

Research Brief

RAND

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Fixing Superfund Getting the Formula Right

The Superfund program, established in 1980 to clean up the nation's worst inactive hazardous waste sites, has been sharply criticized for generating excessive transaction costs—costs resulting not from cleanup but from assigning liability for cleanup among the various parties. The Superfund Reform Act of 1994 proposes changing the program's operation to reduce these costs. In a recent ICJ report, *Fixing Superfund: The Effect of the Proposed Superfund Reform Act of 1994 on Transaction Costs*, Lloyd Dixon examines the legislation in detail, assessing its likely effects on transaction costs and on the complex interactions among the key players in the Superfund process. The bottom line: The legislation takes a significant step toward reducing the amount of society's resources that is going to litigation rather than to cleanup.

Superfund Generates High Transaction Costs

Superfund uses a liability approach to cleanup. Firms that generated or transported the site's hazardous materials or who owned or operated the site are liable for cleaning it up. (These firms are called potentially responsible parties [PRPs].) Liability is *strict, joint and several*, and *retroactive*: A PRP can be held liable (1) for cleanup costs even when there was no negligence,

(2) for cleaning up an entire site even if the firm was responsible for only a small share of the waste, and (3) for actions that took place before the 1980 law was passed.

The rationale for the liability approach was to make polluters pay for the cleanups, to shift the cleanup burden from the public to the private sector, and to create strong incentives for firms to handle hazardous substances more carefully. However, because cleanup is very expensive, PRPs contest their liability, haggle over remedies, and sue their insurers to recover expenses.

Previous ICJ research suggests that these contentious interactions generated substantial transaction costs. These costs accounted for 32 percent of all PRP expenditures at Superfund sites through 1991. Transaction costs for insurers were even higher—88 percent of outlays between 1986 and 1989. These estimates imply that 36 percent of the approximately \$11.3 billion spent by the private sector at Superfund sites through 1991 went to transaction costs rather than to cleanup.

What transaction costs will be when cleanup is completed is very uncertain. Estimates for final private-sector transaction costs range from 23 to 31 percent of total PRP and insurer outlays.

The Superfund Process

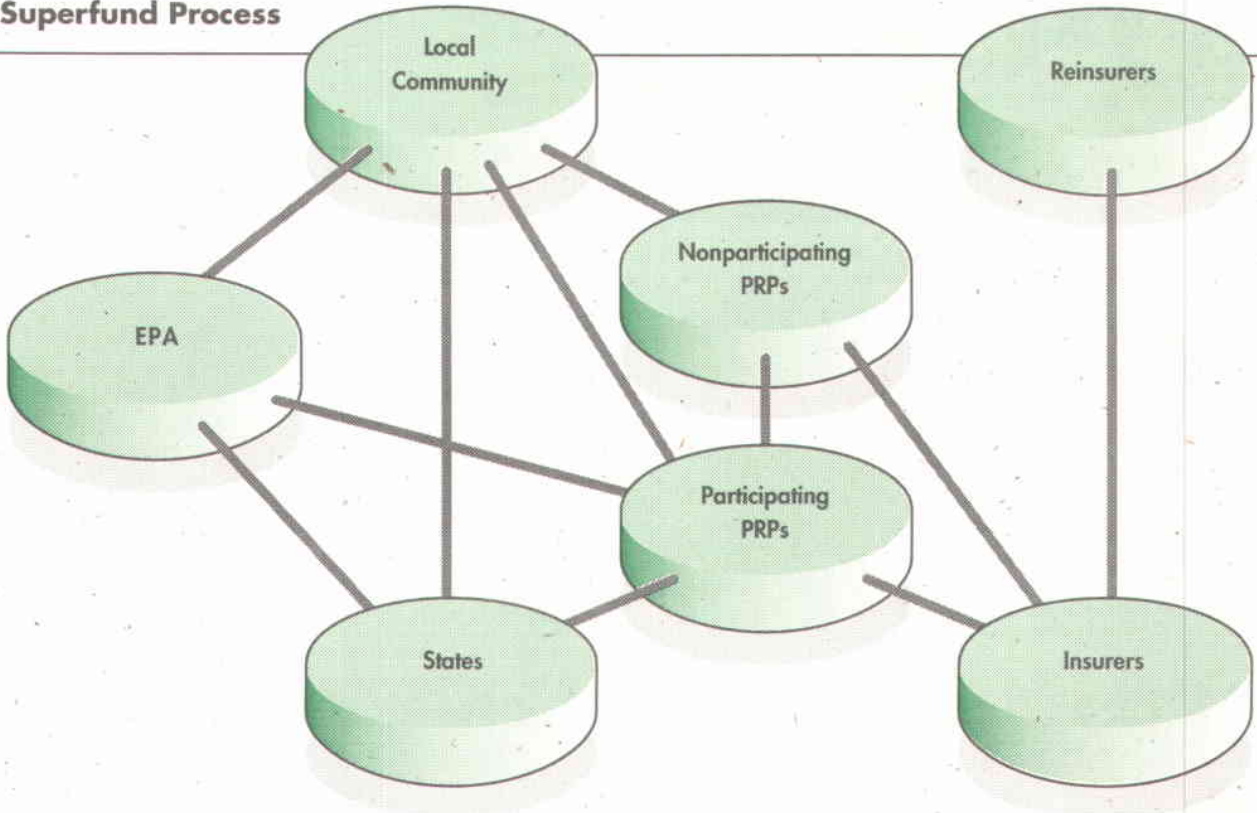
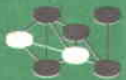


