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SUPERFUND XVII:

THE PATHOLOGY OF ENVIRONMENTAL POLICY

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EXECUTIVE SUMMARY

Superfund was created in 1980 when Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Criticism of the resulting federal programs started soon thereafter and has continued ever since. Notwithstanding, Superfund has sailed on, in a remarkable demonstration of staying power. This persistence is a sobering commentary on the current state of environmental policy. Passage of a bad law can be understood — mistakes happen — but healthy institutions find their mistakes and correct them. A major signal of institutional distress is an inability to fix error, or even to admit it. By this standard, Superfund is a symptom of truly awesome pathology.

Superfund was conceived to address concerns about the sloppy disposal of hazardous wastes, particularly at abandoned sites. These concerns were valid, albeit overstated. If CERCLA had solely provided for emergency actions at abandoned waste sites, there would have been few problems or complaints. Instead, congress passed a law covering every plot of ground on which any contaminant had been spilled, however small the amount or minor the threat.

Most discussions of Superfund focus on the National Priorities List (NPL) assume that "the Superfund problem" will be dealt with once the NPL sites are cleaned up. This is not true. The NPL sites represent a small percentage of the total of contaminated sites, and not necessarily the most important ones. As long as the liability rules and cleanup standards remain unchanged the Superfund problem will exist, whatever happens to the current NPL sites.

Even when a site is cleaned up, the problems do not end. The continuing possibility of Superfund liability makes it a leper from the standpoint of investors. The post-remediation liability threat is so great that no one will touch a site even though it is declared clean. Congress made every individual Superfund site into a tarbaby, exposing anyone with any connection to it to liability for all cleanup costs. No "potentially responsible party" (PRP) can defend on the grounds that it acted legally and responsibly. This regime gives PRPs strong incentives to engage in costly litigation, delaying cleanups and wasting financial resources.

In theory, reforming Superfund has been high on the Congressional agenda for the past several sessions, but real reform has not happened. Neither Administrative reforms nor current legislative proposals address Superfund's central flaws. Under the leading Congressional proposal, S. 8 – The Superfund Cleanup Acceleration Act of 1997 – a few of the squeakiest wheels would be greased, without addressing Superfund's central flaws. S. 8 contains one reform that is clearly important: The provision shielding any site cleaned up pursuant to a state plan from suit by the federal government or any private party. Most of the other reforms would accomplish little. Mere lip service is paid to liability reform risk assessments, and the provisions to delegate more authority to states are mostly a sham. Most unfortunately, passage of proposals currently on the table would probably foreclose serious reform for another decade.

The flaws in Superfund are so fundamental that it is simply not possible to achieve meaningful reform by tinkering with the present statute. True reform of Superfund requires three steps:

1) Repeal of the current statute and its approach to hazardous waste cleanup, including federal cleanup standards, taxes, and liability rules;
2) Replace CERCLA with – nothing. Contaminated real estate is not a federal problem. It is a state and local concern. States are already outperforming the federal government at hazardous waste cleanup, and would do more if they were able.
3) Establish transition rules to sweep up the debris of seventeen years and provide a measure of justice to people enmeshed in the program, with particular concern for those sites that are already in the Superfund pipeline. The primary aim should be to expedite the process and transfer sites to state jurisdiction or where possible, private hands, through .

Under exceptional circumstances, where a release threatens to contaminate ground or surface water and spread across state lines, the federal government may have an interest where state authorities are incapable of addressing the concern, but the primary obligation should rest on the states and the principles of common law should guide nation's approach to hazardous waste sites in the future. This is the only true road to Superfund reform. Seventeen years of nonsense is enough.

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INTRODUCTION

Superfund was created in 1980 when the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) zipped through a lame duck session of Congress. Soon thereafter, perceptive commentators from across the ideological spectrum began recording its serious flaws, and the criticism has continued ever since, escalating in both volume and level of exasperation during the past five years.[1] Notwithstanding, Superfund has sailed on, in a remarkable demonstration of staying power. This persistence is a sobering commentary on the current state of environmental policy. Passage of a bad law can be understood — mistakes happen — but healthy institutions find their mistakes and correct them. A major signal of institutional distress is an inability to fix error, or even to admit it. By this standard, Superfund is a symptom of truly awesome pathology.

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[1] *E.g.*, Richard Epstein, "The Principles of Environmental Protection: The Case of Superfund," *Cato Journal*, Vol. 2, No. 1, Spring 1982; Alfred R. Light, "United States of America v. Thomas Jefferson IV, *et. al.*," *Environmental Forum*, September 1985, p. 17; Fred L. Smith, Jr., "The Flawed Logic of Superfund," *Cato Policy Review*, November/December 1985, p. 6; Fred L. Smith, Jr., "Superfund: A Hazardous Waste of Taxpayer Money," *Human Events*, August 2, 1986; James Bovard, *The Real Superfund Scandal*, Cato Policy Analysis No. 89, August 14, 1987; Mark K. Landy & Mary Hague, "The Coalition for Waste: Private Interests and Superfund," in Michael S. Greve & Fred L. Smith, Jr., *Environmental Politics: Public Costs, Private Rewards*, (New York: Praeger, 1992); Thomas W. Church & Robert T. Nakamura, *Cleaning Up the Mess: Implementation Stratagies in Superfund,* Brookings Institution, 1993; Robert W. McGee, "Superfund: Its Time for Repeal After a Decade of Failure," *UCLA Journal of Environmental Law & Policy*, Vol. 12, No. 1 (1993); John A. Hird, *Superfund: The Political Economy of Environmental Risk,* (Baltimore: Johns Hopkins University Press, 1994; Kent Jeffreys, *Reinventing Superfund: The Clinton Reform Proposal and an Alternative,* CEI, June 1994; James Lis & Melinda Warren, *Making Superfund Work*, Center for the Study of American Business, Policy Study No. 118, February 1994; John Shanahan, *How to Rescue Superfund: Bringing Common Sense to the Process*, Heritage Foundation, Backgrounder No. 1047, July 31, 1995; James V. DeLong, *Privatizing Superfund: How to Clean Up Hazardous Waste*, Cato Policy Analysis No. 247, December 18, 1995; Jerry Taylor, "Salting the Earth: The Case for Repealing Superfund," *Regulation*, 1995 No. 2, p. 53; Aaron Wildavsky (with Michelle Malkin), "Love Canal: Was There Evidence of Harm?" and Aaron Wildavsky (with David Schleicher), "Superfund's Abandoned Waste Sites," in Aaron Wildavsky, *But Is It True? A Citizen's Guide to Environmental Health and Safety Issues*, (Cambridge: Harvard University Press, 1995); Richard L. Stroup, *Superfund: The Shortcut That Failed*, (Bozeman, MT: Political Economy Research Center, 1996).

ABOUT THE AUTHOR

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The terms of the law itself are bad enough, but the pathology does not end there. The Environmental Protection Agency (EPA) has rarely avoided any opportunity to make a bad law worse, taking administrative actions or adopting litigation positions that make the program steadily more unjust, convoluted, inefficient and destructive. This travesty of a program is now in Year XVII of its miserable existence, and it just keeps on ticking.

In theory, reforming Superfund has been high on the Congressional agenda for the past several sessions, but reform has not happened. Reform is now a stated priority of the Senate leadership, and bills have been introduced. However, these proposals, while large in bulk, are scant in content. A few of the squeakiest wheels would be greased, but any benefits from the changes would be minimal and would be more than offset by the price paid to obtain them. The proposals would tack more complexity onto a program that already looks as if it were designed by a Rube Goldberg on speed. This would raise the already heavy confusion costs of the program and ratchet even higher the staggering proportion of the money — somewhere between 30 and 50 percent — that goes to lawyers and consultants.[2] Most unfortunately, passage of proposals currently on the table would probably foreclose serious reform for another decade.

