

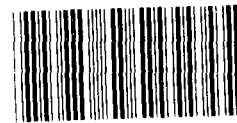
GAO

Report to the Chairman, Subcommittee on  
Commerce, Transportation and Tourism,  
Committee on Energy and Commerce  
House of Representatives

May 1986

# HAZARDOUS WASTE

## Responsible Party Clean Up Efforts Require Improved Oversight



130081

035676

---

---

Vertical line on the left side of the page.



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

**Resources, Community, and  
Economic Development Division**

B-221269

May 6, 1986

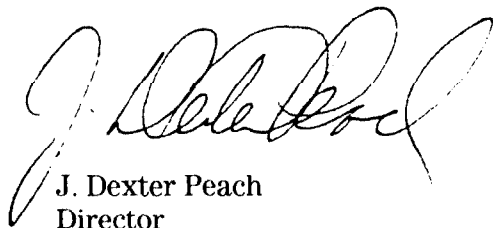
The Honorable James J. Florio  
Chairman, Subcommittee on Commerce,  
Transportation and Tourism  
Committee on Energy and Commerce  
House of Representatives

Dear Mr. Chairman:

As requested in your April 16, 1985, letter and in subsequent discussions with your office, we have reviewed responsible party cleanup activities at priority hazardous waste sites under the provisions of the Superfund program. Specifically, this report discusses the number, estimated value, and purpose of the responsible party settlements, and the Environmental Protection Agency's monitoring of compliance with these settlements. The report also makes recommendations to the Administrator, Environmental Protection Agency.

As arranged with your office, unless you publicly release its contents earlier, we will make the report available to other interested parties 30 days after its issue date. At that time copies of the report will be sent to the appropriate congressional committees; the Director, Office of Management and Budget; the Administrator, Environmental Protection Agency; and other interested parties.

Sincerely yours,



J. Dexter Peach  
Director

---

# Executive Summary

---

The nation may need to spend as much as \$80 billion to clean up 4,000 of the worst hazardous waste sites. The Environmental Protection Agency (EPA) estimates that about half of these sites will be cleaned up or financed by the responsible parties. The remaining sites will be cleaned up using federal Superfund monies. The 1980 Superfund Act allows EPA to negotiate settlement agreements that specify the actions and/or money that the responsible parties agree to contribute toward the cleanup activities.

For the worst (priority) sites at which responsible parties agreed to perform the cleanup, the Chairman of the Subcommittee on Commerce, Transportation and Tourism; House Committee on Energy and Commerce asked GAO to (1) determine the number, estimated value, and purpose of settlement agreements between EPA and responsible parties and (2) assess how well EPA is overseeing responsible party compliance with the settlement terms.

---

## Background

Superfund provides that parties responsible for hazardous conditions at waste sites should either perform cleanups themselves or reimburse the government for cleaning up the sites. Where possible, EPA negotiates settlement agreements with the responsible parties and ensures that they conform to the settlement conditions and cleanup goals. When a settlement agreement cannot be reached with a responsible party, EPA will perform the site cleanup.

Responsible parties must provide various documents to EPA such as work, safety, and sampling plans, known as submittals, to show that their cleanup activities comply with the settlement terms. EPA assigns a project manager to oversee a responsible party's settlement performance.

---

## Results in Brief

As of June 30, 1985, EPA had negotiated 158 responsible party settlements worth an estimated \$417 million. About half of the settlements (72) were for long-term site cleanup activities; the remainder were for short-term emergency cleanup actions or such activities as site sampling. Most of the long-term clean ups were for initial phases, such as site studies or partial cleanups, with additional settlements needed to achieve a final remedy.

GAO found that EPA does not have a coordinated, systematic structure for overseeing responsible party compliance with settlement terms. Settlement oversight and enforcement decisions are left to each project manager's judgment, without the benefit of formal guidance, procedures, and documentation standards. This has not only caused delays in identifying and resolving problems but has also resulted in infrequent enforcement actions.

---

## Principal Findings

---

### Settlement Number and Estimated Value

Of the 158 settlement agreements, 72 were for the initial phases of long-term cleanup, 40 were for emergency responses, and 19 were for other activities. In these cases, responsible parties had agreed to perform cleanup work valued at an estimated \$370 million. For the remaining 27 settlements, EPA obtained \$47 million from responsible parties for work it has done or plans to undertake.

According to EPA, site study activities, whether conducted by EPA or the responsible parties, may require 2 to 3 years before cleanup begins. Once initiated, actual cleanup can add 1 to 2 years to the process. Thus, even under normal circumstances, completing site cleanups may require more than 4 years.

### Settlement Problems

The 3 EPA regions GAO visited had 39 (54 percent) of the settlements. Of these, 25 had problems caused by the responsible parties, EPA, or both that resulted in delays in meeting settlement terms. Problems included submittals EPA considered inadequate, receipt of submittals beyond time frames negotiated by EPA, and EPA reviews exceeding time frames. According to EPA, similar problems have occurred in the cleanup process whether performed by EPA or the responsible parties.

These problems have extended site cleanup activities by up to 2 years. For example, cleanup progress at one site has been stymied for about a year, while EPA has attempted to obtain additions and revisions to the responsible party submittals. Delays extend the time that the public could be exposed to the contamination.

---

## Settlement Oversight

Project managers have many enforcement duties and responsibilities. At the 3 regions GAO reviewed, most project managers managed 6 or more priority sites, with one managing 20. Project managers reported that managing multiple priority site settlements posed problems in choosing between competing demands and resulted in delays. For example, one project manager said time constraints prevented him from reviewing a responsible party's feasibility study within the agreed-upon 3-month time frame. His review took over 6 months.

The problems associated with managing priority site settlements are compounded by project managers' inadequate recordkeeping within an unstable work environment. Regional enforcement officials told GAO that EPA's enforcement program has been characterized by regional reorganizations, project manager attrition or rotation among priority sites, and an influx of inexperienced project managers. Because of these problems, many project managers missed milestone dates. In addition, 5 of 26 project managers were not aware of settlement milestones or of responsible party actions.

EPA requires responsible parties to submit project plans for review by project managers and regional quality assurance offices to assure that data obtained from any monitoring or measuring activity are accurate and reliable. GAO found that the procedures for assuring that the reviews are performed, and the depth and timeliness of the reviews, varied among the three quality assurance offices visited. For example, quality assurance reviews in 2 of the regions GAO visited were not completed for 4 of the 16 submittals. In one region, the quality assurance office noted that completion of the field work without its review and approval of the plan posed serious concerns about the validity of the data, because the plan was incomplete and was based on some questionable methods.

