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Report to Congressional Requesters

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SUPERFUND

Analysis of Contractor Cleanup Spending

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GAO

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Congressional Requesters

Since 1980, the Environmental Protection Agency (EPA) has spent over $14 billion on the Superfund program to address the potential threats to human health and the environment resulting from hazardous waste sites. The Superfund program focuses on cleaning up the nation's worst hazardous waste sites through long-term comprehensive cleanup actions (referred to as "remedial actions"). Superfund money may also be used to address the immediate health threats from other releases of hazardous substances through shorter-term measures (referred to as "removal actions"). The actual implementation of Superfund cleanup work is performed by private contractors. EPA may directly hire and oversee these contractors or arrange to have these functions performed by another federal agency or a state.

In September 1997, we reported that for fiscal year 1996, about half of the federal Superfund expenditures went to contractors for cleanup work—over 5 percent to study and design the cleanups and about 44 percent to manage and implement cleanup actions.[1] The remaining expenditures went for other purposes: administration and support, federal efforts to compel private parties to clean up hazardous wastes for which they are responsible (referred to as enforcement), EPA salaries and expenses (referred to as directly related costs), and research, development, and laboratory analysis.

You asked us to follow up on our 1997 report by updating our work on the composition of Superfund spending to include fiscal year 1997 and by performing a more detailed analysis of the money charged to the program by cleanup contractors for remedial action work. As agreed with your offices, we (1) updated the share of annual Superfund spending that went for contractor cleanup work to include fiscal year 1997; (2) determined the share of contractor spending for remedial actions that were managed by EPA, other federal agencies, and the states during fiscal years 1996 and 1997; and (3) for the contractor spending for remedial actions that was managed by EPA or the U.S. Army Corps of Engineers (the Corps), analyzed the share that contractors charged for the physical implementation of cleanup actions, as opposed to other contractor charges.

[1]Superfund: Trends in Spending for Site Cleanups (GAO/RCED-97-211, Sept. 4, 1997).

Results in Brief

In fiscal year 1997, about 46 percent of total Superfund spending went to the contractors who study, design, and implement cleanups, compared with 49 percent that was spent on these functions during fiscal 1996. A corresponding 3-percent increase occurred in EPA's administrative and support costs for the program between fiscal years 1996 and 1997. EPA said that this increase can be attributed to normal outlay fluctuations. The share of spending for other Superfund cost categories remained about the same between the 2 fiscal years.

Contractor spending for remedial actions is managed by several different entities, including EPA, the Corps, the Department of the Interior, and about half of the states. Among these, the Corps manages the largest portion of this spending—accounting for 65 percent during fiscal years 1996-97. The states collectively managed about 17 percent of such spending during the past 2 fiscal years. EPA managed about 13 percent of such spending during this period. The Department of the Interior also managed a small portion of such spending—accounting for 5 percent over the 2 fiscal years.

For the spending managed by EPA nationwide, about 71 percent of the costs charged by contractors for remedial action work during fiscal years 1996-97 was for the subcontractors who physically performed the cleanups, such as earthmoving and constructing treatment facilities. The remaining 29 percent went to the prime contractors for professional work, such as construction management and engineering services, and the associated travel, overhead, and administrative costs and fees. For the two projects where detailed information on contractor charges was available from the Corps, the share of spending for the physical implementation of cleanups was about 69 percent.[2] Because these two projects accounted for only 16 percent of contractor spending managed by the Corps during fiscal years 1996-97, we could not determine whether these results generally represent the Corps' contractor spending.

Background

In 1980, the Comprehensive Environmental Response, Compensation, and Liability Act created the Superfund program to clean up highly contaminated hazardous waste sites. Under the act, EPA is authorized to

[2]Under EPA's contracting practices, contractors are reimbursed for all allowable costs (under what are known as "cost-reimbursement" contracts). Therefore, EPA's contractors must submit detailed invoices of the costs they incur. Traditionally, the Corps has negotiated a fixed price with contractors for the cleanup work (under what are known as "fixed-price" contracts). These charges by contractors are based on the portion of the work completed—not on a detailed accounting of costs. Of about 70 remedial action projects with significant charges from the Corps' contractors during fiscal years 1996 or 1997, only two projects were being billed on a cost-reimbursable basis.

compel the parties responsible for the contamination to perform the cleanup.[3] EPA may also pay for the cleanup and attempt to recover the cleanup costs from responsible parties. When EPA pays for the cleanup, the work is conducted by a private contractor who is either directly hired by EPA, another federal entity, or a state.

Superfund contractors study and design cleanups, as well as manage and implement physical cleanup actions. Physical cleanup actions include both remedial and removal actions. Remedial actions are long-term comprehensive cleanups at the nation's worst hazardous waste sites (known as National Priorities List sites). Removal actions tend to be shorter-term measures that usually occur at sites not on the National Priorities List, such as a cleanup when a truck spills hazardous wastes onto a highway. During fiscal years 1996-97, about 65 percent of the funds spent on physical cleanup actions went for remedial actions and the remainder went for removal actions.

When EPA administers a remedial action, it typically uses an architect and engineering firm as the prime contractor to provide the professional services needed to direct the cleanup. However, this firm typically does not physically implement the cleanup, such as moving soil or treating groundwater. Instead, the architect and engineering firm hires subcontractors (referred to as "pool subcontractors") to perform the physical cleanup work. In contrast, when the Corps undertakes a remedial action, the prime contractor may perform some of the physical cleanup.

Once the construction work on a remedial action is completed, the site often requires subsequent operations and maintenance (O&M) activities. When the remedial action has been paid for out of Superfund money, EPA's regulations require that the states assume responsibility for O&M activities.[4] As such, this analysis does not focus on the costs for operating and maintaining Superfund sites.