ORIGINS OF THE PROGRAM

In theory, reforming Superfund has been high on the Congressional agenda for the past several sessions, but reform has not happened.

The basic concern that triggered creation of the program was valid, albeit overstated. A number of stories had surfaced about the sloppy disposal of hazardous wastes, most notably at Love Canal. Media coverage of this new "toxic threat" was widespread, and the public was alarmed about the potential impact on public health. The EPA hyped this fear with exaggerations and outright lies about the severity, causes, and nature of the problem.[3] Nonetheless, a modest program to identify and forestall any immediate public injury was readily defensible, assuming that states were truly unable to address these concerns. The EPA estimated that a total of 30,000 to 50,000 sites might contain hazardous waste and that up to 2,000 of them might be significant, so the problem did not appear overwhelming.[4] Thus, Congress passed the law.

One part of the program is generally regarded as a success. CERCLA created a mechanism for emergency response to acute hazards, situations in which the spread of contaminants might threaten public health. In the years since 1980, EPA has taken action on almost 1,000 sites and compelled

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[2] Hird, *supra* note 1, at pp. 124-25, 188-91.

[3] The shameful episode of the hyping of Love Canal is documented in Eric Zuess, "Love Canal: The Truth Seeps Out," *Reason*, Vol. 12, No. 10 (February 1981). See also Wildavsky (with Michelle Malkin), *supra* note 1.

[4] Barbara Blum, Deputy Administrator of EPA, Testimony Before the Subcommittee on Transportation and Commerce, Committee on Interstate and Foreign Commerce, U.S. House of Representatives, June 19, 1979, (Serial 96-114, 1980), pp. 216, 221.

private action on another 2,500 or so.[5] Thomas Grumbly, who is a former official at Clean Sites, a private group concerned with cleanups, and thus intimately familiar with the program, believes that these actions "probably eliminated most of the immediate health risks posed by abandoned hazardous waste sites."[6] This program has received no formal evaluation, but if lack of complaint equals success, it qualifies, and most observers give it good marks.[7]

If CERCLA had solely provided for emergency actions at abandoned waste sites, there would have been few problems or complaints. The statute covered much more than emergency situations, however. It also went far beyond the limited number of abandoned sites that the EPA had represented as at issue. Congress passed a law covering every plot of ground on which any contaminant has been spilled, however small the amount or minor the threat. The focus of the law was, in theory, abandoned hazardous waste disposal sites that presented a significant risk to public health. In actuality, the definitions sweep in all kinds of commercial and industrial sites — and there are millions of these — abandoned or not, and however minuscule the threat. (see chart below)

Congress passed a law covering every plot of ground on which any contaminant has been spilled, however small the amount or minor the threat.

For a site to be subject to Superfund, it must contain "hazardous chemicals." However, the EPA defines "hazardous" very broadly. As shown below, many household products are considered hazardous by the EPA.

In MY house?

"Hazardous chemicals can be found anywhere, including your own home. A list of hazardous materials that may be found in your home are listed below:"

- toilet cleaners
- drain cleaners
- oven cleaners
- bleach cleaners
- dishwasher detergent
- ammonia-based cleaners (all purpose)
- glass cleaners
- fabric softener
- air fresheners
- laundry detergent
- mothballs
- rug and upholstery cleaners
- latex, enamel or oil based paints
- antifreeze
- automobile batteries
- automobile lubricants (oil, transmission fluid, brake fluids)
- floor and furniture polish
- furniture strippers
- stains and finishes

"How many do you have in your house? Careful - don't touch them - they are HAZARDOUS."

U.S EPA website, http://www.epa.gov/R5Super/sfd_kids.htm

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[5] See DeLong, *supra* note 1, p. 6 and sources cited.

[6] Thomas P. Grumbly, "Superfund: Candidly Speaking," *EPA Journal*, Vol. 17, No. 3 (1991), p. 21.

[7] Aaron Wildavsky, with David Schleicher, *supra* note 1, p. 183

[8] Carol Browner, Administrator of EPA, Testimony Before the Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure, U. S. House of

Relatively few of these sites will become totally enmeshed in Superfund by being added to the "National Priorities List" and marked for cleanup. For those sites that do make the list, the real fun begins. Any person or entity with any relationship to the site or to the alleged contaminants becomes a "Potentially Responsible Party" (PRP), and is liable, jointly and severally, for the cost of cleanup, irrespective of fault. The cleanup itself is supposed to meet utopian standards. These standards are often compromised in practice because of technical impossibility, but they exert a steady upward pressure on costs. The need to prove that they are unmeetable adds greatly to the time and transaction costs of the cleanup effort. In some cases, PRPs are responsible for "natural resource damages" – speculative assessments of the "value" of environmental damage derived from polling data. Needless to say, no firm wants to be stuck with a multi-million-dollar cleanup bill, and massive litigation ensues. Where private parties are not tracked down, Uncle Sam foots the bill. Most of this money has been raised by taxes on petroleum, chemical feedstocks and corporations. The total cost is as much as $4 billion each year, the actual level of improvement of the environment is minimal, and the public health benefits are probably zero.

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SUPERFUND SITES

A major cause of the immense confusion surrounding Superfund is that the myriad sites covered by the law are divided into different groups, each of which is subject to different rules. Discussions often refer to "Superfund sites," and then analyze only one of the groups. The major distinctions follow.

The National Priorities List (NPL): Congress directed the EPA to establish a list of sites in particular need of remediation. The original statute specified that there must be at least 400 sites on the NPL, a number that appears closely correlated with the number of Congressional districts. Superfund was regarded as desirable pork, and each state was promised at least one site. Today, the length of the NPL list shifts from month to month, but as of May 1997 it contains 1203 current and 49 proposed sites. There is some confusion over how how many sites have graduated from the list. Administrator Browner puts the number of completed cleanups at 423, but only 143 sites have been removed from the NPL, and many of these were deleted because they were erroneously listed in the first place.[8] Like so much else about Superfund, the situation is murky. (See graph, page 5.)

In theory, the NPL represents the worst sites. In fact, there is no reason to believe this is true; selection is strongly influenced by political factors, chance, and the ownership status of a site (an abandoned site is more likely to make the list than one that is managed). Only if a site is placed on