---

## Enforcement

Despite settlement provisions for assessing penalties in cases of noncompliance, only 2 of the 25 settlements with problems were assessed penalties. Decisions about taking enforcement actions are left to the project manager's judgment. This has led to a situation in which a fine was not imposed, although the cleanup was delayed by 2 years because of inadequate actions by the responsible party. In contrast, another responsible party was fined \$9,000 for submitting an engineering report 1 month late.

---

**Planned Improvements**

EPA has prepared draft guidance covering responsible party participation in site studies as an addition to existing feasibility study guidance. This guidance and a manual under development begin the task of defining responsible party oversight but does not adequately address EPA's workload prioritization, recordkeeping, use of quality assurance, and enforcement.

---

**Recommendations**

GAO recommends that the Administrator, EPA, strengthen its settlement oversight function by providing project managers with guidance and procedures they need to organize, prioritize, and perform duties and responsibilities and how to use quality assurance reviews. The Administrator should also develop procedures and standards for oversight recordkeeping and reporting and for determining settlement noncompliance and taking appropriate enforcement actions.

---

**Agency Comments**

GAO did not obtain official agency comments on this report. The views of responsible officials were obtained during our work and are incorporated into the report where appropriate.

# Contents

---

<b>Executive Summary</b>		2
<hr/>		
<b>Chapter 1</b>		8
<b>Introduction</b>	Superfund Enforcement Provisions	9
	Settlement Policy	10
	Settlement Process	10
	Objectives, Scope, and Methodology	12
<hr/>		
<b>Chapter 2</b>		14
<b>Site Cleanups Under Settlements Are Lengthy and Prolonged by Performance Problems</b>	Number, Estimated Value, and Purpose of Settlements	14
	No Settlements Reviewed Have Resulted in Final Cleanup	17
	Settlements Encounter Performance Problems	17
	Performance Problems Prolong Site Cleanup and Extend Hazards	21
	Conclusions	23
<hr/>		
<b>Chapter 3</b>		24
<b>EPA Needs to Strengthen Its Settlement Management and Enforcement Practices</b>	Project Managers Need Better Guidance for Oversight Responsibilities	24
	EPA Is Developing Oversight Guidance	30
	Conclusions	31
	Recommendations	32
<hr/>		
<b>Tables</b>	Table 2.1: Settlements at Priority Sites as of June 30, 1985	15
	Table 2.2: Purpose of Settlements	16
	Table 2.3: Status of Remedial Activities	17
	Table 2.4: Type and Frequency of Settlement Problems Encountered	18
	Table 2.5: Estimated Delays in Settlements	21
	Table 3.1: Project Manager Work Load	26



---

**Abbreviations**

EPA	Environmental Protection Agency
GAO	General Accounting Office
RCED	Resources, Community, and Economic Development Division (GAO)

# Introduction

---

Thousands of hazardous waste sites across the country contaminate the soil, water, and air, posing serious threats to public health and the environment. Yet most sites remain untouched for many years. To address this problem, the Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, commonly known as "Superfund."

Under Superfund, the federal government, through the Environmental Protection Agency (EPA), is responsible for overseeing the cleanup of the most hazardous sites, currently about 850. Such sites are targeted for Superfund cleanup and are identified on the National Priorities List. However, the nation may need to clean up 4,000 of these sites, spending as much as \$80 billion, over the next 30 years. EPA may (1) clean up these priority sites with Superfund monies and recover its costs later from those responsible for the sites, (2) issue an administrative order requiring the responsible parties to clean up priority sites,<sup>1</sup> or (3) negotiate a settlement under which the responsible parties agree to undertake all or part of the site cleanup activities, with Superfund monies covering the remaining cleanup costs.

Responsible party settlements are increasingly important in the cleanup process. Nearly half of all priority site cleanups are financed under this method. According to the Director, Office of Waste Programs Enforcement, this allows additional sites to be cleaned up without expenditures of limited Superfund resources. As of June 30, 1985, EPA had reached 158 responsible party settlements, worth an estimated \$417 million.

Previous GAO reports have examined a range of issues associated with the Superfund program. This report discusses the number, estimated value, and purpose of responsible party cleanup settlements at priority sites and examines how well EPA monitors compliance with the terms of the settlements.

---

<sup>1</sup>A responsible party is a person, corporation, or other entity that is (1) a past or present owner or operator of a site and/or (2) a generator or transporter who contributed hazardous substances to a site.

---

## Superfund Enforcement Provisions

EPA's Superfund enforcement authority is derived principally from sections 106 and 107 of the act. Section 106 authorizes EPA to issue administrative orders to compel the responsible parties to clean up hazardous waste sites when it can be demonstrated that

“... there may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance ...”

The responsible party and EPA may negotiate an agreement for cleanup, in which case EPA issues a “consent” order, or EPA may issue a “unilateral” order without input from the responsible party.

Section 106 also authorizes EPA to pursue a judicial remedy instead of an administrative one. Upon referral from EPA the Department of Justice may bring suit in a federal district court to require responsible parties to mitigate any danger or threat of danger from hazardous waste sites. If EPA and the responsible parties negotiate an agreement for cleanup, they may—subject to court approval—have the court issue a “consent decree.” Consent decrees may provide certain features that administrative orders do not, such as long-term court oversight of compliance with cleanup milestones. Under these settlements, the responsible parties can clean up the sites themselves or pay contractors to provide cleanups according to the specifications agreed upon with EPA.

EPA may also clean up sites itself using Superfund money and file an action under section 107 to recover the cost of the cleanup. Section 107 provides that past or present owners and operators of sites and generators and transporters who contributed hazardous substances to sites shall be liable for all cleanup costs.

In addition, states can clean up sites and later recover their costs under section 107 of the act if (1) the state files suit in federal district court and (2) the cleanup action is consistent with the National Contingency Plan,<sup>2</sup> which outlines procedures for hazardous waste site cleanups. States can also order responsible parties to conduct cleanup actions at priority sites under applicable state law.

---

<sup>2</sup>The National Contingency Plan delineates (1) responsible federal and state response authorities for abandoned or uncontrolled hazardous waste sites and (2) methods and criteria for when and to what extent a removal or remedial response should be undertaken.

---

## Settlement Policy

The goal of EPA's settlement policy is to achieve complete cleanups either conducted or financed by responsible parties. Superfund accords a major role to responsible parties, and EPA tries to accommodate the varying abilities of the responsible parties to assume a cleanup role. For example, EPA may expect responsible parties to conduct the cleanup with EPA oversight. If EPA identifies many responsible parties for one site or if the parties do not have the technical ability to perform a cleanup, EPA will seek a 100-percent "cashout;" that is, each responsible party contributes a share of cleanup costs into a fund to finance cleanup activities.

