

A Superfund Retrospective: Past, Present, and . . .

Thirteen years after its enactment, Superfund is up for its third reauthorization, and the troops are fully armed. Industrial, municipal, and environmental groups have been taking shots at Superfund for years, and many anxiously are awaiting a congressional battle in 1994.

But in the end, Superfund may be reauthorized more quickly and easily than policymakers and lobbyists have predicted. Years of outcry have not gone unheard by Congress or the Environmental Protection Agency (EPA). With a new administration, EPA is undertaking a preemptive strike and employing its forces in an effort to fix the Superfund program administratively. While EPA Administrator Carol Browner supports the "polluter pays" principle underlying the liability scheme, she seems committed to making the Superfund program more efficient and fair.

If EPA's administrative measures succeed, critics who advocate major legislative reforms may be disappointed. While Congress may amend such important aspects of the statute as its emphasis on permanent remedies, a significant departure from the current liability structure may not occur.

Rather than try to predict the winners and losers in the reauthorization debate, let us take a hard look at Superfund's past failures and accomplishments and at its impact on localities in particular. And, with these facts in mind, let us consider the changes being proposed by lobbyists, research organizations, and EPA.

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Is Ahead

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Joan Glickman

Thirteen Years Later

Superfund, formally known as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), was enacted in 1980 by Congress to provide a mechanism for cleaning up contaminated sites across the country. Since then, Congress has authorized more than \$15 billion to finance the EPA Superfund program, primarily through petroleum, chemical, and environmental taxes. Under CERCLA, EPA either can clean up sites independently and later recover the Agency's costs from liable parties or can require liable parties to undertake remedial action from the outset.

Since 1980, EPA has listed approximately 1,300 sites on the National Priorities List (NPL), with additional sites listed each year. In addition to the federal program, many states have created parallel Superfund programs to contend with non-NPL contaminated sites. According to a 1993 update, only 51 of the NPL sites have been deleted; however, remedies have been selected at 800 sites and are under way at more than 470 sites; some type of work has begun at 1,219 sites. At over 2,000 NPL and non-NPL sites, EPA has completed more than 2,800 removal actions, which are short-term responses to immediate threats to public health, welfare, or the environment.

Critics frequently point to EPA's failure to complete cleanups when suggesting that Superfund should be replaced with a more efficient cleanup program. Although EPA's program certainly could be more expeditious, these statistics are not necessarily meaningful reflections of the program's effectiveness. Certain facts should not be overlooked when considering EPA's performance: (1) the technologies and processes for identifying, characterizing, and remediating these sites still are evolving and have progressed substantially since CERCLA was enacted; (2) given di-

verse interests, technological constraints, and long-term operation and maintenance requirements, site cleanups span decades; and (3) many NPL sites have required complex cleanups. Regardless of these truths, however, EPA has recently come to realize that public perception of the program will continue to be unfavorable unless the Agency articulates the program's actual progress with better indicators.

Taking a Critical Look

The number of deficiencies attributed to Superfund go far beyond the general concern that not enough cleanups have been completed. While far from definitive, the following list describes a few of the major complaints directed at Superfund. Some involve specific provisions of the statute; others are related to EPA's administration of the program.

Unfair liability provisions. Because liability translates into "cost," responsible parties have directed much of their criticism at Superfund's broad liability structure. CERCLA's "retroactive, strict, joint, and several" liability system implicates parties associated with a site, regardless of whether or not they are directly responsible for the contamination. Furthermore, any liable party can be forced to pay for the total cost of cleanup even if that party contributed only minimally to the contamination. Finally, since liability is retroactive, parties can be legally responsible even if they upheld the law as it existed at the time of their involvement with a site.

EPA can employ certain tools to lessen the unfairness of strict, joint, and several liability. For instance, the Agency can enter into early *de minimis* settlements with parties that contributed minimally to the problem. Through mixed funding agreements, EPA can pay for the portion of the cleanup costs attributable to insolvent or unidentifiable parties. Until

recently, however, EPA has entered into only 101 *de minimis* settlements and 16 mixed funding agreements.

