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SUPERFUND

Stronger EPA-State Relationship Can Improve Cleanups and Reduce Costs





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**Resources, Community, and
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The Honorable John Chafee
Chairman, Committee on Environment
and Public Works
United States Senate

The Honorable Robert C. Smith
Chairman, Subcommittee on Superfund,
Waste Control, and Risk Assessment
Committee on Environment and Public Works
United States Senate

In response to your request, this report (1) examines the lessons that have been learned from five states that have had significant experience in leading Superfund cleanups and (2) identifies how the Environmental Protection Agency (EPA) can help to ensure that interested states are successful in their efforts to take on increased Superfund responsibilities.

As arranged with your offices, unless you publicly announce its contents earlier, we will make no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to the appropriate congressional committees; the Administrator, EPA; and the Director, Office of Management and Budget. We will also make copies available to other interested parties upon request.

Please call me at (202) 512-4907 if you or your staff have any questions. Major contributors to this report are listed in appendix III.

A handwritten signature in black ink, appearing to read "P. F. Guerrero", with a long horizontal flourish extending to the right.

Peter F. Guerrero
Director, Environmental Protection
Issues

Executive Summary

Purpose

With the enactment of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the Congress authorized the Environmental Protection Agency (EPA) to remedy contamination resulting from the release of hazardous substances and to compel the parties responsible for generating or disposing of hazardous waste to help conduct or pay for its cleanup. CERCLA also established a trust fund (the Superfund), which is financed primarily by taxes on crude oil and certain chemicals. EPA uses the trust fund to implement the cleanup program and to pay for cleanup activities. Under EPA's regulations, the states may participate in remedial actions within their boundaries, either cooperating with EPA on EPA-led projects or taking the lead on the projects themselves.

A growing consensus has emerged in recent years among many in the administration, state governments, and the Congress that the states should take on more responsibility for leading the cleanup of the program's highest-priority sites, which are included on EPA's National Priorities List (NPL). As agreed with the offices of the Chairmen of the Senate Committee on Environment and Public Works and of its Subcommittee on Superfund, Waste Control, and Risk Assessment, this report examines ways in which interested states can successfully assume greater cleanup responsibilities at NPL sites. Specifically, the report identifies (1) what lessons have been learned from the experiences of five states that already have led NPL cleanups¹ and (2) how EPA can help ensure that interested states are successful in their efforts to adopt increased Superfund responsibilities.

Background

The Superfund program's implementation differs from that of most other environmental programs in the level of involvement by EPA and the states. EPA usually relies heavily on the states to develop discharge permits, monitor facilities' compliance, take enforcement actions, and perform other basic functions. EPA sets general program direction, provides technical support, and exercises oversight responsibilities. In the case of the Superfund program, however, EPA has historically exercised a lead regulatory responsibility and a direct role in cleaning up most NPL sites.

When a hazardous waste site is identified, a series of evaluations is conducted to determine whether the contamination is serious enough to include the site on the NPL. Once listed, the site becomes eligible for remedial actions financed by the Superfund to permanently clean up the pollution. To identify the most appropriate remedial action at each NPL site, a study is conducted to (1) assess the types and quantities of

¹The five states are Minnesota, New Hampshire, Texas, Washington, and Wisconsin.

hazardous waste present and (2) consider alternative cleanup remedies. After these studies are completed, a remedy is chosen, documented in a Record of Decision (ROD), designed, and then constructed. For each site, either EPA or its counterpart at the state level is usually identified as the lead regulatory agency. In some cases, the agency that does not have the lead may still be relied upon to carry out certain cleanup activities. These arrangements are typically specified in a Superfund memorandum of agreement between EPA and the state cleanup agency.

Regardless of who has the lead, EPA ultimately pays for large portions of most publicly funded NPL cleanups. Through cooperative agreements with the states, EPA usually supports the cost of preliminary activities, such as site investigations, and up to 90 percent of the actual cleanup costs. The states assume the ultimate responsibility for all operation and maintenance activities. If companies responsible for the pollution finance the cleanup work, then they pay for the entire cleanup.

Of 1,300 NPL sites nationwide, the states have assumed lead responsibilities for about 140 sites (although many perform key responsibilities at EPA-led sites).² A number of factors in recent years have led many to conclude that a greater state role in leading NPL site cleanups would be desirable. Chief among these factors is the difficulty that EPA has had in achieving timely cleanups at NPL sites—a problem the agency expects to persist in light of continued budget constraints. For their part, many states maintain that since they are closer to both the resources within their boundaries and the parties involved in cleanup activities, they are frequently in a position to conduct cleanup operations more efficiently and effectively.

Results in Brief

On the basis of GAO's review of the five states' cleanup programs, two critical factors affect a state's ability to successfully lead cleanups at NPL sites: (1) the ability of EPA and the state to develop a constructive and efficient relationship that is characterized by a clear division of responsibility and by a level of oversight by EPA that is commensurate with the state's cleanup capabilities and (2) the availability of technical and financial support to help a state perform its additional responsibilities. In connection with the EPA-state relationship, GAO found instances in which EPA disagreed with the state's view that it could assume added responsibilities without EPA's detailed oversight. On the positive side, however, GAO found cases in which the elimination of a duplication of

²The five states GAO visited account for about 40 percent of the NPL sites nationwide for which the state is leading the cleanup.

effort by EPA and state regulators led to a more efficient utilization of resources and an ability to achieve cleanups more quickly and at a lower cost. A useful practice in establishing this relationship has been an explicit agreement between senior management representing both EPA and the state agency that articulates each agency's responsibilities and the manner in which EPA's oversight will be exercised. In connection with technical and financial support, all of the states contacted by GAO indicated that (1) the need for EPA's research and technical support will continue and, in some instances, may increase as the states' cleanup responsibilities grow and (2) the states' capability and willingness to participate in future Superfund cleanups will also be contingent on continued federal financial participation.