However, EPA may settle for less than total responsible party cleanup or financing. For example, responsible parties may offer to perform or pay for one phase of a site cleanup but not make a commitment to any other phase of the cleanup. In some cases, it is necessary to conduct initial site cleanup phases to gather sufficient data to determine work needed in subsequent phases, or settling parties may not cover all costs, and the Superfund will then be used to make up the difference.

---

## Settlement Process

Parties may enter into agreements with EPA for "removal" or "remedial" actions. Removals are short-term or emergency responses to immediate threats. Remedial actions involve longer, more complex processes to provide permanent solutions for dangers associated with priority sites. EPA identifies responsible parties, notifies them of their potential liabilities, and may negotiate for the cleanup action. Settlements may be negotiated for one or more phases. These phases include a detailed investigation and feasibility study (site study) to determine the nature and extent of contamination and possible cleanup alternatives, remedy selection, and design and implementation of the remedy.

A March 1984 EPA memorandum on responsible party participation in Superfund investigations and studies describes several changes in this site study process, which explains why it follows the current procedures. Initially, EPA negotiated with responsible parties for individual phases of cleanup. Superfund money was generally only used if negotiations failed. Negotiations for additional phases were usually conducted only after the site study was completed. However, EPA encountered several problems with this approach. First, negotiations were often delayed or unsatisfactory. Second, some responsible parties performed inadequate site studies, thus requiring Superfund money to redo the study and delaying site cleanup. Third, EPA more readily allocated enforcement resources to sites based on responsible parties' willingness to negotiate

---

rather than on the Agency's assessment of the severity of the problems at the sites. Fourth, negotiations by phase proved inefficient.

To address these problems, EPA decided to preclude responsible parties from performing the site study unless they also agreed to conduct the remedial actions. But this approach was unsatisfactory. Some responsible parties were reluctant to assume cleanup without having their views reflected in the site study; they feared unknown risks as well as unexpected costs. Moreover, EPA stated that Superfund-financed site studies increased demands on Superfund and ran contrary to EPA's preference for responsible party action.

Therefore, in March 1984 EPA again allowed responsible parties to conduct the site study. EPA may conduct the site study and later pursue cost recovery, or if EPA deems the responsible parties qualified to perform the site study, a settlement may be reached with the responsible party to conduct the study. The Agency reviews the responsible parties' completed site study and decides the best cleanup alternative. But if EPA considers the responsible parties' site study unsatisfactory, it can seek to recover costs from the responsible parties for a Superfund-financed site study.

---

## Oversight Responsibilities

EPA is ultimately responsible for all priority sites<sup>3</sup> and, therefore, must assure that site cleanups, including those performed by responsible parties, are consistent with Superfund requirements. EPA's Assistant Administrator for Solid Waste and Emergency Response and the Assistant Administrator for Enforcement and Compliance Monitoring are primarily responsible for overseeing priority site settlements. These offices set EPA's overall policies and procedures for these settlements, while EPA's regional offices actually manage and perform the oversight function.

Generally, settlement oversight varies from site to site; individual regions develop their own monitoring practices. EPA assigns a remedial project manager to each site to oversee the responsible parties' settlement performance. Settlements usually specify the various documents that responsible parties must generate and submit to EPA as evidence of

---

<sup>3</sup>As reported in *EPA's Inventory of Potential Hazardous Waste Sites Is Incomplete* (GAO/RCED-85-75, Mar. 26, 1985), EPA decided to limit its use of enforcement powers to priority sites.

settlement progress and performance. These documents—known as submittals—describe work plans, safety issues, and plans for sampling substances at the site, as well as the analysis and results of the remedial investigation and feasibility study.

Project managers review and approve these submittals for content and quality to assure that responsible parties comply with settlement conditions and terms. Similarly, the managers observe certain site activities, such as soil sampling or remedy implementation, to ensure that responsible parties adequately follow cleanup specifications and techniques.

---

## Objectives, Scope, and Methodology

On April 16, 1985, the Chairman, Subcommittee on Commerce, Transportation and Tourism, House Committee on Energy and Commerce, requested that we determine the number, estimated value, and purpose of responsible party cleanup settlements at priority sites and examine how well EPA monitors compliance with the terms of the settlements.

To respond to this request, we reviewed EPA enforcement management reports, supplemented when necessary by discussions with responsible EPA officials. We identified 158 responsible party settlements that had been reached with EPA as of June 30, 1985. Of these settlements, 72 required the responsible parties to perform remedial activities; the others were for short-term or emergency responses, site sampling, or the payment and reimbursement of funds. EPA provided us with estimates of the settlements' value. As of December 31, 1985, EPA had obtained 37 additional settlements, but these do not alter our findings because EPA's policies and procedures for these additional settlements have not changed since June 30, 1985.

We performed work at EPA headquarters in Washington, D.C.; region I (Boston); region II (New York); and region V (Chicago). These regions were selected because together they represent more than half of EPA's responsible party cleanup settlements obtained by EPA's 10 regions. Of the 72 settlements for remedial activities, 39 (54 percent) were obtained by these three regions.

We also visited program officials in Minnesota, New Hampshire, New Jersey, and New York to discuss the nature of their state settlements and the states' oversight of responsible party settlement compliance. We also contacted environmental officials in 16 states cited by EPA as having state enforcement responsibilities, to identify the number of state-obtained responsible party cleanup settlements.

We did not verify the accuracy of the EPA headquarters' enforcement data. However, we did review in detail the 39 responsible party cleanup settlements obtained in EPA regions I, II, and V. Information resulting from that review served to clarify, support, and update EPA's enforcement data.

To demonstrate how well EPA monitors responsible party compliance with settlement terms, we examined the case files for the 39 settlements in regions I, II, and V and discussed the cases with EPA project managers in those regions. The settlements are not identified by name because many include on-going enforcement actions, and EPA believes release of their names could affect further negotiations. We also interviewed enforcement officials in these regions and at EPA headquarters to determine monitoring criteria, guidance, and priorities for performing oversight of responsible party settlement activities.

As your office requested, we did not obtain agency comments on the report. We did, however, discuss the matters contained in the report with EPA headquarters and regional officials responsible for the Superfund program. Their views have been incorporated into the report where appropriate.

We conducted our work from July 1985 through January 1986. Except as noted above, our review was performed in accordance with generally accepted government auditing standards.

# Site Cleanups Under Settlements Are Lengthy and Prolonged by Performance Problems

Final site cleanup, the goal of the Superfund program, may require more than 4 years under EPA's settlements with responsible parties. Because EPA's settlement policy for remedial cleanups follows a phased approach, settlements are often negotiated for certain initial activities, such as remedial investigation and feasibility studies with agreements for final site remedies left to later negotiations and settlements. These initial remedial phases may require 2 to 3 years before actual cleanup begins. Once initiated, actual cleanup can add another 1 to 2 years to the process.

