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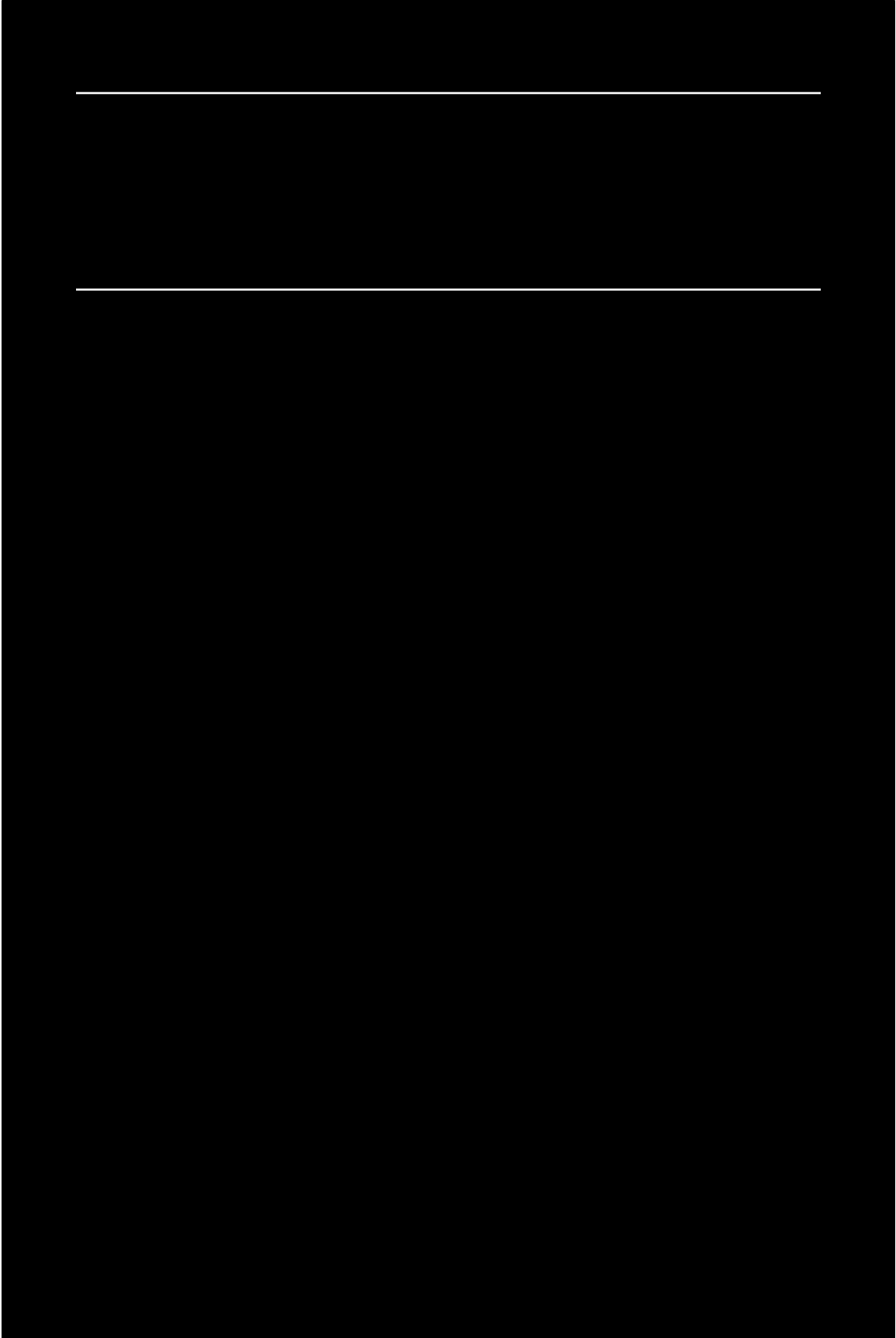
February 1995

# Superfund Program Management



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GAO/HR-95-12



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**GAO** United States  
General Accounting Office  
Washington, D.C. 20548

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**Comptroller General  
of the United States**

February 1995

The President of the Senate  
The Speaker of the House of Representatives

In 1990, the General Accounting Office began a special effort to review and report on the federal program areas we considered high risk because they were especially vulnerable to waste, fraud, abuse, and mismanagement. This effort, which has been strongly supported by the Senate Committee on Governmental Affairs and the House Committee on Government Reform and Oversight, brought much needed focus to problems that were costing the government billions of dollars.