Significant transaction costs. Observers from all sides, including President Clinton, have expressed concern that too much money is being wasted on lawyers and consultants. In part, this flaw stems from the liability system, but this waste of resources is exacerbated by certain inefficiencies in the program. Allocation of cleanup costs is a contentious issue, particularly because the relationship between responsibility and liability is frequently unclear or absent. Consequently, lawyers' fees build up either in or out of court as disputants negotiate cost sharing. In part, this problem could be alleviated if EPA did a more thorough job of bringing in all responsible parties from the outset. Furthermore, consultant fees could be diminished if EPA held its contractors more accountable, placed a cap on its oversight costs, and did not require impractical analyses or duplication of studies.

Remedy selection. Some critics of the program argue that tremendous resources are spent to clean up sites that do not pose significant threats to human health. First, unrealistic assumptions set forth in EPA's risk assessments lead to overly stringent cleanup standards and remedies. Second, EPA and the states involved frequently require liable parties to clean up sites to residential standards, even if they will be used for industrial facilities. Moreover, such ineffective and costly remedies as pumping and treating contaminated groundwater are implemented simply because better technologies are not yet available. On the other side of the debate, some residents near Superfund sites argue that risk assessments do not adequately account for the synergistic effects of commingling contaminants and actually underestimate the effects of these tox-

ics on human health.

Two related and unanswered questions lie at the root of the dissatisfaction over the remedy selection process: "What are the ultimate goals of the Superfund program (e.g., protection of human health, environmental restoration, beneficial use)?" and "How clean is clean?" Because these questions have not yet been answered definitively, different stakeholders hold disparate expectations of Superfund cleanups. Consequently, a single remedy chosen at a site usually does not satisfy all affected parties' expectations. Until EPA and Congress define and articulate specific, realistic programmatic goals, the remedy selection process will continue to frustrate both responsible parties and affected communities.

Indirect economic impacts. Local governments, bankers, and developers, among others, have stressed how Superfund negatively affects property values and stymies property transactions. The property values in entire communities can be devalued simply by the presence of a Superfund site in the area. Even after a site has been deleted and declared "clean," it remains stigmatized. Superfund's negative economic effects spread beyond the sites on the National Priorities List. To limit their exposure to potential Superfund liability, banks, developers, and other companies have adopted extremely cautious investment policies. For instance, investors are more likely to develop pristine land than to buy and develop property that already may be contaminated. As a result, abandoned industrial sites remain unused, while "greenfields" are developed for industrial or commercial use.

Environmental justice concerns. Some critics have argued that EPA's remedial decisions have been less rigorous at sites located in close proximity to low-income and minority residents. With a disproportionate number of

hazardous waste facilities sited in their neighborhoods, these communities have questioned not only whether their Superfund sites are being remediated properly, but also whether a greater quantity of waste from other Superfund site cleanups is now entering their facilities. While debatable, this accusation has cast additional doubt on the soundness and consistency of the entire remedy selection process.

Superfund Successes: What Has Worked?

Even Superfund's staunch opponents must admit that the program has had certain direct and indirect positive effects. Whether or not these benefits justify the costs of the program is open to debate. Nevertheless, defenders of the program point to the following outcomes:

Reductions in immediate threats to human health and the environment. As previously stated, EPA has conducted more than 2,800 removal actions at contaminated sites. Although more attention has been paid to the fact that few cleanups have been completed, these removal actions signify concrete steps that have been taken to protect citizens and the environment. Removal actions can include cleanup or removal of hazardous substances, installation of security fences on a site, and provision of alternative water supplies or housing to threatened communities.

Incentives for pollution prevention and additional cleanups. Although these indirect effects are difficult to measure, the looming threat of Superfund liability has definitely compelled industry and others to take more care in disposing of their waste. With the added risk of Superfund liability, businesses try to minimize the use of toxic substances in their processes and are more concerned with recovering these toxics. Owners of

contaminated sites also may clean up their properties voluntarily to avoid the cumbersome and costly Superfund cleanup process. Finally, while the threat of liability may make "greenfields" more attractive to investors, landowners also are likelier to treat their properties responsibly and to conduct cleanups before developing or selling them. Because of unavoidable environmental audits and looming liability, tainted property now has a cost associated with it.