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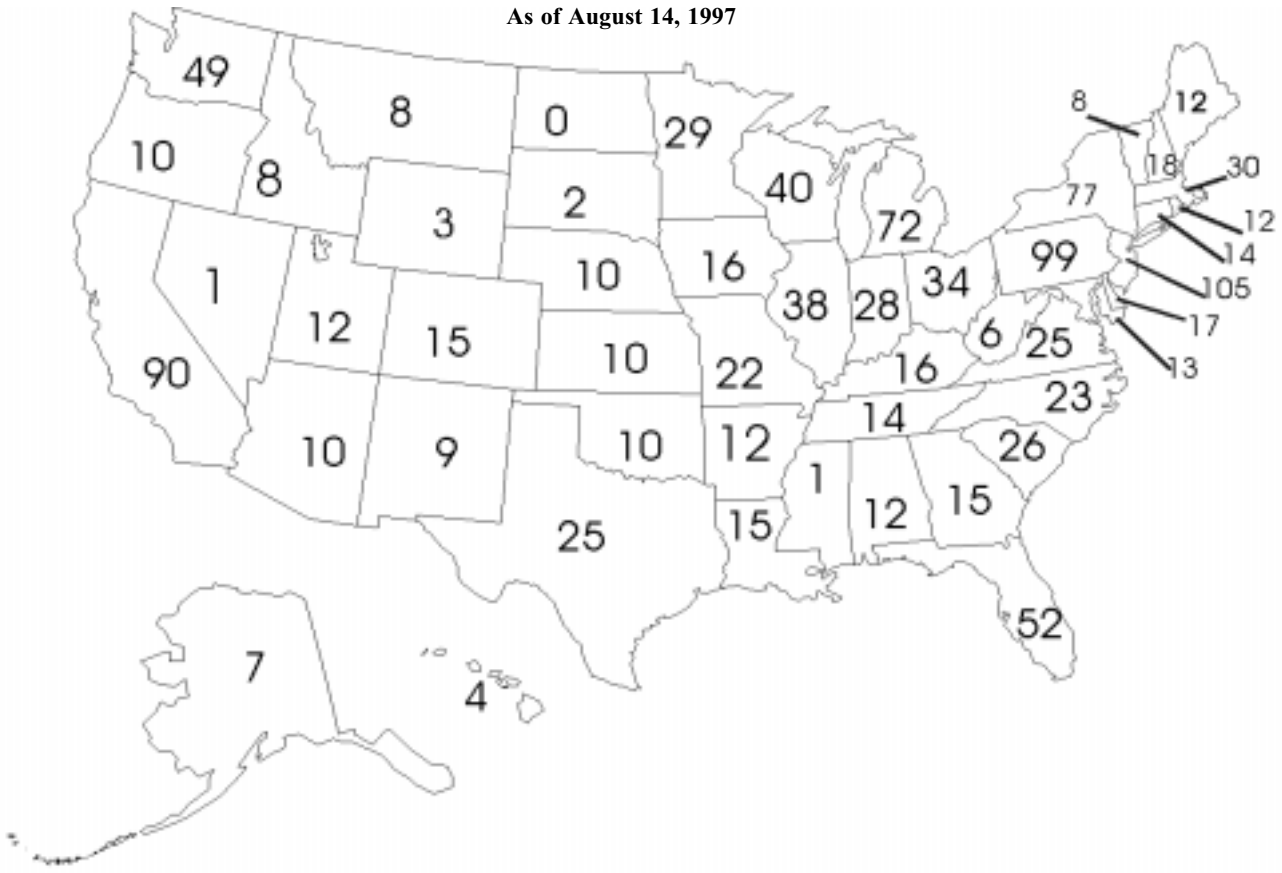
Representatives, March 12, 1997, p. 2 (Internet edition); EPA Superfund website: http://www.epa.gov.

[9] See DeLong, *supra* note 1, p. 8.

Number of National Priority List Sites by State

As of August 14, 1997



Source: http://www.epa.gov/superfund/oerr/hmpll/products/npl/nplhtml.htm

the NPL does the EPA becomes actively involved in forcing the pace of cleanup, finding PRPs, and allocating cost shares. All complaints about EPA administration of Superfund sites refer to this limited universe of sites that have been put on the NPL. Many discussions of "Superfund sites" actually mean "NPL sites" because they refer only to the sites on the list. "NPL sites" are only a subset of "Superfund sites."

"No-EPA-Action" Sites: In the course of creating the NPL, EPA has evaluated almost 40,000 sites. Of these, almost 39,000 have been judged not hazardous enough to qualify for the NPL. It is commonly assumed that these 39,000 represent the next-most hazardous sites after those on the NPL. This is not necessarily true. Selection of sites for formal evaluation has a large random element. There may well be thousands of sites that have never been evaluated that are substantially more contaminated than these "no-action" sites. Another common assumption is that these no-action sites are somehow exempted from Superfund's requirements. This is not true, either. These sites are subject to the liability rules and the clean-up standards established by Superfund, and these rules and standards can be enforced through private litigation. To classify a site as "no action" means only that EPA will not be involved in the cleanup and will not force the PRPs to act. Finally, it is entirely possible that EPA will change its mind in the future and add some of these

All complaints about EPA administration of Superfund sites refer to this limited universe of sites that have been put on the NPL.

to the NPL. For a site to be passed over means only that it did not score 28.5 on the EPA's Hazardous Ranking System. This score was originally adopted because as of 1980 a score of 28.5, applied to the sites then under evaluation, produced the Congressionally-required list of 400. The score has no significance in terms of risk or human health.[9] Since this number is arbitrary, standards could be lowered at some future time.

State Law Sites: Most states passed laws patterned on Superfund. As of 1993, states had identified about 100,000 contaminated sites that might be subject to state action. None of these are on the NPL, but some unknown number of them are among the 39,000 evaluated by EPA. Of the 100,000, 40,000 were judged to "need attention," but the standards for making this judgment were idiosyncratic with individual states. Many of these are subject to state cleanup efforts, which seem to be going forward faster than the federal program.[10] These state sites, like other no-EPA-action sites, are not exempt from the liability rules and cleanup standards of Superfund. The EPA may not be directly involved in administering the cleanup, but the sites are still subject to the substantive requirements of the federal law, and these can be enforced through private litigation.

Many sites are subject to state cleanup efforts, which seem to be going forward faster than the federal program.

The Rest of the Iceberg: As noted before, because the guns of Superfund can be brought to bear on any spot where a teaspoon of contaminant has been spilled, there are millions of potential Superfund sites. Most people are happily unaware of the full magnitude of this law, but every former dry cleaner probably qualifies. So does every former auto repair shop, and every mile of old railroad track. The operator of a municipal sewer system was held responsible under Superfund for the escape of hazardous substances that had been flushed down the drain by a research laboratory.[11] A court ruled that Superfund covers the cost of recovering barrels of arsenic trioxide that washed off a cargo ship during a storm.[12] Lead shot deposited at the bottom of Long Island Sound from the shotguns of a shooting club has been held to be hazardous waste.[13] The potential is unlimited. (See graph, page 3.)

Brownfields: This is a special category that cuts across all the others. "Brownfields" are contaminated and often abandoned urban commercial or industrial sites. Since Superfund makes potential cleanup liabilities great and changeable at government whim, sensible developers or industrial buyers find a spot where there is no potential Superfund exposure, and the

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[10] J. Winston Porter, *Cleaning Up Superfund: The Case for State Environmental Leadership*, Reason Foundation, Policy Study 195, September 1995.

[11] *Westfarm Accociates Ltd Partnership v. Washington Suburban Sanitary Commission*, No. 94-1425 (U.S. Court of Appeals, 4th Cir., September 27, 1995), cited in Bureau of National Affairs, *Environmental Reporter*, October 6, 1995, p. 1018.

[12] *U.S. v. M/V Santa Clara I*, No. 2:92-0389-18 (District of Columbia Superior Court, May 8, 1995), cited in Bureau of National Affairs, *Environmental Reporter*, June 23, 1995, p. 452).

[13] *Connecticut Coastal Fishermen's Assoc. v. Remington Arms Co., Inc.*, 989 F.2d 1304, 1317 (2d Cir. 1993).

brownfield sites sit idle. There is no solid estimate of their number, but guesses range from 450,000 on up. Some of these are on the NPL, some are on EPA's no-action list, some are state sites, and some are just lurking.

The existence of these different kinds of sites creates immense confusion. Most discussions of Superfund seem to assume that "the Superfund problem" will be dealt with once the NPL sites are cleaned up. This is not true. The sites on the NPL represent a small percentage of the total of contaminated sites, and not necessarily the most important ones, and as long as the liability rules and cleanup standards remain unchanged the Superfund problem will exist, whatever happens to the current NPL sites. The full scope of "the Superfund problem" is indeterminant. The EPA has never made any attempt to inventory contaminated sites, and in Year XVII of Superfund, we remain ignorant about the basic numbers.

The sites on the NPL represent a small percentage of the total of contaminated sites, and not necessary the most important ones.