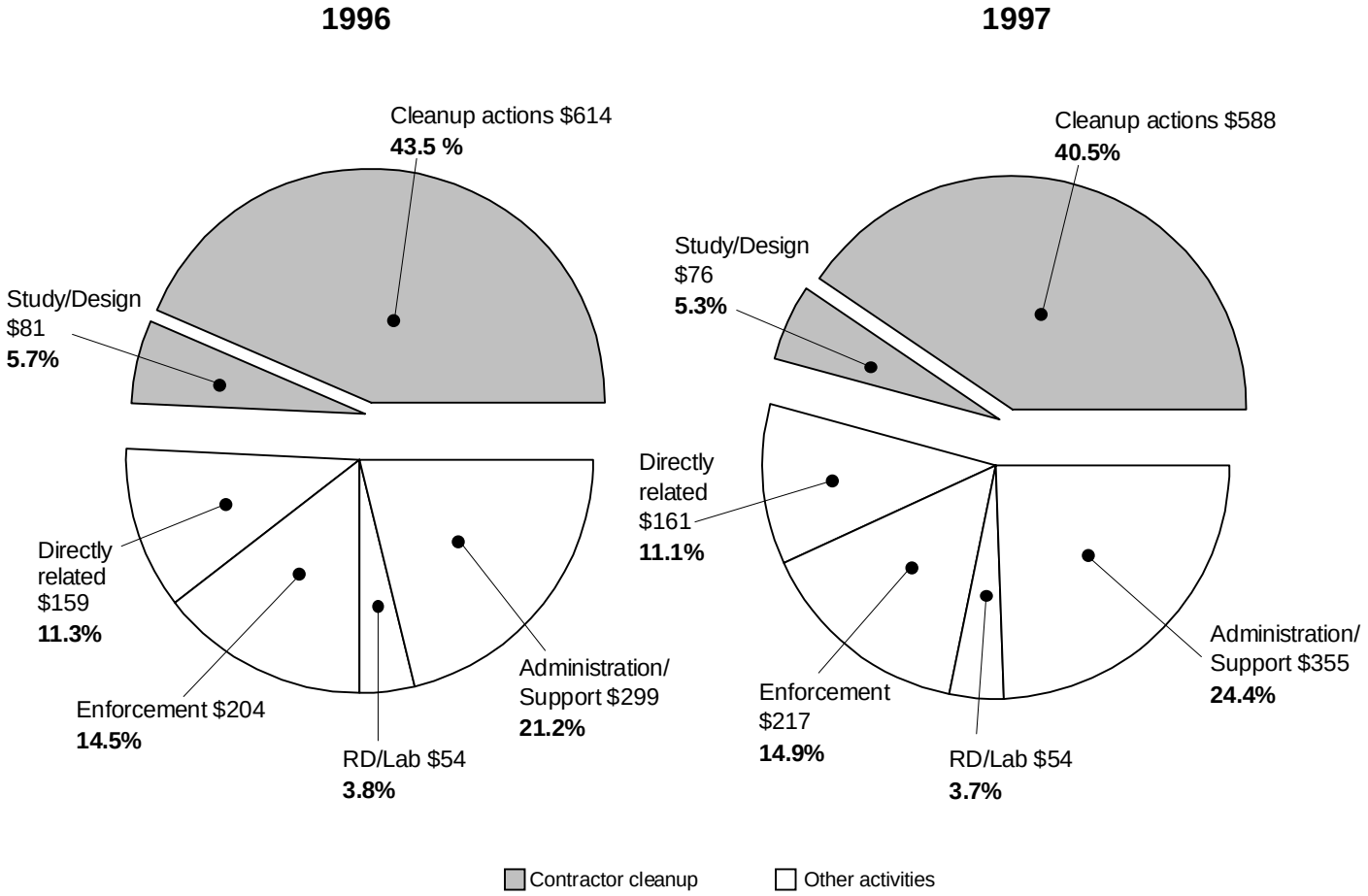
[3]According to EPA, at the end of fiscal year 1997, private parties had committed to conducting cleanup work—with an estimated cumulative value of almost $11 billion—at almost 70 percent of the remedial action sites.

[4]The costs to operate and maintain Superfund sites will be substantial. In our report Superfund: Operations and Maintenance Activities Will Require Billions of Dollars (GAO/RCED-95-259, Sept. 29, 1995), we estimated that over the succeeding four decades, O&M at Superfund sites will cost $32 billion.

Changes in the Composition of Superfund Spending

In September 1997, we reported that both the amount and share of Superfund money paid to the contractors who perform the cleanup work increased from fiscal year 1987 through fiscal 1996. However, in updating this information, we found that both the amount and share of spending for contractor cleanup work declined from about 49 percent in fiscal year 1996 ($695 million) to about 46 percent in fiscal 1997 ($664 million). Between fiscal years 1996 and 1997, EPA's Superfund costs for administration and support activities increased by 3 percent of total Superfund spending—from about 21 percent ($299 million) in fiscal 1996 to about 24 percent ($355 million) in fiscal 1997. The relative share of spending for other Superfund cost categories remained about the same between fiscal years 1996 and 1997. Figure 1 provides a comparison of the amount and share of Superfund spending for various cost categories in the 2 fiscal years.

Figure 1: Superfund Spending for Contractor Cleanup Work and Other Program Activities, Fiscal Years 1996-97, Dollars in Millions



Note: In fiscal year 1996, contractor cleanup work accounted for about 49 percent ($695 million) of the total Superfund spending of $1.4 billion. In fiscal year 1997, contractor cleanup work accounted for about 46 percent ($664 million) of the total Superfund spending of $1.45 billion.

The cost categories used in figure 1 were derived from the codes that EPA's Office of the Comptroller uses to account for the expenditure of Superfund money. Costs shown in the "cleanup actions" category consist of contractor spending to perform remedial and removal actions. In fiscal year 1996, this spending included about $419 million for remedial actions and $196 million for removal actions. In fiscal year 1997, this spending

included about $360 million for remedial actions and $228 million for removal actions. The costs shown in the "study and design" category consist of contractor spending to study and design remedial actions. Spending for other program activities covers (1) "directly related" costs, for activities such as EPA's salaries and travel for overseeing cleanups and the costs associated with screening sites for inclusion on the National Priorities List; (2) "enforcement" costs related to EPA oversight of responsible parties' cleanups and costs for negotiating and settling with responsible parties; (3) research and development, and laboratory analysis (RD/Lab), including the costs of EPA's scientists, innovative technology programs, and the evaluation of hazardous waste samples; and (4) administration and support, including indirect program costs, such as those for rent, utilities, and accounting systems.