GAO identified a number of areas in which action by EPA could help ensure that greater state involvement in the Superfund program leads to effective and more efficient cleanups. In particular, EPA has yet to develop criteria needed by its regions to determine and communicate the circumstances under which the states may assume increased responsibilities. Guidance is also needed to (1) promote a consistent approach among EPA regions that reduces the duplication of responsibilities by EPA and state regulators and (2) encourage the use of explicit agreements between the two parties to document and communicate the understandings reached. In connection with the states' technical and financial needs, EPA has acknowledged that it must play an increased role in this area, but it has yet to detail a specific plan that identifies what the states' specific needs are and how the agency will meet them. Without such a plan, there is little assurance that these needs will be met.

Principal Findings

States' Experiences Managing NPL Cleanups

EPA and the states have undertaken efforts in recent years to improve the efficiency of cleanups at NPL sites by reducing the kind of duplication of effort by EPA and state regulators that had occurred frequently in the past. The five states visited by GAO demonstrate a range of experiences in this matter; three of them—Minnesota, Washington, and Wisconsin—have been given considerable independence to manage cleanups on the sites for which they have been given the lead. In Washington, for example, state and EPA officials both reported that a formal written agreement between EPA's Seattle office and the state's Department of Ecology, which divides

the responsibility for cleaning up the state's NPL sites between the two agencies, has helped greatly to reduce both the acrimony and the duplication of effort that characterized their past relationship. According to an analysis by the state, the changes contributed significantly to a reduction of about 35 percent in the number of staff needed to oversee cleanups at NPL sites.

On the other hand, New Hampshire and Texas have disagreed with their respective EPA regions over the optimal balance of federal and state involvement in cleanups at NPL sites. In each case, state officials maintained that overlap and duplication of effort resulted in less efficient cleanups and objected to what they perceived as EPA's excessive oversight of their efforts. While the EPA regional offices acknowledged their states' improved cleanup capability, they cited as reasons for their close supervision of the states' activities the need to (1) protect the federal government's financial interests in cleanups and (2) ensure that cleanups follow EPA's regulations.

While the five states visited are among the most experienced in leading cleanups at NPL sites, officials in each state acknowledged that they still need EPA's technical expertise to complete some NPL cleanups. They stressed in particular the need for EPA's assistance in developing innovative cleanup technologies and in evaluating their effectiveness, especially bioremediation techniques being proposed by responsible parties.³ Among other things, the states also discussed the need for EPA's technical assistance in assessing sites' health and environmental risks, generating standards and technical guidance, and sharing information across states and regions. EPA has acknowledged that it will need to provide such assistance and has established a workgroup to ascertain states' specific technical needs.

In addition to the technical challenges involved in leading complex hazardous waste cleanups, the states have also cited budgetary constraints as a significant factor affecting their inclination and ability to take on additional cleanup responsibilities at NPL sites. All five states rely to some degree on funding from EPA, primarily through a variety of cooperative agreements, to pay for their cleanup efforts at NPL sites. The states also acknowledged that EPA has maintained the lead responsibility for some sites that the states have not been able or willing to lead—such as those with unusually complex remediations or those involving large-scale

³Bioremediation uses microorganisms to break down contaminants into less harmful forms, such as carbon dioxide and water.

emergency removal actions. In addition, each state has, on occasion, used the threat of turning a site over to EPA as a tool for encouraging cooperation by responsible parties. Officials cited EPA's role as a backup regulatory authority as an effective way to encourage reluctant companies to participate in site cleanups, and agreed that the option to use EPA in this manner should continue.

EPA's Roles to Ensure the States' Success in Leading NPL Cleanups

EPA officials at both headquarters and in the regions acknowledge the desirability of a greater state leadership role in cleaning up NPL sites—a theme voiced earlier this year in a position paper prepared by the Regional Superfund Division Directors. However, the lessons learned from the five states visited by GAO suggest that a number of issues need to be addressed for such a transition to be successful:

Improving the EPA-state working relationship. In cases in which there is uncertainty and disagreement about a state's capability to lead cleanups at NPL sites, EPA's "readiness" criteria could help to guide and communicate decisions on the circumstances in which states may assume these increased responsibilities. Acknowledging a need for this type of guidance, EPA headquarters officials have established a workgroup to develop a process for the regions to use in assessing the states' current readiness and developmental needs. GAO acknowledges EPA's effort but notes that its success will depend heavily on the agency's approach. On the basis of past experience with another hazardous waste program and the general agreement among the state officials interviewed for this review, GAO concluded that detailed and prescriptive criteria—prepared without adequate state input—could actually prevent, rather than encourage, a greater state leadership role in cleaning up NPL sites. In addition, the experiences of Minnesota, Washington, and Wisconsin suggest that once states are deemed ready to accept these responsibilities, an explicit agreement is needed to divide responsibilities between state and EPA regulators. Officials in New Hampshire and Texas also expressed strong agreement with such an approach.

Providing technical support. Superfund program managers in the five states agreed that as their role expands in managing Superfund cleanups, they will continue to turn to EPA for technical assistance. Similarly, representatives from some industry and environmental organizations also called upon EPA to move away from directly managing cleanups, when possible, and to target its efforts in the Superfund program to providing greater technical support to the states. In some cases, these officials called

for a continued role for EPA in providing current services, such as developing standards and providing technical guidance for state regulators to use in making cleanup decisions. In other instances, they called for a new or expanded commitment from EPA, such as a wider effort to promote information-sharing among the states, industry, environmental organizations, and communities affected by hazardous waste sites.