Even when a site is cleaned up, the problems do not end. The continuing possibility of Superfund liability makes it a leper from the standpoint of investors. According to the CEO of a cleanup firm: "We work on many sites to clean them up only for abandonment. The post-remediation liability threat is so great that no one will touch a site even though it is declared 'clean' . . . ." He gave as an example a site that is "certifiably the cleanest place in Colorado" that the owners cannot even give away.[14]

RULES OF LIABILITY

As noted above, Congress made every individual Superfund site into a tarbaby, exposing anyone with any connection to it to liability for all cleanup costs. The owner of the site is liable, as is the generator of the contaminant. If waste was transported to a site, the hauler can be brought in. Subsequent landowners are also responsible, unless they can meet complex standards defining "an innocent landowner." None of these parties can defend on the grounds that it acted legally and responsibly. Liability is absolute, regardless of any fault, and the fact that the defendant complied with every explicit legal requirement and with general common law duties of care is not relevant. The criminal law is operated on the belief that it is better that ten guilty people escape than that one innocent be punished. Superfund runs on the opposing principle — better that any number of innocent people be punished than that one "evil polluter" escape.

The post-remediation liability threat is so great that no one will touch a site even though it is declared "clean."

Other dimensions of Superfund liability are equally harsh. Liability is retroactive, applying to wastes disposed of prior to enactment of the law in 1980. For sites containing waste generated by more than one person, liability is joint and several. Any generator of any of the waste, no matter how minor

[14] John F. Spisak, President & CEO, Industrial Compliance, Inc., Lakewood, CO, Statement Before the U.S. Senate, Committee on Environment and Public Works, Subcommittee on Superfund, Waste Control and Risk Assessment, March 29, 1995, p. 7.

its contribution, can be held liable for the entire cost of remediation. If you disposed of one pound of waste in a dump the size of Manhattan, you can be billed for the cost of cleaning up the entire dump. This applies even if you gave the waste to your local municipal trash hauler, who disposed of it as directed by local public officials. The annals of Superfund are full of tales about the bizarre consequences of this scheme. For example, schools throw out trash, which has traces of hazardous substances. Ergo, schools become jointly and severally liable for the cleanup of any waste dump used by their disposal company. Schools keep good records, so their disposal practices can be documented, and more than 200 school districts have been named in Superfund actions across the country.[15] (A legend among school officials is the principal confronted with a Superfund summons for disposing of toxic waste who reacted, "I know the students have been complaining about the lunches, but I didn't know they were this mad."[16])

The EPA also adopted a policy that risk assessments to determine whether the cleanup standards, whatever they might be, are met must be based on an endless chain of worst-case assumptions.

The level of liability imposed on all these people is staggering. The statute expresses a preference for "permanent" solutions. The EPA interprets this as meaning that cleanup is required even when simple containment would be enough to protect public health. The difference in cost can be enormous. Cleanup standards themselves are onerous, but vague. The key word is "ARAR" — "applicable or relevant and appropriate requirements" imposed by other laws and regulations are to be met. The exact meaning of the phrase is unclear, and must be fought over endlessly in the context of individual sites. In some cases, ARAR has meant that water must be purified to meet the standards imposed by the Safe Drinking Water Act (SDWA), even if there is no possibility that anyone would ever drink the water.

The EPA also adopted a policy that risk assessments to determine whether the cleanup standards are met, whatever they might be, must be based on an endless chain of worst-case assumptions. Richard Stroup of the Political Economy Research Center has noted the impact of this policy on his hometown of Bozeman, Montana. The Idaho Pole Company used pentachlorophenol (PCP) to treat utility poles. Sometime before 1978, PCP was spilled at the company's 33-acre site. In determining the level of cleanup, EPA used the following assumptions about future human exposures: (1) The site would be used as a mobile home park, even though this would require the city to change the zoning; (2) The future residents of the hypothetical park would not use city water, even though city water was readily available, but would drill private wells; (3) The residents would consume 200 grams of contaminants every day by eating home-grown produce despite the fact that Montana's growing season is about 90 days; (4) Fumes from PCP in shower water would provide half the exposure, even though PCP does not vaporize even at the boiling point of water; (5) The PCP

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[15] Timothy C. Duffy, Executive Director, Rhode Island Association of School Committees, Statement Before the Subcommittee on Superfund, Waste Control and Risk Assessment, U.S. Senate Committee on Environment and Public Works, March 29, 1995.

[16] Told to me by a school trade association at a hearing.

would persist indefinitely, despite the fact that PCP in water has a natural half life of 20 to 200 days.[17]

Idaho Pole is not unusual. In another case, when a contaminant plume migrated under a golf course site, the EPA assumed that a golfer would play twice a week for 30 years and would spend 15 minutes per round standing in a pond searching for lost balls. It also assumed that other people would wander onto the course and immerse themselves in the water for two hours a day, 48 days per year.[18]

In one case, when a contaminant plume migrated under a golf course site, EPA assumed that a golfer would play twice a week for 30 years and would spend 15 minutes per round standing in a pond searching for lost balls.

In technical terms, "It is typical in Superfund risk analyses to use the 95th percentile value for each of several statistically estimated parameters in place of the mean value, a process that grossly overestimates the risks."[19] More metaphorically:

> Imagine that similar risk assessment assumptions were applied to highway safety. The EPA might assume that all vehicles are driven at 90 miles per hour for 70 years with at least three babies in the back seat, the brakes are worn out and the driver is drunk. Based on this scenario, the EPA would calculate terrifying probabilities of injury or death and require that all cars be built like Sherman tanks.[20]

The harsh impact of this combination of liability provisions gives the Potentially Responsible Parties (PRPs) at a Superfund site strong incentives to wage expensive war against the EPA and each other in the effort to reduce the costs of a site, to delay as long as possible the need to pay the piper, and to pass the cup to some other PRP. The result is endless site assessments, appraisals, records of decision and other studies, unwieldy committees, and interminable meetings and hearings.

PRPs under attack by the EPA also want to bring in as many others as possible, both to spread the costs and to stoke the fires of political outrage. EPA Administrator Carol Browner says that big PRPs have sometimes filed suit for contributions against every business listed in the local yellow pages.[21] As a result, PRPs multiply like rabbits. At one site, the EPA sued 11 companies, who brought in 180 more, and these added another 590. Swept up in the last tier was the owner of a diner who swore that her contribution consisted solely of mashed potatoes and similar restaurant waste.[22]

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17 Stroup, *supra* note 1, pp. 12-14.

18 Chemical Manufacturers Association, *A Chemical Industry Perspective on EPA's Superfund Administration Reforms*, Prepared by Morgan, Lewis & Bockius, April 1997, pp. 20-21.

19 Richard L. Stroup & Bradley Townsend, "EPA's New Superfund Rule: Making the Problem Worse," *Regulation,* No. 3, 1996.

20 Kent Jeffreys, *Progressive Environmentalism: Principles for Regulatory Reform*, NCPA Policy Report No. 194, June 1995 (Internet edition, pp. 13-14).

21 Browner, *supra* note 8, p. 5.

22 Frank Lautenberg, "The Environment: Superfund Is Cleaning Up Its Act," *Roll Call* Environmental Policy Briefing, April 21, 1997 (Internet edition, p. 3).

Once cleanup begins, the costs must be allocated among these numerous parties. Because the statute provides no guidance on allocation, courts have developed complex tests combining anywhere up to ten different factors in some unquantified, intuitive way. Applying these tests generates still more lengthy proceedings. The bottom line is that Superfund liability rules are subject to a battery of strong criticisms. They:

- Cover everyone connected with the site, regardless of fault.
- Apply retroactively to parties who complied with all legal and moral duties at the time of their action.
- Expose parties to unlimited liability for minor involvement.
- Require remedies that are not necessary to protect human health and that do not add economic value to property.
- Put the burden of proof on the supposed polluters, thus leading to the extortion of money from basically innocent parties, especially small businesses.
- Waste large sums of money on transaction costs.

