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SUPERFUND

Reauthorization and Risk
Prioritization Issues

Statement of Keith O. Fultz, Assistant Comptroller General,
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Mr. Chairman and Members of the Subcommittee:

We are pleased to present our views on the Superfund reauthorization bill currently under deliberation, as well as to discuss our recent study on the role of risk in setting priorities for the program.¹ (See app. I for a list of our other recent reports.)

Debate over the Superfund bill comes at a time when cost estimates to clean up the nation's hazardous waste problem are growing at an alarming rate. The National Priorities List of the most severely contaminated properties now contains over 1,300 sites, and expenditures are mounting. The Congressional Budget Office (CBO) has projected that ultimately the nation could need \$75 billion to clean up a total of 4,500 Superfund sites.² These costs are in addition to those the government faces to clean up federal facilities, which a recent University of Tennessee study estimates could amount to as much as \$360 billion for the Department of Energy alone. The goal of the proposed Superfund reauthorization legislation, then, represents a major challenge: to protect public health and the environment when costs are rising and government resources are increasingly constrained.

In prior reports, we have identified problems in the Environmental Protection Agency's (EPA) Superfund program and have made several recommendations for improving the program's timeliness, opportunities for public involvement, cost-effectiveness, and cost recovery. We have reported the following:

- Cleanups have been slow. As of March 31, 1994, construction of the selected cleanup remedy had been completed at 224 of the over 1,300 sites included on the National Priorities List. In addition, 57 sites had been deleted from the list because they no longer posed a threat to human health or the environment.
- More and earlier public involvement is needed. The public has been dissatisfied with EPA's community relations efforts because it believes EPA comes in too late in the cleanup process or does not involve all affected parties.
- Transaction costs are high. The RAND Corporation estimated that private sector transaction costs for Superfund totaled \$9.3 billion through 1991. We have encouraged EPA to save time and money and promote fairness by settling early with and

¹Relative Risk in Superfund (GAO/RCED-94-233R, June 17, 1994).

²The \$75 billion is in discounted present-worth dollars. The Total Costs of Cleaning Up Nonfederal Superfund Sites, CBO (Washington, D.C.: Jan. 1994).

limiting the liability of the parties that contributed little to the waste at Superfund sites.

- EPA has recovered a limited portion of its costs from responsible parties. In part because of limitations on the interest and indirect costs EPA can recover, the agency has a low rate of recovery for Superfund expenditures. We have noted, for example, that through 1993, EPA had excluded from its recovery efforts about \$3.3 billion of its program-related costs.

To its credit, EPA has, over the years, taken concrete steps to address a number of these problems and to implement several of our recommendations to improve the effectiveness of the program.

The reauthorization bill represents a further attempt to improve the Superfund program by suggesting changes to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, commonly known as CERCLA or Superfund. The bill includes provisions designed to address many of the concerns we have raised in the past:

- To speed cleanups and improve their consistency, the bill includes a process for setting national cleanup goals and standardizing the risk assessments used to develop the goals and set cleanup levels at sites.
- To provide opportunities for earlier and greater public involvement at Superfund sites, the bill authorizes (1) the establishment of citizen groups to advise EPA on future uses for sites and choices of cleanup remedies, (2) the funding of information clearinghouses on federal and state hazardous waste sites, and (3) a simpler application process for and greater availability of grants to allow communities to hire experts to explain technical aspects of the cleanup.
- To reduce transaction costs and achieve greater fairness, the bill would expedite settlements with parties whose contribution to the waste at a site is relatively small, exempt or limit the liability of certain parties, institute an allocation process, protect parties that settle from future liability, and have EPA fund the "orphan" share of waste attributable to identified parties that are no longer in business or are unable to pay their share of the costs.

In our view, the reauthorization bill clearly makes significant advances over the existing Superfund legislation. However, there are additional opportunities for further ensuring that the Superfund program makes the most efficient use of tax resources. Specifically, the Congress may wish to consider having EPA (1) set priorities for Superfund resources according to the risks that individual sites pose to human health and the

environment and (2) fully recover from responsible parties not only its direct but also its indirect costs for cleaning up sites. In addition, as the Congress deliberates reauthorizing the Superfund program, we would like to caution that further information is needed to determine the cost implications of having the federal government pay for orphan shares of cleanup costs and a greater portion of cleanup expenses now largely handled by the states.

