of the insurer's general knowledge and experience regarding risks,⁵⁶ insurers are continually gaining useful knowledge regarding how to reduce risks. Armed with this knowledge, insurers encourage insureds to reduce risks by threatening cancellation or higher premiums if safety measures are not put in place.⁵⁷ The exclusion and the deductible are other features of insurance that encourage the reduction or avoidance of particularly risky activities, both features placing the risk back on the insured.⁵⁸

Accurate risk assessment is essential to both of these roles and is a necessary condition for insurability.⁵⁹ Insurers must assess the general risk involved, such as the risk of CERCLA liability, to make sure loss events are neither too predictable, nor too uncertain.⁶⁰ Risk pools are not cost-efficient if losses are too predictable, because the risk bearer can prepare for loss without having to pay extra for the insurer's services.⁶¹ If, on the other hand, losses are too uncertain even for the insurer to predict, the insurer will either overcharge or undercharge for its services.⁶² Either way, the allocation of costs between insurer and insureds, and among the insureds themselves, does not accurately reflect the

⁵² *Id.* at 192 & n.228.

⁵³ *Id.*

⁵⁴ EUBANK, *supra* note 24, at 192 & n.228.

⁵⁵ *Id.* at 194-95.

⁵⁶ *Id.* at 191-93.

⁵⁷ *Id.* at 194-95.

⁵⁸ *Id.*

⁵⁹ Eubank, *supra* note 24, at 196.

⁶⁰ *Id.* at 192.

⁶¹ *Id.*

⁶² *Id.* at 193.

risk, endangering the risk pool⁶³ and the insurer's survival.⁶⁴ If enough insurers find a particular risk uninsurable because it cannot be accurately assessed, insureds are forced either to retain or avoid the risk themselves.⁶⁵ In addition, insurers must be able to assess individual risks in order to accurately allocate costs between insureds and encourage risk reduction by individual insureds.

B. CERCLA's Site-Specific Retroactive, Strict, and Joint and Several Liability Scheme Prevents Accurate Risk Assessment and the Ability to Control Risky Activities.

The risk that concerns PRPs and their insurers is the risk of CERCLA liability. Examination of this risk shows that it is uninsurable because it cannot be accurately assessed, either by insurers or PRPs. Furthermore, neither PRPs nor insurers have much control over the activities that can lead to liability. Several factors work in combination to create this problem.

First, CERCLA liability depends in part on the presence of a release or threatened release resulting in the imposition of response costs.⁶⁶ As scientists and technicians can confirm, releases are possible even when parties using or disposing of hazardous substances comply with all regulatory standards and use the utmost care and state-of-the-art techniques.⁶⁷ The only sure means of controlling the risk of a release is to avoid engaging in any activities involving hazardous substances. In addition, it is difficult to estimate the probability of a release in a particular case.⁶⁸ Due to the number of factors affecting dispersion and the complexity of ecosystems, it is also quite difficult to estimate, prior to its occurrence, the amount of cleanup costs and natural resource damages caused by a release or threatened release⁶⁹

Second, CERCLA liability is both strict and joint and several. In the case of land owners, liability can be based on status rather than behavior. This combination is deadly to accurate risk assessment and control. Joint and several liability means that lia-

⁶³ *Id.* at 193-94 (describing problems of adverse selection and moral hazard).

⁶⁴ Eubank, *supra* note 24, at 196 (inaccurate premiums cause insurers either to lose money or be uncompetitive).

⁶⁵ *Id.*

⁶⁶ 42 U.S.C. § 9607(a)(1988 & Supp. 1992).

⁶⁷ Eubank, *supra* note 24, at 198.

⁶⁸ *Id.*

⁶⁹ *Id.*

bility can be based on the activities of persons over whom PRPs and insurers have no control.⁷⁰ This problem is further exacerbated in the CERCLA context because of the large number of possible PRPs at most sites and the fact that judges do not require a joint relationship between parties before applying joint and several liability.⁷¹ Thus, joint and several liability makes both the probability of liability and the amount of liability⁷² impossible to accurately assess. Strict liability further complicates the problems of joint and several liability, because PRPs can avoid liability only by avoiding the risk altogether, not simply by being careful in their operations. Because the parties have minimal control over the risk of liability, risk assessment "becomes pointless, even if it could be done."⁷³

Finally, CERCLA liability can be based on activities in the distant past, long before standards for hazardous substance use and disposal existed.⁷⁴ As with strict and joint and several liability, retroactive liability puts the risk of CERCLA liability beyond the control of the PRPs and their insurers. Retroactive liability is even more inconsistent with risk management principles than strict and joint and several liability, because PRPs cannot even choose to avoid the risk by avoiding all activities involving hazardous substances.

III. CERCLA SHOULD BE REAUTHORIZED AND REVITALIZED

This examination of risk management principles explains why PRPs and insurers would rather litigate issues of CERCLA liability and coverage than just accept liability and pay for cleanups. Obviously, the enormous costs of cleanup are an incentive to fight liability. However, this is not the whole story because theoretically rational risk management decisions would prepare PRPs or their insurers for the costs of liability. The CERCLA liability scheme prevents these parties from making rational risk management de-

⁷⁰ *Id.* at 201.