Problems, however, can occur at any phase of the remedial cleanup process. Delays in the already lengthy cleanup process can result from responsible parties' failure to perform settlement terms and from EPA's review and approval of their performance. Delays further prolong the presence of contamination and extend or even increase hazardous waste threats to the public and the environment.

This chapter presents information on the number, estimated value, and purpose of settlements negotiated by EPA and responsible parties. It also describes the status of these settlements and problems associated with meeting the settlement terms. Although these settlement problems cannot be directly attributed to a single or predominant cause, EPA's management of these settlements and the enforcement process, discussed in chapter 3, have deficiencies that contribute to the problems that prolong site cleanup. According to the Director, Office of Waste Programs Enforcement, similar problems have occurred in the cleanup process whether performed by EPA or the responsible parties.

## Number, Estimated Value, and Purpose of Settlements

As of December 31, 1985, EPA had reached 195 responsible party settlements with an estimated value of \$484 million. However, to provide adequate time to obtain and verify settlement information, we reviewed the 158 settlements that EPA had reached with responsible parties as of June 30, 1985. For these 158 settlements, table 2.1 shows that the responsible party may perform portions of the cleanup process, may pay into a fund to finance the work ("cashout"), or may reimburse the Superfund for work EPA has completed at the site ("cost recovery").



**Chapter 2**  
**Site Cleanups Under Settlements Are Lengthy**  
**and Prolonged by Performance Problems**

**Table 2.1: Settlements at Priority Sites**  
**as of June 30, 1985**

Types of settlements	Settlements <sup>a</sup>	
	Number	Estimated value <sup>b</sup>
Private parties responsible for doing work:		
-remedial (long-term cleanup) activities	72	\$360,813,000
-other (e.g., sampling)	19	3,629,000
-removals (emergency response) only	40	5,643,000
Cashout—private parties pay into a fund to finance work to be done	13	35,479,000
Cost recovery—private parties reimburse fund for work done by EPA	14	11,889,000 <sup>c</sup>
<b>Total</b>	<b>158</b>	<b>\$417,453,000</b>

<sup>a</sup>EPA information obtained subsequent to our December 27, 1985, report, Status of Private Party Efforts to Clean Up Hazardous Waste Sites (GAO/RCED-86-65FS) showed that one agreement previously included as a remedial activity was technically not a settlement, and another settlement's effective date, previously included as a cashout, was delayed from June 15, 1985 (beyond our June 30, 1985, cutoff date) to October 9, 1985.

<sup>b</sup>EPA estimates.

<sup>c</sup>The value includes 14 settlements for cost recovery only, amounting to \$2.6 million. The remaining \$9.3 million represents funds recovered at sites where the private parties also agreed to pay for or perform additional work.

In addition to these EPA-obtained settlements, state settlements add to the number of priority sites receiving attention. Although EPA is responsible for evaluating the quality of private party cleanups for all priority sites, it allows the states to take responsibility for obtaining settlements at priority sites under the authority of state laws. Of the 20 states we contacted, 10 reported that they had reached 61 settlements as of June 30, 1985. As we reported in December 1984,<sup>1</sup> once EPA categorizes the site as under state responsibility, it no longer tracks the status of the site, either at headquarters or in the region. However, EPA has recognized the need to obtain information on which priority sites states have reached settlements and the status of actions under these settlements. As of February 1986 an official of EPA's Guidance and Oversight Branch told us that draft guidance on state reporting had been developed and was undergoing review in headquarters for issuance in the spring of 1986.

We focused our review on the 72 settlements for remedial actions. These settlements have an estimated value of \$360.8 million.

<sup>1</sup>EPA Could Benefit from Comprehensive Management Information on Superfund Enforcement Actions (GAO/RCED-85-3, Dec. 28, 1984).

When EPA cannot initially negotiate settlements for a final site remedy, it reaches settlements that obligate responsible parties to conduct specific phases of the remedial process. With initial settlements, responsible parties investigate and study the site's hazards. Once these settlement terms are fulfilled, parties may assume further responsibilities for cleanup through subsequent negotiations and settlements.

Of the 72 remedial settlements nationwide, we reviewed in detail the 39 settlements reached as of June 30, 1985, in regions I, II, and V. Table 2.2 shows the number of settlements for specific remedial phases both nationwide and in the regions we visited.

**Table 2.2: Purpose of Settlements**

Purpose	Settlements	
	Nationwide	Regions I, II, and V
Study—investigation and study of site problems only; no cleanups included.	30	19
Partial cleanup—not final remedy for site problems; additional study and/or cleanup anticipated.	19	5
Final cleanup—considered final remedy for site problems; no additional work anticipated.	21	14
Other—activities related to the remedial process not involving study or cleanup, such as sampling or groundwater monitoring.	2	1
<b>Total</b>	<b>72<sup>a</sup></b>	<b>39</b>

<sup>a</sup>A detailed listing of these settlements can be found in *Status of Private Party Efforts to Clean Up Hazardous Waste Sites* (GAO/RCED-86-65FS, Dec. 27, 1985). Although that report showed 73 settlements, subsequent EPA information indicates that one activity under the "other" category was technically not a settlement.

Experience with EPA's settlement process has shown that it may take 2 years or more to complete a remedial investigation and feasibility study. Subsequent negotiations and settlements to establish remedy selection, design, and implementation may add yet another year, even before cleanup begins. Of the 72 settlements nationwide in which parties agreed to conduct remedial activities, 51 settlements, or 70 percent, were negotiated for less than a final site cleanup. As we reported in March 1985,<sup>2</sup> deciding the necessary type and extent of site cleanup is often difficult and lengthy; hazards vary from site to site, and a clear definition of "clean" as it pertains to hazardous waste sites does not exist. Once initiated, implementation of the cleanup remedy can add another 1 to 2 years to the process. Therefore, even though EPA has

<sup>2</sup>*Cleaning Up Hazardous Wastes: An Overview of Superfund Reauthorization Issues* (GAO/RCED-85-69, Mar. 29, 1985).

obtained settlements with parties to perform priority site cleanups, completing site remedies may require more than 4 years.

## No Settlements Reviewed Have Resulted in Final Cleanup

The 39 settlements we examined covered various study and cleanup activities in the remedial process. Although none of these settlements has resulted in a final cleanup, one partial remedial cleanup action had been completed at the time of our review. Table 2.3 summarizes the status of remedial activities as of November 1985 for the 39 settlements we reviewed.