In December 1992, we issued a series of reports on the fundamental causes of problems in designated high-risk areas. We are updating the status of our high-risk program in this second series. Our Overview report (GAO/HR-95-1) discusses progress made in many areas, stresses the need for further action to address remaining critical problems, and introduces newly designated high-risk areas. This second series also includes a Quick Reference Guide (GAO/HR-95-2) that covers all 18 high-risk areas we have tracked over the past few years, and separate reports that detail continuing significant problems and resolution actions needed in 10 areas.

This report discusses our assessment of the progress made in correcting weaknesses in the Environmental Protection Agency's (EPA) management of the Superfund

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program. In view of the escalating costs of hazardous waste cleanups and the growing constraints on federal resources, it focuses on the need to make informed judgments to allocate funds for cleaning up hazardous waste sites. It also discusses our concerns about EPA's limited recovery of Superfund cleanup costs and long-standing deficiencies in EPA's management of Superfund cleanup contracts.

Copies of this report series are being sent to the President, the Republican and Democratic leadership of the Congress, congressional committee chairs and ranking minority members, all other members of the Congress, the Director of the Office of Management and Budget, and the Administrator of the Environmental Protection Agency.

A handwritten signature in black ink that reads "Charles A. Bowsher". The signature is written in a cursive, flowing style.

Charles A. Bowsher  
Comptroller General  
of the United States



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## Overview

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In 1980, the Environmental Protection Agency's (EPA) Superfund program began as a relatively short-term project to clean up abandoned hazardous waste sites. At that time, the extent and severity of the country's hazardous waste problems were thought to be limited. Since then, however, thousands of waste sites have been discovered, and their cleanup has proved to be far more complicated and costly than anticipated. Although final costs for completing the cleanup effort have not yet been determined, recent estimates indicate that cleaning up thousands of hazardous waste sites—many of which are owned by the federal government—could amount to over \$300 billion in federal costs and many billions more in private expenditures.

Under the Superfund law, private parties that are responsible for toxic chemical sites must clean up the contamination themselves or reimburse EPA for doing so. When EPA performs the cleanup, it draws on a legislatively established trust fund that is primarily financed by a tax on crude oil and certain chemicals and by an environmental tax on corporations. Although the cleanup of federal sites is required by the Superfund law, federal agencies generally must use



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**Overview**

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their annual appropriations, not the trust fund, to clean up their facilities.

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**The Problem**

EPA's efficient use of available funds is important to protect the environment and the public from the dangers of hazardous waste, but as we reported in 1992, certain management problems have put this interest at risk.<sup>1</sup> Spiraling cleanup costs and limited resources demand that funding be allocated where it can reduce the most significant threats to human health and the environment. However, EPA has not established priorities for cleaning up nonfederal sites on the basis of their relative risk. Similarly, the government does not have a priority-setting system for allocating funds for cleaning up federal hazardous waste sites across agency lines. Furthermore, EPA has recovered only a fraction of the moneys that it has spent on cleanups from responsible parties. In addition, while EPA relies heavily on contractors to perform much of its cleanup work, it has only begun to address long-standing deficiencies in its contract management.

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<sup>1</sup>High-Risk Series: Superfund Program Management (GAO/HR-93-10, Dec. 1992).