I would like to focus my remarks today on the following:

- First, as we pointed out in our report released today, EPA needs to consider risks to human health and the environment when deciding which sites need to be cleaned up first. In this era of extreme fiscal constraint, it is especially important to set priorities for allocating resources, and we believe that ranking sites by their relative risks is the best basis for doing so. Nevertheless, we found that risk plays only a minor role in the setting of EPA's priorities. Despite a policy of addressing the worst sites first, EPA regions set priorities both for sites waiting to be evaluated for possible inclusion on the National Priorities List and for sites already on the list on the basis of such factors as how long they have been in the queue.
- Second, as we pointed out in a July 1991 report³ we issued at your request, we believe that EPA could be recovering much more of its cleanup and oversight costs from its responsible parties if several legislative changes were made. Specifically, EPA could seek to recover, according to our estimates, at least \$3 billion in additional funds if CERCLA were changed to allow EPA to (1) charge interest from the date on which it expends money instead of the date--often years later--on which it requests repayment from the responsible party, (2) charge market rate interest, and (3) include all program-related costs among the costs it seeks to recover. Higher interest charges would bring EPA's cost-recovery practices in line with those of the Internal Revenue Service, which charges a higher rate for delinquent taxpayers.
- Finally, we would like to bring to your attention a number of uncertainties surrounding the potential costs of key bill provisions. In an attempt to reduce overall transaction costs and to distribute cleanup costs more fairly, the reauthorization bill would shift more responsibility for certain costs from responsible parties and states to the federal government. For one thing, the bill would increase certain federal costs by transferring most responsibility for the "orphan," or unallocated, share of the cleanup expenses to

³Superfund: More Settlement Authority and EPA Controls Could Increase Cost Recovery (GAO/RCED-91-144, July 18, 1991).

the federal government. Although the bill includes a \$300 million annual cap on federal funding of the orphan share, EPA officials have acknowledged that uncertainties in their cost estimates raise a real possibility of exceeding the cap. This could place the Congress in the position of having to consider a supplemental appropriation or cause EPA to delay reimbursing responsible parties for its share of the cleanup costs until the next fiscal year. The bill would also shift to EPA a major part of the operation and maintenance costs now borne by states at certain sites while increasing the states' share of the remedial cleanup costs. Although the Office of Management and Budget (OMB) has estimated that these changes would cause no net increase to the federal government's share, a more recent preliminary draft analysis done for EPA projects much higher operation and maintenance costs than those used by OMB. As a result, it is quite possible that the cost-sharing formula now contemplated in the reauthorization bill could end up increasing the federal government's share of the costs.

Let me now discuss these points in more detail, beginning with how EPA sets its priorities in the Superfund program.

EPA DOES NOT USE RISK TO SET PRIORITIES

In 1989, EPA established a policy, and subsequently issued guidance, on addressing the worst sites first. EPA delegated to its regions the task of setting priorities. However, EPA regions appear to have done little to implement this policy. Considerations such as the level of effort required to evaluate sites--not the risk posed to human health and the environment--determine which sites the regions evaluate first for inclusion on the National Priorities List and which sites on the list they begin cleaning up first.

Regions Use Factors Other Than Risk to Determine Which Sites Are Evaluated First for the National Priorities List

As of January 1994, EPA had an inventory of about 5,500 sites that needed to be evaluated to determine whether they merited inclusion on the National Priorities List. Yet factors other than risk determine which of these sites EPA evaluates first for placement on this list. According to a 1994 study by EPA's Inspector General,⁴ EPA's regions have not developed a worst-sites-first approach in assessing this backlog. We found that three EPA regions--including Region 5 (Chicago), which has the largest backlog of sites awaiting evaluation (1,431)--did not use risk as a criterion; rather, they dealt with the oldest sites first or the

⁴Program Enhancements Would Accelerate Superfund Site Assessment and Cleanup, EPA, Office of Inspector General (Washington, D.C.: Jan. 31, 1994).

sites for which they had the most complete information. Regional officials told us that they did not have the resources necessary to evaluate their backlog of sites and determine which posed the greatest risk. According to EPA officials, though, efforts are under way to develop ranking criteria based on risk. For example, Region 5 established a work group in November 1993 to develop procedures to implement EPA headquarters guidance for screening and prioritizing both sites in the backlog and new sites entering the program. Once developed, these procedures may enable EPA to identify and target its limited resources to the sites with the greatest risks.