Table 2.3: Status of Remedial Activities

Activities	Status			Total
	Completed	In process	Not started	
Study—investigation of site problems no cleanups included	•	19	•	19
Remedial action				
Partial cleanup	1	4	•	5
Final cleanup	•	5	9 <sup>a</sup>	14
Other (sampling)	•	1	•	1
<b>Total</b>	<b>1</b>	<b>29</b>	<b>9</b>	<b>39</b>

<sup>a</sup>Eight settlements were in the investigation and study phase; no cleanup action had started. In the other settlement, the responsible party did not perform the final cleanup.

As table 2.3 shows, settlement activity has primarily involved investigation and study, with few cleanup actions in process. In addition to the remedial activities to be performed under these settlements, sites associated with 26 settlements will require additional work. EPA and responsible parties need to negotiate additional settlements at these sites to achieve final cleanup. Thirteen sites are in the final cleanup phase—14 less one where the responsible party did not perform the final cleanup.

## Settlements Encounter Performance Problems

EPA settlements with responsible parties have encountered problems in meeting and performing negotiated studies and activities. Problems, by our definition, are any incidents during the life of a settlement that serve to delay the completion of specific agreements outlined in the settlement. These problems may occur during any remedial cleanup phase covered by a settlement and may be caused by the responsible party, EPA, or both, or even factors beyond their control, such as the weather.

We found problems in 25 (64 percent) of the 39 responsible party settlements we reviewed. Most notably, these problems occurred with responsible party submissions considered inadequate by EPA, reports not

meeting the agreed-upon time frames, and EPA's protracted review and approval of these reports. Table 2.4 shows the frequency of these problems for both responsible party and EPA activities.

**Table 2.4: Type and Frequency of Settlement Problems Encountered**

<b>Problems</b>	<b>Frequency<sup>a</sup></b>
Responsible party submittals	20
Inadequate	10
Late	10
Lengthy EPA reviews of submittals	20
Other <sup>b</sup>	7
<b>Total</b>	<b>57</b>

<sup>a</sup>Frequency of problems is greater than the number of settlements because 19 of the 25 settlements had more than one problem.

<sup>b</sup>Includes externally imposed conditions such as poor weather or site access problems.

**Problems With Responsible Party Submittals**

Eighteen of the 20 submittals determined inadequate by EPA occurred during the remedial investigation and feasibility study phase. We noted in our review of settlement conditions and terms that the investigation and study phase typically requires more written reports than any other phase. Further, because the results of this phase dictate the extent of the cleanup action for which the party may later be responsible, project managers told us that the temptation is great for the responsible party to minimize or otherwise misrepresent the seriousness of the problem.

**Preliminary Plans Inadequate**

Our review showed that the most frequently rejected type of submittal, 12 of the 20 occurrences, was preliminary plans for site studies. These include work plans and plans for site operations, sampling, quality assurance, and health and safety. Because preliminary plans specify how the investigation and study will be conducted later, any problems in this phase will delay field investigation, thereby prolonging site cleanup. For example, in region II a responsible party submitted a site operation plan three times and, as of October 1985, had not yet gained EPA approval. EPA determined that the responsible party's plan was incomplete when it was initially submitted in November 1984. When the plan was resubmitted in March 1985, EPA again noted deficiencies, and the responsible party agreed to revise the plan again. In August 1985 another revised plan was submitted, and in October 1985, EPA again found the plan deficient. All remedial investigation field work to determine site contamination and a subsequent remedy has been delayed until the plan is approved.

Preliminary plans typically include quality assurance project plans<sup>3</sup> which, according to agency policy, are required prior to any monitoring or measuring project to ensure consistent and credible results. The project manager and the regional Quality Assurance Office, jointly review and approve plans to ensure that data collected and reported will be accurate and properly documented.

We noted two instances in which responsible parties completed site field work without an approved plan, contrary to agency directives, in order to minimize the extent of delays. In one, EPA's region II Quality Assurance Office notified the Superfund branch in May 1984 that the responsible party's quality assurance plan for one site was unacceptable because, among other reasons, the plan did not specifically address the site's problems. The Quality Assurance Office rejected the responsible party's revised quality assurance plans again in November 1984 and in May 1985 because the responsible party did not adequately respond to the Office's concerns. According to the site manager, the responsible party was allowed to proceed with its remedial investigation to expedite the cleanup process. The Quality Assurance Office notified the Superfund branch that completing the field work without an approved plan raised serious concerns about the validity of the data collected because the plan was incomplete and used some questionable methods.

In the other instance, a region V project manager told us that private party sampling had to be discarded and later redone because the sampling was initially performed without an approved plan. The remedial investigation was subsequently completed without an approved quality assurance plan. The enforcement chief did not know what impact the absence of an unapproved quality assurance plan would have on the investigation.

#### Remedial Investigation Reports

We also noted three instances in regions I and V where EPA found that the responsible party's remedial investigation reports presented unacceptable field investigation findings. In all three cases, EPA's project managers believed the responsible parties intentionally biased the reports by misrepresenting the extent of site contamination in an effort to obtain less extensive, and probably cheaper, remedies. Two of these reports are being revised for submission to EPA. The third report has been revised and was subsequently approved by EPA.

---

<sup>3</sup>A quality assurance project plan presents the policies, objectives, and specific activities designed to achieve reliable information.

---

**Delayed Submittals**

For 10 occurrences, covering 8 of the 25 settlements with problems, responsible party submittals were late or were granted extensions by EPA. Five settlements had submittals that were, on average, more than 4 months late. In one of these, a sampling and analysis report was submitted 5 months late, then was found unacceptable by EPA and had to be resubmitted. Later, EPA granted the responsible party two extensions of 12 and 14 months for subsequent submittals because of the delays already incurred. For three other settlements, EPA granted extensions. The reasons EPA gave for granting the extensions were poor weather, the need for additional field work, and responsible party contracting problems.

---

**Problems With EPA**  
**Reviews of Submittals**

Our analysis of settlements in the three regions showed widely varying requirements for ensuring EPA's timely review of responsible party submittals. According to a section chief, in the Office of Waste Programs Enforcement, although no formal policy exists, EPA should establish time frames for review of settlement submittals. However, there is no regional policy for including time frames. Of the 39 settlements we reviewed, 5 of the 7 settlements in region I, 10 of the 14 settlements in region II, and 4 of the 18 settlements in region V did not establish time frames.

With or without time frames in the settlements, EPA's review of responsible party submittals was lengthy. In 18 of the 25 settlements with problems, EPA's review of responsible party submittals (1) exceeded agreed-upon deadlines or (2) where no deadlines were included in the settlement, was cited by the project manager to have caused delays. For example, the feasibility study for one settlement was still under review by EPA, 6 months after it was submitted. The site manager blamed the volume of data and his high work load for not reviewing the report within the 90-day period established in the settlement. According to the project manager, EPA's review of the remedial investigation report under another settlement has contributed to a delay of at least 12 months because of problems in obtaining a qualified party to review a technical portion of the report.