Continuing financial support. Officials in all five states emphasized that in light of their own budget constraints, they could not accept additional Superfund responsibilities unless EPA continues its historical role of providing general program support and site-specific funding. Texas, for example, leads 11 of 28 cleanups of NPL sites and is studying another 11 sites for possible inclusion on the NPL. However, the state is also working on 47 non-NPL sites, many of which involve extensive cleanups. According to the director of the Texas Superfund program, the state is already having great difficulty funding its NPL and non-NPL responsibilities, and can therefore take on additional duties only if EPA continues to provide funding. All of the other states visited cited budgetary constraints as a major factor in their programs, a factor that may also limit their ability to take on additional responsibilities for NPL site cleanups without federal support. Acknowledging these constraints, EPA plans to study different ways of improving the efficiency of its financial support for the states' efforts to clean up NPL sites.

Developing a comprehensive strategy. EPA has acknowledged that it must play an increased role in helping to meet both the technical and financial needs of participating states. As of March 1997, however, the agency had yet to develop a strategy that identifies what the states' specific needs are and how to meet these needs. Without such a strategy, there is little assurance that the states' technical and financial needs will be adequately addressed. To its credit, EPA has established workgroups to obtain input from states and other participants on many of these issues. Pursuing this process to its logical conclusion, by developing a comprehensive strategy to overcome key technical and financial barriers, would provide the states with the tools needed to assume a greater role in leading cleanups at NPL sites.

Recommendations

GAO recommends that the Administrator, EPA, direct the Office of Solid Waste and Emergency Response to work with state representatives in developing the following:

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- Criteria identifying the requirements and circumstances under which states may be granted additional responsibilities to clean up NPL sites. The process of developing criteria should involve the states' participation, and its outcome should be consistent with EPA's expressed desire to encourage greater state responsibilities in cleanups at NPL sites.
 - Guidance on how EPA regions and the states can best divide NPL cleanup responsibilities at NPL sites. The guidance should recommend use of an explicit agreement articulating each side's responsibilities and should reinforce the agency's stated goal of eliminating duplication of effort by the EPA and state regulators who oversee the cleanups.
 - A detailed strategy indicating how the agency will meet the states' technical and resource needs so that they may take a lead role in successfully cleaning up NPL sites. Among the kinds of technical support such a plan may include are (1) providing technical assistance at specific sites, (2) identifying ways to accelerate research on innovative technologies, and (3) serving as a national clearinghouse for information on new cleanup technologies and other best practices. Among the potential elements of EPA's plan to help address the states' resource constraints are strategies to (1) use federal funds efficiently to assist state-led NPL cleanups, (2) continue leading cleanups at certain NPL sites, and (3) have EPA continue to serve as a backup regulatory authority in order to encourage cooperation between state authorities and responsible parties that are reluctant to clean up a site.

Agency Comments

GAO provided copies of a draft of this report to EPA for its review and comment. GAO staff met with EPA officials, including the Director of the State, Tribal, and Site Identification Center, within the Office of Solid Waste and Emergency Response. The EPA officials characterized the report as an accurate description of EPA-state relations in the Superfund program and as providing useful insights into how to better involve the states in the program. The officials also expressed general agreement with all of GAO's recommendations. Their specific comments on GAO's recommendations, along with GAO's responses, are included at the end of chapters 2 and 3.

Officials in each of the five states contacted by GAO also reviewed sections of chapter 2 describing their Superfund programs and their relationship with their respective EPA regional offices. In each case, the officials agreed with the thrust of the information provided but offered clarifications and suggested revisions. These changes were incorporated as appropriate.

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Abbreviations

ASTSWMO	Association of State and Territorial Solid Waste Management Officials
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act, as amended by SARA
DES	New Hampshire Department of Environmental Services
ELI	Environmental Law Institute
EPA	Environmental Protection Agency
GAO	General Accounting Office
MPCA	Minnesota Pollution Control Agency
PRP	potentially responsible party
NPL	National Priorities List
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act of 1986
SITE	Superfund Innovative Technology Evaluation
TAG	technical assistance grants
TNRCC	Texas Natural Resources Conservation Commission
WDNR	Wisconsin Department of Natural Resources

Introduction

In 1980, the Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund. The act gives the Environmental Protection Agency (EPA) the authority to respond to releases of hazardous contaminants from waste sites and provides a trust fund financed primarily by taxes on corporate income, crude oil, and certain chemicals. This fund may be used for, among other things, long-term cleanups at sites included on EPA's National Priorities List (NPL), a register of the program's highest priority sites. The law also authorizes EPA to compel the parties responsible for sites to clean them up or reimburse EPA for the cleanup costs.

The Superfund program has historically been implemented directly by EPA with varying levels of assistance by states. In recent years, there has been discussion within the administration, in the Congress, and among states and other interested parties of the potential for a greater state role in leading the oversight of NPL cleanups. This report examines such an increase in state responsibility, focusing on how a transition toward greater state leadership in the program can be accomplished in a manner that results in greater cost efficiency and environmental benefit.

Federal and State Roles Under the Superfund Program

When a hazardous waste site is identified, a series of evaluations is conducted to determine whether contamination is serious enough to include the site on the NPL. Once listed, the site becomes eligible for trust fund-financed remedial actions to permanently clean up the pollution. To identify the most appropriate remedial action at each NPL site, a remedial investigation and a feasibility study are conducted to (1) assess the types and quantities of hazardous waste present and (2) consider alternative cleanup remedies. After these studies are completed, a remedy is chosen, documented in a Record of Decision (ROD), designed, and then constructed. In the case of each site, either EPA or its state counterpart is generally identified as the lead agency. In some cases, the agency without the lead may still be relied upon to carry out certain cleanup activities.