EPA stated that the increase in spending for administration and support between fiscal years 1996 and 1997 can be attributed to normal spending fluctuations for items such as rental payments and other infrastructure needs, and to possible accounting changes. Our review of Superfund spending over the last 11 years indicates that spending for administration and support fluctuated between 18 percent and 25 percent during fiscal years 1987-91. However, after declining for 3 fiscal years to about 20 percent in fiscal 1994, this spending has continued to increase during the 3 most recent fiscal years, reaching over 24 percent in fiscal 1997.

Entities Administering Superfund Spending for Remedial Actions

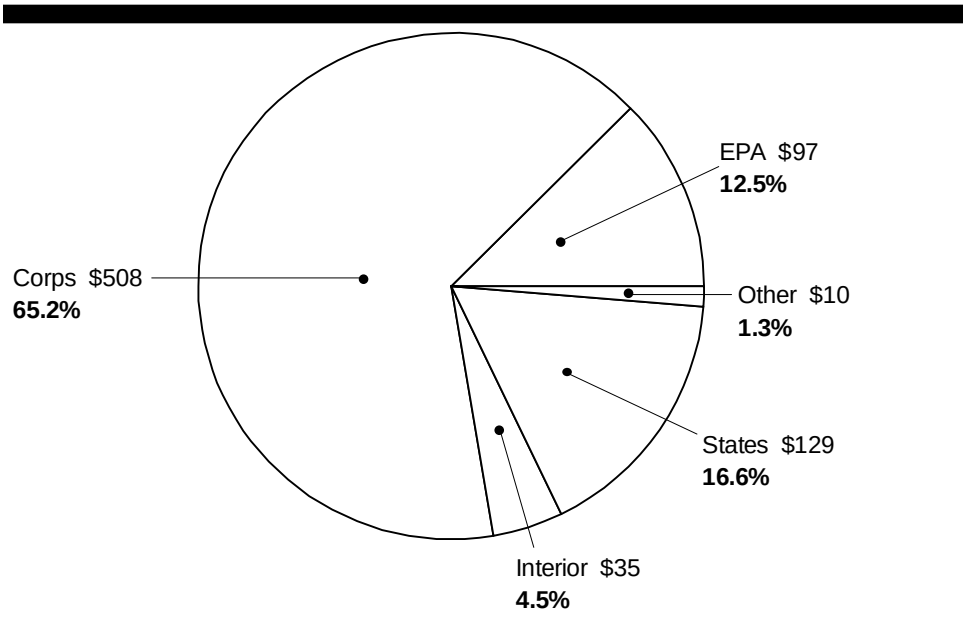
Several different entities manage contractor spending for Superfund remedial action projects. As figure 2 shows, the Corps managed the largest portion of this spending during fiscal years 1996-97 (about 65 percent of the spending during the 2-year period). One reason for this is that the Corps manages the more expensive projects. EPA's policy is that remedial action projects estimated to have a total cost of $15 million or more should generally be handled by the Corps (because of its long experience in managing construction contractors). Accordingly, most of the contractor spending managed by the Corps is attributable to several large-dollar projects.[5]

State governments collectively managed about 17 percent of contractor spending during fiscal years 1996-97. EPA managed about 13 percent of contractor spending during the 2 fiscal years. The Department of the

[5]In essence, the Corps acts as a contractor to EPA by managing cleanup work at Superfund projects. The Corps is reimbursed for its costs, which it estimates are about 9 percent of the total remedial action spending that it manages.

Interior managed a small portion of contractor spending (about 5 percent), primarily for mining cleanups.

Figure 2: Contractor Spending for Remedial Actions During Fiscal Years 1996-97, by Entity, Dollars in Millions



Note: Because the Superfund spending managed by "other" entities accounted for only about 1 percent of the total spending for the 2-year period, we did not determine the identity of these entities or precisely how much spending they managed.

Contractor Costs for Remedial Actions Managed by EPA or the Corps

Nationwide, about 71 percent of contractor spending for remedial actions managed by EPA during fiscal years 1996-97 went to the physical implementation of the cleanups. The remaining 29 percent was for prime contractor expenses related to managing and overseeing the cleanups. For the two remedial action projects where information was available from the Corps, about 69 percent of contractor spending during fiscal years 1996-97 went to the physical implementation of the cleanups. We could not determine if these results are typical of the Corps' projects, however, because these two projects accounted for only 16 percent of the Corps' spending for contractors during fiscal years 1996-97. The information needed to divide contractor spending for remedial actions between physical implementation of the cleanups and other expenses was generally unavailable for the contracts administered by the Corps. (See footnote 2.)

Contractor Spending Managed by EPA

For the remedial action projects performed by EPA's contractors, we found that, nationwide, about 71 percent of contractor spending during 1996-97 went to the subcontractors who physically perform the cleanup work. However, we found a wide range in the percentage of contractor spending that went to the physical implementation of the cleanups among EPA's 10 regions—from a low of 6 percent in region 1 to a high of 80 percent in region 6. We discussed these differences with EPA's regional project officials to identify the reasons for the wide range in the share of spending for the physical implementation of the cleanups.

