

## In Defense of the Superfund Liability System: Matching the Diagnosis and the Cure

**Rena I. Steinzor and Linda E. Greer**

Rena Steinzor is an Associate Professor and Director of the Environmental Law Clinic at the University of Maryland School of Law. She is a 1976 graduate of Columbia Law School. Dr. Linda Greer is a senior scientist at the Natural Resources Defense Council (NRDC). She received her Ph.D. in environmental toxicology from the University of Maryland in 1989. The two have collaborated on Superfund issues since 1983 and served together as senior staff to the National Commission on Superfund, a joint project of the Keystone Center, the World Resources Institute, and the Vermont Law School. The authors are grateful for the superb research assistance provided by Peter Johnson and Charles Wagner. The views expressed in this Dialogue do not necessarily reflect the official views of the institutions with which the authors are associated.

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### The Sad State of the Policy Debate

Over the last decade and a half, the Superfund policy debate has assumed all the characteristics of what sociologists might call a dysfunctional subculture. Inside the Washington Beltway, the same 200 people make the same arguments to each other with the same disastrous results: controversy, gridlock, and a bad name for anyone prominently associated with the program. Occasionally, the debate is treated to an infusion of fresh blood, as it was in the 1994 national election. But newcomers flush with conviction about their own ability to find a magic solution to the problem soon become mired in the tangle of conflicting interests, dueling ideologies, and—perhaps most important of all—fiscal realities. At the same time, it is impossible for most of the participants to abandon the field, either institutionally or personally. Superfund's dual goals—to clean up the dangerous legacy of decades of toxic waste disposal and to prevent continued contamination of the environment—are simply too important to ignore.<sup>1</sup>

The statutory authority for the taxes that support the Superfund program expired in December 1995, and there is little realistic prospect that it will be extended any time soon.<sup>2</sup> In the meantime, the process of cleaning up sites has slowed across the country.<sup>3</sup> Although Superfund has been in tight spots before, the gridlock that characterizes this reauthorization debate is arguably the most serious threat to the program's ongoing viability that it has ever faced, and may ultimately threaten its very existence. The gridlock is especially tragic because the 103d and 104th Congresses squandered an historic opportunity to enact delicately balanced, carefully crafted consensus legislation that was supported at the time by a critical mass of the program's stakeholders, including everyone from the Monsanto Company to the Sierra Club.<sup>4</sup>

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The sad state of the Superfund debate has once again destabilized a program that accounts for almost one-fifth of the U.S. Environmental Protection Agency's (EPA's) budget;<sup>5</sup> that concerns the health and welfare of the 73 million people who live within a four-mile radius of a Superfund national priorities list (NPL) site;<sup>6</sup> and that has enmeshed thousands of large and small businesses, local governments, and other entities in its stringent and expensive liability net. But the full implications of the current gridlock extend far beyond the cleanup effort: without effective implementation and enforcement, the most powerful incentive for pollution prevention and waste minimization is neutralized.

It is arguably long past the time for all of the participants in the Superfund policy debate to take a sabbatical from Superfund's dysfunctional subculture, to diagnose the program's illness dispassionately, and to prescribe an honest cure. We argue below that retaining retroactive liability is the only viable way to finish the cleanup of old sites and to prevent the creation of new ones. We also

dispute the prevailing diagnosis that Superfund's problems are the result of its liability system. Instead, we argue that technical uncertainty and the lack of effective cleanup technologies are far more important sources of those problems. We further contend that maintaining retroactive liability is the most promising way to address those technical problems because the liability system ensures that the best of American industry remains committed to the search for more effective technologies.

Notwithstanding our conviction that technical issues are at the root of the program's problems, we continue our analysis with the recognition that the statute's authors and EPA made several major mistakes in constructing and implementing the liability scheme. Based on our experience as senior staff for the National Commission on Superfund,<sup>7</sup> our participation in reauthorization debates, and our admittedly dubious credentials as members of Superfund's dysfunctional subculture, we suggest several reforms of the current system that would address these problems without destroying the overriding benefits of retroactive strict, joint and several liability. Lastly, we consider the crucial question of whether there is a better alternative to retroactive liability, concluding that the only real option—a public works approach—is not viable either politically or from a public policy perspective.

It is beyond the scope of this Dialogue to discuss reform of the cleanup standards that the law prescribes,<sup>8</sup> although we recognize that reform of the standard-setting process is both necessary and inevitable. By focusing on the technical difficulties that complicate, delay, and increase the cost of cleanup, we do not intend to dismiss the problems that are caused by that process, but rather to suggest that a myopic focus on the liability system and current cleanup standards distracts attention from more profound and important technical problems.

### **Matching the Cure to the Diagnosis**

Complaints about the Superfund program are articulated on two levels: the micro-level of specific stakeholder grievances over damage suffered as a result of the program's day-to-day operation, and the macro-level of the program's difficulties in accomplishing cleanup of abandoned toxic waste sites. Too often, the clamor of specific grievances overshadows this large and more significant set of issues. What is the big picture of Superfund's macro-level failures? In a nutshell, cleanup is too slow and too expensive.

Over the last half-decade, the industries most directly affected by Superfund liability have spent millions of dollars publicizing their case that Superfund's slow pace and high cost are the result of its strict, joint and several liability scheme.<sup>9</sup> This campaign has been so successful that no prominent players in the debate, other than members of the environmental community and a few senior officials in the Clinton Administration, are willing to defend the liability system as intrinsically valuable—even essential—to the resurrection of the program.<sup>10</sup> The effect of this false diagnosis is exacerbated by the fact that lawyers—and not scientists—dominate most public discussion. Too often, the lawyers are either unable or unwilling to explore the technical problems that complicate cleanup at every major site in the country.

This myopic focus on the liability scheme is effectively refuted by technical studies conducted by investigators from such neutral institutions as the Congressional Office of Technology Assessment and the General Accounting Office.<sup>11</sup> Those studies explain, again and again, that the slow pace and high cost of cleanup are at least as much—if not primarily—a function of technical concerns. Such concerns can be grouped into two rough categories corresponding to the phases of a cleanup: technical problems that arise during remedial investigations and feasibility studies, and technical difficulties that impede remedy selection and implementation.

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#### *Technical Problems in the Study Phase*

The reason that remedial investigations and feasibility studies take a long time—five to seven years is not uncommon—is that the technical aspects of such projects are extraordinarily demanding. Not only are the sites large, filled with unknown combinations of hundreds of chemicals, and sitting on top of networks of aquifers and other complex geological features, but they are frequently surrounded by residential neighborhoods or other public facilities, exposing a wide range of the population to contamination that is very difficult to measure and assess.<sup>12</sup> Most scientists at the university level would scoff at the notion that it is possible to visit a multi-acre site and actually understand with any degree of confidence what contaminants are there, at what levels, and where they are traveling. From an objective, academic perspective, preparing site-specific risk assessments is not only more of an art than a science, but such assessments frequently cannot be conducted with sufficient technical clarity to gain broad-based acceptance among the scientific community. Yet such impossible tasks are routinely expected to be accomplished at every Superfund site.