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**Progress**

Since we reported on these problems in EPA's management of the Superfund program, EPA has taken some steps to address them. In fiscal years 1992 and 1993, the agency directed more funds to cleanup efforts that address immediate threats, such as removing drums leaking toxic chemicals at sites. While federal agencies have made uneven progress in identifying sites for cleanup and estimating cleanup costs, a task force has been established to identify options for establishing a way to prioritize federal facility cleanups across agency lines. To help recover more of its Superfund expenditures, EPA has initiated a process to recoup contractors' costs that it previously excluded, and it has plans to invest more resources in this effort. EPA has also taken actions to strengthen its Superfund contract management, for example, by reducing its potential liability to pay damage claims brought against contractors that it indemnifies.

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**Outlook for the Future**

These actions alone, however, are insufficient. We have suggested that EPA make greater use of risk as a criterion in setting cleanup priorities for nonfederal sites. We have also said that the federal government needs to complete its inventory

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**Overview**

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of federal facilities requiring cleanup and adopt a process to set cleanup priorities and to allocate funding across agency lines. To help EPA recover more of its Superfund cleanup costs, we have recommended that it finalize a proposed regulation, which has been under review in the agency for several years, to broaden the kinds of indirect costs that it may collect from responsible parties. If the Congress were to amend the Superfund law to allow EPA to charge higher interest rates instead of the lower rates now mandated, EPA could recover millions more in interest costs annually on amounts due to it from responsible parties. If enacted, this change in the statute would eliminate what has been, in effect, a subsidy for the parties on whose behalf EPA has performed cleanups. Finally, EPA must sustain its commitment to improving its contract management if long-standing deficiencies are to be rectified.

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## Weaknesses in Superfund Program Management

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Past waste management and disposal practices have allowed toxic chemicals to seep into the land and water at thousands of federally and privately owned hazardous waste sites. In 1980, the Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act, which established a trust fund to help finance the cleanup of the most dangerous of these sites. Thousands of sites have been identified, and estimated cleanup costs have grown into hundreds of billions of dollars. Given the limited resources available for cleanups, it is essential that EPA

- ensure that cleanup dollars go to the sites that present the greatest threat,
- replenish the trust fund by maximizing its recovery of costs from the parties responsible for cleaning up these sites, and
- spend its cleanup contract dollars wisely.

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### Risk Plays Little Role in Allocating Resources

As environmental needs compete with other national issues for increasingly limited federal funds, EPA should be investing its resources where they are likely to have the greatest impact in reducing threats to human health and the environment. However, EPA has not operated the program so that Superfund expenditures are prioritized to

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**Weaknesses in Superfund Program Management**

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ensure that contaminated sites posing the most risk are handled first. In 1989, EPA adopted a policy of addressing the “worst sites first” in the Superfund program. Although this policy calls for allocating the program’s limited resources first to the sites that present the greatest risk, our recent work shows that risk plays only a minor role in EPA’s setting of Superfund cleanup priorities. EPA’s regional offices, which are responsible for establishing workload priorities, use factors other than risk, such as the length of time a site has been waiting in the processing queue, to prioritize their work.

Given the huge investment of public funds required, priority-setting is especially important in cleaning up contaminated federal facilities—such as the nuclear weapons complex—where recent Department of Energy estimates of anticipated cleanup costs run about \$300 billion. However, the federal government does not have a complete inventory of its hazardous waste sites needing cleanup or reliable estimates of cleanup costs. Furthermore, it lacks an effective way to rank federal facilities for cleanup across agency lines on the basis of relative risk.

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**EPA Recovers a  
Small Fraction of  
Its Costs**

The Superfund law requires that the parties responsible for contaminating sites clean them up or reimburse EPA for doing so. However, through fiscal year 1993, EPA had recovered only 14 percent of its costs, in part because it excludes certain costs from its recovery efforts. EPA has narrowly defined which indirect costs it will seek to recover—excluding, for example, research and development costs. As a result, the agency has forgone any opportunity to recover over \$2.9 billion in indirect costs.