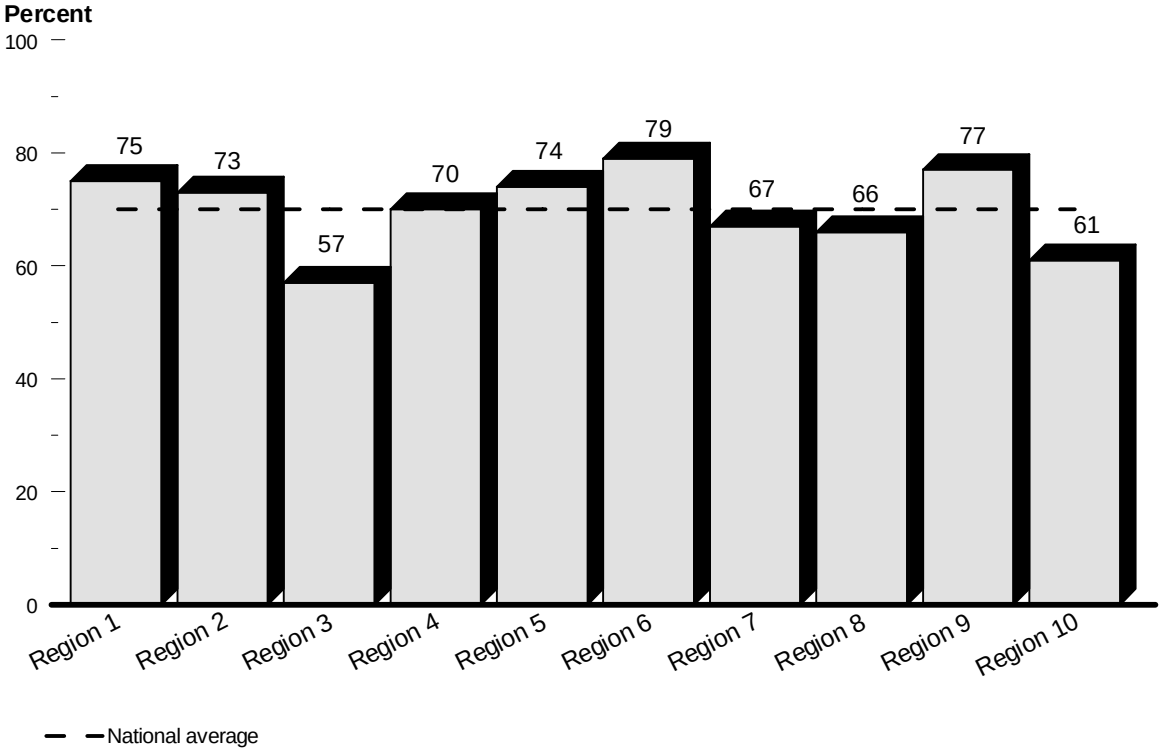
The EPA regional officials told us that the primary reason for this wide range is the stage of the cleanup projects in the regions during the 2-year period of our analysis. At the beginning and end of a remedial action, administrative costs and fees are relatively high, while physical implementation costs are relatively low. EPA's regional project officials explained that at the beginning of a remedial action, the prime contractor has to perform such tasks as developing a work plan, a project budget, and a health and safety plan. Also, the prime contractor has to hire the subcontractors who will physically implement the work, which involves advertising the work, as well as obtaining and analyzing bids. At the end of a remedial action, according to EPA's project officials, the prime contractor has to ensure that the subcontractors have satisfactorily completed their work, and the prime contractor must comply with the administrative requirements for the project's completion, such as writing reports and preparing for the final financial audit of the project. Additionally, once EPA has assessed the prime contractor's performance in carrying out the remedial work, EPA pays final fees to the contractor.

For example, spending for the physical implementation of cleanups was low in EPA's region 1 during fiscal years 1996-97 because the region's spending for remedial actions was for three projects that were almost completed. For two of the projects, most of the spending was for performance fees that EPA awarded the contractor at the end of the project. For the third project, most of the costs were for the prime contractor's administrative functions related to closing out the project.

EPA's regional officials told us that over the life of remedial action projects, the beginning and ending administrative costs are balanced by the relatively high percentage of physical remediation costs incurred during the middle phases of the cleanup. To verify this explanation, we analyzed the cumulative remedial action spending for the life of the projects included in our review (those with spending of $10,000 or more in either

fiscal year 1996 or 1997). We found that, nationwide, 70 percent of the cumulative project spending went to the physical implementation of the cleanups, about the same share that went to physical implementation during fiscal years 1996-97. The individual regions that had relatively low percentages of spending for physical implementation during fiscal years 1996-97 had much higher percentages of such spending over the life of their projects, thus corroborating the explanation provided by EPA's regional officials. For example, in region 1 while only 6 percent of the spending had been for physical implementation during fiscal years 1996-97, 75 percent of the spending was for physical implementation over the life of the same projects. (See fig. 3.)

Figure 3: Percentage of Contractor Spending for Remedial Actions Used for Physical Implementation of Cleanups, Cumulative Project Life



Because EPA regions 3 and 10 had the lowest cumulative shares of contractor spending for the physical implementation of cleanups, we discussed these results with project officials from these regions. The officials told us that a couple of factors help to explain these results. In some cases, the remedial actions were still in such an early stage that even on a cumulative basis, little spending had occurred for physical implementation. In other cases, the remedial action project was to construct a groundwater treatment facility. According to EPA's project officials, unlike soil remediation, which involves massive construction work, the physical construction work for a groundwater treatment facility is typically limited to the installation of wells. While the physical implementation charges are relatively lower for this type of project, the prime contractor typically incurs significant charges for its engineers to oversee a well's installation and ensure that the well will function properly.

While 71 percent of contractor cleanup charges in fiscal years 1996-97 went to pool subcontractors for physically implementing the cleanup work, the remainder was retained by the prime contractors for other expenses related to overseeing and managing the cleanups. During fiscal years 1996-97, 29 percent of contractor spending for remedial actions went for these other expenses, as follows:

- Professional labor needed to oversee and manage cleanups (8 percent).
- Travel associated with the professional labor (1 percent).
- Fringe benefits associated with the professional labor (1 percent).[6]
- Overhead, such as rent and utilities for on-site space (7 percent).
- General and administrative expenses, such as salaries for upper management and corporate office costs (3 percent).
- Fees, including money paid to the contractor to motivate good performance (5 percent).
- Technical assistance subcontractors who provide professional expertise beyond the prime contractor's expertise (1 percent).
- Other costs, such as office and technical equipment, reports, and messenger service (3 percent).

Appendix I provides a further explanation of these cost categories and a detailed account of EPA's contractor spending, by region.

[6]Some of the contractors' invoices showed fringe benefits as a separate line item, and other invoices did not. According to the manager of EPA's Regional Contract Management Center, some contractors include their fringe benefit costs under the overhead line item.

Contractor Spending Managed by the Corps

During fiscal years 1996-97, only 2 of the about 70 remedial actions with significant charges by the Corps' contractors ($10,000 or more in spending during either year) were billed on a cost-reimbursement basis, thus allowing us to analyze the share of contractor spending for physical cleanups. In managing Superfund cleanup contractors, the Corps has traditionally used "fixed-price" contracts. Under this type of contract, the Corps negotiates a firm price with the contractor for the work to be performed. The contractor then charges the government for completed portions of the work. However, fixed-price billings do not yield the detailed accounting of costs needed for the type of analysis we performed in this review.