Problems begin almost as soon as the technical experts try to analyze the contents of the site. Of course, the records of what was

dumped are notoriously poor and incomplete. They frequently extend back over decades, to periods when waste characterization methodology was primitive at best. These data gaps are compounded by the number of disparate parties that typically disposed of waste at the sites. Many parties are out of business, others have no information about the chemical composition of the wastes they contributed, and still others are reluctant to disclose any information about waste toxicity even where it is available. Most participants in the Superfund program focus on these problems because they affect the allocation of cleanup costs. But they have far more important implications for the long-term analysis of the threats posed by the sites, as well as the development of effective technical solutions to those hazards.

Even in the cases where EPA is fortunate enough to have more complete information about site contents, it frequently lacks sufficient health and environmental effects data to gauge the implications of these discoveries. It also lacks information about the interaction of common chemicals with each other, the effect of these interactions on different environmental media and ecosystems, and the precise characteristics of how chemicals are transported through the pathways typically affected by Superfund sites. In 1987 and 1990, EPA published two widely respected analyses of the gaps in information and scientific uncertainty that plague the Agency's programs, including Superfund.<sup>13</sup> These reports, one by the Agency's senior career staff and the second by a blue ribbon panel of the nation's top environmental scientists, document with frightening clarity just how far the experts have to go in characterizing the toxicological effects of the chemicals that contaminate the environment.

To further illustrate the problem of technical uncertainty, consider the difficulties of mapping groundwater, a medium contaminated by 85 percent of Superfund sites.<sup>14</sup> Even the nation's top hydrogeologists still find it extremely difficult to locate a contaminated groundwater plume, much less to evaluate where it is traveling and what kind of risk it poses for people who may use it as a source of drinking water. As a threshold matter, of course, aquifers are not visible, and investigations of the nature and scope of the contamination must be done on the basis of samples collected by extremely expensive monitoring wells. These results are then subjected to modeling that relies heavily on guesswork. To find and assess contaminated plumes, scientists must not only know what they are doing, but must also get lucky.

A second, equally frustrating example of a technical problem that eludes current scientific capacity is contamination caused by dense, nonaqueous phase liquids (DNAPLs) present at 60 percent of Superfund sites.<sup>15</sup> DNAPL contamination is the byproduct of certain solvent usage, wood preserving, and other industrial practices. The presence of DNAPLs has become a major impediment to effective remediation because these liquids are heavy and not soluble in water. As a result, DNAPLs have a tendency to pool in formations beneath the surface where they do not flow with groundwater and often escape detection. Even when we discover a subsurface DNAPL pool, available groundwater treatment technologies have had little success in removing it; simply pumping up such liquids is sometimes impossible. Although DNAPL plumes have undoubtedly existed since the advent of the Industrial Revolution, the problem was not even discussed in hydrogeology books until a few years ago; it was the extensive number of Superfund investigations that brought the problem to the attention of academics.

While all of these technical problems are admittedly daunting, and are far more significant and intractable causes of Superfund's sluggish performance than the liability system, the program has also fallen victim to administrative mistakes in managing technical work. It should not take seven years to do a remedial investigation and feasibility study, especially if the program's constituents are willing to live with uncertainty in the results of risk assessments, as the vast majority of Superfund stakeholders now recognize that they must.

When the Natural Resources Defense Council looked at the reasons that remedial investigations and feasibility studies take so long, it found that the most serious delays were caused by frequent shifting of the responsibility for conducting the studies from potentially responsible parties (PRPs) to EPA and back again.<sup>16</sup> In the late 1980's, EPA became interested in encouraging so-called enforcement-

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lead cleanups that are conducted by PRP steering committees under EPA supervision.<sup>17</sup> It adopted a policy of allowing PRPs to volunteer at any point in the multiple-year study phase to take over site investigation work. The delays caused by this approach were compounded in those cases where EPA became dissatisfied with the quality of PRP technical efforts and reclaimed control over the studies. Similarly, when PRPs took the lead from EPA, they would often feel the need to repeat the studies. Each time the baton changed hands, the new lead—whether governmental or private—would become dissatisfied with previous efforts and would decide to redo major portions of the work.

The price paid for all of the above delays is invariably increased by nature. Many sites are located in 10- or 15-year floodplains. During a typical seven-year investigation, floods occur, changing site conditions, displacing contaminants, and requiring that key components

of the studies be reexamined and modified. Heavy storms can lead to the same result.

### *Technical Problems During Remedy Selection and Implementation*

Unfortunately, technical complications in the Superfund program do not end with the completion of site investigations. Selecting effective remedies is also extremely difficult. Interim containment remedies, chosen more often than any other approach, require expensive long-term operation and maintenance. Even where there is a permanent solution available—incineration, for example—such technologies may be unacceptable to neighboring communities. In other situations, permanent technologies are either unavailable, experimental, or prohibitively expensive. Where technologies simply are not available—as in the case of DNAPLs, for example—the selection process boils down to a Hobson's choice between unappealing alternatives.

In the absence of inexpensive, publicly acceptable, permanent solutions that eliminate all traces of hazardous substances, remedy selection inevitably requires difficult technical judgments about what levels of residual contamination are safe. Given our profound ignorance about the toxicological effects of various chemicals and the complex assumptions that must factor into any effort to predict exposure of humans and ecosystems, these judgments require the balancing of a wide range of qualitative factors. The decisionmakers—hopelessly underpaid EPA staff—must make a slew of controversial site-specific calculations: How will the site be used in the future? What are the opportunities for human exposure? Is it appropriate to accept a level of exposure that could be tolerated by the average, healthy adult, or is it more appropriate to gear levels of protection to more vulnerable sectors of the population, such as children or the elderly? Are there unusual environmental hazards? How are they best quantified? When technical information is insufficient to determine the direction of the cleanup, other considerations, such as PRP lobbying for an alternative approach or a governor's wish to placate economically important companies, can become determinative.

### *Possible Administrative Solutions*

To partially address the long delays in the study phase of Superfund cleanups, EPA should establish a limited number of specific points in the process when PRPs would be given the opportunity to take the technical lead. If they did not volunteer, EPA would assume responsibility for finishing the studies without reopening the issue of who takes the lead. This approach would forestall destructive gaming of the system, especially by PRPs who are motivated to volunteer either because they do not like the results of the EPA investigation or because they wish to postpone the moment of truth when expensive remedial work must actually begin.

To make the best of technical problems that arise during the remedial phase, EPA should involve experts at EPA headquarters in the remedy selection decisions now made at the regional level. Regional offices would remain exclusively responsible for supervising the preparation of remedial investigations and feasibility studies, whether conducted by government contractors or by PRPs. But once the studies were complete, the regional offices would consult with interdisciplinary teams of EPA's best technical people, who would have veto power over the application of cleanup standards and remedy selection, traveling to the site as necessary to consider both the evidence and local citizen concerns. EPA has already attempted to address the issue of improving the quality and consistency of remedy selection by appointing a National Remedy Review Board.<sup>18</sup> However, this Board has not real authority over regional office decisions, has reviewed a very small number of decisions to date, and may well turn out to be another layer of bureaucratic review without real influence over site-specific decisions.