EPA also lacked an approach for allocating and subsequently recovering \$545 million in contractors' costs that were not directly related to specific sites, including administrative and other costs. In addition, as we have reported, EPA managers have not given sufficient attention or resources to cost recovery, and EPA lacks (1) specific goals that it could use to evaluate its performance in recovering costs and (2) adequate information to monitor its progress.

The Superfund law further prevents EPA, in two ways, from recovering millions of dollars annually by restricting the interest rates charged to responsible parties on recoverable costs. First, the law allows

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**Weaknesses in Superfund Program  
Management**

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interest to accrue from the date that EPA actually spends the money or from the date that EPA demands payment from the responsible parties, whichever is later. In some cases, interest does not begin accruing for several years because EPA waits to demand payment until it has completed other reimbursable cleanup work at a site. Second, the Superfund law limits EPA to charging interest on recoverable amounts only at the government's borrowing rate, which is lower than commercial borrowing rates. This latter restriction, in effect, results in a subsidy to the parties that leave cleanup work to the government. Whereas the responsible parties that borrow money to fund their own cleanups have to obtain financing from lenders at commercial rates, the parties that reimburse EPA are charged the government's lower borrowing rate. We estimated that in 1990 EPA could have accrued about \$105 million in interest on its fiscal year 1989 expenditures if these two restrictions had been eliminated.

EPA's cost recovery efforts are also hampered by incomplete and unreliable data. In their January 1994 report on internal controls over the Superfund trust fund, EPA's independent auditors concluded that accounting system weaknesses could impair the agency's ability

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**Weaknesses in Superfund Program Management**

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to identify and recover Superfund costs. EPA has also identified its accounting systems as a material weakness in its Federal Managers' Financial Integrity Act reports since 1992.

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**Weaknesses in Contract Management Persist**

EPA makes extensive use of cost-reimbursable contracts in the Superfund program. Because these contracts require EPA to reimburse the contractor for all allowable costs, they give the contractor little incentive to control costs and require special agency oversight. Between 1988 and 1993, we reported on major weaknesses in EPA's management of Superfund cost-reimbursable contracts. For example, EPA did not protect Superfund from excessive exposure to damage claims stemming from contractors' negligence by limiting its indemnification of contractors. We reported in 1989 and 1991 that EPA was granting unlimited indemnification to almost all of its cleanup contractors, thereby placing Superfund's entire unobligated balance at risk.

In addition, EPA had not given sufficient management attention to ensuring that contractors' costs were being controlled. Specifically, the agency was not (1) independently estimating the costs of



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**Weaknesses in Superfund Program  
Management**

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contracted work before approving contractors' budgets, (2) reviewing contractors' monthly bills (invoices) to ensure reasonable charges, (3) holding down contractors' administrative and other non-site-specific costs, or (4) performing timely audits of contractors' final bills. Furthermore, our recent work showed that all three Superfund contractors that we reviewed billed the government for costs—for entertainment, tickets for sporting events, or alcoholic beverages—that either were not permitted or appeared questionable under applicable regulations.

Finally, EPA relies on contractors to perform functions that it believes it needs to perform itself to effectively manage and control the Superfund program. For example, EPA has identified functions being performed by contractors that, by their very nature, should be done by government—not contractor—employees, such as the preparation of agency decision documents.

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## Progress Made

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EPA has made progress in allocating its limited Superfund resources to situations presenting the greatest risk, improving efforts to recover its cleanup costs, and increasing management attention to controlling costs on Superfund contracts.

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### Risk Plays Limited Role in Allocating Resources

EPA has taken some first steps to allocate its resources in accordance with its policy of cleaning up the worst sites first. In fiscal years 1992 and 1993, EPA moved an additional \$109.5 million into its emergency removal program, which is designed to eliminate imminent threats, such as drums leaking toxic chemicals.