Market efficiencies gained through public-private program. Although critics of the liability system may object to such an argument, the Superfund program approximates a "polluter pays" type of system more closely than a public works program would. While entirely innocent parties may bear a part of the burden, parties that did contribute to the contamination incur a more substantial portion of the costs than they would under a public works approach. Certainly, few advocates of the program would argue that retroactive, strict, joint, and several liability is a fair concept; however, it may be fairer than a system that spreads the costs more evenly across taxpayers or across whole industries.

In addition to this advantage, the current program includes some incentives for minimizing costs. While additional cost control measures should be adopted by EPA, the fact that private parties are paying for the work encourages cost savings as well as managerial and technological innovation. New remedial techniques probably would be developed even under a public works program. In the absence of any cleanup program, however, sites would remain contaminated, and research and development of these technologies would wane.

A Look at Some Policy Alternatives

As the reauthorization period ap-

proaches, advocacy groups—with perspectives that span a broad spectrum—are cropping up at exponential rates. The following discussion considers a sampling of positions that are particularly relevant to localities. Although these groups focus primarily on Superfund liability, non-advocacy and research organizations such as Clean Sites, the International City/County Management Association (see this page for information on ICMA's Superfund Consortium), and Resources for the Future have developed policy recommendations to address other statutory and administrative issues.

American Communities for Cleanup Equity (ACCE) began lobbying in 1990 to seek legislative protection for generators and transporters of municipal solid waste (MSW) at Superfund sites. Although EPA's Interim Municipal Settlement Policy of 1989 directed the Agency not to pursue such parties, MSW generators and transporters continued to be sued in third-party actions initiated by other responsible parties.

Because MSW contains only minimal amounts of toxic substances by nature, ACCE maintains that these generators and transporters should not be held liable for the cleanup of contaminated sites. Senator Lautenberg and Congressman Torricelli, both Democrats from New Jersey, support this platform and have written bills that would substantially limit the liability of such parties. Under these bills, all generators and transporters of MSW to a site would be responsible collectively for only 4 percent of the total cost of remediation. This 4 percent solution is based on a calculation originally proposed in EPA's draft municipal settlement guidance of 1992. Furthermore, these generators and transporters would be protected from contribution suits initiated by other responsible parties.

The final versions of these bills contain a special "relief" clause to alleviate the financial burden of local government owners and operators,

which would otherwise increase at some sites if MSW contributors only paid 4 percent of the total cost. The bills suggest that municipal owners and operators should be granted some assistance if their communities' other services will suffer due to their Superfund expenditures. Given that this clause would be open to the interpretation of EPA and the courts, however, it is unclear whether or not the liability of local government owners and operators would be limited substantially.

The Landfill Solutions Group, taking a broader approach, advocates the creation of a separate trust fund to pay for the cleanup of publicly and privately owned, municipal co-disposal landfills. These sites usually involve hundreds of parties and are particularly adversarial because responsibility is unclear.

The group argues that the make-up and volume of MSW contribute

significantly to the contamination and cost of cleanups. Therefore, MSW generators and transporters should not face minimal liability while owners, operators, and hazardous waste contributors pay for landfill cleanups. Instead, all parties at these landfills should be exempted from liability. The group estimates that a \$12 billion fund would cover the cost of cleaning up the landfills currently on the NPL but has not yet explained precisely how the separate trust fund or other landfill cleanups would be financed.

The National Environmental Trust Fund (NETF), principally sponsored by the American International Group, Inc. (AIG), and insurance companies, proposes the creation of a broad-based trust fund to pay for contamination caused by waste disposed before 1987. According to NETF, approximately 80 percent of the current NPL sites fall under this classification and there-

ICMA's Superfund Consortium Promotes Reform

Founded in March 1993, ICMA's Superfund Consortium consists of 15 local governments that are interested in having a voice in reforming Superfund both administratively and legislatively. Consortium members have worked to formulate policy recommendations to make the current remedy selection and settlement processes more equitable and cost effective.