Giving national experts a veto power over remedy selection decisions would improve the resolution of technical difficulties for three reasons. First and foremost, it would ensure that decisionmaking was done uniformly, by the same relatively small group of adequately trained people, who would have constant and easy access to each other. It would also enable EPA, in an era of fiscal austerity, to streamline and improve the quality of its technical staff. At the moment, there is probably no more than one toxicologist in every regional office capable of conducting the complex analysis and making the difficult decisions that arise during remedy selection. The regional offices also suffer a dearth of environmental engineers who can evaluate with technical rigor the proposals made by the far larger number of better paid engineering consultants that PRPs have hired to importune them. Last but not least, centralized decisionmaking would drive the development

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of new technologies because it would create a national market for specific cleanup methods.

## **In Defense of Strict, Joint and Several Liability**

Although centralizing authority for cleanup decisions would make the best of existing technologies and limited scientific knowledge, the Superfund program will never run smoothly until new technologies are invented that can produce protective, publicly acceptable cleanups at a reasonable cost. If technologies were available right now that could clean up Superfund sites on a permanent basis for a cost of 10 cents per ton of waste, the dual problems of technical uncertainty in the risk assessment process and the transaction costs imposed by the liability system would fade into the background as minor irritants in an otherwise successful program. Of course, the program is far from the point where it can realistically depend on such progress. But unless the nation is ready to abandon the effort to clean up toxic waste sites, the adoption of policies that will drive the development of new technologies must be the central goal.

In a capitalist system based on private enterprise, how do you create the right set of incentives to develop new technologies? Rudimentary economic principles suggests the need to create a market for the technology through adequately stringent requirements for permanent cleanup. From there, private firms would be expected to enter the market and compete with respect to both performance and price. The optimal combination for a program like Superfund is the application of clear, strong, nationally uniform cleanup standards that drive technical performance at a realistic pace, partnered with a liability system that gives the country's strongest and most competent industrial firms the incentives to both develop and purchase the best technologies. This system would also likely keep the total price of cleanup down because private industry, paying for cleanup via invoices instead of taxes, would have the motivation necessary to keep costs as low as possible. In contrast, if government is the sole—or even the primary—customer for cleanup technologies, a dynamic market is not likely to develop, and pressure to keep prices low will not build.

The flip side of this issue is the urgent need to maintain adequate incentives for waste minimization, safe waste management, and the development of effective waste treatment technologies. The Superfund liability scheme has done far more than any other factor to galvanize private-sector concern about such matters, and virtually everyone acknowledges the importance of its deterrent effect.<sup>19</sup> If there is ever any hope of bringing the problem of improper waste disposal to an end, much less encouraging meaningful pollution prevention, rigorous prospective liability must not be abandoned.

## Five Big Mistakes

Although we are firmly convinced that technical problems—and not the intrinsic nature of strict, joint and several liability—are the primary causes of Superfund's slow pace, we are not willing to push our analysis to the point of exonerating the current system from any blame for the difficulties that have impeded the program. Beyond intellectual honesty, we see no advantage in failing to recognize these flaws, because thoughtful reform of the liability system, if coupled with reform of the technical aspects of the cleanup process, undoubtedly holds the key to Superfund's resurrection. The dysfunctional subculture that has made Superfund what it is today—including the authors of the legislation, the bureaucrats that implement it, and the scores of advocates who have tried to influence the first two groups—made five big mistakes in implementing the program. We consider them below not in the order of their importance—they play an approximately equal role in contributing to the program's current crisis—but rather in the rough chronological order in which they arose.

### *Unrealistic Expectations*

The first mistake was one of unrealistic expectations. Bruce Diamond, former EPA Superfund enforcement chief, once asked rhetorically, "Why is it that when we build roads we allow decades, but when we try to clean up 100 years of contamination, you get four years and you're out?"<sup>20</sup> In the context of all the difficult engineering feats the nation has faced—from building roads and railroads to bringing water to the arid West—cleaning up the legacy of the inappropriate disposal of hazardous industrial waste may well be the most challenging. The impatience of Superfund's various constituencies, which translates into a constant assault on the government bureaucrats who run the program, is both unrealistic and extremely damaging to the program's long-term credibility and success.

Of course, the authors of the original statute understood the importance of expectations and outfitted the program with its own powerful, internal booby trap: compilation of the NPL, a list of the nation's worst sites, which would serve as the focus of the cleanup effort in an immediate sense and as a life insurance policy over the long run.<sup>21</sup> As a matter of pure politics, it seems unthinkable that Congress would ever dismantle the program before the sites on the NPL are resolved in some manner that is convincing to the communities around them. Obviously recognizing this reality, legislation introduced by the Republican majority in Congress includes provisions for restricting the addition of new sites to the NPL.<sup>22</sup>

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Although the establishment of an NPL was a shrewd move politically, the program has paid a high price for this attribute, which has

also provided the most compelling evidence for the endless, bean-counting drumbeat of its critics. Throughout the 1983-86 reauthorization debate, the central justifications for reform were accusations about the slow pace of cleanup.<sup>23</sup> As full and enthusiastic participants in that crusade, we have lived to regret it.

Between 1980 and 1992, EPA completed construction at only 149 sites;<sup>24</sup> as of November 1996, it had completed construction at 400, and construction was underway at another 485.<sup>25</sup> As important, EPA has accomplished 4,271 short-term "removal actions" at 3,245 sites, ensuring that the most acute and immediate threats have been addressed while it waits for long-term cleanup.<sup>26</sup> Given the extremely difficult technical problems that EPA and PRPs face at Superfund sites, these numbers should be very encouraging. But they have not mollified the program's most vociferous detractors.<sup>27</sup> The situation is now at the point where distress over EPA's failure to meet unrealistic expectations has evolved into a fury at its ineffectiveness. It is small wonder that the bureaucrats are increasingly paralyzed in the cross-fire. For the first time, it appears possible that the program might be dismantled in all but name by a Congress intent on convincing itself that since its expectations can never be met, the nation should stop making the effort.

An effective solution to this mistake is not a simple matter of writing new legislative provisions, but rather will require that a critical mass of the relevant political leadership (congressional committee chairs and the highest levels of the Clinton Administration) begin to reeducate the media and the public about the difficulties involved in reclaiming polluted land. Rather than allowing themselves to be swept up in the parade of Superfund critics, participants in the debate who have real political influence must announce the unpleasant news that substantial progress in this massive effort will take decades. Imposing arbitrary and extremely low caps on the number of sites that can be added to the NPL may appear to solve the problem of unrealistic expectations. However, it will undermine Superfund's overall credibility and create a mammoth and overwhelming unfunded mandate for the states. Instead, the NPL should grow at approximately its current rate, with the understanding that completing cleanup will require significantly longer time lines.

### *Broad Scope*

The groundwork for the second big mistake was also laid in the original statute. Superfund—both the law and the program—is absurdly broad. While most people think of Superfund as essentially a dumpsite program, anyone with more than passing familiarity realizes that it theoretically covers everything from an accidental spill of ammonia in your driveway to a 200-acre landfill containing millions of tons of hazardous industrial waste.<sup>28</sup> As a practical matter, all levels of government ignore the ammonia incident and its ilk. But those who hate Superfund—and there are thousands of powerful companies with good reason to do so—exploit this uncertainty to instill paranoia throughout crucial industries. Today, fear of Superfund liability is blamed for everything from the economic blight of the inner city to corporate disadvantage in the global economy.<sup>29</sup> Those inclined to defend the statute begin at a substantial disadvantage because, after all, what the statute says is threatening, at least in theory.