The Superfund program's implementation differs from that of most other environmental programs in the level of involvement by EPA and the states. EPA usually relies heavily on the states to develop discharge permits, monitor facilities' compliance, take enforcement actions, and perform other basic functions. EPA sets the program's general direction, provides technical support, and exercises oversight responsibilities. In the case of the Superfund program, however, EPA has generally exercised a lead oversight responsibility and a direct role in cleaning up most NPL sites.

Today, the agency leads about 90 percent of NPL cleanups. At many of these sites, the states perform certain cleanup activities under EPA's overall direction.

EPA and the states share the responsibilities and costs of publicly financed cleanups, often through cooperative agreements. In such cases, regardless of whether EPA or the state has the lead oversight responsibility, EPA uses the trust fund to contribute 90 percent of the cleanup costs for sites that were privately owned or operated and at least 50 percent for sites that were operated by the state or municipalities. The states assume the ultimate responsibility for all operation and maintenance activities. If potentially responsible parties (PRP), that is, the parties responsible for the contamination at a site, can be identified, such parties often conduct the cleanup operations and may be liable for all cleanup costs, including operation and maintenance. EPA Superfund officials estimated that about 70 percent of all cleanups are performed by PRPs.

Calls for a Greater State Leadership Role in Cleaning Up NPL Sites

In recent years, however, a growing number of states have demonstrated both the capability and willingness to assume a greater role in overseeing NPL cleanups. For example, whereas few states during the last decade possessed the capability to clean up NPL-caliber sites, the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), whose membership includes environmental officials from each state, maintains that a majority of states are now capable of taking on the lead regulatory responsibility for all or part of the Superfund process. The state environmental officials we interviewed echoed ASTSWMO's contention that states are often in a better position than the federal government to take the lead in protecting their natural resources.

For its part, EPA's difficulties in addressing NPL cleanups in a timely fashion also argue for a greater state role to help shoulder the burden. The agency acknowledges that it has taken longer than it would like both to evaluate sites for placement on the NPL and to clean up these sites after evaluation. EPA officials have indicated that budget and staffing constraints will continue to hamper the agency and that EPA regions and states should form partnerships to tackle cleanups at contaminated sites.

The question of an increased state leadership role in NPL cleanups has also been the subject of congressional debate. The principal comprehensive Superfund reauthorization bills introduced in the 104th Congress (S. 1285 and H.R. 2500) would have authorized EPA to delegate Superfund program

responsibilities at NPL sites to the states. These bills would have established procedures for delegation, and would have limited EPA's authority at NPL sites for which states had assumed responsibility. The comprehensive reauthorization bill introduced in the Senate in the 105th Congress (S. 8) contains delegation provisions similar to those in S. 1285.

Objectives, Scope, and Methodology

In light of the growing interest in having states lead more NPL cleanups, this report examines how such a shift of responsibilities could be carried out successfully. Specifically, as agreed with the offices of the Chairmen of the Senate Committee on Environment and Public Works and its Subcommittee on Superfund, Waste Control, and Risk Assessment, this report identifies (1) what lessons have been learned from five states that have already led NPL cleanups and (2) how EPA can help ensure that interested states are successful in their efforts to adopt increased Superfund responsibilities.

We addressed both of these issues during face-to-face interviews with EPA and state Superfund officials, industry representatives, and environmental officials, both in Washington, D.C., and in several states (and their corresponding EPA regional offices). In Washington, D.C., we interviewed EPA Superfund officials to understand the agency's goals for providing greater program responsibility to the states, and its plans for achieving these goals. Among other things, this information included updates on the work of several EPA workgroups examining issues that need to be resolved for such a transfer of responsibilities to succeed. We also interviewed officials with key national groups having a stake in the Superfund program, such as ASTSWMO.

Much of our work focused on obtaining information on the experiences of five states that have led a substantial number of Superfund cleanups—Minnesota, New Hampshire, Texas, Washington, and Wisconsin. In addition to their extensive experience in leading NPL cleanups, other considerations in selecting these states included (1) the need for diversity in the size of the states to better understand how an expanded state NPL cleanup role could be undertaken in both large and small states and (2) the need to select states in different EPA regions, both to reflect the variation in the types of Superfund sites across the country and to understand how different EPA regional offices deal with their state counterparts.

In each case, we obtained information on the state's experiences in leading NPL cleanups and asked state officials for their views on federal actions needed to help ensure the success of an expanded state Superfund role. We sought comparable information from Superfund officials in the cognizant EPA regional office and from industry and environmental officials. In each state visited, we attempted to obtain quantitative information on the effects of alternative program strategies (e.g., time and money saved by eliminating duplication of effort by state and EPA regulators). However, in the rare instances in which aggregate data were available, the task was complicated by the difficulty in separating the impacts of the strategy in question from other variables. Nonetheless, we obtained anecdotal information where possible that would at least provide quantitative insights into the effects of the strategies analyzed and have included this information in the report where appropriate.

Finally, to better understand how new strategies for improving EPA-state relations can be used to achieve greater efficiency, we also studied three Superfund sites in Minnesota, Texas, and Wisconsin, interviewing many of the participants and obtaining detailed information about each site's cleanup. These case studies were used to provide tangible illustrations of the techniques mentioned by the interviewees noted above and to obtain information and perspectives from the participants directly involved in cleanup activities, such as civic association representatives and local community action groups.

We conducted our work from July 1996 through March 1997 in accordance with generally accepted government auditing standards.