Risk Is Not Used to Prioritize Cleanups for Sites on the National Priorities List

Relative risk also plays little role in determining which sites on the National Priorities List are cleaned up first. According to a study conducted by the Center for Technology, Policy and Industrial Development at the Massachusetts Institute of Technology,⁵ all sites on the National Priorities List undergo the same evaluation steps, and site-specific issues such as risk, cost, and technology are given little attention. For example, officials in EPA Region 5 told us they generally discuss with states where to begin cleanup work first and attempt to fund equal numbers of sites in each state in their region.

EPA has a tool that could help it rank these sites: the Hazard Ranking System, which was designed for use in deciding which sites belong on the National Priorities List. Almost all sites on this list have received a score under this system. The score takes into account the ways people could come into contact with contamination, the nature and severity of the threat, and numerous other factors such as the risks posed by the site to human health and the environment. Although these scores are derived from data that vary from site to site in extent and quality, EPA officials believe, and we agree, that the Hazard Ranking System could reasonably be used for broadly ranking sites' relative risks.

However, EPA currently uses the Hazard Ranking System solely as a screening tool--to distinguish sites contaminated enough to belong on the National Priorities List from those of lesser concern. To conserve resources and save time, regions typically stop scoring once eligibility for the National Priorities List has been established. Although rescoring the approximately 1,300 sites already on the National Priorities List seems impractical, given the additional time and resources that would be required, EPA may want to consider using its Hazard Ranking System's procedures to

⁵Breaking the Backlog: Improving Superfund Priority Setting
(Cambridge, Mass.: Feb. 1992).

assess future Superfund sites and to develop a method for broadly ranking sites already included on the National Priorities List.

EPA Is Not Aware of All the Worst Sites

Finally, despite EPA's stated goal of addressing the worst sites first, the agency's inventory of hazardous waste properties does not necessarily include the worst sites. EPA depends primarily on states to notify it of potential Superfund sites, but states may list sites in their own inventories without EPA's knowledge. Yet the sites that states do not refer to EPA can pose threats to public health and the environment that are as serious as those presented by sites on the National Priorities List. State officials cited several reasons for keeping sites under their own cleanup programs, including their belief that their own programs are more efficient.

Although the Superfund reauthorization bill makes no mention of the need for EPA to set priorities on the basis of risk and address the worst sites first, the Congress may wish to consider establishing such a policy in the statute. While other factors may weigh in EPA's priority setting, we believe that risk should be a primary consideration in determining which sites should advance first through each step of the process. The Hazard Ranking System could be a valuable tool in this process, but other, perhaps less resource-intensive methods for making relative risk determinations might also be available.

EPA COULD RECOVER MORE OF ITS COSTS

Since CERCLA was last substantively reauthorized in 1986, we issued several reports⁶--one of them to this Subcommittee--on ways to help EPA recover from responsible parties more of the costs involved in cleaning up sites. In particular, we found that EPA could seek to recover billions of additional dollars if it (1) charged interest from the date on which it expended money instead of the date on which it requested repayment from responsible parties and (2) applied a market interest rate. EPA could also recoup more money if it broadened its definition of what constitutes recoverable indirect costs.

CERCLA prohibits EPA from accruing interest on its costs before it demands payment from responsible parties--often years after it has incurred costs. The law also requires EPA to charge a rate equivalent to the government's cost of borrowing, rather than

⁶Superfund: More Settlement Authority and EPA Controls Could Increase Cost Recovery (GAO/RCED-91-144, July 18, 1991) and Superfund: A More Vigorous and Better Managed Enforcement Program Is Needed (GAO/RCED-90-22, Dec. 14, 1989).

a higher commercial rate, thereby in effect creating an interest subsidy for responsible parties that leave their cleanups to the government. In our July 1991 report, we estimated that if EPA had been allowed to accrue interest from the date funds were expended and to charge a commercial interest rate, the agency would have accrued \$105 million in interest in 1990 from funds expended in the previous year alone. By contrast, the Internal Revenue Service charges interest from the date taxes are due at a rate above the government's cost of borrowing.

While CERCLA authorizes EPA to charge responsible parties indirect costs, the agency has narrowly defined which of those costs are recoverable. Thus, for example, costs for program administration and research and development are not counted. As a consequence, we estimate that EPA has excluded \$3.3 billion in program-related costs from its recovery efforts. EPA has issued a proposed rule broadening the definition of recoverable indirect costs and modifying the way it allocates these costs to sites. However, it has not yet finalized the rule. Thus, the current definition remains in effect, still restricting the federal government's ability to replenish the Superfund trust fund.