The Corps' contractors charged almost $76 million for these two projects during fiscal years 1996-97. Of this amount, about 69 percent (or $52 million) went to the physical implementation of the cleanups. For the two projects individually, we found that 71 and 48 percent of the contractor charges, respectively, during the past 2 fiscal years went to the physical implementation of the cleanups. We also found that the shares of spending that went to the physical cleanups during the entire life of these remedial actions were 70 and 51 percent, respectively. (Both projects were almost complete at the end of fiscal year 1997.) The Corps official managing these two projects told us that the second project had a lower portion of spending for physical cleanup because the project involved groundwater remediation, which entails less construction work and more prime contractor engineering services.

Appendix II provides a detailed accounting of contractor spending for these two projects. However, because these two projects cover only 16 percent of the Corps' contractor spending, we could not determine whether these projects generally represent contractor spending managed by the Corps.

Agency Comments and Our Evaluation

We provided EPA and the Corps with copies of a draft of this report for their review and comment. EPA said that the report's analysis is sound. However, EPA also stated that our draft report defined cleanup as removal and remedial actions, while EPA's definition of cleanup includes many other types of activities (including EPA's oversight of private party cleanups, site assessments, laboratory analysis, community involvement activities, state/tribal activities, engineering and technical analyses, and the Brownfields program). This report's analysis was primarily focused on the Superfund spending that goes for the physical implementation of

remedial action cleanups. Therefore, our analysis necessarily focused on contractor cleanup spending because this is the only Superfund cost category that includes physical implementation costs. We do not dispute the fact that the other activities cited by EPA are related to the cleanup process, but they do not encompass physical implementation of site cleanups.

In addition, EPA attributed the increase in administration and support costs to normal spending fluctuations. We revised the body of the report to include this information. (See p. 6.)

Finally, EPA stated that it is important to clarify that the 29 percent of contractor spending that went for prime contractor costs should not be confused with the percentage that contractors charge for program management. Program management costs are separate non-site-specific costs that the contractor charges EPA for administrative, management, and technical work related to the Superfund program, in addition to the site-specific costs discussed in this report. We did not include information on program management costs in this report because such costs were not the subject of our work. However, we have reviewed Superfund contractor program management costs several times in the past and most recently reported on this issue in February 1997 in our report entitled High-Risk Series: Superfund Program Management (GAO/HR-97-14). (The full text of EPA's comments is provided in app. IV.)

The Corps did not have any comments on the draft report.

We conducted our review from January through June 1998 in accordance with generally accepted government auditing standards. See appendix III for the details of our scope and methodology.

As arranged with your offices, we plan no further distribution of this report until 30 days after the date of this letter unless you publicly announce its contents earlier. At that time, we will send copies to other appropriate congressional committees, the Administrator of EPA, and the Commander of the U.S. Army Corps of Engineers. We will also make copies available to others upon request.

Should you need further information, please call me at (202) 512-6111. Major contributors to this report are listed in appendix V.

Peter F. Guerrero
Director, Environmental
Protection Issues

Congressional Requesters

The Honorable Thomas J. Bliley, Jr.
Chairman, Committee on Commerce
House of Representatives

The Honorable Michael G. Oxley
Chairman, Subcommittee on Finance
and Hazardous Materials
Committee on Commerce
House of Representatives

The Honorable Bud Shuster
Chairman, Committee on Transportation
and Infrastructure
House of Representatives

The Honorable Sherwood C. Boehlert
Chairman, Subcommittee on Water Resources
and Environment
Committee on Transportation
and Infrastructure
House of Representatives

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Abbreviations

EPA	Environmental Protection Agency
GAO	General Accounting Office
IFMS	Integrated Financial Management System
O&M	operations and maintenance

EPA Contractor Charges for Remedial Actions, by EPA Region

This appendix provides detailed information on Superfund contractor charges for remedial actions, by Environmental Protection Agency (EPA) region. The information provided is for all remedial action projects that had spending of $10,000 or more in either fiscal year 1996 or fiscal 1997, as reported by EPA's Integrated Financial Management System. Columns 2 and 3 in table I.1 show charges for these projects during fiscal years 1996-97. Columns 4 and 5 show cumulative charges over the life of these same projects. The cost categories shown below were derived from EPA contractor billings and are defined as follows:

- Prime contractor direct labor: Professional and technical labor that the prime contractor uses in the management and oversight of remedial actions.
- Travel: Expenses that prime contractor staff incur in traveling to manage and oversee Superfund remedial actions.
- Fringe benefits: Expenses incurred to provide fringe benefits, such as vacation, sick leave, and health benefits to prime contractor staff.
- Overhead: Expenses associated with managing a remedial action project, such as rent and utilities of on-site space. Some contractors include clerical labor under this category. Also, some contractors may include fringe benefit expenses under this category instead of showing them as a separate line item.
- General and administrative costs: Expenses for the overall management of a company, such as salaries for upper management, accounting and legal expenses, rent and utilities for corporate offices, etc.
- Fees: Money paid to the prime contractor to provide a profit and to motivate the contractor toward good performance.
- Other prime contractor costs: Other costs incurred by the prime contractor in performing the remedial action for such items as computers, messenger service, postage, film, etc.
- Team subcontractors: Costs that the prime contractor has paid to subcontractors for additional technical expertise.
- Pool subcontractors: Costs that the prime contractor has paid to a subcontractor for the physical implementation of the remedial action.

As shown in table I.1, the EPA contractor charges that we analyzed totaled about $62 million for fiscal years 1996-97. EPA's financial management system reported disbursements totaling about $97 million for the same period. Part of the difference may be attributable to the lag time between the submission and payment of billings. Another reason for the difference is that about $26 million was charged to the remedial action account for other related activities at Superfund sites, such as removal actions,

contractor oversight of private-party cleanups, and adjustments to previous expenditures.