Agency Comments

We provided copies of a draft of this report to EPA for its review. GAO staff met with EPA officials, including the Director of the State, Tribal, and Site Identification Center, within the Office of Solid Waste and Emergency Response, to obtain their comments. In addition, officials in each of the five states contacted by GAO reviewed sections of chapter 2 describing their Superfund programs and their relationship with their respective EPA regional offices. The comments of the EPA and state officials, and GAO's response, are discussed at the end of chapters 2 and 3.

Improvements in EPA's Relationship With the States Can Lead to More Efficient Cleanups

We found a strong consensus among the EPA, state, industry, and environmental officials interviewed that with states taking on more Superfund cleanup responsibilities, the EPA-state relationship is of paramount importance in affecting how efficiently Superfund cleanups are conducted. In the past, the EPA-state relationship has often been characterized by frustration and duplication of effort, adversely affecting the number, timeliness, and cost of cleanups. Recent changes in several of the states and regions visited, however, demonstrate that a cooperative relationship, characterized by a division of responsibilities among EPA and state regulators, and a collaborative arrangement for resolving disagreements early, can lead to a more efficient utilization of resources. A useful practice in establishing this relationship has been a formal agreement between senior management representing both EPA and state agencies, which articulates each agency's responsibilities and the manner in which EPA oversight will be exercised.

While some states are clearly capable and willing to lead NPL cleanups, we found instances in which there was uncertainty and disagreement about whether the state should be granted the added responsibility. In such instances, clear criteria would be useful to guide and communicate decisions on the circumstances in which states may assume increased responsibilities. Similarly, headquarters guidance could also help to promote a consistent approach among EPA regions that reduces duplication of effort by state and federal regulators and encourages a level of oversight that is commensurate with each state's capabilities.

Problematic EPA-State Relationship Has Impeded Past NPL Cleanups

The states play a significant role in the implementation of the Superfund program. States may apply to EPA to carry out cleanup actions under Superfund, and if EPA determines that the state is capable of carrying out such actions, it may enter into a contract or cooperative agreement with the state. The Superfund Amendments and Reauthorization Act of 1986 expanded the states' role by authorizing states to carry out related enforcement actions pursuant to the contract or cooperative agreement. EPA regulations provide that "states may either assume the lead . . . for the response action or may be the support agency in EPA-lead remedial response." Even when EPA retains the lead, the regulations provide that EPA shall "ensure meaningful and substantial state involvement" in site cleanups.

An unintended effect of this arrangement has often been duplication of effort by and frustration among EPA and state regulators. A 1993 analysis

reporting the views of EPA and state officials on this issue pointed out that “virtually every government interviewee stated that the major problem in the federal/state relationship is duplication of effort.”¹ According to the study, some interviewees said that “the agencies spend as much time negotiating between themselves as they do with PRPs.” These findings are consistent with the views articulated 2 years later by ASTSWMO, which made the following observation in a January 1995 position paper:

“The current Superfund program is not utilizing the resources of both the federal and state governments in the most efficient manner possible. At those NPL sites where the state has been designated the lead agency responsible for site cleanup and all dealings with the responsible parties, EPA still reserves the right to select and enforce its own remedy The overall result of this approach is a duplication of effort by EPA and state agencies about the cleanup remedy and cleanup standards required at these sites. This produces a slower, more expensive and cumbersome Superfund process overall.”

States Demonstrate a Range of Experiences in Leading Cleanups

Our review of five states demonstrated a range of experiences in EPA's and the states' roles in managing NPL cleanups and provided insights on the efficiencies achievable through a division of responsibilities that reduces duplication of effort, including a level of EPA oversight that reflects a state's capabilities. Three states (Washington, Minnesota, and Wisconsin) have moved toward a greater state role with more autonomy. The other two states (New Hampshire and Texas) have not established clear divisions of responsibilities with their respective EPA regional offices. In these instances, EPA and state officials have disagreed about the readiness of the states to assume additional responsibilities and on the level of EPA oversight required.

Experiences of Three States in Dividing Cleanup Responsibilities With EPA Regulators

Faced with both limited state and federal resources and a growing number of hazardous waste sites, Washington, Minnesota, and Wisconsin have established clear understandings about a division of responsibilities with their respective EPA regions to clean up sites. Officials from both the regions and states agree that they now use their resources more efficiently as a result. In particular, they agree that the arrangements have minimized the duplication of effort, allowed federal and state authorities to address more sites, and improved the accountability for the site cleanups. The summaries below describe (1) the situation that existed before the agreements, (2) the steps taken to improve the situation, and (3) the benefits expected or already realized from the changes made.

¹David L. Markell, “The Federal Superfund Program: Proposals for Strengthening the Federal/State Relationship,” William & Mary Journal of Environmental Law (Vol. 18:01).

Washington

Washington's Department of Ecology has been heavily involved in the cleanup process for NPL sites for many years; currently, it has the lead for 23 of the 58 NPL sites in the state. The Section Manager for the Washington Department of Ecology's Toxics Cleanup Program explained that the primary impetus for the state to be involved in cleaning up NPL sites was the passage of the state's Model Toxics Control Act in 1988—coupled with the state's sentiment that cleanup should be a state responsibility. At the same time, a state petroleum tax provided the funding to implement the law and enabled Ecology's staffing to rise from zero just 10 years ago to about 145 staff today. The increased staff levels contributed to the state's ability to develop its capabilities to handle the cleanup responsibilities at sites.

As the state's involvement grew, it also sought to apply consistent cleanup standards to both federal and state toxic waste sites. Ecology's Section Manager explained that EPA applied federal cleanup standards to NPL sites that were federal facilities, such as Department of Defense or Department of Energy sites, and that these standards could be less stringent than those provided under Washington's new law.