All of these problems are exacerbated by several orders of magnitude because, until recently, the program (as opposed to the law) did not include any effective mechanism for protecting the "little people."<sup>30</sup> In this context, the "little people" come in two shapes and sizes: (1) small businesses (e.g., dry cleaners, metal refinishers, municipal fleet maintenance shops) that sent admittedly hazardous wastes in relatively small quantities; and (2) a wide range of other [27 ELR 10292] entities snared because they sent ordinary garbage to a site. Because co-disposal of garbage and liquid industrial waste was common practice until the middle of the last decade, Superfund liability has churned every conceivable type of entity into the system—from bridal boutiques, pizza parlors, and butcher shops, to churches and other nonprofit organizations, to owners of small apartment buildings—with no foreseeable escape.<sup>31</sup>

In the last few years, realizing the severe damage that this kind of litigation was doing to the program, EPA career staff have made more active efforts to develop policies that would settle out such parties much earlier in the process.<sup>32</sup> It is extraordinarily important that these efforts both continue and increase. It is also important that Congress codify the exemptions and special treatment that EPA has developed, withdrawing the tool used so successfully to undermine the program.

### *Private-Sector Allocation*

The third big mistake was to put the private sector in charge of developing the process for allocating cleanup costs under a joint and several liability scheme, with little or no supervision by the government. We quibble here not with the decision to force PRPs to bear the expense of allocating costs among themselves, but rather with EPA's failure in the early days of the program to issue standards for the operation of voluntary settlement groups or "steering committees" that could have dramatically improved the fairness and efficiency of the process. In the absence of government guidelines, rumors about Fortune 500 steering committees meeting behind closed doors to nail weaker joint tortfeasors ruined the program's reputation for fairness.

Today, steering committees are far better organized and have developed their own operating procedures and informal rules of conduct.<sup>33</sup> More often than not, they manage to craft fair deals for large corporate players, allocating costs under a system of rough justice that saves major players—including the government—the high costs of litigation. But the major players still do a poor job dealing with small or less sophisticated players, especially small businesses, municipalities, and nonprofit entities that find it difficult to comprehend or tolerate the steering committees' corporate legal culture. In these important respects, steering committees have not departed significantly from the Wild West atmosphere that pervaded the early days and, as a result, they cannot serve as the exclusive vehicle for real reform.

The widely recognized solution to these problems is to establish a process for allocating cleanup costs that would be supervised by a neutral third party.<sup>34</sup> The process would serve as an alternative to, but would not supersede, the current settlement process administered by privately organized steering committees. If steering committees did not accomplish allocation quickly and fairly behind closed doors, a significant minority of dissatisfied PRPs would have the opportunity to petition EPA to set up the neutral process, which would resemble an administrative hearing focused on the dual issues of deciding who had a valid defense to liability and what percentage those remaining liable should pay.

The backdrop for the allocation process and for private efforts to forge voluntary settlements would remain strict, joint and several liability.<sup>35</sup> To ensure that PRPs do not sit out the process, both EPA enforcement resources and administrative commitment should be built up to the point where they pose a credible threat to such behavior.

The entire allocation system should be structured on a "pay as you go" basis for all but the smallest "cash out" parties. Under such a system, the presiding judge or the parties themselves, acting through a voluntary settlement, would produce a percentage share for each contributor. As cleanup costs are incurred, invoices based on those percentages would be submitted. Participants would not be asked to make large, upfront payments that are not necessary to support ongoing cleanup and that could deprive them of the use of the money until it is actually needed.

Public funding would be provided for the "orphan share" of cleanup costs that is attributable to PRPs that are no longer viable.<sup>36</sup> Under the current liability system, this orphan share is redivided among those PRPs that are still solvent. Indeed, obtaining payment of the orphan share is one of the primary reasons for imposing joint and several liability. Many large PRPs are less troubled by the fact that they have to cover someone else's contribution than they are by the lengthy and uncertain allocation process. But [27 ELR 10293] others are outraged by the prospect of paying for the orphan share, which can be quite large in many cases, especially when owners, operators, and a large number of generators have gone out of business. Whether the funds needed to subsidize the orphan share are raised by new taxes or funded by general revenues are matters for negotiation among the legislators.

### *Failure to Reauthorize*

The fourth big mistake was the failure to insulate Superfund from the harmful reversals in direction that accompany congressional efforts to reauthorize it and the temptation to use trust fund revenues to reduce the apparent size of the federal deficit. The Superfund program has experienced delays in technical work as a direct result of congressional failures in 1986 and 1995 to extend the taxing authority that supports the program and throughout the 1990s to appropriate available trust fund resources for cleanup.<sup>37</sup> Sensing the advent of congressional gridlock, EPA would begin months in advance to triage its expenditures. Studies at low-priority sites would be shelved. When funding was revived, many of these studies would need to be updated, if not redone. Further, because Superfund trust fund revenues are counted with all of the government's other resources in determining the size of the overall federal deficit, congressional appropriations have lagged hundreds of millions of dollars behind both authorized spending levels and available funding in recent years.<sup>38</sup> The ostensible excuse is that Congress lost confidence in EPA's ability to spend the money wisely. The political reality is that Superfund in its weakened state was an attractive target for appropriators anxious to use the trust fund as an offset against the federal deficit. Until this opportunistic use of the fund is curtailed, cleanup will continue to be shortchanged.

These periods of funding shortfalls have complicated EPA's efforts to plan effective implementation on a long-term basis. Too often the career staff would manage to get a protocol in place for establishing priorities among sites and supervising a steady pace of cleanup only to have the program skid into a new round of instability that forced them to reevaluate all their plans. Congress allows the taxes to expire, and EPA is left reorganizing its priorities into life-threatening versus non-life-threatening situations.

Congress could stabilize Superfund and eliminate the expensive waste of both government and private-sector resources by reauthorizing the program and the taxes that support it for a significantly longer period, such as 8 or 10 years. A related, badly needed reform is to place the Superfund trust off-budget or, at the very least, to achieve agreement among congressional appropriators that the program's dedicated taxes will in fact be made available to EPA on a timely basis.

## *Effect on Insurers*

The fifth and final mistake was the failure to come to grips with Superfund's effect on the insurance industry 10 years ago, before site-specific litigation had so entrenched individual companies that a compromise is now far more difficult. Whether because of their own shortsightedness, or society's collective ignorance about the long-term economic implications of toxic waste cleanup, the insurers did not charge premiums commensurate with outstanding claims.<sup>39</sup>

During the last reauthorization, Congress flirted with the concept of repealing insurance policies legislatively.<sup>40</sup> The insurers also pressed hard for a public works approach, but were unwilling either to put significant funding on the table or to tailor the scope of their proposals.<sup>41</sup> Ironically, the dynamic then was similar to the dynamic now: a surprising number of people, including the environmental community and its legislative advocates, were willing to at least listen to a discussion of replacing all or part of the liability scheme with significantly increased public funding, especially if industry paid the bulk of the new taxes. But the money was never forthcoming, and the proposals died.