COST IMPLICATIONS OF NEW FEDERAL RESPONSIBILITIES ARE UNCERTAIN

In an attempt to reduce overall transaction costs and to distribute cleanup costs more fairly, the proposed legislation would shift more responsibility for certain costs from responsible parties and states to the federal government. However, the cost implications of these provisions to the federal government are not entirely clear because estimates of this potential burden contain many uncertainties.

Cost Implications to the Federal Government of Orphan Share Provision Are Unclear

The Superfund reauthorization bill would shift responsibility for financing most of the unallocated, or orphan share, of cleanup costs at sites with more than one responsible party from those parties to the federal government. Responsible parties currently bear the costs of this orphan share because, under the current Superfund law, federal courts have held that if a single responsible party is identified at a site, the government can proceed against that party for 100 percent of the cleanup costs, even though other parties also caused pollution at the site. Under the reauthorization bill, the federal government would assume responsibility for a larger portion of the orphan share, including that portion belonging to insolvent or defunct parties. The bill includes a proposed annual cap of \$300 million on government funding for orphan shares. According to EPA and OMB officials, the cap was included to limit the extent of the additional burden that the orphan share would place on the federal government.

Although OMB has estimated that the annual cost of orphan shares will fall below the cap at about \$200 million, this estimate contains many uncertainties. OMB based its estimates on estimates contained in EPA's cleanup plans with some upward adjustments made to recognize actual bids on EPA-financed cleanups, according to the EPA official responsible for developing the estimates. However, both we and others have noted that cleanup plans often understate the actual costs and present them in inconsistent formats that make overall cleanup cost estimates unreliable. Furthermore, this estimate does not allow for the possibility of having a number of major settlements in a single year. For example, the federal government's share of one recent Superfund settlement is expected to be over \$30 million.

Given the uncertainty of the orphan share cost estimates, it may be worth considering the consequences of these costs exceeding the cap. Although OMB and EPA officials acknowledged that in some years these costs could exceed the cap, the bill authorizes no additional funding for the orphan share if the \$300 million cap is exceeded. OMB and EPA officials have suggested that if the cap were exceeded, a supplemental appropriation could be requested, EPA could delay reimbursement to responsible parties until the next fiscal year, the bill could be amended to allow this portion of the funding to carry over from year to year, or the Congress could raise the cap.

Federal Cost Implications of State Cost-Sharing Provision Are Unclear

A second provision in the bill whose cost implications are unclear is the proposal to shift from the states to the federal government most of the responsibility for long-term operation and maintenance costs at sites with Superfund-financed cleanups. Under another provision of the bill, the number of sites requiring long-term operation and maintenance could grow as more remedies involve containment and fewer involve permanence. Currently, at sites with EPA-financed cleanups, states pay 10 percent of the initial cost of constructing and implementing the cleanup (remedial action) and 100 percent of the operation and maintenance costs at sites where the waste is contained rather than treated or removed.⁷ The reauthorization bill would increase the states' share for remedial action costs to 15 percent but would decrease the states' share of operation and maintenance costs to 15 percent; the federal government would pick up the remaining 85 percent.

OMB estimated that the net effect of these changes would be to leave the relative federal and state costs unchanged. However,

⁷Currently, EPA excludes the operation and maintenance costs for groundwater and surface water treatment for up to the first 10 years and pays these costs.

according to EPA and OMB officials, OMB's estimates of operation and maintenance costs were based on data available last fall. A more recent June 1994 preliminary draft analysis done for EPA suggests that operation and maintenance costs could be considerably higher than previously thought.

If operation and maintenance costs are much higher than the estimates OMB used, the costs to the federal government could be significant. For example, a 1994 CBO study estimated that operation and maintenance costs for EPA-financed cleanups could range from \$6.9 million to \$65 million per site.⁸ Furthermore, a significant number of Superfund sites require long-term operation and maintenance. As our September 1993 report showed, 61 (41 percent) of the 149 sites with cleanups nearing completion will require a long-term commitment of resources to operate and maintain the remedy. Under the reauthorization bill, the number of sites requiring long-term operation and maintenance could increase because the bill drops the current law's preference for permanent cleanups and recognizes treatment, containment, engineering controls, and combinations thereof as acceptable methods of protection. According to EPA's preliminary draft analysis, the federal government's 85-percent share of operation and maintenance costs would run from \$2.5 billion to \$3.6 billion for cleanup plans anticipated to be signed from fiscal years 1997 through 2005.⁹

Because the cost implications of the proposals are not clear, we believe that it would be helpful to the Congress to have further information on these costs as it considers the proposed legislation.