In June 1985 EPA's Office of Inspector General reported problems in EPA's review and approval of contractor submittals for EPA cleanups under Superfund. The report stated that EPA did not always provide timely review and approval of work plans; the Inspector General attributed the delays, in part, to EPA's lack of an effective management information system to identify problems. In response to this report, EPA plans

to develop a comprehensive Superfund management information system that will track program activities and timeliness. In February 1986 EPA was in the initial stages of planning this effort.

### Performance Problems Prolong Site Cleanup and Extend Hazards

Settlement performance problems add time to an already protracted cleanup process, while hazards remain, or even increase, at priority sites. Table 2.5 shows the length of delays for the 25 settlements (5 in region I, 9 in region II, and 11 in region V) with problems. These delays ranged from 1 to 24 months, averaging nearly 10 months. The length of delay is based upon either the site manager's estimate of the delay or our comparison of the manager's estimate of present site status to the milestones laid out in the settlement.

Table 2.5: Estimated Delays in Settlements

Number of months	Number of settlements
1 to 5	5
6 to 10	11
11 to 15	6
16 to 20	1
21 to 24	2
<b>Total</b>	<b>25</b>

In region I, responsible party settlement delays have prolonged the presence of contamination at five sites covered by five settlements. For example, two managers told us that at two of these sites there have been delays of 10 and 24 months, which could render currently drinkable water in town wells too contaminated for human consumption. At another site, contamination is allowing potential contact with the public while cleanup progress, as of November 1985, had been stymied for 1 year. The site contamination and water movement through the contaminants pose a danger because occupied industrial buildings on the site bring the public into potential contact. Incomplete responsible party submittals, requiring additions and revisions, and EPA's lengthy review of the submittals contributed to the delays.

Region II settlement documents showed that site contamination potentially affected drinking water supplies at 7 of the 9 sites in which settlement problems have caused delays in the cleanup process. At one of these sites, the manager told us that the responsible party has allowed

arsenic,<sup>4</sup> a hazardous by-product of its manufacturing process since the 1950's, to contaminate surface water and groundwater, as well as soil. A 1983 consultant's study for the responsible party detected over 100 parts per million of arsenic in the groundwater near the site. However, a recent EPA test for arsenic at 39 nearby private wells proved negative. Arsenic detected in the groundwater has not yet reached the wells. The area surrounding the site depends entirely on groundwater, either from the municipal well drawing into the lower aquifer or from private wells.

All site work, however, has been stalled for the last 14 months, while EPA and the private parties try to fashion preliminary plans for the site investigation and study. In August 1985 EPA's regional quality assurance group rejected the responsible party's second revision of the quality assurance plan, first submitted in September 1984, stating that the plan was incomplete and inadequate. Further, when we had completed our work in November 1985, EPA's region II had not yet responded to the responsible party's work plan, submitted with the quality assurance plan. According to the site manager, the delay in review of the work plan is attributable to both the responsible party and EPA. He stated that the plan was inadequate because it did not describe the types of analysis to be performed. EPA has been slow to respond because a new EPA site manager was assigned after a regional reorganization, and he had to acquaint himself with the site.

In region V, delays in 11 settlements have resulted in continued or increased threats to the public and environment. According to the project manager at one site, where an estimated 600,000 tons of raw, asbestos-laden waste was dumped, the responsible party attempted to minimize the extent of site contamination in the remedial investigation report. The report, submitted late by the responsible party, was rejected requiring its revision after EPA's review, thus delaying cleanup by at least 8 months. The site is bordered by a large city (population 67,653), a state park, and one of the Great Lakes, from which the city derives its drinking water. The project manager stated that the site urgently required cleanup and, as of September 1985, he was still trying to get the responsible party to correct the deficiencies in the remedial investigation report.

---

<sup>4</sup>According to 1980 EPA water quality criteria, for maximum protection there should be no arsenic in the water because of its poisonous effect on humans.



---

## Conclusions

The responsible party settlement process for remedial cleanup can be lengthy, often taking 4 years or more before reaching final site cleanup. Moreover, problems in any phase of the cleanup process cause settlement delays that further prolong site cleanup.

Of the settlements we reviewed, a majority—64 percent— encountered problems that delayed site cleanup, most often during the investigation and feasibility study phase. We found that most problems during this phase were caused by both the responsible parties and EPA. Responsible parties' reports were often considered inadequate by EPA and did not meet settlement deadlines. At the same time, EPA often did not establish settlement schedules for their own document review or, when established, did not meet those schedules. As a result, settlements with problems were delayed for an average of almost 10 months, with some delayed as long as 2 years, before any cleanup activity could begin.

Delays, however, not only prolong site cleanup but also prolong the presence of contamination at hazardous waste sites. During this time, hazards remain or even increase, further extending threats to the public and the environment.

We noted earlier that the problems with settlements discussed here cannot be attributed to a single or predominant cause. In chapter 3, we discuss EPA's oversight of these settlements, which we conclude contribute to settlement problems and, consequently, to delays in site cleanup.

# EPA Needs to Strengthen Its Settlement Management and Enforcement Practices

Responsible party settlements are an integral part of EPA's efforts to clean up hazardous waste sites. EPA anticipates that half of all current and future priority site cleanups will be financed by responsible parties. Yet current management and enforcement procedures cannot support these long-term goals.

We found that regional project managers, charged with overseeing the implementation of settlement agreements, do not have the guidance they need from EPA to carry out their tasks efficiently and effectively. They do not have any guidance from EPA on how to set priorities for their responsibilities; when and how to use quality assurance activities; what information should be maintained to know the status of sites in their charge; and, how and when to use the Superfund enforcement provisions to enforce settlements. The absence of guidance for carrying out settlement oversight activities has contributed to settlement problems that delay hazardous waste site cleanup, as discussed in chapter 2.

EPA is developing draft guidance on responsible party oversight. Although it does not appear to address all areas needing guidance, it does provide EPA with a basis upon which to strengthen its settlement oversight function.

## Project Managers Need Better Guidance for Oversight Responsibilities

EPA has general policies that describe the importance of and need for settlement oversight. EPA needs, however, to provide its remedial project managers with specific guidance and procedures necessary to efficiently and effectively set work load priorities, use quality assurance, develop and maintain settlement records, enforce settlement conditions, and apply consistent enforcement actions. Without such guidance, EPA relies heavily on the individual project manager's judgment to assure that responsible parties adequately perform in accordance with settlement terms.