Federal agencies have made uneven progress toward identifying and assessing their contaminated facilities and prioritizing them for cleanup. The Departments of Defense and Energy, for example, have made substantial progress in identifying contaminated facilities and developing preliminary estimates of cleanup costs. But other federal agencies, such as the Department of the Interior, which is also expected to have a substantial cleanup problem, are only beginning to inventory their facilities and cannot yet estimate their cleanup costs. Moreover, no overall

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**Progress Made**

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management of these efforts across federal agencies occurs, leaving open the opportunity for inconsistently allocating resources.

Recognizing the need to develop a coordinated cleanup strategy among the federal agencies, the administration established a senior-level task force in September 1993. A key objective for the task force includes developing options for allocating cleanup resources, within and across agencies, so as to reduce risks cost-effectively. As of October 1994, the task force was developing a discussion paper that outlines options for establishing a priority-setting mechanism for cleaning up federal facilities but does not yet have a completion date.

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**Some Actions  
Have Been Taken  
to Recover More  
Costs**

EPA has also taken some action to increase its recovery of past costs but still has a low recovery rate at this time. EPA management has designated cost recovery as a material weakness in its Federal Managers' Financial Integrity Act reports since 1992 and has plans to give more resources to this area. Also, in April 1993 EPA began allocating contractors' administrative and other non-site-specific costs among sites in

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**Progress Made**

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preparation for recovering these costs. As of October 1994, EPA had allocated \$279 million of the \$545 million in non-site-specific contractors' costs charged through the end of fiscal year 1993.

However, EPA has been slow to take other key steps that would significantly increase its recovery of the government's cleanup costs. In August 1992, EPA proposed a rule to more fully recover its indirect program costs—a proposal the agency estimates would triple the amounts it could consider recoverable as indirect costs. But it has not yet published its final rule because it did not want to create controversy during the current Superfund reauthorization debate. Also, EPA has not established specific goals for its cost recovery efforts, such as goals that specify the dollar amount or the percentage of the costs that EPA expects to recover from these cases, and the agency still lacks an adequate information system for evaluating the program's progress in meeting results-oriented goals. Furthermore, although EPA has acknowledged the need for improved cost accounting capabilities and has begun laying the groundwork to remedy this deficiency, it currently does not expect to have the problem corrected until late 1995.

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Progress Made

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**Contract Management Has Received Greater Attention**

The agency has made significant progress in limiting Superfund's exposure to claims against contractors that it indemnifies and in improving its use of independent government cost estimates and invoice reviews to control contractors' costs. In January 1993, EPA adopted new indemnification guidelines, under which it no longer offers contractors this protection unless too few bids are received in response to a contract offer that does not include indemnification. Furthermore, when EPA does indemnify a contractor, it will now limit the protection to specific dollar amounts and time periods. EPA has also begun but not completed the process of modifying existing contracts to include these limits.

After years of giving insufficient attention to correcting known contract management problems, EPA's management has focused greater attention on Superfund contracting to better control contractors' costs and other problems. For example, EPA and the Office of Management and Budget (OMB) designated Superfund remedial cleanup contracts as highly vulnerable to waste, fraud, and abuse. Moreover, EPA has elevated the procurement function in the agency and designated senior officials in headquarters and the regions to be accountable for procurement efforts. EPA

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**Progress Made**

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also is moving the work of 250 Superfund contractor employees to federal employees to reduce the program's reliance on contractors and the vulnerabilities associated with contractors performing certain tasks. The agency also provided guidance and training for preparing independent government cost estimates and reviewing contractors' invoices.

In a further effort to control contractors' costs, EPA decreased its contractors' average administrative and other non-site-specific costs from 15 percent of total contract costs in fiscal year 1992 to about 9 percent as of June 1994. But these administrative and non-site-specific costs for individual contracts still vary widely, ranging up to 22 percent. In addition, EPA has conducted internal reviews of Superfund contracting problems, developed strategies and milestones for addressing them, and performed periodic reviews to monitor the implementation of solutions and to identify additional problems that require management-level attention.