Table I.1: EPA Contractor Charges for Remedial Actions by EPA Region

Cost categories	Costs charged by contractors, fiscal years 1996-97	Costs charged as a percentage of regional totals, fiscal years 1996-97	Cumulative costs charged	Amount charged as a percentage of cumulative project costs
Region 1 (Boston)				
Prime contractor direct labor	$44,757	15.2	$480,492	5.0
Travel	303	0.1	41,326	0.4
Fringe benefits	0	0	0	0
Overhead	67,552	23.0	649,500	6.8
General and administrative costs	4,411	1.5	132,184	1.4
Fees	129,080	43.9	489,879	5.1
Other prime contractor cost	11,785	4.0	225,567	2.4
Team subcontractors	18,930	6.4	360,369	3.8
Pool subcontractors	17,379	5.9	7,197,174	75.2
Subtotal	**$294,198**	**100.0**	**$9,576,491**	**100.0**
Region 2 (New York)				
Prime contractor direct labor	$899,660	7.1	$1,740,406	7.1
Travel	81,177	0.6	167,870	0.7
Fringe benefits	118,747	0.9	278,436	1.1
Overhead	821,517	6.5	1,528,564	6.2
General and administrative costs	606,940	4.8	887,765	3.6
Fees	415,344	3.3	744,208	3.0
Other prime contractor cost	238,708	1.9	576,578	2.3
Team subcontractors	160,428	1.3	740,351	3.0
Pool subcontractors	9,337,664	73.6	17,915,140	72.9
Subtotal	$12,680,185	100.0	$24,579,316	**100.0**
Region 3 (Philadelphia)				
Prime contractor direct labor	$227,188	10.2	$1,231,189	10.1
Travel	32,790	1.5	176,963	1.4
Fringe benefits	251,346	11.2	331,341	2.7
Overhead	269,715	12.1	881,478	7.2
General and administrative costs	(75,749)	–3.4	976,549	8.0
Fees	132,507	5.9	518,594	4.2
Other prime contractor cost	161,230	7.2	596,030	4.9

(continued)

Cost categories	Costs charged by contractors, fiscal years 1996-97	Costs charged as a percentage of regional totals, fiscal years 1996-97	Cumulative costs charged	Amount charged as a percentage of cumulative project costs
Team subcontractors	217,163	9.7	564,076	4.6
Pool subcontractors	1,021,234	45.6	6,969,287	56.9
Subtotal	**$2,237,424**	**100.0**	**$12,245,506**	**100.0**
Region 4 (Atlanta)				
Prime contractor direct labor	$1,331,401	10.5	$1,924,713	13.1
Travel	282,533	2.2	389,284	2.6
Fringe benefits	81,633	0.6	106,355	0.7
Overhead	446,608	3.5	636,503	4.3
General and administrative costs	424,172	3.4	581,818	3.9
Fees	475,438	3.8	536,724	3.6
Other prime contractor cost	198,434	1.6	248,645	1.7
Team subcontractors	20,531	0.2	20,531	0.1
Pool subcontractors	9,401,829	74.3	10,286,945	69.8
Subtotal	**$12,662,578**	**100.0**	**$14,731,518**	**100.0**
Region 5 (Chicago)				
Prime contractor direct labor	$814,843	8.5	$1,880,581	7.4
Travel	169,800	1.8	372,251	1.5
Fringe benefits	254,307	2.7	254,307	1.0
Overhead	744,146	7.8	1,600,317	6.3
General and administrative costs	289,379	3.0	861,221	3.4
Fees	434,795	4.5	1,011,340	4.0
Other prime contractor cost	300,456	3.1	635,953	2.5
Team subcontractors	151	0	226	0
Pool subcontractors	6,558,158	68.6	18,642,934	73.8
Subtotal	**$9,566,035**	**100.0**	**$25,259,130**	**100.0**
Region 6 (Dallas)				
Prime contractor direct labor	$203,244	5.5	$359,118	6.7
Travel	37,105	1.0	61,912	1.2
Fringe benefits	0	0	0	0
Overhead	135,011	3.7	238,360	4.5
General and administrative costs	58,997	1.6	115,207	2.2
Fees	217,040	5.9	245,124	4.6
Other prime contractor cost	73,076	2.0	129,025	2.4
Team subcontractors	0	0	0	0

(continued)

Cost categories	Costs charged by contractors, fiscal years 1996-97	Costs charged as a percentage of regional totals, fiscal years 1996-97	Cumulative costs charged	Amount charged as a percentage of cumulative project costs
Pool subcontractors	2,953,933	80.3	4,202,640	78.5
Subtotal	**$3,678,405**	**100.0**	**$5,351,385**	**100.0**
Region 7 (Kansas City)				
Prime contractor direct labor	$128,744	9.8	$157,507	10.4
Travel	16,653	1.3	22,140	1.5
Fringe benefits	0	0	0	0
Overhead	176,391	13.5	198,332	13.1
General and administrative costs	(7,943)	–0.6	342	0
Fees	38,386	2.9	43,938	2.9
Other prime contractor cost	39,832	3.0	77,133	5.1
Team subcontractors	5,543	0.4	5,543	0.4
Pool subcontractors	911,058	69.6	1,008,714	66.6
Subtotal	**$1,308,664**	**100.0**	**$1,513,650**	**100.0**
Region 8 (Denver)				
Prime contractor direct labor	$25,745	8.7	$451,567	9.5
Travel	9	0	6,527	0.1
Fringe benefits	0	0	0	0
Overhead	29,552	10.0	560,192	11.7
General and administrative costs	5,591	1.9	166,503	3.5
Fees	91,016	30.9	266,902	5.6
Other prime contractor cost	29,098	9.9	108,471	2.3
Team subcontractors	0	0	86,689	1.8
Pool subcontractors	113,391	38.5	3,131,130	65.5
Subtotal	**$294,402**	**100.0**	**$4,777,980**	**100.0**
Region 9 (San Francisco)				
Prime contractor direct labor	$589,340	6.0	$638,895	6.4
Travel	52,919	0.5	$56,619	0.6
Fringe benefits	99,462	1.0	99,462	1.0
Overhead	484,427	5.0	520,528	5.2
General and administrative costs	390,494	4.0	435,758	4.4
Fees	350,942	3.6	355,482	3.6
Other prime contractor cost	193,556	2.0	218,328	2.2
Team subcontractors	0	0	0	0
Pool subcontractors	7,596,547	77.9	7,604,826	76.6

(continued)