## Settlement Management Policy

EPA's oversight policies are generally contained in its "Interim CERCLA Settlement Policy," annual fiscal year operating guidance, and memoranda governing participation of responsible parties in development of site studies under Superfund and participation of the states in the enforcement process. These documents discuss the importance of Superfund enforcement, the anticipated increase of enforcement activity, and the consequent need for increased oversight of responsible party cleanup actions. We reviewed these documents and found, however, that they do not provide the guidance and procedures necessary to

implement the policies. According to the Chief, Guidance Section, in Superfund's Enforcement Division, EPA is aware of the need for more specific guidance and has initiated an effort to review and improve existing guidance.

---

## Work Load Priorities

EPA allows its project managers considerable latitude in selecting and establishing methods for resolving the complex problems of waste sites and in determining individual work priorities. Remedial project managers have numerous duties and responsibilities that place competing demands on their time. In addition to settlement oversight, they are responsible for coordinating the technical development of enforcement actions and other related activities. These activities can include collecting and evaluating data on responsible parties and informing them of their liabilities; preparing reports supporting recommendations for enforcement actions; participating in or leading technical negotiations in attempts to obtain responsible party cleanups; preparing and coordinating civil and administrative enforcement actions; conferring with EPA and Department of Justice attorneys; participating in formal hearings, trials, and internal meetings to discuss enforcement cases; directing contractors to perform technical-engineering studies supporting enforcement actions; evaluating state enforcement responses to hazardous waste site problems; attending public meetings and responding to inquiries from citizens, state and facility officials, the Congress, EPA, and the press concerning enforcement efforts.

Managers who are assigned to both priority and nonpriority sites do not find it difficult to give their attention primarily to priority sites. The significance attached to priority sites by the Agency provides the project manager with the primary criteria needed to make a choice. But when managers are confronted by competing demands from multiple priority sites, choosing between the numerous duties and responsibilities becomes less clear and more difficult without EPA guidance and procedures.

Our interviews with project managers responsible for settlement oversight included in our review of cases in regions I, II, and V showed that all but 2 of 26 project managers were responsible for multiple priority sites. Table 3.1 shows the range in the number of priority sites for which project managers are responsible.

Table 3.1: Project Manager Work Load

Number of project managers	Range of priority sites
11	1 to 5
10	6 to 10
4	11 to 15
1	16 to 20

Project managers report that being responsible for multiple priority sites presents problems throughout the settlement process. For example, due to other time demands, one project manager in region I told us that he was responsible for five enforcement sites and was unable to review the settlement document and case files for a site assigned 3 months earlier. He told us that he was writing a justification for a cleanup action at one of his sites and he was not aware that one responsible party submittal—a detailed analysis of alternatives, which was a precursor to the feasibility study—was due. At the close of our review in December 1985, the submittal was 7 weeks late. Another project manager responsible for four sites told us he could devote only 20 percent of his time to the oversight of one settlement because of on-going enforcement actions at the three other sites. As a result, the review of a responsible party's feasibility study submittal took him more than 6 months (3 months longer than the agreed-upon time frame), requiring EPA to request a time extension from the responsible party. As of October 1985, the Superfund branch chief stated another formal extension may be necessary before EPA completes its review.

EPA has no criteria on the ideal number of sites for each project manager. EPA regional enforcement branch chiefs are aware of the high work load and competing demands placed on project managers and have hired or plan to hire additional enforcement staff. However, EPA projects a greater enforcement work load as the number of priority sites grows to possibly more than 4,000, requiring a continuation of multiple duties and responsibilities. Consequently, the need for EPA settlement guidance and procedures will remain and very likely increase even with additional staff.

**Quality Assurance**

EPA requires responsible parties to submit project plans for review by project managers and regional quality assurance offices to assure that data obtained from any monitoring or measuring activity is accurate and reliable. We found that EPA's use of quality assurance offices has been inconsistent, jeopardizing assurances of the quality of responsible party

data. We also found that the approval authority given quality assurance review, the procedures for assuring that reviews are performed, and the depth and timeliness of the reviews varied among the three quality assurance offices visited.

In region I, the quality assurance chief stated that the office has no authority to approve project plans. According to the Superfund Branch Chief, each project manager determined the need for quality assurance office involvement. If requested, the Quality Assurance Office reviewed and commented on the plans; project managers made the final determinations as to plan adequacy. We found that the Quality Assurance Office commented on three of the four plans prepared by responsible parties in the region.

In region V, the Superfund branch chief requires project managers to submit quality assurance plans to the Quality Assurance Office for review. However, because there are no formal procedures to assure proper submission and review, we found that of the 12 settlements requiring quality assurance plans, 2 plans were not reviewed by the Quality Assurance Office, while another plan was never resubmitted for a quality assurance review after previously being rejected. According to the Quality Assurance Office chief, when a plan is submitted, the Quality Assurance Office not only reviews the plan for complete and correct procedures, as do the other two regions we reviewed, but also tests elements of the plan for capability of personnel and equipment.

In region II, the Quality Assurance Office has or plans to review the 14 project plans requiring review. This Quality Assurance Office, unlike the other two, has established time frames that utilize a checklist criteria. However, the Quality Assurance Office and the Superfund branch had not resolved which one has approval authority. As discussed in chapter 2, work on one of these settlements proceeded without quality assurance approval, despite concerns about the validity of the data collected and the questionable nature of methods employed.

A revision to the National Contingency Plan, effective February 18, 1986, states that quality assurance and site sampling plans must be reviewed and approved by the regional project manager, with a coordination signature from the Quality Assurance Officer. Although the revised National Contingency Plan should resolve the question of approval authority, it does not provide project managers with the guidance they need to assure a consistent, thorough, and timely quality

---

assurance review of responsible party plans to measure site contamination.

---

## Recordkeeping

Good management principles dictate that any oversight functions EPA conducts be adequately documented to maintain a permanent record from a historical, legal, and operational perspective. Regional enforcement officials told us that EPA's enforcement program has been characterized by regional reorganizations, project manager attrition, project manager rotation among priority sites, and an influx of new and inexperienced project managers. Such an unstable work environment serves to highlight the need for establishing documentation procedures and standards.

Our review of settlement cases in EPA regions I, II, and V showed that the documentation for oversight of settlement performance varied among and within the regions, contributing to the project manager's poor settlement oversight recordkeeping and knowledge. Without administrative guidance, the review and approval of submittals and general correspondence is left to the discretion of individual project managers. As a result, we found documentation ranged from checklists and logs peculiar to the project manager to personal notes on desk calendars, or in margins of settlement documents. We observed that settlement oversight files were often maintained in cardboard boxes or milk crates, under various filing systems, but usually lacked any chronological or subject-index ordering.