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In short, Mr. Chairman, in seeking to reauthorize the Superfund program, which could cost the nation as much as \$75 billion for the cleanup of thousands of seriously contaminated sites, the bill now before you makes significant strides. The bill includes provisions to improve the pace and consistency of cleanups, involve the public earlier and to a greater extent, and reduce transaction costs.

⁸The figures are present-value operation and maintenance costs reported in 1994 dollars. The range depends on assumptions about the site size and cleanup costs. The Total Costs of Cleaning Up Nonfederal Superfund Sites, CBO (Washington, D.C.: Jan. 1994).

⁹Figures are present value and are assumed to accrue over 30 years. The present value was calculated in 1994 dollars using discount rates of 5.8 percent and 2.8 percent, respectively. The estimate assumes that 30 percent of the sites are financed by Superfund.

We believe, however, that the proposed legislation could do more to encourage the efficient and effective use of Superfund resources. In particular, the Congress may wish to consider amending the Superfund legislation to underscore the importance of ranking hazardous waste sites so that resources are targeted to the worst sites first. It could also encourage cost-recovery efforts by authorizing EPA to accrue interest on its expenditures earlier in the process and to apply market rates and by requiring EPA to define more broadly which costs are recoverable. Such measures would help EPA both maximize its revenues and make the best use of available funds.

Additionally, we believe that more information is needed to determine the cost implications of certain key provisions in the bill--those transferring to the federal government responsibility for the cost of orphan shares and operation and maintenance at Superfund sites. Without more reliable estimates of this new burden on the federal Treasury, the Congress and EPA lack the data necessary to make informed decisions.

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This concludes my testimony, Mr. Chairman. I would be happy to respond to any questions from you and Members of the Subcommittee.

RELATED GAO PRODUCTS

Relative Risk in Superfund (GAO/RCED-94-233R, June 24, 1994).

Federal Facilities: Agencies Slow to Define the Scope and Cost of Hazardous Waste Site Cleanups (GAO/RCED-94-73, Apr. 15, 1994).

Superfund: EPA's Community Relations Efforts Could Be More Effective (GAO/RCED-94-156, Apr. 8, 1994).

Superfund: Further EPA Management Action Is Needed to Reduce Legal Expenses (GAO/RCED-94-90, Jan. 13, 1994).

Superfund: Techniques to Reduce Legal Expenses Have Not Been Used Often (GAO/T-RCED-94-44, Nov. 4, 1993).

Superfund: Risk Assessment Process and Issues (GAO/T-RCED-93-74, Sept. 30, 1993).

Superfund: EPA Could Do More to Reduce Responsible Parties' Legal Expenses (GAO/T-RCED-93-73, Sept. 28, 1993).

Superfund: Cleanups Nearing Completion Indicate Future Challenges (GAO/RCED-93-188, Sept. 1, 1993).

Superfund: Backlog of Unevaluated Federal Facilities Slows Cleanup Efforts (GAO/RCED-93-119, July 20, 1993).

Superfund: EPA Action Could Have Minimized Program Management Costs (GAO/RCED-93-136, June 7, 1993).

Environmental Liability: Property and Casualty Insurer Disclosure of Environmental Liabilities (GAO/RCED-93-108, June 2, 1993).

Superfund: EPA Needs to Better Focus Cleanup Technology Development (GAO/T-RCED-93-34, Apr. 28, 1993).

Superfund: Progress, Problems, and Reauthorization Issues (GAO/T-RCED-93-27, Apr. 21, 1993).

Federal Contracting: Cost-effective Contract Management Requires Sustained Commitment (GAO/T-RCED-93-2, Dec. 3, 1992).

Superfund Pollution Claims (GAO/RCED-93-45R, Oct. 14, 1992).

Federal Facilities: Issues Involved in Cleaning up Hazardous Waste (GAO/T-RCED-92-82, July 28, 1992).

Superfund: Problems With the Completeness and Consistency of Site Cleanup Plans (GAO/RCED-92-138, May 18, 1992).

Superfund: EPA Has Not Corrected Long-Standing Contract Management Problems (GAO/RCED-92-45, Oct. 24, 1991).

Superfund: More Settlement Authority and EPA Controls Could Increase Cost Recovery (GAO/RCED-91-144, July 18, 1991).

Superfund: A More Vigorous and Better Managed Enforcement Program Is Needed (GAO/RCED-90-22, Dec. 14, 1989).

Hazardous Waste Sites: State Cleanup Status and Its Implications for Federal Policy (GAO/RCED-89-164, Aug. 21, 1989).

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