Superfund is perceived as unjust,expensive and ineffective, pouring out money without creating value.

Elsewhere, this author summarized the situation in the following terms:

> Superfund is perceived, accurately, as unjust. It is also perceived, accurately, as expensive and ineffective, pouring out money without creating value. Its potential future costs are in the hundreds of billions, and maybe in the trillions, of dollars. Its requirements are inscrutable, creating substantial uncertainty for the people within its ambit and subjecting them to heavy penalties at the whim of arbitrary bureaucracy. It transfers mountains of money to litigation lawyers and environmental consultants for work of little or negative social utility. It siphons resources into a limited number of sites on the NPL while ignoring broader cleanup problems, and it contains no system for establishing priorities . . . Finally, despite heavy criticism for years, Superfund never gets fixed.[23]

PROPOSALS FOR REFORM

Almost all debate over Superfund reform is tightly linked to the outrage over these liability rules. Congressmen who are getting political heat from municipalities and small businesses want to give some relief to these groups. States are objecting to inhibitions on their cleanup efforts imposed by the clumsy federal system. Industry objects to risk assessment methodologies that bear no relation to real risks, and to cleanup requirements

[23] DeLong, *supra* note 1, pp. 15-16.

that impose costs out of all proportion to the value of the real estate once the cleanup is completed. Everyone except lawyers and consultants objects to the extortionate transaction costs of determining remedies and liability shares. Cities are unhappy over the Brownfields because depressed urban cores do not need to give businesses yet another reason to shun the city center.

Debate over Superfund reform also focuses on the NPL sites. These present the most obvious problems, and the squeakiest wheels. Other potential problem sites are not causing as much noise, and political momentum has not built. For example, the fact that every mile of railroad track and municipal sewer line and every former factory site, is a potential Superfund site under the law is potentially serious. It can cause a lot of trouble in the future. But as long as the EPA is not doing anything about these sites, as long as the liability lightening strikes only an occasional private party on an almost-random basis, these potential problems do not show on the radar of the political system.

Cities are unhappy over the Brownfields because depressed urban cores do not need to give businesses yet another reason to shun the city center.

Brownfields are an exception to this NPL-centrism because they are perceived as having real impact on cities. It is safe to say, though, that the distinction between NPL/non-NPL sites is not well-understood. For example, it is doubtful that many Congressional staffers are aware that only a small percentage of Brownfields sites are also NPL sites, or that no state cleanup sites are NPL sites. As a result, few staffers realize that any reform that applies only to NPL sites does nothing for most Brownfields, and nothing for any state-controlled sites.

Administrative Reform

The Administration reacts to calls for Superfund reform in the usual manner of any bureaucracy under assault — smother it in new processes. In late 1995 a package of reforms was announced by EPA. These included:

- A new 20-member national board is created to review cleanup proposals for NPL sites developed by EPA regional offices when the proposed remedy will cost more than $30 million, or will cost more than $10 million and is 50 percent more expensive than the next "ARAR compliant" remedy. PRP's — the only people with an interest in keeping costs down — are largely shut out of this review process, though. They can comment to the Board, but only in less than five pages, and are excluded from significant meetings. One can understand EPA's reasons, since PRPs and their lawyers are indeed an obstreperous, obstructionist lot, but a review of agency decisions conducted solely by colleagues is unlikely to be very deep. Not surprisingly, so far "PRPs are disappointed with this reform, both as to substance and as to process."[24]

[24] CMA, *supra* note 18, p. 11.

- Regions are "encouraged" to look at the 1,759 remedy decisions made at NPL sites in the past and see if equivalent protectiveness can be achieved at lower cost. Pursuant to this, the EPA estimates that it has reduced future cleanup costs at 31 sites by $284 million. PRPs are supportive of this reform, though they believe EPA is overstating the savings, perhaps by a third or more.[25] But implementation is totally at the discretion of the regions, so many needlessly expensive remedies are continuing.

- PRPs are to be allowed to conduct risk assessments when the regional office determines that they have the technical competence to do so. Naturally, PRPs support this, but so far it has not made much impact.

- Risk assessments are to be made more reasonable, primarily by reflecting realistic exposure pathways. This is the most important proposed reform, but its impact so far is inscrutable, largely because the EPA has developed only fragmentary information on its implementation. In addition, the EPA does not apply many of the reforms to risk assessments for contaminated groundwater, which would make them inapplicable to 85 percent of all NPL sites.

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- EPA expresses outrage that minor polluters, such as patrons of municipal trash services or disposers of mashed potatoes, get caught by the Superfund tarbaby. The agency blames the big PRPs for bringing these into the Superfund mess, ignoring the fact that it is the terms of the law itself that make the little guys liable. Several current reform measures are designed to reduce the problems of this class. For instance, the agency is entering into "zero-dollar settlements" wherein it sues the minor polluter or municipality, then settles the case with no payment. The defendant is thus shielded from any suit by another PRP at the site. This helps only at NPL sites, though; if a site is not on the NPL, then the EPA is not involved and cannot insulate anyone.

A variety of other administrative steps are directed at other technical dimensions of the Superfund process and are designed to accelerate the cleanup process. As one might expect, the EPA trumpets these loudly while the PRPs are less sanguine. There is good reason to think that the Administration's numbers are made of funny putty, and the data needs very close scrutiny. For example, in calculating the average time that elapses between the date a site is added to the NPL and the date a Remedial Investigation (RI) is conducted the government includes information on many sites at which emergency action occurs. For these, the RI precedes the NPL listing, often taking place years before. In the EPA's data system, this is entered as a negative number, and is subtracted from the "total years elapsed" for all sites.

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[25] CMA, *supra* note 18, p. 17.

Number of NPL Sites per Million Acres by State

STATE	NUMBER OF SITES	TOTAL SITE AREA (millions of acres)	NUMBER OF SITES PER MILLION ACRES
New Jersey	105	5	**21**
Virgin Islands	2	.11	**18.18**
Rhode Island	12	.78	**15.38**
Guam	2	.14	**14.29**
Delaware	18	1.3	**13.85**
Massachusetts	30	5.3	**5.66**
Connecticut	15	3.2	**4.69**
Puerto Rico	10	2.2	**4.54**
Pennsylvania	100	29	**2.49**
New Hampshire	18	5.9	**3.05**
New York	77	31	**2.48**
Michigan	72	37	**1.94**
Maryland	13	6.7	**1.94**
Florida	52	38	**1.37**
Ohio	34	26	**1.31**
Indiana	30	23	**1.30**
South Carolina	26	20	**1.3**
Vermont	8	6.2	**1.29**
Washington	49	44	**1.11**
Wisconsin	40	36	**1.11**
Illinois	38	36	**1.05**
Hawaii	4	4.1	**.97**
Virginia	25	26	**.96**
California	90	102	**.88**
North Carolina	23	34	**.67**
Kentucky	16	26	**.61**
Maine	12	21	**.57**
Minnesota	30	54	**.55**
Tennessee	14	27	**.51**
Missouri	22	45	**.49**
Louisiana	15	31	**.48**
Iowa	16	36	**.44**
Colorado	15	37	**.40**
Georgia	15	38	**.39**
West Virginia	6	16	**.37**
Alabama	12	33	**.36**
Arkansas	12	34	**.35**
Oklahoma	10	45	**.22**
Utah	12	54	**.22**
Nebraska	10	49	**.20**
Kansas	10	53	**.19**
Oregon	10	62	**.16**
Idaho	8	53	**.15**
Texas	25	171	**.14**
Arizona	10	73	**.13**
New Mexico	9	78	**.11**
Montana	8	94	**.085**
Wyoming	3	63	**.048**
South Dakota	2	49	**.041**
Mississippi	1	31	**.032**
Alaska	7	394	**.018**
Nevada	1	71	**.014**
North Dakota	0	45	**0**