However, little progress has been made in reducing the risk to Superfund contract dollars resulting from insufficient or untimely audits. For example, backlogs of

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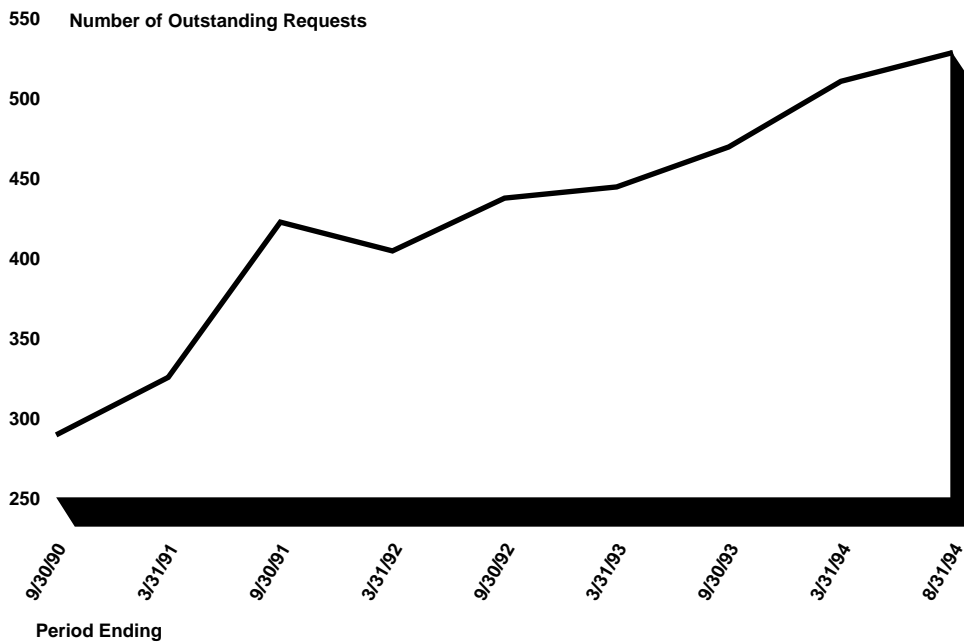
**Progress Made**

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requests by procurement officials for audits to verify the accuracy of contractors' charges have grown, even though the agency has taken some steps to reduce its backlog, such as increasing the number of auditors in its Inspector General's office. These backlogs are part of a larger governmentwide problem caused by limited audit resources, since EPA relies largely on other federal agencies, such as the Defense Contract Audit Agency, to perform its audits. (See figure 1.) This backlog, and the corresponding lag in performing audits, increases the difficulty in detecting and disallowing costs that should not be charged to government contracts and delays contract closeouts.

Progress Made

**Figure 1: Number of Unfulfilled Requests for Audits of EPA Contractor Costs, September 1990-August 1994**



Source: GAO's presentation of EPA's data.

But progress has been made in clarifying sections of federal procurement regulations whose definitions of allowable contract costs for entertainment and other expenses are open to interpretation. The Congress



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**Progress Made**

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recently enacted the Federal Acquisition Streamlining Act of 1994, which tightens these definitions and may prevent the recurrence of questionable charges such as we found in our work.

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## Further Action Needed

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While EPA has addressed weaknesses in its management of the Superfund program, it needs to take additional steps to reduce the program's vulnerability to wasteful spending and mismanagement.

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### Risk Should Drive Resource Allocation

EPA needs to take further actions to allocate Superfund's limited resources so that they will more effectively reduce risks. We recently testified that EPA makes little use of its risk information to determine which sites should be cleaned up first, even though the agency has a policy of addressing the worst sites first. As of January 1994, EPA had a backlog of about 5,500 sites to screen for inclusion in the Superfund program. To address this backlog in accordance with its policy, EPA should first assess the sites that are most likely to qualify for the program—a judgment the agency can make on the basis of available data. Instead, EPA typically first assesses the sites that have been awaiting review the longest or the sites for which it has the most complete information. Moreover, EPA does not consider the risk, cost, or feasibility of cleaning up a site when it determines where to conduct the studies required to begin cleanup work. Without such considerations, EPA has no basis for

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**Further Action Needed**

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targeting its funds to the sites where they are likely to have the most impact.