EPA and state officials both acknowledged that as the state took on added cleanup responsibilities for NPL sites, both Ecology and EPA's Seattle office grew increasingly frustrated with the way cleanups were being handled. For example, when a PRP prepared any cleanup document, both agencies reviewed and provided comments to the PRP rather than having just one agency comment on the plan. Ecology's Section Manager said that the PRP then had to respond to two sets of comments, causing delays and frustration. Additionally, sometimes these comments were in conflict with each other, often conveying the appearance that EPA did not use the state's more stringent cleanup standards to clean up federal facilities. This perception led to increased concern by Ecology that federal facilities were being treated differently from those sites that private parties cleaned up under the state law. For its part, EPA officials were concerned that the state did not have the expertise or experience to oversee cleanups adequately without substantial EPA oversight. According to officials from both agencies, their relationship became dysfunctional to the point of a serious breakdown in communication that was seriously affecting the cleanup process.

Acknowledging both the deterioration in their working relationship and the inefficiency of having both state and EPA regulators heavily involved in the same sites, Ecology and EPA regional management signed a formal

agreement in October 1994 that clearly documented a division of responsibilities for each agency.² The agreement specified a lead agency for each of the state's sites, identifying several to be jointly managed (sites requiring "enhanced" oversight). According to Ecology's Section Manager, the agreement was based on trust between the two agencies. That is, each agency trusted that the other was capable of overseeing the cleanup activities and reaching acceptable cleanup levels at the sites it had agreed to lead.

In a marked departure from the previous arrangement, in which EPA was heavily involved in all NPL sites, the two agencies agreed that if an agency was not the lead agency for a site, it would be involved only at a few critical milestone briefings. These briefings include (1) a project planning briefing, in which the conceptual site model and site management are discussed; (2) a remedy selection briefing, in which the proposed Record of Decision (ROD) or cleanup action plan is discussed; and (3) a briefing at the end of the cleanup process to propose to remove the site from the NPL.

According to both Ecology and regional officials, the milestone briefings have allowed the non-lead agency an occasion to monitor progress and to ensure that the needs of all concerned parties are being met. Ecology's Section Manager cited a cleanup at the Puget Sound Naval Shipyard as an example, noting that EPA raised concerns at one of the scheduled meetings that the Navy's proposed remedy might not work. On the basis of this meeting and the analyses that followed, the Navy, Ecology, and EPA selected a better remedy. He added that the experience demonstrated that the new process works well in identifying problems and disagreements early on—before important decisions are made and have to be reversed.

The Ecology Section Manager said that the agreement has gone a long way toward improving the destructive and counterproductive EPA-state relationship of the past. He pointed out that the cleanup process operates more efficiently now because EPA and state staff spend more time on cleanup activities and less time trying to resolve conflicts. When asked whether Ecology had data quantifying the improved efficiency under the new arrangement, he responded that it is impossible to isolate the impact of the new process from the numerous other factors that affect the use of financial and staff resources. However, he did cite a strong consensus among Ecology staff that the agreement has greatly reduced the duplication of effort originally experienced by the region and state. He

²See app. I for a memorandum summarizing the agreement between Washington's Department of Ecology and EPA's Seattle office.

also noted that since the agreement, the staff resources needed to oversee NPL cleanups have declined by approximately 35 percent from fiscal year 1994 (the year before the agreement went into effect) to fiscal year 1997.

EPA's Seattle officials concurred with Ecology's views. For example, the region's State/Tribal Coordinator and some of her staff told us that they have been able to (1) put to rest disagreements about EPA and state responsibilities, (2) reduce the duplication of effort by the two agencies, and (3) spend more of their time and energy addressing contaminated sites. In hindsight, however, the Coordinator said that some measure for periodically evaluating how the agreement between EPA and Ecology was working should have been incorporated into the original agreement.

Members of the affected community also expressed their support for the agreement between the two agencies. A local representative of the Sierra Club commented that having a single regulator at a site made it easier for the community to figure out who they should deal with and also made it harder for governmental agencies to "pass the buck" when assuming responsibility for cleanups. A lawyer who has represented several PRPs involved in site cleanups, and has served on Washington's Model Toxics Control Act Policy Advisory Committee, shared similar thoughts. In his opinion, PRPs prefer to work with one agency rather than two because the PRPs know who they need to work with to clean up the hazardous waste site.

Minnesota

According to Minnesota Pollution Control Agency (MPCA) officials, before any formal agreement was established between EPA's Chicago office and MPCA, the agencies had a good working relationship and achieved success in cleaning up sites in Minnesota. EPA either led NPL site cleanups itself or provided oversight of the state's cleanup actions. However, in some cases, EPA's Chicago office closely monitored or duplicated the state's efforts, leading to some inefficiency in the cleanup process. They noted instances in which the state would submit a site work plan to EPA for review, and EPA would take 30 to 60 days to respond. This process would then be repeated for each phase of the cleanup. According to the officials, issues that could be resolved quickly often took several months to be resolved.

Both the state and the region realized that many sites in the region still needed to be assessed and cleaned up. According to EPA regional and MPCA officials, the state's strong track record enabled it to assume lead responsibilities on 26 of the state's 31 NPL sites. Moreover, the two agencies entered into an agreement whereby the state was given near-total

independence in overseeing the cleanups of 13 of these sites, all of which are PRP-financed sites. Specifically, in fiscal year 1995, EPA and MPCA formally agreed to establish an Enforcement Deferral Pilot Project to demonstrate full accountability for state enforcement-led NPL sites without federal oversight or intervention.³ Noting that “the Deferral Pilot will gather information that can be used to demonstrate MPCA’s capability for state authorization and/or referral,” the agreement clearly delineates the roles of both MPCA and EPA’s Chicago office. The agreement also allows EPA to devote its resources to other states that need its assistance.