Source: http://www.epa.gov/oerrpage/superfnd/web/

To illustrate this, imagine two sites. At Site 1, an emergency action is taken, then four years later EPA adds it to the NPL. At Site 2, the site is added to the NPL, then four years later EPA performs an RI. In EPA's data system, the delay at Site 1 is entered as (-48) months, and is substracted from the (+48) month delay at Site 2. Therefore, the average delay is said to be zero.[26]

Indeed, there are solid reasons to believe that the time it takes to evaluate sites for listing on the NPL and to clean up designated sites is increasing. A 1997 study by the General Accounting Office found that the average time between the discovery of a site and the decision whether to place it on the NPL has increased since 1990.[27] More troubling, the GAO found that the time required for cleanup of nonfederal sites has increased more than fourfold over the past decade, from 2.4 years in 1986 to 10.6 years in 1996.[28] While some of this rise could be attributed to the later completion of more difficult cleanups, the GAO still expressed concern about the implications of this trend on the pace of future cleanups. It concluded that "EPA did not present any specific data to substantiate its claims that its recent initiatives have accelerated Superfund cleanups, although it said such data are currently being collected."[29]

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Another area of administrative reform is Brownfields, and EPA recently published its Brownfields National Partnership Action Agenda.[30] As with Superfund generally, the Administration's response to this problem is "We need more paper!" The plan sets up a Federal Interagency Working Group on Brownfields, which has 18 distinct agencies on its roster, and 75 individuals. They will "coordinate," "identify," "implement," "explore," "continue," "support," "develop," "examine," "clarify," "plan," "guide," "sponsor," "advise," and "assist." No buzzword is overlooked: "[The] initiative is designed to empower States, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields. . . . [S]trategies include funding pilot projects and other research efforts, clarifying liability issues, entering into partnerships, conducting outreach activities, developing job training activities, and addressing environmental justice concerns."

Concepts of cost-benefit, private markets, economic incentive structures, real value-added, and the rule of law are not part of the package.

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[26] Transcript of the Hearing on Superfund Reauthorization Before the Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure, U. S. House of Representatives, March 12, 1997, pp. 87-90.

[27] U.S. General Accounting Office, *Times to Complete the Assessment and Cleanup of Hazardous Waste Sites*, GAO/RCED-97-20, March 1997.

[28] Ibid, p. 8.

[29] Ibid, p. 15.

[30] EPA, *Brownfields National Partnership Action Agenda*, May 1997, Internet http://www.epa.gov/swerosps/bf/html-doc/97aabref.htm.

Legislative Proposals

Congressional proposals also follow the principle that the purpose of Superfund reform is to grease squeaking wheels, not to re-evaluate a silly and unjust program. The primary Senate bill, S.8 - the Superfund Cleanup Acceleration Act of 1997 - reflects this political imperative. Introduced by Senator Bob Smith (R-NH), it is co-sponsored by a coalition of Republicans that encompasses Senators John Chafee (R-RI), Trent Lott (R-MS), and Frank Murkowski (R-AK), along with 18 others. It contains nine titles and over 100 pages of complex federal commands, and focuses tightly on specific complaints.[31]

A state must concur in any cleanup order the EPA issues against any facility not covered by a state plan.

Title I deals with Brownfields. A fund of $40 million per year is to be doled out to localities in chunks of a couple of hundred thousand dollars at a time to clean up old facilities. The qualification is that the expansion or reuse of the facility must be "complicated by the actual or potential presence of a hazardous substance." As is usual in federal programs, obeisance is paid to the need for comprehensive planning, competition among possible grantees, leveraging of the funds, and detailed analysis of the benefits a locality might reap. Title I also establishes a fund for State Voluntary Response Programs. States are to encourage individuals to clean up sites, and $25 million a year is allocated to help the states perform this task. Title I then addresses some specific complaints about Superfund:

- If a facility is being cleaned up pursuant to a state plan, then neither the federal government nor any private actor can sue. Furthermore, a state must concur in any cleanup order the EPA issues against any facility not covered by a state plan.

- An innocent neighbor whose property becomes contaminated will no longer be regarded as a PRP. He also escapes liability suits brought by private parties, but only if the EPA issues an explicit grant of an exemption.

- The existing section of the law exonerating innocent purchasers is expanded, and the necessary hoops spelled out in more detail than in the existing law.[32] The government still gets a lien on the property for the costs of cleanup. Future residential purchasers get a special break — they

[31] S.18, the *Brownfields and Environmental Cleanup Act of 1997* is Title I of S.8, and is not worth separate comment.

[32] These hoops provide a useful illustration of the complexities of Superfund, even as "reformed." To qualify as a "bona fide prospective purchaser" who is shielded from liability, you must acquire the property after the date of enactment of the amendment. You must then be able to establish each of the following things by "a preponderance of the evidence":

(1) All "active" disposal of hazardous substances at the facility occurred before you acquired it.

(2) You made all "appropriate" inquiry into previous ownership and uses "in accordance with generally accepted good commercial and customary standards and practices." For a

are innocent if the title search and an inspection did not put them on notice.

Title II addresses the constant complaint that Superfund should be run by the states. It provides for delegation to the states of power over the NPL sites. It establishes five different categories of authority, each containing a different mix of preliminary investigation, site assessment, feasibility studies, remedial design, actual remediation, and post remedial operations. The EPA then delegates to a state one or more of these authorities over particular Superfund sites. The decisions about the level of delegation are to be based on elaborate applications, and the law is full of time limits, provisions for second guessing, cost allocations, and other details. As a purported attempt at federalism, the bill is beyond parody.

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Title III provides for more community response organizations at NPL sites. It also provides for technical assistance grants to these organizations of up to $100,000 per group. Opportunities for public comment and participation are expanded.

Title IV provides that the anticipated future use of the site is to be taken into account in deciding on remedies and level of cleanup. It also sets specific numerical risk standards that constitute protection of human health, and contains multiple provisions on remedy selection, technical factors, and risk assessment. The title also sneaks in a "band-aid" for a point that has been sore for PRPs; it says that if the PRPs want to prepare the remedial action plan, they should be allowed to do so. Of course, the list of caveats about control of the work goes on for pages.

Title V would change allocation from a judicial proceeding into an administrative action, with almost no judicial review.

Title V addresses several specific complaints. It addresses problems of municipal waste dumps, providing individuals can no longer be held liable for disposing of municipal solid waste at dumps that are on the NPL list. (If

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residential or non-commercial use, this standard is satisfied if a title search and a visual inspection did not show a need for further investigation. For anyone else, the standard is satisfied if you followed guides tobe issued in the future by EPA. The amendment spells out 10 criteria that EPA will use in making up these guides, including:
- An inquiry by an environmental professional;
- Interviews with past and present owners, operators, and occupants;
- Reviews of historical sources, including chain of title, aerial photos, building department records, and land use records;
- Searches for recorded environmental liens;
- Reviews of government records on underground tanks, hazardous waste generation and handling, and spills;
- Visual inspection of the property itself and adjoining parcels;
- Specialized knowledge on the part of the purchaser;
- The relationship of the purchase price to the value of uncontaminated property;
- Commonly known or reasonably ascertainable information about the property;
- The degree of obviousness of the presence “or likely presence” of contamination.

(3) You provided all legally required notices concerning discovery and release of any hazardous substance.