Among its suggestions, the consortium advocates changes to the statute to ensure that a local government's preference for future land use at a site be factored into the decisions on remedy. Furthermore, the group endorses enhanced local government and community involvement throughout the process. In order to make the law fairer, the consortium also favors enlarging Superfund appropriations to pay for those cleanup costs that are at-

tributable to insolvent and unidentifiable parties.

ICMA's Superfund Consortium works with such other local government associations as the National League of Cities and the National Association of Counties to develop and promote its ideas. Consortium papers are distributed to a variety of federal officials as well as organizations active in the debate to reauthorize Superfund. By formulating sound policy recommendations on a variety of issues related to Superfund, the consortium has succeeded in articulating the diverse and complex concerns that local governments face in the Superfund process.

For information on consortium membership or upcoming activities, contact John Fischer at ICMA, 777 North Capitol Street, N.E., Suite 500, Washington, D.C. 20002-4201, 202/962-3582.

fore would be cleaned up by a trust fund, financed either through a surcharge on all commercial insurance premiums or through expansion of an existing corporate environmental tax. Parties that contributed waste to a site after 1987 would be subject to the current liability system.

In addition to NETF's debatable presumption that a public works approach would be more efficient and fairer, its proposal entails two major problems. First, the magnitude of the tax increase needed to finance such a trust fund never has been defined precisely. Critics of NETF and AIG have maintained that approximately an 800 percent increase in the corporate environmental tax would be required to finance the cleanups of the current NPL sites alone. NETF contends that a 2 percent insurance surcharge would raise \$40 billion over 10 years. If one assumes that this forecast is accurate and that an average NPL cleanup costs \$33 million, then the proposed trust fund might be sufficient to clean up the current 1,200 NPL sites. Nevertheless, thousands of non-NPL sites that were contaminated before 1987 remain unaccounted for by the NETF at its proposed size.

Second, even if the financial mechanism is viable, NETF's proposal would not necessarily limit litigation, except for the insurance industry, which clarified and limited its coverage policies for activities conducted since 1986. Rather than litigate exclusively over the issues of volume and toxicity, parties would argue over timing and how much waste they disposed after 1987.

Local Governments for Superfund Reform (LGSR), also organized in part in opposition to ACCE, advocates the elimination of strict and retroactive liability for public waste disposal facilities. Those facilities that accepted waste before December 11, 1980, and complied with all applicable state and federal laws would be cleaned up under an enhanced trust fund. Once again, the

mechanism for financing such a fund is not defined, and this proposed solution would lead to disputes over disposal dates.

LGSR's position essentially calls for the creation of a public works program, similar to the one advocated by the Landfill Solutions Group and NETF; however, LGSR's platform also advocates certain administrative improvements in the Superfund program. Although it is unclear how these administrative changes would work in conjunction with a quasi-public works program, many of the LGSR recommendations warrant consideration.

First, LGSR advocates cost allocation that is proportional to responsibility, rather than joint and several liability. In accordance with this recommendation, LGSR calls for increased use of mixed funding and *de minimis* settlements. Second, the group advocates comprehensive and uniform notification of responsible parties by EPA, rather than arbitrary and exclusive identification of "deep-pocket" parties. Third, LGSR supports the development of a reasonable risk assessment policy and the incorporation of cost/benefit analysis into the remedy selection process. Fourth, the group calls for greater local government involvement in the process and for enhanced use of institutional controls to limit risk exposure. And fifth, LGSR advocates a clear exemption from liability for any government that acquires title of contaminated property by virtue of its function as sovereign.

Inside EPA, the Administration, and Congress

In June 1993, EPA established nine reform initiatives to ameliorate some of the problems cited by LGSR and other research and advocacy organizations. As part of these initiatives, EPA is undertaking studies and pilot projects to determine whether it can

liberalize its mixed funding policies while sustaining the Fund. At the same time, the Agency also committed to expediting and enhancing its use of *de minimis* settlements and issued revised guidance to clarify the level of information necessary for such settlements. EPA also intends to define the steps that prospective purchasers and developers of property must undertake to be eligible for the "innocent landowner defense" under CERCLA. This clarification would alleviate some of the current impediments presented by Superfund liability in real estate transactions.