When Congress and the Administration returned to the problem in 1992, they faced a thicket of litigation between insurance companies and their customers, with both sides capable of delivering extreme political pressure on individual members of Congress. The program in its weakened state is simply no match for these dynamics. They are the major reason that legislative gridlock prevails and that rebuilding the consensus of 1994 looks unlikely.

The current direction of the debate is bad for absolutely everyone, although it is probably less damaging for the insurers than other stakeholders because insurers do not have a meaningful long-term stake in the success of the program. Many insurers have obviously calculated that despite the hits they have taken during litigation with their customers, they can afford to hold out for a more satisfactory solution. Ultimately, resolution of the current debate will require that Congress and the Administration force the insurers to be satisfied with half a loaf, rather than the public works alternative they have pushed for so hard.

Although it will undoubtedly be difficult to hold the insurers at bay while more moderate proposals are considered by Congress, forcing them to accept relief that is acceptable to all of Superfund's other constituencies is the only way to break the current stalemate. The most promising approach is the model suggested by the Clinton Administration in its 1994 proposal to create an "Environmental Insurance Resolution Fund" (EIRF).<sup>42</sup> The EIRF would impose taxes on insurers to create a fund of several hundred million dollars a year that would then be used to buy out insurance policies at a rate below the policy limits, but without litigation. The EIRF version of this model is burdened [27 ELR 10294] by an excessively complicated series of formulas for determining how much policies would be worth and should be simplified. But this approach should provide the framework for forging a compromise that should be acceptable to both insurers and their insureds.

## **Is There a Better Alternative?: The Case Against Public Works**

If we are right that technical difficulties, and not the current liability system, are the primary source of Superfund's most important failures, we must ask the next logical question: how will repealing liability affect our search for more effective cleanup technologies and a better scientific understanding of the environmental and health effects of toxic waste? The only honest answer is that repeal is likely to make that search far more difficult. As discussed above, the current liability system is far from irrelevant to the development of improved technologies for Superfund cleanups because it provides an ingredient essential to that process: customers who are highly motivated to purchase better cleanup methods at a competitive price.

Industry groups have advanced a multitude of proposals for repealing retroactive liability under Superfund and replacing it with a public works approach.<sup>43</sup> None of these proposals has addressed in any convincing depth how government-sponsored cleanups will produce the scientific and technological advances that are so desperately needed. Any significant repeal of retroactive liability will sharply diminish the incentive for the nation's most capable industrial firms to commit resources to the search for better technical solutions. In the absence of a private effort, only government resources would be available to make the search. Yet none of the proposals identifies an agency capable of playing this role, nor do they commit any meaningful resources to the sponsorship of expanded government research programs.

As for Superfund's role in encouraging waste minimization and appropriate disposal, only the most extreme participants in the current reauthorization debate argue for substantial modifications in prospective liability. Instead, most agree that major changes should only be made to the system's retroactive application. They argue that if prospective liability remains strict, joint and several, Superfund's



deterrent effect will be maintained, especially its widely acknowledged importance as an incentive for waste minimization and pollution control.

This argument overlooks one important political reality: the more sweeping the changes are in retroactive liability, the more incentive people will have to constantly expand them. At some point, such changes will cross the line from modest reforms to such wholesale changes that those seeking to avoid paying their fair share will resist efforts to resolve past liability, instead focusing their resources on organizing for the next round of legislative and administrative changes. Today, co-disposal sites will be exempt, tomorrow wastes produced by the dry cleaning industry, the day after that mining wastes, and soon enforcement against parties hoping for an exemption will become significantly more difficult.

The major arguments in favor of the public works approach are that it would eliminate hundreds of millions of dollars in transaction costs on an annual basis and that it would allow EPA to focus exclusively on getting the cleanup job done. The notion that public works would save money in any absolute sense is undercut by the painful reality that government cleanups cost significantly more than cleanups implemented by the private sector.<sup>44</sup> In one way or another, industry will pay supposedly unnecessary costs, either to lawyers or in taxes. The only real ways to reduce such costs are to reform cleanup standards or to circumscribe the scope of the program.

The public works alternative also fails to deliver on its claim that it would eliminate unnecessary costs, because in all but its purest form, new transaction costs would replace—and arguably exceed—those imposed under the current system. In its purest form, the public works alternative would repeal all retroactive liability for any currently responsible party, replacing it with a significantly larger federal fund supported by new taxes.<sup>45</sup> Pure public works proposals withered on the legislative vine during the 104th Congress because no one could come up with a convincing way to raise the significant amount of new money that would be necessary. Instead, Congress is now considering more popular, "hybrid" versions of the public works alternative. Such hybrid approaches narrow the scope of retroactive liability repeal, including only discreet categories of responsible parties and sites.<sup>46</sup> By restricting the categories of parties and sites that would be protected from liability, proponents are able to argue that less new money is needed and therefore only modest additional taxes should be imposed.

Since the 1994 election, industry advocates on and off Capitol Hill have devoted themselves to the expensive and arduous enterprise of comparing the cost of various scenarios for repealing liability to the constantly moving target of politically acceptable new tax authority.<sup>47</sup> The result is a series of gerrymandered rules that would combine liability repeals for behavior that occurred before a certain date or [27 ELR 10295] at a certain type of site (e.g., sites where municipal solid waste was co-disposed with industrial hazardous waste) with exemptions for certain special classes of PRPs (e.g., small businesses and small generators of municipal solid waste) to produce a system at least as complex and fraught with controversy as the current one.

If it is truly our goal to speed cleanup and reduce unnecessary transaction costs, the expense of changing course in this manner is an important consideration. PRPs and the government have spent 15 years litigating liability issues. In the last four or five years, the program has finally reached the point where the basic rules are sufficiently well understood that few companies bother challenging them in court anymore, instead focusing on hammering out a tolerable settlement. Of course, if change would magically produce fairness, softening the admittedly harsh aspects of joint and several liability, then a new wave of litigation might be an acceptable price to pay. But there is nothing to suggest that dramatically increased fairness would be the result of substituting gerrymandered exemptions for more comprehensive liability. Instead, the current system would assume an overlay of arbitrary criteria that are bitterly resented by those still caught in the system.

A second, closely related problem that the hybrid public works proposals face is their negative impact on the companies that have paid substantial amounts to settle their Superfund liability. These ranks are filled with the biggest, best known, and most powerful members of the petrochemical, waste management, and industrial sectors. Although most have been remarkably skillful at staggering the pace of their Superfund payments, over the last 15 years they have paid or committed billions of dollars to cleanup. The inequity of allowing less responsible companies to get a break on liability while others remain uncompensated for sunk costs has motivated some of the most convoluted proposals in the current reauthorization debate.<sup>48</sup> Legislative proposals to reimburse past expenditures, either directly or through some form of tax credit, have only compounded the apparently unbridgeable shortfalls between the cost of repealing retroactive liability and the new funding that might be available.

In sum, if there was a palatable way in the current political climate to convert Superfund into a hybrid public works program—keeping the pace of cleanup reasonable without raising significant new taxes—it would have been implemented already. In the end, corporate opposition to significant new taxes means that there are only two fundamental choices in the current reauthorization round: retain the basic retroactive liability structure or repeal liability, ramping the level of resources committed to the program way down.