(4) You exercised appropriate care with respect to any hazardous substances found at the facility by taking steps to stop any continuing release, prevent any future release, and prevent any human or natural resource exposure to any previously released hazardous substance.

(5) You did not “impede the performance of a response action or natural resource restoration.”

a dump is not on the list, individuals could still be liable.) Other exemptions are granted to people who disposed of less than 200 pounds or 110 gallons of material at an NPL site. Small businesses, defined as those with less than 30 employees or less than $3 million in gross revenue, are exempted from liabilty for any response costs incurred at NPL sites in the future. Special rules are set up for small municipalities, which can be forced to pay only 10 percent of the cleanup costs at an NPL site, and large municipalities, which can be forced to pay up to 20 percent. (The dividing line is 100,000 people.)

Title V also sets up an elaborate system for allocating shares of the cleanup costs at NPL sites that incorporates the criteria that have been adopted by the courts. The procedure is mandatory for future costs at NPL sites. It can be invoked by any PRP for past costs, and can be invoked by the EPA for past costs if it chooses, whether the PRPs want it or not. It would change allocation from a judicial proceeding into an administrative action, with almost no judicial review.

Title V shields cleanup contractors from liability except for negligence. It also allows the EPA to enter into indemnification agreements with contractors who cannot obtain insurance. Then, carrying on the title's theme of special breaks for the favored, it limits the liability of religious, charitable, scientific, and educational institutions to the market value of the property involved. Other limitations are given to railroads and recyclers.

Under S.8, Superfund will get $8.5 billion for the fiscal years 1998 to 2002.

Title VI addresses federal facilities. Authority over a federal site listed on the NPL can be transferred to a state, under conditions and caveats spelled out at interminable length. Federal employees get a break — they are no longer to be criminally prosecuted for failing to take remedial action if their budget requests for the necessary money were turned down. Federal facilities may also be designated as guinea pigs for the development of new technology.

Title VII takes up the topic of Natural Resource Damages, a specialized topic with its own pathology that is beyond the scope of this analysis. The proposal is designed to meliorate some of the most contentious features of this program by eliminating liability for events before 1980 and chopping back on various measures of liability. It does not address the fundamental issue, which is whether the natural resource damages program makes good sense.[33]

[33] For a general critique of the use of contingent valuation methodology to value environmental amenities, see Roger Bate, *Pick a Number: A Critique of Contingent Valuation Theory and Its Application*, Washington, D.C.: Competitive Enterprise Institute, December 1993. A more provocative critique can be found in Robert H. Nelson, *How Much Is God Worth? The Problems - Economic and Theological - of Existence Value,*" Washington, D.C.: Competitive Enterprise Institute, May 1996.

Title VIII is called "Miscellaneous." It says that cleanups are to use a "results-oriented approach." It also limits additions to the NPL to 30 in 1997, 25 in 1998, and so on down to 10 a year in 2000 and thereafter. In another gesture to the states, a site could be added to the NPL only with the concurrence of the governor.

Title IX addresses money — Superfund is to get $8.5 billion for the fiscal years 1998 to 2002. In addition, the plan is to reauthorize the various taxes on petroleum, chemical feedstocks and corporations to continue Superfund funding, but these revenue provisions are not part of S.8.

Is S.8 Real Reform?

S.8 contains one reform that is clearly important: The provision shielding any site cleaned up pursuant to a state plan from suit by the federal government or by any private party. A state that wanted to wield this authority aggressively could use this provision to preempt Superfund for every site within its boundaries that is not already on the NPL.

The basic problems are the amorphous nature of the standards and strong incentives for parties to bring in every possible kind of evidence in an effort to shift the blame.

Most of the other reforms would accomplish little. A few small waste generators at a few specific NPL sites would be let off the hook. So would some innocent purchasers and innocent neighbors. These changes could be seen as a net addition to justice. On the other hand, the costs avoided by these favored groups would have to be paid by someone else, and, given the structure of the law, the someone else is probably equally innocent. So the real incidence is to shift costs from identifiable landowners, small businesses and municipalities to the anonymous customers of industrial corporations.

For NPL sites, the provisions providing for an "allocator" might slightly speed up the process of allocating shares, and thus reduce one of Superfund's dead weight losses, but it also might not. Complex, standardless proceedings take time, whether conducted by a court or by an administrative "allocator." The basic problems are the amorphous nature of the standards and strong incentives for parties to bring in every possible kind of evidence in an effort to shift the blame. And, of course, an increasingly cynical legal profession is happy to run the meter on its clients rather than promote efficient dispute resolution. The reformers may be blaming the courts for problems that are inherent in the complexity of the law and the structure of the legal system as a business. Shifting responsibility for administration will not change things.

The provisions on Brownfields read like a bad joke. They are choked with planning requirements, committees, participation, and other flora of the bureaucratic jungle, and the chances that any cities will ever hack a path through are remote. As with the Administration's program, this legislative proposal shows no recognition that Brownfields are an economic issue that should be solved through society's normal economic processes of private incentives, appropriate legal rules, and free markets. One of the great evils

of the basic Superfund law is that it undermines these values, and the legislative proposal continues this. The value actually at work in the proposal is the Congressional instinct for pork. Brownfields provide a handy excuse to channel millions of dollars to community groups, contractors, and other worthy recipients of middle-class welfare. The likely outcome of the multiplication of bureaucratic processes will be a few showcases of redevelopment and hundreds of thousands of unusable empty sites, and to guarentee that the Brownfields problem will remain insoluble.

The requirement that PRPs be allowed to carry out remediation would help a few large PRPs who are good at this and can do it more efficiently than the government. This is a net plus, but in the overall scheme of Superfund it should not be over-rated. It touches only a small part of the problem, and the caveats are intrusive enough so that it may make no practical difference.

So far, no one has been able to point to any significant interstate threat from contaminated sites.

Industry likes the provisions dealing with risk assessment and future use. This may show only how frustrated people are, because the changes seem weak. They are clearly paper improvements on the present structure, but what reason is there to believe that the EPA will implement them? The EPA could have produced substantial program reform through administrative action any time during the past 17 years. It has declined, acting only within the past two years under intense pressure, and even then in a limited way. The proposed law does nothing about the causes of this resistance. So why expect it to produce any genuine change in the EPA's behavior?

The delegation to states of control over NPL sites is mostly a sham. States are given power to do what the feds would do if the state can only guess what it is. They are not given power to junk the federal model completely, which is what is really needed. At present, states are outperforming the federal government at hazardous waste cleanup, and would do more if they were able. The most interesting thing about this provision is that it illustrates the tenacity with which both Congress and the EPA want to hold on to control over the program in the face of intense state pressure.

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VISIONS OF REAL REFORM

Often, the most important prerequisite to success is to admit failure. The flaws in Superfund are so fundamental that it is simply not possible to achieve meaningful reform by tinkering with the present statute. In particular, most of the proposed reforms touch little outside the narrow ambit of the NPL sites, leaving the huge overhang of other sites to trigger future avalanches of waste and injustice. The one reform that is important — the insulation of state sites from lawsuits under Superfund — is important precisely because it would allow a state to get rid of Superfund in the future and handle sites for itself. True reform of Superfund requires three steps:

1) Repeal of the current statute and its approach to hazardous waste cleanup, including federal cleanup standards, taxes, and liability rules;

2) Replace CERCLA with — nothing. Contaminated real estate is not a federal problem. It is a state and local concern. Under exceptional circumstances, where a release threatens to contaminate ground or surface water and spread across state lines, the federal government may have an interest where state authorities are incapable of addressing the concern, but the primary obligation should rest on the states. So far, no one has been able to point to any significant interstate threat from contaminated sites.