FIGURE 1



PRP-PRP Interaction

PRPs allocate liability among themselves, agree on common negotiating positions with the Environmental Protection Agency (EPA), and try to recover costs from PRPs who refuse to participate in the allocation process.



PRP-Government Interaction

EPA and PRPs argue over cleanup standards and remedies and negotiate settlements.



PRP-Insurer Interaction

PRPs negotiate and litigate with their insurers, to whom they turn for reimbursement of legal and cleanup costs.



Insurer-Reinsurer Interaction

Insurers seek compensation for their costs from their reinsurers.



Community-PRP and Community-Government Interactions

The community around a site may oppose cleanup decisions and slow or stop the cleanup process.

Interactions Among Key Players Generate Transaction Costs

The Superfund process generates transaction costs because it creates a complex set of interactions among the different players and provides many opportunities for the parties to contest the amount of their liability (see Figure 1).

Throughout the Superfund process, each of the key players implicitly or explicitly weighs the costs and benefits of cooperating with the process or of contesting it. The incentives to contest rather than to cooperate in large part determine the size of the transaction costs. The legislation proposed by the Clinton administration seeks to lower transaction costs by reducing the incentives of PRPs and their insurers to contest liability and by simplifying the process and making more efficient task assignments to the participants.

Key Provisions of the Legislation

The legislation's provisions focus on the key dimensions of the interactions among the participants: allocating liability, negotiating settlements, recovering costs from nonparticipating PRPs, determining cleanup standards, selecting remedies, involving the community, and negotiating with insurers and reinsurers. These are the key provisions:

1. Liability would be *de facto* proportional for parties who settle.
2. A neutral allocator would assign shares to PRPs. The EPA would pick up the "orphan shares"—the shares of liability for identified PRPs that are bankrupt or out of business.
3. Using these allocations, EPA would offer PRPs settlements with a full release from liability. In return, the PRPs would pay a settlement premium to cover the risks of cost overruns, remedy failures, and other uncertainties.
4. EPA, not the participating PRPs, would pursue the nonsettlers.

5. *De micromis* parties (those who sent only very small amounts of waste to the site) would be released from liability altogether, and EPA would offer settlements to other small contributors (*de minimis* parties) as early as possible in the cleanup process.
6. Generators and transporters of municipal waste would be required to pay no more than 10 percent of the overall cleanup costs at a site; EPA would pick up the remainder of their allocated share.
7. The type of state and federal cleanup standards that apply would be clarified, and EPA would develop national cleanup standards and generic remedies.
8. Remedy selection would be more flexible because future land use would be considered in setting cleanup standards.
9. Only the most contaminated parts of the site—hot spots—would have to be treated; other waste could be contained.
10. An Environmental Insurance Resolution Fund, funded by insurer contributions, would be established to settle PRPs' insurance claims related to Superfund sites. PRPs must seek settlement from the fund before they can initiate coverage litigation against their insurers. The settlement would cover a percentage of eligible costs submitted by the PRPs.
11. If PRPs reject the fund's offer, they can pursue their insurers in court, but PRPs would be liable for a portion of insurer legal costs if the court judgment is less than the fund's offer.
12. Communities would be involved in all stages of the cleanup process.

These features may be modified during the congressional debate, but the overall structure of the reform is expected to remain intact.

Transaction-Cost Scorecard

Figure 2 summarizes the study's assessment of how the proposed legislation would affect transaction costs. The key interactions appear as the column heads, and aspects of the Superfund process addressed by the proposed legislation are the row labels.