Cost categories	Costs charged by contractors, fiscal years 1996-97	Costs charged as a percentage of regional totals, fiscal years 1996-97	Cumulative costs charged	Amount charged as a percentage of cumulative project costs
Subtotal	**$9,757,688**	**100.0**	**$9,929,898**	**100.0**
Region 10 (Seattle)				
Prime contractor direct labor	$694,611	7.4	$1,605,291	9.3
Travel	32,621	0.3	84,366	0.5
Fringe benefits	49,708	0.5	49,708	0.3
Overhead	886,756	9.4	1,526,834	8.9
General and administrative costs	254,202	2.7	1,097,018	6.4
Fees	606,501	6.4	819,101	4.8
Other prime contractor cost	623,023	6.6	1,489,219	8.7
Team subcontractors	0	0	0	0
Pool subcontractors	6,279,628	66.6	10,527,447	61.2
Subtotal	**$9,427,051**	**100.0**	**$17,198,983**	**100.0**
EPA-wide				
Prime contractor direct labor	$4,959,533	8.0	$10,469,758	8.4
Travel	705,910	1.1	1,379,258	1.1
Fringe benefits	855,204	1.4	1,119,609	0.9
Overhead	4,061,675	6.6	8,340,606	6.7
General and administrative costs	1,950,494	3.2	5,254,365	4.2
Fees	2,891,049	4.7	5,031,292	4.0
Other prime contractor cost	1,869,199	3.0	4,304,950	3.4
Team subcontractors	422,745	0.7	1,777,783	1.4
Pool subcontractors	44,190,821	71.4	87,486,236	69.9
Total	**$61,906,630**	**100.0**	**$125,163,858**	**100.0**

Note: Totals may not add because of rounding.

Corps Contractor Charges for Remedial Actions

This appendix provides detailed information on Superfund contractor spending managed by the Corps at two large projects. These are the only projects that were billed on a cost-reimbursement basis during the period of our review and thus the only projects for which detailed billing information is available. Columns 2 and 3 in table II.1 show charges at these projects during fiscal years 1996-97. Columns 4 and 5 show cumulative costs over the life of these same projects. The cost categories shown below were derived from Corps contractors' billings and are defined as follows:

- Professional labor: The prime contractor's expenses for the professional labor used to manage and oversee a remedial action.
- Overhead on prime labor: The prime contractor's expenses for professional staff's fringe benefits, such as vacations, sick leave, and health benefits. This category also includes other overhead expenses associated with professional staff, such as rent and utilities for on-site space.
- General and administrative: Expenses for the overall management of the prime contractor's company, such as executive salaries and rent and utilities for corporate offices.
- Professional travel: Expenses that the prime contractor's staff incur in traveling to manage and oversee a remedial action.
- Professional subcontractors: Expenses that the prime contractor has incurred for subcontractors who provided additional technical expertise for the remedial action.
- Fees: Money paid to the prime contractor to provide a profit and to motivate the contractor toward good performance.
- Equipment: Expenses for construction equipment used in the remedial action, such as bulldozers and excavators. This category also includes some expenses for office equipment used in the remedial action because the contractor charges do not separate office equipment costs from construction equipment costs.
- Other direct costs: Expenses for construction materials directly used in the remedial action.
- Craft labor: Expenses for labor from the plumbing, electrical and other crafts from which the prime contractor has directly hired workers for the remedial action.
- Lower-tier subcontractors: Costs for physical implementation work that the prime contractor paid to a subcontractor, such as a trucking company.

Table II.1: Corps Contractor Charges for Remedial Actions

Dollars in thousands

Cost categories	Costs charged by contractors, fiscal years 1996-97	Costs charged as a percentage of total remedial action costs, fiscal years 1996-97	Cumulative costs charged	Amount charged as a percentage of cumulative remedial action costs
Superfund cleanup site #1				
Professional labor	$4,692.5	6.8	$5,033.1	7.1
Overhead on professional labor	3,590.7	5.2	3,859.30	5.4
General and administrative costs	2,864.5	4.2	3,018.30	4.3
Professional travel	1,676.0	2.4	1,748.40	2.5
Professional subcontractors	2,362.4	3.4	2,362.50	3.3
Fees	4,768.9	6.9	4,946.10	7.0
Professional and associated costs, subtotal	**$19,955.0**	**29.1**	**$20,967.7**	**29.6**
Equipment	$15,396.0	22.4	$15,459.7	21.8
Other direct costs	11,956.4	17.4	12,601.7	17.8
Craft labor	14,398.0	21.0	14,883.1	21.0
Lower tier subcontractors	6,913.7	10.1	6,972.9	9.8
Physical cleanup, subtotal	**$48,664.1**	**70.9**	**$49,917.4**	**70.4**
Remedial action, total	**$68,619.1**	**100.0**	**$70,885.1**	**100.0**
Superfund cleanup site # 2				
Professional labor	$676.5	9.3	$1,802.4	11.8
Overhead on professional labor	796.5	11.0	1,910.4	12.5
General and administrative costs	604.0	8.3	919.1	6.0
Professional travel	90.1	1.2	343.3	2.3
Professional subcontractors	1,117.9	15.4	1,395.5	9.2
Fees	475.4	6.5	1,071.3	7.0
Professional and associated costs, subtotal	**$3,760.4**	**51.7**	**$7,442.0**	**48.8**
Equipment	$43.3	0.6	$79.4	0.5
Other direct costs	1,376.2	18.9	3,648.4	23.9
Craft labor	182.9	2.5	997.8	6.5
Lower tier subcontractors	1,905.3	26.2	3,080.5	20.2
Physical cleanup, subtotal	**$3,507.7**	**48.3**	**$7,806.1**	**51.2**
Remedial action, total	**$7,268.1**	**100.0**	**$15,248.1**	**100.0**

Scope and Methodology

To update the share of annual Superfund spending that went to contractor cleanup work to include fiscal year 1997, we obtained information from EPA's Integrated Financial Management System (IFMS). Working with officials from EPA's Office of the Comptroller, we allocated Superfund expenditures for fiscal year 1997 into the same spending categories established in our September 1997 report.[7] However, we did not analyze the reasons for changes in the percentage of spending in each of the cost categories as part of this review. To determine the share of contractor spending for remedial actions administered by EPA, the Corps, the Department of the Interior's Bureau of Reclamation, and the states, we also obtained information from IFMS.

In a 1995 report on IFMS, we found instances of inaccurate and incomplete data in the system.[8] While we did not consider these instances to be representative of the overall integrity of IFMS data, we recommended that EPA conduct statistical testing of the data, which EPA has done. We confirmed the IFMS information with officials from EPA's Office of the Comptroller and further verified the IFMS information during our contacts with the appropriate EPA and Corps officials.