If the property owner chooses cleanup in addition to containment, this should be a choice based on the value of the parcel as real estate, not upon some vague concept that scrubbing dirty dirt is morally regenerating.

Because contaminated sites are not a federal problem, they should be left to the states.[34] Superfund has bred over 40 little hazardous waste cleanup programs at the state level, many of which are outperforming CERCLA. J. Winston Porter of the Waste Policy Center, former head of the federal Superfund program, points out the states deal with over ten times as many hazardous waste sites as the federal government, for less money overall. According to Porter, "In Minnesota, for example, cleanups routinely take two to three years and cost less than $5 million. New York, California, and Wisconsin have all remediated more than 200 sites – each comparable to the entire federal total of sites completed."[35] Moreover, the General Accounting Office reports that state level voluntary programs "have encouraged cleanups at thousands of hazardous waste sites, resulting in economic redevelopment at many of these properties."[36]

3) Establish transition rules to sweep up the debris of seventeen years and provide a measure of justice to people enmeshed in the program, with particular concern for those sites that are already in the Superfund pipeline. Discussing such a transition is beyond the scope of this analysis, and its difficulty is apparent, but the primary aim should be to expedite the process and transfer sites to state jurisdiction or, where possible, into private hands.

As the states take greater responsibility for hazardous waste cleanup, those programs that are mirrored on the federal Superfund program should be reformed along better principles, ones that exhibit respect for the history of legal doctrines of nuisance and for the facts of the problem. The principles of common law should guide the nation's approach to hazardous waste sites. These should start from the realization that there are two basic problems to be resolved under Superfund:

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[34] An argument can be made that the federal government can operate a single emergency response program that will be more efficient and effective than 50 state programs. This may be correct. Because the program has never been evaluated, it is hard to judge.

[35] Porter, *supra* note 9, at p. 5

[36] U.S. General Accounting Office, *State voluntary Programs Provide Incentives to Encourage Cleanups*, GAO/RCED-97-66, April 1997, p. 4.

- How much does cleanup cost?
- Who pays, and on what set of principles?

The answer to the first of these should be straightforward — it should cost as little as possible. Containment should be the key concern. As long as the property owner is preventing pollutants from straying beyond the fence line, there is no rationale for government involvement.[37] If the property owner chooses cleanup in addition to containment, all well and good, but this should be a choice based on the value of the parcel as real estate, not upon some vague concept that scrubbing dirty dirt is morally regenerating.

The states can legitimately specify cleanup standards necessary for various future uses of contaminated property, although it is not totally clear that even this would be necessary so long as there is full disclosure. Any such standards should be general in nature, and decisions on whether to clean up and use a particular site, and for what purpose, should be left for the owner to make in the light of all the economic factors, including the cost of cleanup. Cleanup standards should also be based on realistic risk assessment and exposure assumptions. Restrictions on the use of the land should be acceptable alternatives to cleanup.

When a land-owner used its property as a waste disposal site or for a contaminating industrial operation, it is fair to say it took on the risk that standards governing contamination would change.

This principle of cost minimization should be applied to orphan sites and government-owned sites as well. These should be auctioned off to anyone willing to undertake the obligation to contain the contamination. Thereafter, the new owner can make the decisions as to future use of the property. At the auction, the price of site could be positive (the bidder pays the government) or negative (the government pays the bidder).[38]

The second question is: Who pays? Eliminating the cost-inflating components of the current program would draw much of the fire from this issue by reducing the stakes. Nonetheless, substantial sums would remain at stake, and whoever pays is going to feel aggrieved. Part of this feeling will come from a sense that financial liabilities are being imposed retroactively, according to standards that have been invented in the past few years. And in

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[37] There is an intricate problem concerning groundwater. One argument for government intervention before contamination moves off-site is that all contaminated groundwater will in time migrate if left alone. Furthermore, the expense of cleanup multiplies greatly once the contamination moves from dirt to groundwater, and for some contaminants, cleaning groundwater is impossible. Because the landowner may not be immediately affected by underground contamination, he may lack the incentives to engage in the proper level of monitoring and early remediation. This argument has force, and it is certainly something for a state to consider. It also ties in with technical issues involving natural remediation forces. See Raymond C. Loehr, *The Environmental Impact of Soil Contamination, Bioavailability, Risk Assessment, and Policy Implications*, Reason Foundation & National Environmental Policy Institute, Policy Study No. 221, August 1996. But it is not a blanket excuse for a federal program.

[38] This approach is explored in James V. DeLong, *Privatizing Superfund: How to Clean Up Hazardous Waste*, Cato Institute Policy Analysis No. 247, December 18, 1995.

The wisdom of relying on the common law is confirmed by the disaster of Superfund, which shows how badly things can go wrong when ignorant legislators impose moralistic micromanagement on a poorly understood problem.

a fundamental way, this sense will be correct. It is impossible to eliminate an element of retroactivity from this issue because society's beliefs and standards about contaminated property have changed. We used to ignore it; now owners and users of property regard it as a serious problem. There is no way to avoid the realities that containment costs money, that contaminated property is worth less than it used to be, and that a threat that contamination will spread to neighboring property is regarded much more seriously than before. Someone has to pay these costs, and the choices are: Site owners, waste generators, neighbors, or taxpayers. There is no one else. The change in standards makes it inevitable that some people are going to wind up with burdens they did not anticipate.

The obvious initial answer is that consenting landowners should bear the cost. When a land-owner used its property as a waste disposal site or for a contaminating industrial operation, it is fair to say it took on the risk that standards governing contamination would change. Starting from this point, the allocation of responsibilities between the waste generators, transporters, and site owners is basically a matter of private contract and common law. A land-owner who accepted the risk of becoming a waste site or operating an industrial facility should not be able to turn around and sue the generators or transporters. Similarly, land-owners who take title to property should be held to have accepted any problems with past uses, absent fraud or misrepresentation.

The issues get harder when you play the law school game of removing the most obvious responsible party. Suppose the owner of a waste dump has taken off for the South Seas and the contamination is about to migrate off-site. Or suppose the land owner did not consent to the original dump. Or suppose the contamination comes from a now-abandoned railroad track located on an easement originally acquired by eminent domain and now transformed into a bicycle trail despite the land owner's objection. Who is responsible for containing it: Land-owners? Taxpayers? Neighboring land-owners? Bicyclists? Generators of the waste? Transporters? If the government moves in on an emergency basis, who, if anyone, is responsible for reimbursing it for the costs?

These are not easy questions, particularly if one insists that every site, no matter how harmless or remote, must be "cleaned up." One can see how it led to the imposition of retroactive liability on generators despite our legal system's presumption that it is unjust to impose liability for actions that were legal and ethical when performed. And this conclusion is not necessarily wrong. A state could in some circumstances, acting on the basis of ancient common law principles, impose liability on a waste generator or transporter for past acts without violating our basic taboo against retroactivity. If the circumstances were such that the generator failed in its duties as an expert on waste disposal, and if this expertise can fairly be attributed to a major industrial generator, then these principles might dictate that it rather

than innocent neighboring landowners or taxpayers bear the costs of cleanup.

The major point is that this kind of decision is quintessentially the kind of thing for which we have relied on common law principles. Harm has occurred. Someone must pay for it. Who gets stuck? And the wisdom of relying on the common law is confirmed by the disaster of Superfund, which shows how badly things can go wrong when ignorant legislators impose moralistic micromanagement on a poorly understood problem.[39]

These basic steps designed to all-but-eliminate the federal role in hazardous waste cleanup on private land and restore common law principles are the only road to true Superfund reform. They should be taken, forthwith. Seventeen years of nonsense are enough.

Seventeen years of nonsense are enough.

[39] The virtues of a return to the common law are analyzed in detail in Stroup, *supra* note 1.