## Conclusion

The Superfund reauthorization debate is mired in sparring between Democrats and Republicans, with each group excoriating the other for failing to put forth a realistic proposal. At some point, the implications of the gridlock will dawn on the public, especially the people who live near the sites. They may not realize the underlying scandal of the current situation—the lost opportunity to enact consensus legislation—but they will realize that Superfund, like so many Washington programs, continues to struggle at the margin of effectiveness while the politicians and the lobbyists bicker. All of Superfund's constituencies have something to lose in the aftermath of that realization.

Repealing retroactive liability not only is a bad idea, it simply is not in the cards. If participants in the debate can realize that the public works proponents have advanced a false diagnosis of the program's problems, can come to grips with the technical difficulties that continue to plague it, and can craft realistic reforms of the current liability system, there may be hope for Superfund yet.

1. The statute establishing Superfund is the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended in scattered sections of 26, 33, 42, and 49 U.S.C.). Throughout this Dialogue, all references to "Superfund" should be construed as references to the program established under the 1980 statute as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. No. 99-499, 100 Stat. 1615 (codified in scattered sections of 10, 26, 29, 33, and 42 U.S.C.).

2. In 1990, Congress enacted a five-year extension of the taxes that support the program and reauthorized the Superfund statute without amending any of its substantive provisions. The taxing authority therefore expired on December 31, 1995. Omnibus Budget Reconciliation Act of 1990, Pub. L. No. 101-508, §§ 6301, 11231, 104 Stat. 1388, 1388-319, -444, -445 (1988 & Supp. IV 1992). The 104th Congress made several abortive efforts to move reauthorization legislation, but ran out of time to make progress on such major legislation, especially given the sharp differences between the positions of the congressional Republican leadership and senior Clinton Administration officials. *See, e.g.*, Gary Lee, *Toxic Waste Dump Awaits Cleanup As Government Fights Over Tools; Hill Republicans, EPA in Tug of War on Power of "Superfund" Law*, WASH. POST, May 25, 1996, at A3; Allan Freedman, *Superfund Negotiators Hope for Bipartisan Compromise*, 1996 CONG. Q. 1040; Margaret Kriz, *The Superfund Saga*, 27 NAT'L J. 2592 (1995); Lois J. Schiffer, *Keep Superfund Liability Intact*, ENVTL. F., Sept./Oct. 1995, at 25; Bob Smith, *Repeal Retroactive Liability, Amend Joint and Several*, ENVTL. F., Sept./Oct. 1995, at 30. Unfortunately, the 105th Congress has picked up the debate where the 104th left off and remains mired in controversy. *See, e.g.*, Jennifer Silverman, *Reform Effort Faces Major Hurdles on Legislation, Natural Resource Damages*, Daily Env't Rep. (BNA), Special Supplement, Jan. 21, 1997, at G-2.

3. John H. Cushman Jr., *Superfund Cleanups Halted, Budget Impasse Is Final Straw in Partisan Wrangle*, PITTSBURGH POST-GAZETTE, Jan. 15, 1996, at A6 ("With congressional committees still struggling to write a bill, nobody can predict how the program will be financed in the years ahead or how liability will be apportioned among polluters....Because of the chaos, agency officials said, millions of dollars are being wasted, compounding the financial woes of a program that for a decade and a half has become famous for inefficiency, litigation, and delay."); *see also* EPA, THE FACTS SPEAK FOR THEMSELVES: A FUNDAMENTALLY DIFFERENT SUPERFUND PROGRAM 6 (Nov. 1996) [hereinafter EPA FACTS] ("When Congress allowed the Superfund tax to expire at the end of 1995, it put a halt to the approximately \$ 4 million per day that was generated for Superfund cleanups. Though there is still a positive balance in the Superfund Trust Fund, without some certainty as to if or when the tax will be reinstated, EPA will need to make hard decisions in the near future to plan for cleanups without the availability of this Fund money.").

4. H.R. 4916, 103d Cong. (1994); S. 1834, 103d Cong. (1994). For a description of the consensus-building process and the demise of the legislation in the 103d Congress, see Rena I. Steinzor, *The Reauthorization of Superfund: Can the Deal of the Century Be Saved?*, 25 ELR 10016 (Jan. 1995); Timothy Noah, *Disputes End Revision Effort for Superfund*, WALL ST. J., Oct. 6, 1994, at B8; Margaret Kriz, *How the Twain Met*, 26 NAT'L J. 1291, 1294 (1994).

5. Superfund appropriations represented \$ 1.3 billion of a total \$ 6.5 billion in fiscal year 1996 EPA appropriations. Brian Broderick et al., *House Passes FY 1996 Budget Agreement to Fund EPA, Interior, Other Agencies*, Daily Env't Rep. (BNA), Apr. 26, 1996, at AA-1.

6. OFFICE OF CONGRESSIONAL & LEGISLATIVE AFFAIRS, EPA, SETTING THE RECORD STRAIGHT: A RAPID RESPONSE TO MYTHS ABOUT SUPERFUND, FACTSHEET NO. 7 (1995).

7. The National Commission on Superfund (NCS) was composed of representatives of the chemical, insurance and banking industries;

the environmental community; municipalities; community groups; Native Americans; and civil rights groups. It issued a report proposing comprehensive reform of Superfund in 1994. KEYSTONE CTR. & ENVTL. LAW CTR., VERMONT LAW SCH., FINAL CONSENSUS REPORT OF THE NATIONAL COMMISSION ON SUPERFUND (1994) [hereinafter NCS REPORT].

[8.](#) 42 U.S.C. § 9621, ELR STAT. CERCLA § 121.

[9.](#) See Kriz, *supra* note 2.

[10.](#) See, e.g., *The Reform of the Superfund Act: Hearings on H.R. 2500 Before the Subcomm. on Commerce, Trade, and Hazardous Materials of the House Comm. on Commerce*, 104th Cong. (1995), available in WESTLAW, USTestimony database (statements of Carol M. Browner, Administrator, EPA, 1995 WL 630568; Lois J. Schiffer, Assistant Attorney General, Env'tl. & Natural Resources Div., U.S. Dep't of Justice, 1995 WL 630565; Karen Florini, Senior Attorney Env'tl. Defense Fund, 1995 WL 636796).

[11.](#) See, e.g., U.S. GEN. ACCOUNTING OFFICE, SUPERFUND: PROBLEMS WITH THE COMPLETENESS AND CONSISTENCY OF SITE CLEANUP PLANS, PUB. No. GAO/RCED-92-138 (1992); U.S. OFFICE OF TECH. ASSESSMENT, COMING CLEAN: SUPERFUND PROBLEMS CAN BE SOLVED, PUB. NO. OTA-ITE-433 (1989); U.S. OFFICE OF TECH. ASSESSMENT, ARE WE CLEANING UP: 10 SUPERFUND CASE STUDIES—SPECIAL REPORT, PUB. NO. OTA-ITE-362 (1988).