The MPCA utilizes state authorities to investigate and clean up these sites, take enforcement action when necessary, and report site cleanup progress to EPA on an annual basis. Importantly, EPA’s Chicago office defers to MPCA on site decisions and no longer oversees MPCA on the designated sites. EPA does not review technical or decision documents, and its concurrence is not required on RODs.⁴ However, EPA does retain approval of 5-year reviews and final site closeout reports for sites in which EPA had previously concurred on the RODs.⁵

According to the agreement established between EPA’s Chicago office and MPCA, the pilot project’s success will be systematically determined by (1) the capability of MPCA to meet all or a majority of the targeted milestones on or before the targeted date, (2) the quality of the remedies being implemented, and (3) the level of community participation. All key participants agree that reducing duplication by EPA and state regulators has already had positive results. Under the current operating scheme, EPA’s Chicago office exercises substantially less oversight than in the past. MPCA officials noted in particular that EPA has basically stepped away from the sites included in the pilot and that MPCA staff have more flexibility to make decisions than in the past to achieve a more efficient cleanup. MPCA’s Site Response Section Manager noted, for example, that an MPCA project manager may realize that rather than conducting a full site investigation, a more limited investigation is all that is needed to determine the contamination levels and identify the affected areas. In the past, the

³See app. II for the text of the agreement between MPCA and EPA’s Chicago office.

⁴EPA does review the ROD to ensure that the selected remedies are protective of human health and the environment and that the decisions made are not inconsistent with EPA’s Superfund regulations.

⁵EPA conducts two types of 5-year reviews. Superfund’s reauthorization in 1986 called for 5-year reviews (statutory reviews) at certain sites where a cleanup remedy was selected after 1986 and where waste remains on site. EPA has also decided to conduct 5-year reviews (policy reviews) at sites where the remedies were decided on before 1986. According to EPA, the purpose of the review is twofold: (1) to confirm that the cleanup technologies remain effective at protecting human health and the environment, and (2) to evaluate whether the original contamination cleanup goals remain protective of human health and the environment.

project manager would have completed a full investigation in all cases, whether warranted or not. MPCA officials also confirmed that, as agreed, EPA regional staff have refrained from second-guessing MPCA on cleanup decisions.

The Coordinator of Minneapolis' Community Development Agency, who also serves on an MPCA advisory committee, observed that EPA and MPCA officials have found an appropriate middle ground for their working agreement. He observed that EPA has basically stepped away from the sites included in the pilot, and that MPCA staff are willing to take a few more risks than in the past. He also noted that EPA has avoided the temptation to second-guess MPCA on its cleanup decisions.

Wisconsin

In the early 1980s, EPA led the initial NPL site cleanups in Wisconsin. In subsequent years, however, Wisconsin's Department of Natural Resources (WDNR) developed and implemented its own comprehensive cleanup program. The agency increased its staff levels and its capacity for leading NPL cleanups as part of a broader effort to address all contaminated sites in the state. As it increased its cleanup capacity, WDNR staff began assisting EPA with various aspects of NPL site cleanups. More recently, according to both state and EPA regional officials, both agencies saw advantages in expanding WDNR's role in leading NPL site cleanups. According to WDNR officials, WDNR management believed that the agency was in the best position to protect the state's resources and that it had demonstrated that it could handle the cleanup responsibilities. For its part, EPA's Chicago region indicated that an expanded state role would allow it to reduce duplication of effort and to concentrate its own efforts on cleaning up other sites. Currently, the state has lead responsibility for 8 of the state's 42 NPL sites and is actively involved in most of the other NPL sites.

Unlike Washington and Minnesota, WDNR has not entered into a formal written agreement between the agency and the region to clean up the sites. Instead, as sites are considered for cleanup, WDNR and EPA's Chicago office officials determine which agency should take the lead. Oversight of state-led cleanups is somewhat stronger in Wisconsin than in Washington or Minnesota—WDNR staff are required to keep the responsible EPA regional staff informed of the site's cleanup progress on a quarterly basis. In addition, the EPA regional office must approve the ROD for each site and reviews other key decisions as the site cleanup progresses.

Nonetheless, state officials told us that the state and EPA currently have a very effective relationship. According to the officials, EPA typically

provides support and information on the Superfund cleanup process while the state provides the expertise to specifically address the contamination at the site. Through this cooperative effort, they said, effective remedy decisions can more often be made. The WDNR officials cited the Sauk County Landfill as an example. In reviewing the ROD, EPA agreed with WDNR that since groundwater contamination levels had decreased, WDNR could upgrade the existing cap rather than build a new cap as the ROD suggested.

Our discussions with industrial and local community group representatives supported the EPA Chicago office's and WDNR's efforts to implement a more effective working relationship. For example, the Director of Environmental Policy for Wisconsin's Manufacturers & Commerce said that his members are interested in having the state and EPA continue their new working relationship because it has simplified the cleanup process. He explained that having one agency lead the cleanup minimizes duplication of effort and helps the responsible parties know who they need to work with to clean up a site. In addition, the President of the Evergreen Property Owners Association, who represents the community directly affected by the Sauk County Landfill site, was very appreciative of the work the WDNR did and the information they provided to the community. Also, because of the clear working relationship between EPA and the state, the community knew to direct their comments and concerns to WDNR rather than EPA.