The proposed legislation seems likely to reduce **transaction costs among PRPs** because it would simplify their interactions. For example, EPA, not the PRPs, will pursue nonsettlers. Releasing *de micromis* parties from liability altogether would also reduce the complexity of the interaction.

In addition, the proposed legislation creates a more effective division of tasks. A neutral allocator, not a contentious group of PRPs, will determine each PRP's liability. The allocator would have information-gathering powers that PRPs lack and may well develop considerable expertise after doing repeated allocations.

Finally, the proposed legislation should reduce PRP incentives to contest the allocation. Less is at stake, because liability would be *de facto* proportional, and EPA would pay for the orphan share. Proportional liability also removes an effective critique of the current system—the unfairness of having to pay for other parties' wastes.

The effect on **transaction costs generated from the PRP-government interaction** is less clear. On the one hand, settlement terms appear much more favorable to PRPs, who should therefore have less incentive to fight liability. But some of the transaction-cost savings among PRPs come at the price of increased transaction costs for EPA, and many critical issues in setting

cleanup standards and selecting remedies remain unresolved.

If the Environmental Insurance Resolution Fund passes an early vote by PRPs, the legislation should simplify **interactions between PRPs and their insurers** and reduce PRPs' incentives to pursue their insurers in court. In deciding whether to go to court, a PRP would now compare the expected outcome in court with the

fund's offer (and potential liability for legal costs) rather than comparing the court outcome to no insurance payment at all. However, the Resolution Fund does not eliminate all sources of transaction costs—for example, sites not on EPA's National Priority List are not included in the fund, so coverage disputes between PRPs at those sites and their insurers may well end up in court.

Enhanced community involvement cuts both ways. If communities are involved in cleanup decisions, they may be less likely to resist the cleanup process. However, community involvement could increase contentiousness, because it makes decisionmaking more complex, especially since divisions within

communities about cleanup goals are likely to persist.

The Superfund Reform Act of 1994 would fundamentally change the program's operation. Although the process would remain complex, critical components would be simpler and more standardized. The legislation reassigns several key tasks to parties better qualified to perform them and appears to give PRPs strong incentives to cooperate rather than to contest settlements. Some troubling features remain, but the legislation seems to take a significant step towards reducing transaction costs.

Transaction-Cost Scorecard

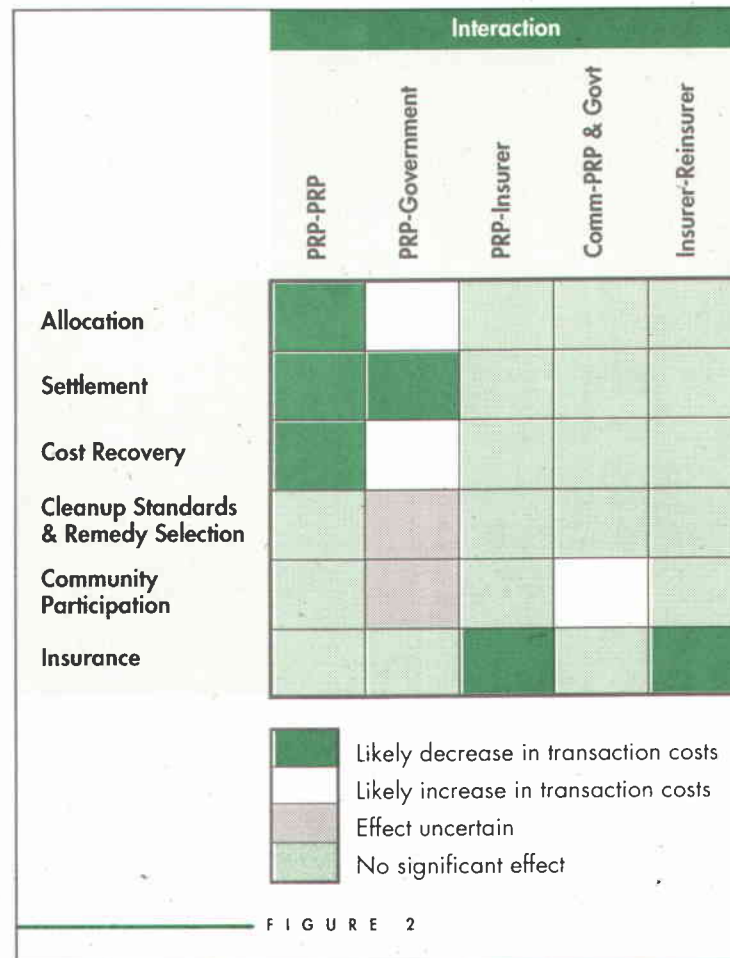


FIGURE 2