[12.](#) Letter from Elliot P. Laws, Assistant Administrator, Office of Solid Waste and Emergency Response, EPA, to John D. Dingell, Chairman, House Committee on Energy and Commerce (Jan. 28, 1994) (on file with author) ("More than three-quarters (76%) of sites have a mixed land use surrounding the site. Seventy-nine percent (79%) of sites have residential land use surrounding them.").

[13.](#) EPA, UNFINISHED BUSINESS: A COMPARATIVE ASSESSMENT OF ENVIRONMENTAL PROBLEMS (1987); EPA, REDUCING RISK: SETTING PRIORITIES AND STRATEGIES FOR ENVIRONMENTAL PROTECTION (1990).

[14.](#) EPA, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, GUIDANCE FOR EVALUATING THE TECHNICAL IMPRACTICABILITY OF GROUND-WATER RESTORATION, DIRECTIVE 9234.2-25, EPA/540-R-93-080, PB93-963507, at 1 (1993) ("Ground-water contamination problems are pervasive ... over 85 percent of Superfund National Priorities List (NPL) sites ... have some degree of ground-water contamination.").

[15.](#) *Id.* at 6.

[16.](#) Dr. Greer directed this investigation, which was used to inform the NRDC's positions during the Superfund reauthorization debate, but was never released as a formal written study.

[17.](#) EPA is authorized to accomplish cleanups at Superfund sites by either financing the work itself through "fund lead" cleanups or by requiring PRPs to do the work through "PRP lead" or "enforcement lead" cleanups. In June 1989, EPA pledged a shift in Superfund policy toward "enforcement lead" cleanups. See J. Scott Orr, *EPA to Speed Action on Superfund Cleanups*, STAR-LEDGER, June 15, 1989, available in 1989 WL 3139902; EPA, OSWER Directive, Management Review of the Superfund Program: Implementation Plan, OSWER 9201.02A (Sept. 1989); Debra Rubin, *News EPA Celebrates by Getting Tougher*, ENGINEERING NEWS-REC., Dec. 10, 1990, at 9.

[18.](#) EPA FACTS, *supra* note 3, at 7 ("The Remedy Review Board is a board of technical and policy experts within EPA that will review high cost long-term cleanups prior to a Record of Decision (ROD) being signed. The Remedy Review Board reviewed 12 sites in FY 1996, and EPA expects an average savings of about \$ 1 million per site. Continued use of the Board will continue to control cleanup costs at large, complex Superfund sites across the nation.").

[19.](#) KATHERINE N. PROBST ET AL., FOOTING THE BILL FOR SUPERFUND CLEANUPS, WHO PAYS AND HOW? 26 (1995) ("Ever since Superfund was enacted there have been complaints that its liability scheme is unfair and should be changed. Some critics contend that retroactive, strict, joint and several liability creates large (and wasteful) transaction costs and slows cleanup. Yet others credit Superfund with raising corporate consciousness about the harm caused by improper handling of hazardous substances and by sloppy waste disposal practices, and, more specifically, with providing an effective incentive to minimize the generation of hazardous wastes."); see also William H. Rodgers Jr., *The Seven Great Wonders*, ENVTL. F., Nov./Dec. 1994, at 23, 24 ("In the 14 short years of

its life, this statute has revolutionized commercial property management and exchange in the United States. More than any other single enactment, Section 107 has brought environmental law into the blue-ribbon firms of every major city. In no small way, this statute has transformed the practice of environmental law from fringe novelty to mainstream reality.").

20. *Superfund: Imperfect Law Does Some Good* (NPR broadcast, Sept. 25, 1991).

21. 42 U.S.C. § 9605, ELR STAT. CERCLA § 105 (requiring the establishment of the NPL). The list itself appears at 40 C.F.R. pt. 300, app. B. (1995).

22. When this Dialogue went to press, Senate Republicans had introduced comprehensive reauthorization legislation, which was endorsed by one House committee chairman. S. 8, 105th Cong. (1997); Jennifer Silverman, *Shuster, Business Praise Senate Bill; House Waiting on Response From EPA*, Daily Env't Rep. (BNA), Jan. 24, 1997, at A-9. The Senate bill would cap additions to the NPL at 30 "vessels and facilities" in 1997, 25 in 1998, 20 in 1999, 15 in 2000, and 10 in any year after 2000. S. 8, 105th Cong. § 802 (1997). The Clinton Administration opposes this provision. *EPA Opposes National Priorities List Cap, Remedy Alternatives Under Senate GOP Bill*, Daily Env't Rep. (BNA), Jan. 28, 1997, at A-3.

23. When the first reauthorization debate began in 1983, the media characterized the Superfund program as a complete failure—mostly due to mismanagement at EPA. The fact that in four years, only six sites had been cleaned up was mentioned prominently. See Joseph A. Davis, *Superfund Contaminated by Partisan Politics*, 42 CONG. Q. 615, 617 (1984).

24. PRESIDENT CLINTON'S BUDGET PROPOSAL REGARDING THE ENVIRONMENT (FROM: BUDGET OF THE UNITED STATES GOVERNMENT-FISCAL YEAR 1997), reprinted in [26 Current Developments] Env't Rep. (BNA) 2212, 2219 (Mar. 22, 1996) [hereinafter 1997 CLINTON BUDGET PROPOSAL].

25. EPA FACTS, *supra* note 3, at 1.

26. 1996 CLINTON BUDGET PROPOSAL, *supra* note 24, at 2234.

27. Industry critiques advanced during this round of the reauthorization debate sound much like those we advanced over a decade ago. See, e.g., *Time to Reform Superfund*, WASH. POST, Sept. 2, 1993, at A26; Associated Press, *Cleanup Gets Little of Superfund Settlements*, N.Y. TIMES, Apr. 26, 1992, at A27.

28. The Superfund statute imposes liability for "releases" or "threatened releases" of "hazardous substances" into the "environment" at a "facility." 42 U.S.C. § 9607, ELR STAT. CERCLA § 107. The definitions of these terms give the law an extremely broad scope. See, e.g., 42 U.S.C. § 9601(22), ELR STAT. CERCLA § 101(22) (defining "release" as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment"); 42 U.S.C. § 9601(14), ELR STAT. CERCLA § 101(14) (defining "hazardous substance" as a broad range of chemicals regulated under other major environmental statutes); 42 U.S.C. § 9601(8), ELR STAT. CERCLA § 101(8) (defining "environment" as any body of water, including groundwater, soil, or ambient air); and 42 U.S.C. § 9601(9), ELR STAT. CERCLA § 101(9) (defining "facility" as "any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located").

29. See, e.g., Neal R. Peirce, *How Superfund Stifles Urban Recovery*, BALT. SUN, May 2, 1994, at 9A; John A. Baden, *A Market Incentive for Inner City Brownfields*, SEATTLE TIMES, Dec. 20, 1995, at B11; Julia A. Solo, *Urban Decay and the Role of Superfund: Legal Barriers to Redevelopment and Prospects for Change*, 43 BUFF. L. REV. 285 (1995); Firas Bazazi, *Superfund Program Hurts Competitiveness*, OIL DAILY, Sept. 17, 1993, at 7; see also *Horror Stories* (1996) <http://www.sfreform95.org/waste.html> (an Internet site, maintained by members of Superfund Reform '95, which provides examples of how the Superfund program has hurt small business).