⁷¹ *Id.*

⁷² Eubank, *supra* note 24, at 201. Under joint and several liability, one defendant may ultimately have to pay the entire amount of damages and costs. Contribution and indemnity do not ease risk assessment, because the amount of damages, the number of solvent PRPs, and the ability to prove equitable apportionment are all unknown factors. *Id.*

⁷³ *Id.* at 200.

⁷⁴ *Id.*

cisions now, and makes previously rational risk management decisions irrelevant.

A. Retroactive Liability Should be Eliminated

Nobody could have predicted prior to the mid-1970s that CERCLA would be enacted and PRPs could be liable for past activities, whether or not they were negligent. By the time CERCLA was enacted, it was too late for PRPs and insurers to take the high costs of CERCLA cleanups and natural resource restoration into account. The PRPs conducted business as usual, providing raw materials and services, and manufacturing goods desired by the American consumer, never preparing for the losses to follow.⁷⁵ Insurers have continued to issue general liability policies, first with no pollution exclusion, then with the ambiguous "sudden and accidental" pollution exclusion,⁷⁶ and, like the PRPs, never prepared for CERCLA liability.⁷⁷ Unless retroactive liability is eliminated, the parties will continue to litigate in the slim hope of escaping some of the enormous costs of liability.

Fairness dictates that the costs of past activities that benefited the whole of society be spread among society as a whole rather than forced upon the PRPs unfortunate enough to be associated with sites that come to the attention of the government or a private CERCLA plaintiff. Therefore, a public works program should be implemented, funded by a broad tax or fee base. Hazardous substances are used and disposed of by many entities other than the petroleum and chemical industries, and all of these entities should contribute to the cause. Appropriate tax credits would prevent unfairness to PRPs who have already contributed funds toward cleanups at particular sites.

Such a program would require letting go of the polluter-pays principle with regard to retroactive sites, but this is not necessarily a bad thing. With the exception of deliberately harmful releases of hazardous substances, industry's innocence or guilt as a "polluter" for pre-CERCLA activities is equivalent to that of society in general. The prospect of liability for post-CERCLA activities

⁷⁵ See SPISAK, *supra* note 14, at 4.

⁷⁶ See generally KENNETH S. ABRAHAM, ENVIRONMENTAL LIABILITY INSURANCE LAW 145-63 (1991) (discussion of history of exclusion and purpose).

⁷⁷ *Municipalities, Insurance Groups Seek Legislative Limits on Liability*, 22 Env't Rep. (BNA) 1765, 1766 (Nov. 15, 1991) (insurers did not intend to provide coverage for such liability and collected no premiums to cover liability losses).

should sufficiently deter improper handling and disposal practices in the future.

Several measures could be taken to counteract transaction costs created by government inefficiencies in running the cleanup program. EPA should be required to stick to a budget and require its contractors to do the same, possibly under the threat of review by PRPs or other private organizations. Sites should be carefully prioritized to take care of the worst conditions at the worst sites first. Presumptive cleanup standards and remedies based on land use should be used to the greatest extent possible. Private cleanups at non-priority sites should be encouraged by allowing preapproved cleanups and reimbursement from the fund. States could oversee private cleanups, as well as conduct their own fund-led cleanup in accordance with the federal program.

B. Strict and Joint and Several Liability Should be Modified

Because the activities that lead to CERCLA liability benefit society as a whole, PRPs should be liable only to the extent that their activities were negligent or willful. If PRPs are already contributing to a public works program for retroactive sites, a slightly higher tax or fee could cover post-CERCLA sites where the current state of technology or other uncontrollable factors are to blame for releases.

PRPs who are "polluters" with fault could be liable under either an apportioned liability scheme or with joint and several liability. Under an apportioned liability scheme, administrative law judges might be used to allocate liability between liable and non-liable parties. The share allocated to non-liable parties would then be paid by the public works program.

Alternatively, joint and several liability would not be extraordinarily harsh if applied only to parties who are negligent or willful violators of the law. Parties using state-of-the-art technologies would have the ability to make appropriate risk management decisions and insurers may even have the ability to provide coverage for negligent PRPs.⁷⁶ Assessing the risk of liability for negligent behavior should be possible because the number of parties who might be negligent should be small for any particular site. For

⁷⁶ The insurability of pollution in general would still be problematic due to the variety of federal and state laws under which insureds might be liable as well as complexities added by toxic tort liability. EUBANK, *supra* note 24, at 200-02.

example, owners or operators would be the probable candidates for releases that occur at industrial or disposal sites. Assuming that generators have complied with applicable hazardous material packaging requirements, transporters would be the only negligent parties for releases during transportation. If strict liability is retained, however, a less costly allocation system should replace contribution litigation.

CONCLUSION

Of necessity, this article makes a few very general suggestions. Many issues still require consideration, such as how to make a public works program consistent with other federal and state legislation, whether to preempt toxic tort litigation, and whether to provide personal injury compensation through the program. Important social issues such as community involvement and property redevelopment should not be ignored. However, work has begun on several valid public works proposals. Now is the time to reevaluate the goals of CERCLA and implement a revitalized program that will reduce the tremendous burden on society created by the current punitive liability scheme.