The generally poor condition of the settlement records and files hampered not only our review of settlement cases but also limited the level of settlement knowledge on the part of some project managers. Two of the 26 current project managers told us that they had not read the settlement documents for their assigned site. For example, in region I, at the time we discussed a settlement with the site manager, he did not know that a submittal to the feasibility study was due. At the completion of our work in region I, 7 weeks later, the submittal was still not received. Three other project managers were not aware of settlement activities or milestones. In region II, a project manager could not explain how an access problem at the site was resolved nor could he locate the responsible party's quality assurance plan. For two other settlements, the project managers could not determine the effective settlement dates, that is, the dates when the settlement conditions became operational and upon which all subsequent responsible party submittals depended.

## Settlement Enforcement

EPA's March 1984 Guidelines for Enforcing Federal District Court Orders states that adequate enforcement is essential to maintaining credibility with the courts, the public, and the regulated community. According to these guidelines, sanctions against responsible parties should be strong enough to encourage compliance by removing the economic incentives for noncompliance. Further, the guidelines state that EPA should pursue significant monetary penalties, unless the violations are clearly minimal, and avoid agreeing to extensions without pursuing significant monetary penalties. While this pertains to consent decrees and court orders, EPA's December 1984 Interim CERCLA Settlement Policy also calls for a strong and vigorous enforcement program for all types of settlements.

EPA's authority for a strong enforcement stance is established under Superfund section 106(b), which states that a responsible party who refuses or fails to comply with an EPA order may be fined \$5,000 per day if EPA brings an action in a U.S. district court to enforce the order. Further, of the 39 settlements we reviewed, 27 contained specific provisions for assessing penalties in cases of noncompliance.

These policy objectives and authorities, however, have not been interpreted in any formal guidance from EPA headquarters or the regions on what constitutes responsible party settlement noncompliance and what enforcement actions would be appropriate. The Deputy Director for Superfund Enforcement, Office of Waste Programs Enforcement, stated that specific guidance has not been provided to the regions because compliance must be determined on a case by case basis. Factors affecting this determination include the specific settlement terms, site conditions, and whether the responsible parties are making a "good faith effort" to comply. He further stated that determination of what constituted "good faith" could only be made by the regional officials directly involved with the settlement. Enforcement officials in regions I and V stated that responsible parties are in compliance if they make good faith efforts or "live up to the spirit and intent of the order."

These interpretations of enforcement policy by EPA officials and the absence of specific settlement enforcement guidance has led to subjective determinations of noncompliance by project managers charged with settlement enforcement responsibility. We found that enforcement actions are infrequently applied by EPA under the present conditions.

Despite the frequent settlement performance problems attributable to responsible parties, as described in chapter 2, only 2 of the 25 settlements with problems were assessed penalties in the regions we reviewed. In one settlement, a \$9,000 penalty was levied for an engineering report submitted less than 1 month late by the responsible party. Yet, in the same region, another settlement has been delayed 2 years by a succession of three responsible party submittals that EPA decided were inadequate, the last of which, a sampling report, was 4 months late. Meanwhile, the responsible party had been granted extensions in meeting subsequent settlement terms. As of November 1985 no penalties had been assessed for this settlement.

In the other settlement in which a penalty was assessed, \$500 a week in fines has been accruing since August 1985 for a late feasibility study. As of September 1985 the project manager anticipated the study would not be submitted until early 1986. According to the EPA project manager, the penalty was assessed at the insistence of the state, a party to the settlement. No other penalties have been assessed against responsible parties in the region, although six other settlements have also been delayed by inadequate, late, or extended submittals.

---

## EPA Is Developing Oversight Guidance

EPA recognizes a need for oversight guidance specific to responsible party participation in Superfund site studies and subsequent remedial actions. A draft chapter, Potentially Responsible Party Participation in Site Studies, part of the Superfund Feasibility Study Guidance document, was being reviewed within the Agency in January 1986. The chapter defines the procedures that should be followed by EPA, state, and responsible parties during a responsible party site study.

EPA is also preparing a responsible party oversight guidance manual that will address a broader agenda by describing the procedures that should be followed by EPA, states, and responsible parties during the responsible parties' involvement in any aspect of the Superfund cleanup program.

Because the products are under development and preliminary in nature, we were unable to evaluate these efforts fully. Based on our review of the work plan, interim products, and discussions with EPA officials, these products could fill some gaps in EPA's oversight of responsible party settlements. The products should provide EPA with a basis upon which it can build the necessary guidance for the management of its oversight function.



## Conclusions

Obtaining and overseeing negotiated responsible party settlements are integral to EPA's efforts to clean up hazardous waste sites. EPA anticipates that half of all current and future priority site cleanups will be financed by responsible parties. Given this anticipated increase in responsible party cleanups, it becomes even more important for EPA to guarantee that settlement terms and conditions are met so that cleanup can proceed as quickly and thoroughly as possible.

Under current conditions, EPA's oversight of settlements places heavy reliance on the individual project manager's judgment instead of the coordinated, systematic structure offered by formal guidance, procedures, and documentation. Although the problems in the settlement process discussed in chapter 2 cannot be attributed to this or any other single or predominant cause, the absence of EPA guidance for carrying out settlement oversight activities affects the Agency's ability to identify, address, and resolve settlement problems that delay hazardous waste site cleanup.

With no guidance and procedures to organize and prioritize their work load, project managers experience difficulty in choosing between numerous duties and responsibilities, thereby allowing settlement problems to continue, and delaying settlement progress. Similarly, confusion existed over the use of quality assurance reviews. Some plans escaped review, jeopardizing EPA assurances of the quality of the data and compliance with settlement terms.

Further, the absence of documentation standards contributed to poor settlement recordkeeping and knowledge on the part of project managers, affecting the identification and resolution of settlement problems. An enforcement program where project managers are new and rotated among priority sites demands good documentation habits. Also, despite EPA policies to the contrary, settlement enforcement actions have been infrequent. Policy objectives and authorities have not been interpreted in any formal project manager guidance that would diminish the subjectivity inherent in current determinations of noncompliance and enforcement actions. Inadequate settlement enforcement may threaten the credibility that EPA seeks to maintain with the courts, the public, and the regulated community.

EPA's efforts to develop some oversight guidance, although still in the formative stage, represent a positive step toward providing the structure necessary for EPA to systematically manage an effective settlement oversight function.

---

## **Recommendations**

To adequately assure that responsible parties comply with settlement conditions and cleanup goals, we recommend that the Administrator, EPA, strengthen EPA's settlement oversight function by providing project managers with

- guidance and procedures on work load management, on how to organize, prioritize, and perform duties and responsibilities, and how to use quality assurance reviews; and
- procedures and standards for oversight recordkeeping and reporting and for determining settlement noncompliance and taking appropriate enforcement actions.

---

Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office  
Post Office Box 6015  
Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

---

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

Official Business  
Penalty for Private Use \$300

First-Class Mail  
Postage & Fees Paid  
GAO  
Permit No. G100

---