30. One of the most important provisions in SARA was authority for EPA to craft so-called de minimis settlements that would give small players an opportunity to settle out of the long and arduous cleanup process early. 42 U.S.C. § 9622(g), ELR STAT. CERCLA § 122(g). However, EPA did little to execute this authority until several years after it was granted, exacerbating the political damage to the program's credibility caused by its broad liability scheme. *Plan to Encourage De Minimis Settlements Slated for Release by End of 1991, EPA Says*, [22 Current Developments] Env't Rep. (BNA) 1741 (Nov. 8, 1991).

- [31.](#) For a discussion of how Superfund has affected—and been affected—by this phenomenon, see Rena I. Steinzor & David Kolker, *To Pay or Not to Pay: Local Governments' Stake in Legislation to Reauthorize Superfund*, 25 URB. LAW. 627 (1993); Rena I. Steinzor & Matthew F. Lintner, *Local Governments and Superfund, 1992 Update: Who Is Paying the Tab?*, 24 URB. LAW. 51 (1992).
- [32.](#) See, e.g., EPA, *Press Advisory: Environmental Enforcement Records Set for 1996*, EPA 97-R-30, Feb. 25, 1997, available in 1997 WL 83556 (EPA) ("In order to settle cases with responsible parties more quickly and to limit third party litigation, EPA, under its 'De Minimis' policy, settled with over 1,800 small volume contributors at 24 Superfund sites. To prevent the very small parties from being brought into the litigation process, EPA issued its 'De Micromis' policy, which is expected to protect thousands of very small parties from litigation."); see also Announcement and Publication of Final Policy Toward Owners of Property Containing Contaminated Aquifers, 60 Fed. Reg. 34790 (July 3, 1995); EPA, *Guidance on CERCLA Settlements With De Micromis Waste Contributors*, 1993 WL 816059 (OSWER) (July 30, 1993); EPA, *De Minimis Waste Contributors Under CERCLA Section 122(g)(1)(A)*, July 30, 1993, available in 1993 WL 811813 (OSWER).
- [33.](#) See, e.g., John Quarles, PRP ORGANIZATION HANDBOOK (1989). Quarles, a former EPA Administrator, is a partner with the Washington, D.C., law firm of Morgan, Lewis, & Bockius, which sponsors the Superfund Information Network, an association of corporate PRPs that meets periodically to exchange information about their experiences at Superfund sites.
- [34.](#) See, e.g., H.R. 4916, 103d Cong. § 413 (1994); S. 1834, 103d Cong. § 409 (1994) (proposing an allocation process); see also George Van Cleve, *Would the Superfund Response Cost Allocation Procedures Considered by the 103d Congress Reduce Transaction Costs?*, 25 ELR 10134 (Mar. 1995) (explaining why the allocation system contained in the legislation would save transaction costs and expedite cleanup, but recommending several improvements to the process).
- [35.](#) The consensus legislation considered by the 103d Congress did not contain any fundamental changes to the Superfund statute's strict, joint and several liability scheme, nor did it affect EPA's authority to order PRPs to conduct cleanup. See 42 U.S.C. §§ 9606, 9607, ELR STAT. CERCLA §§ 106, 107; H.R. 4916, 103d Cong. (1994); S. 1834, 103d Cong. (1994). The NCS Report also endorsed this approach. See NCS Report, *supra* note 7, at 13-21.
- [36.](#) Orphan share funding was also provided under the NCS proposal and the consensus legislation, although the legislation was considerably less generous to business than the NCS compromise. See H.R. 4916, 103d Cong. § 413 (1994); S. 1834, 103d Cong. § 409 (1994); NCS REPORT, *supra* note 7, at 13-21. For a discussion of these differences, see Steinzor, *supra* note 4, at 10031-33.
- [37.](#) For a description of the implications of the current funding gap. See Cushman, *supra* note 3. For a description of the implications of the 1986 funding gap, see Casey Bukro, *Stalemate Stalls Toxic Clean-up*, CHI. TRIB., Sept. 29, 1986, at 1.
- [38.](#) See, e.g., *Senate Committee Staff Crafting Proposal to Use Superfund Taxes Directly for Cleanups*, [26 Current Developments] Env't Rep. (BNA) 2001 (Feb. 16, 1996).
- [39.](#) For a discussion of the implications of this unexpected liability, see PROBST, *supra* note 19, at 99-105.
- [40.](#) See James E. Majesky, *Superfund Needs Changes to Do a Super Cleanup Job*, SEATTLE TIMES, Sept. 8, 1985, at A19; David Goeller, *Insurance Industry Seeks Changes in Superfund Law*, ASSOCIATED PRESS, April 3, 1985, available in WL 2856876.
- [41.](#) The need for additional funding varies in direct proportion to the scope of the liability repeal—that is, if repeal is limited to a small subset of sites or classes of PRPs, less money is needed.
- [42.](#) H.R. 4916, 103d Cong. § 803 (1994); S. 1834, 103d Cong. § 803 (1994).
- [43.](#) See, e.g., *Superfund: Faster Cleanups, Lower Cost Promised in Reform Proposal by Business Group*, [26 Current Developments] Env't Rep. (BNA) 1880 (Feb. 2, 1996) ("A Superfund reform proposal released Jan. 8 by the Business Roundtable promises to accelerate by more than 50 percent the pace of cleanups, while staying within an annual budget of \$ 1.85 billion.... The proposal advocates repeal of liability for all parties at multi-party sites."); see also *Superfund Reform '95* (1996), <http://www.sfreform95.org/actnow> (information on the Internet related to Superfund reform that gives significant attention to the repeal of retroactive liability).

[44.](#) See, e.g., PROBST, *supra* note 19, at 17 ("Compared to the federal government, responsible parties are believed to achieve cost savings on the order of 15 to 20 percent when they implement site cleanup."); see also U.S. GEN. ACCOUNTING OFFICE, SUPERFUND CONTRACTS: EPA NEEDS TO CONTROL CONTRACTOR COSTS, GAO/RCED-88-182 (1988); DONALD F. KETTL, SHARING POWER: PUBLIC GOVERNANCE AND PRIVATE MARKETS 99-127 (1993).

[45.](#) See, e.g., *The Administration of the Federal Superfund Program: Hearings Before the Subcomm. on Investigations and Oversight of the House Comm. on Public Works and Transportation*, 102d Cong. (1991) (statement of Jan Edelstein, Special Assistant to the Chairman, American International Group, Inc.).

[46.](#) See, e.g., S. 8, 105th Cong. § 501 (1997) (establishing exemptions for PRPs at "co-disposal" sites); see also Freedman, *supra* note 2; Kriz, *supra* note 2.

[47.](#) See, e.g., THE BUSINESS ROUNDTABLE, SUPERFUND PROGRAM MODEL (June 1995) (copy on file with author). This model is an extremely sophisticated effort to predict the cost and the effect on the pace of cleanup of various combinations of liability cut-off dates and hybrid exemptions.

[48.](#) S. 8, 105th Cong. § 502 (1997) (eligible parties would be authorized to apply for reimbursement from the Superfund trust fund if they are subject to an administrative order or they entered into a settlement decree before the date of enactment and would otherwise be exempt from liability).