To determine the portion of funds spent for the physical implementation of remedial actions, as opposed to other contractor-related expenditures, we analyzed contractor billings for cleanup work in each of EPA's 10 regional offices and for appropriate Corps cleanups billed in fiscal years 1996-97. Along with annual cost information, these bills also included the cumulative costs for each project. We used the latest contractor bill available (usually for Sept. 1997) to analyze cumulative project costs. We reviewed all Superfund remedial action projects that had spending of $10,000 or more in fiscal year 1996 and/or fiscal 1997, as reported by IFMS.

We used the contractors' bills as our primary data sources for this analysis because, while EPA maintains information on the overall remedial action disbursements for each Superfund site, the agency does not maintain a breakdown by the cost categories. For the bills we received from EPA's 10 regions, we classified the amount charged for the construction (pool) subcontractors as the spending on physical implementation for each site because the program officials from all 10 EPA regions told us that the prime contractors did not perform any of the physical cleanups for the Superfund projects in our review. The money paid to these subcontractors

[7] Superfund: Trends in Spending for Site Cleanups (GAO/RCED-97-211, Sept. 4, 1997).

[8] Superfund: System Enhancements Could Improve the Efficiency of Cost Recovery (GAO/AIMD-95-177, Aug. 25, 1995).

does include indirect costs, such as overhead, and general and administrative expenses. However, these costs are not broken out on the bills submitted to EPA for payment.

For the Corps of Engineers, only 2 of about 70 remedial actions projects it managed that met the criteria for inclusion in our review ($10,000 or more in spending in fiscal years 1996 and/or 1997) were being billed on a cost-reimbursable basis. The remaining projects were being billed under fixed-price contracts, and the bills did not provide the detailed information needed for the type of analysis we conducted. For the two Corps projects included in our review, we discussed the contractor's costs with the cognizant Corps project manager in order to determine which charges represented the physical implementation costs versus other costs because the Corps, in contrast to EPA, had the prime contractor perform some of the physical cleanup work. Finally, we verified with EPA's and the Corps' payment offices that the billed amounts used in our analysis were paid without significant modifications.

Comments From the Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

JUL 6 1998

Mr. Peter F. Guerrero
Issue Area Director
Environmental Protection Issues
United States General Accounting Office
Washington, DC 20548

Dear Mr. Guerrero:

Thank you for the opportunity to review and comment on the June 24, 1998, draft report entitled "Superfund: Analysis of Contractor Cleanup Spending" (GAO/RCED-98-221). This letter formally transmits our comments on the draft report.

EPA wrote to GAO on August 12, 1997, commenting on GAO's earlier draft report "Trends in Spending" to note that the report could lead to considerable confusion if it is not explicitly pointed out that the Agency defines cleanup to include all necessary activities to reduce the risks to public health and the environment, not solely remedial and removal actions. The current draft report, "Superfund: Analysis of Contractor Cleanup Spending" continues to define cleanup as removal and remedial actions. The attached document defines EPA's cleanup activities, and compares the Agency definition of cleanup to that of GAO.

In addition, this draft report states that Superfund costs for administration and support activities increased by 3 percent of total Superfund spending from about 21 percent in fiscal year 1996 to about 24 percent in fiscal year 1997. This increase can be attributed to normal outlay fluctuations, such as varying rental payments, other infrastructure needs, and possible accounting changes as the new working capital fund accounting system was implemented.

It is also important to clarify that the 29% of prime contractor professional work expenses related to management and oversight of the cleanups are direct costs and fees, and should not be confused with the program management cost ratio of the contract. We are clarifying this point because for the last several years, GAO has performed extensive analysis and review of the program management cost ratio of our cleanup contracts. We would not want the 29% prime contractor direct costs and fees to be confused with the program management cost ratio.

If you have any questions or require further information, please do not hesitate to call Robin Richardson at (703) 603-8912.

Sincerely,

Stephen D. Luftig, Director
Office of Emergency and Remedial Response

Enclosure

cc: Timothy Fields, Jr.
Stephen Tiber
Robin Richardson

Attachment

U.S. Environmental Protection Agency
Superfund: Analysis of Contractor Cleanup Spending

Definition of Cleanup Activities

While EPA finds the analysis in the Draft Report entitled "Superfund: Analysis of Contractor Cleanup Spending," to be sound, there is one significant point of difference. GAO's "cleanup" definition does not comport with the realities of the cleanup process. EPA defines the term "cleanup" to include all necessary activities to reduce the risks to public health and the environment, not solely remedial and removal actions. Imbedded in GAO's definition of "Other Superfund Spending" are the resources which support vital cleanup functions such as lab analysis. As an example, at a site where the remedy entails removing contaminated soil, treating the soil, and returning the clean soil to the excavation site, the lab analysis necessary to determine an ongoing basis the amount of soil to be removed is vital to the cleanup. Without these resources, the cleanup process would be compromised. Thus, EPA's inclusion of these functions and resources in the definition of cleanup is most appropriate.

GAO's definition of "Other Superfund Spending" includes EPA salaries, travel for cleanup oversight, and the oversight of responsible parties. Oversight of cleanup activities by EPA Remedial Project Managers (RPMs) is one of the most substantive means by which the Agency ensures remedies will be effectively implemented and will permanently protect human health and the environment. These functions have been erroneously characterized as overhead or administrative throughout the life of the program. Permanence and protectiveness can only be ensured through EPA oversight of each cleanup, particularly those managed by responsible parties and our Federal partners. Salaries (particularly those of RPMs), site travel, and oversight are, therefore integral to "cleanup". By way of example, at the Red Wing Trucking/Saraland Apartments Site in Saraland, AL, the site was contaminated by years of washing out chemical trucks in the area on which apartments were subsequently built. The responsible party (RP) took over management of the site study and remedial investigation/feasibility study (RI/FS) functions to characterize the contamination on site in order to determine the remedy requirements. EPA samples taken at the site showed that the RP-lead RI/FS had missed a large portion of the contamination, necessitating the relocation of the residents of the apartments and assumption of cleanup responsibilities by EPA. The RPM's salary, site travel, and oversight costs were vital to ensuring the safety of the residents. Without them, millions of dollars could have been spent implementing an inadequate remedy.

The Agency's definition of cleanup includes additional activities such as site assessment, lab analysis, community involvement activities, State/Tribal activities, engineering and technical analyses, and Brownfields.

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