With regard to remedy selection, EPA is developing soil trigger levels intended to help streamline site investigations and improve consistency among sites. The Agency also has drafted guidance clarifying how future land use considerations should be factored into remedy selection. Finally, EPA has restated its commitment to enhanced community involvement in the cleanup process and will consider implementing site-specific local advisory committees, after evaluating their effectiveness at federal facilities sites.

Although EPA has taken an active role in preparing for Superfund authorization, the process of developing proposed legislation for congressional action has turned into a multi-agency endeavor, headed by the White House Office of Environmental Policy. At the same time, congressional committees have held numerous hearings to evaluate legislative alternatives and positions of stakeholders before formulating a comprehensive bill.

Looking Ahead and Assessing the Options

For better or worse, questions such as "Who should pay?" and "How clean is clean?" lend themselves to subjective, value-laden answers. Endless arguments can be made both in favor of and against liability carve-

outs for certain types of sites or parties. Similarly, on the issue of cleanup goals, different interest groups can offer equally legitimate reasons for radically different preferences, ranging from permanent treatment of sites to less costly measures for containing contaminants.

Unfortunately, as with the current Superfund program, all of the alternatives being proposed by advocacy groups have inherent trade-offs; none of these options is entirely fair or efficient. Therefore, rather than search for the "right" answer, EPA, Congress, citizens, environmentalists, local governments, industry, and any other stakeholders must adjust their expectations and try to come up with workable, albeit imperfect, solutions. And in the quest for acceptable policies, three indisputable facts should be kept in mind.

First, with thousands of contaminated sites blemishing the country, CERCLA or its replacement needs to offer a vehicle for contending with a complex problem that far surpasses in magnitude the current 1,200 NPL sites. Local governments, in particular, should be attuned to the fact that any environmental cleanup law not only will have major environmental implications, but also will affect land use planning, economic development, and property tax revenues.

Incentives for pollution prevention and voluntary cleanups, which are currently intact under CERCLA, are critical to stopping the spread of contaminated sites. Congress must enhance these incentives by creating a tool that encourages redevelopment of already contaminated properties, or "brownfields." At a minimum, regulatory sign-offs and comprehensive releases from future liability at completely remediated sites would provide an additional degree of certainty to sellers and investors and would thereby facilitate property transactions. Perhaps, Congress should consider creating some type of fund or insurance pro-

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gram that would cover unforeseen future costs at these remediated sites.

A second fact is that, regardless of who pays for these cleanups, our country has limited resources and imperfect technologies available to clean up these sites. Remedy selection must consider technological and financial constraints and strike a balance between goals for a pristine environment and cost-effectiveness. In this regard, reauthorization holds the greatest opportunity for improvement.

A couple of examples illustrate how cost, environmental protection, and reason might enter into remedy

selection. For one, cleanup standards should be based on risks posed by a site in its intended, not theoretical, use. Similarly, rather than paying for inadequate current technologies, perhaps some responsible parties should direct their cleanup contributions to a governmental research and development fund for the advancement of remedial methods.

And a final point to acknowledge is that, though human resource problems may be even more challenging than technical questions, the Superfund program will not succeed unless EPA, at its headquarters and all of its regional offices, embraces a more cooperative and consistent approach. Among its administrative improvement initiatives, EPA's renewed commitments to community involvement and alternative dispute resolution reflect a growing recognition that a more open process is needed. While these efforts are promising, a congressional mandate ultimately may be required to coax the Agency into relinquishing more authority and involving all stakeholders in decision making through broad-based, site-specific advisory boards or other forums.

Reauthorization offers an opportunity for EPA, Congress, and other interested parties to focus on these critical issues, to reconsider Superfund with 13 years of hindsight, and to redirect the program under more clearly defined and realistic goals. If reauthorization somehow can instill cooperation into the process and can implement a more reasonable approach to remedy selection, then Superfund could well evolve into a program deserving of public respect, rather than criticism, distrust, and unfulfilled expectations. **DM**

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