To set priorities for cleaning up federal facilities, more complete information on the number of facilities requiring cleanup and better estimates of cleanup costs are needed. In order for the government to know how many contaminated facilities exist, federal agencies that have been slow to compile inventories of hazardous waste sites need to complete this process expeditiously. Until a complete inventory exists and agencies have better estimates of cleanup costs, federal agencies and the Congress will be handicapped in making informed decisions about the priority, pace, or level of federal cleanups. In addition, the federal government needs to establish a system for allocating cleanup resources across agency lines.

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**Sustained Effort  
Is Needed for  
EPA to Recover  
More Costs**

Further improvements in EPA's recovery of Superfund cleanup costs will depend largely on EPA's sustaining its efforts in this area and on changes being made to the Superfund law. First, EPA needs to finalize its proposed rule to increase its recovery of indirect program costs. Until this rule is made final, the government will continue to lose the

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**Further Action Needed**

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opportunity to replenish the trust fund by more fully recovering its costs. Second, to increase the interest charged on recoverable costs, changes in the Superfund law's interest provisions need to be made.

To better track its progress in recovering past costs, EPA needs to establish clear results-oriented goals for its cost recovery efforts. Also, EPA needs to collect better information on the success of its cost recovery negotiations and on the recoverability of many of its costs. Such information would improve EPA's ability to evaluate its cost recovery accomplishments and to forecast the amounts that it is likely to recover. EPA also needs to complete its current initiative to improve the agency's cost accounting capabilities to support its cost recovery efforts.

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**Continued  
Attention to  
Contract  
Management Is  
Needed**

Although EPA has made progress in controlling Superfund contractors' costs, the agency will need to sustain its current level of management attention if it is to succeed in fully implementing these improvements. This concern was heightened when recent internal and EPA Office of Inspector General reviews found problems, for example, with EPA's preparation of independent

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**Further Action Needed**

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government cost estimates and monthly reviews of contractors' invoices. EPA also needs to continue to bring down its cleanup contractors' administrative and other non-site-specific costs, in particular for contractors with higher than average costs in this area. Furthermore, EPA, OMB, and other federal agencies have worked together to address the audit backlogs, but until adequate resources are available for audits, backlogs will persist and Superfund contract dollars will remain at risk. Finally, given the permanence of the Superfund program, EPA will need to further assess its balance of in-house and contract resources, a process begun this past year.

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## Related GAO Products

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Superfund: Legal Expenses for Cleanup-Related Activities of Major U.S. Corporations (GAO/RCED-95-46, Dec. 23, 1994).

Superfund: Estimates of Numbers of Future Sites Vary (GAO/RCED-95-18, Nov. 29, 1994).

Superfund: EPA Has Opportunities to Increase Recoveries of Costs (GAO/RCED-94-196, Sept. 28, 1994).

Superfund: Status, Cost, and Timeliness of Hazardous Waste Site Cleanups (GAO/RCED-94-256, Sept. 21, 1994).

Superfund: Improved Reviews and Guidance Could Reduce Inconsistencies in Risk Assessments (GAO/RCED-94-220, Aug. 10, 1994).

Superfund: Reauthorization and Risk Prioritization Issues (GAO/T-RCED-94-250, June 24, 1994).

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

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

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**Related GAO Products**

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Superfund: EPA Action Could Have Minimized Program Management Costs  
(GAO/RCED-93-136, June 7, 1993; GAO/T-RCED-93-50, June 10, 1993).

High-Risk Series: Superfund Program Management (GAO/HR-93-10, Dec. 1992).

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