Benefits of Dividing Responsibilities Between EPA and the State

Washington, Minnesota, and Wisconsin, along with their respective EPA regions, have experimented with ways to clean up NPL sites more efficiently by dividing responsibilities among EPA and state cleanup officials. Because numerous factors affect cleanup time frames and costs, it is difficult to quantify the savings attributable to these arrangements. Nonetheless, a strong consensus has emerged among the state and EPA officials we interviewed that efforts to divide responsibilities among EPA and state regulators have reduced frustration among regulators, reduced the duplication of effort, and allowed officials to address a larger number of hazardous waste sites. These views were also supported by those of other stakeholders we interviewed (i.e., industrial representatives, environmental activists, and local community representatives), many of whom added that having a single regulatory entity responsible for the cleanup reduces confusion and identifies a single point of accountability for the cleanup.

Table 2.1: State-Led NPL Sites and the Use of a Written Agreement Between EPA and the State Cleanup Agency

	Type of site		Number of sites		Written agreements delineating cleanup responsibilities?
	Federally financed	PRP-financed	Leads	Total	
Washington		X	23	58	Yes
Minnesota	X	X	26	31	Yes
Wisconsin	X	X	8	42	No
New Hampshire	X		10	18	No
Texas	X		10	28	No

Two States Have Had More Difficulty Dividing Responsibilities With EPA

New Hampshire and Texas experienced greater difficulty both in obtaining greater responsibilities for leading NPL cleanups and in exercising the responsibilities they do have without detailed EPA oversight. While both states have had instances of productive collaboration with their regional counterparts, they have not established the same kind of clear division of responsibilities as have Washington, Minnesota, and Wisconsin. This situation reflects different perceptions between each state and its regional office about the state's readiness to lead key NPL cleanup functions.

New Hampshire

To date, New Hampshire's Department of Environmental Services (DES) has exercised the lead responsibility at 10 of the state's 18 NPL sites. At each of the 10 sites, the state has received the lead for certain phases of the cleanup, rather than responsibility for the entire site.

DES officials told us that the state would like to assume the responsibility for more sites and would like to exercise that responsibility with greater authority. The Director of DES' Waste Management Division explained that DES has long maintained that the state's hazardous waste problems can be most efficiently dealt with by the state, partly because it is "closer to the problem" and partly because it has a better relationship with the affected public than EPA regional staff. DES officials also told us that they have demonstrated the technical and administrative expertise to successfully lead NPL projects.

DES' Waste Management Division Director and his staff also maintained that EPA's oversight is too heavy in those instances in which the state does exercise the lead responsibility. They note, for example, that all technical and legal reports (e.g., feasibility studies, site inspection reports, and administrative orders on consent⁶) must be reviewed by both DES and EPA

⁶An administrative order on consent is an agreement between the lead agency and a PRP settling all or part of a PRP's liability at a site and generally requiring the PRP to make a cash payment or to perform specified site response actions.

regional management. They maintained that having duplicate reviews of all documents is inefficient and adds to a project's time frames.

Officials from EPA's Boston office explained that in general, they are less certain than the state about its abilities to handle enhanced NPL responsibilities, particularly with a great deal of independence. For instance, in the opinion of the Associate Director of Site Remediation and Restoration in EPA's Boston office, the state's enforcement authority is currently not as stringent as the federal statute and could therefore complicate enforcement actions against PRPs and cause significant cleanup delays. In addition, the EPA officials said that they need to closely monitor the state-led sites because federal dollars are being used to fund the cleanups.

Both DES and regional officials, however, cited instances of productive cooperation between the two agencies. DES officials, for example, cited the Auburn Road Landfill site in Londonberry, New Hampshire (a state-led site), where DES and EPA agreed to diverge from the selected remedy—saving about \$10.5 million in cleanup costs.⁷ Moreover, the Boston region does acknowledge the need to move toward an arrangement that provides the state with both greater responsibilities and greater autonomy in leading NPL sites—particularly in light of the region's own limited resources in addressing a difficult cleanup workload. In fact, the Boston office's Associate Director of Site Remediation and Restoration, cited the arrangement between Washington's Department of Ecology and EPA's Seattle region as a potential model, noting that their agreement to divide their responsibilities may be "the way to go" in addressing NPL cleanups with DES.

Texas

Texas' Natural Resources Conservation Commission (TNRCC) is currently leading 10 of the state's 28 NPL sites, all of which are fund-financed sites. As in the case of New Hampshire, Texas and EPA regional officials have disagreed about both the extent to which the state should be allowed to lead more NPL cleanups and the degree of EPA oversight that should be exercised.

The Manager of TNRCC's Technical Support Section and some of his staff told us that the state has been interested in leading NPL cleanups for many

⁷Specifically, the original ROD would have required that contaminated groundwater be extracted and treated on-site. The estimated cost of this remedy was \$12.4 million. However, New Hampshire officials argued successfully that the state's groundwater protection rules were adequate to protect human health and the environment and that the state's proposed remedy would cost significantly less. The Boston region amended the ROD accordingly, resulting in a final remedy costing \$1.9 million.

years, echoing the reasons cited by officials in other states—they believe that it is inherently a state responsibility to protect Texas' environment and that they are closer to both the problems and the participants involved in addressing them. In addition, they expressed particular interest in taking on the responsibility to lead cleanups of PRP-led sites, asserting that they are in a much better position to negotiate with PRPs than EPA.⁸

TNRCC officials also discussed the level of EPA's oversight in connection with some of the sites for which the state has had the lead. The Manager of TNRCC's Technical Support Section noted that historically, the region typically reviewed and approved each decision, a process that proved to be cumbersome, time-consuming, and demoralizing to state staff. For example, the Section Manager said that cleanup progress at the North Cavalcade site in Houston was delayed between 4 and 6 months while EPA reviewed the state contractor's engineering estimates. The TNRCC officials also acknowledged, however, that the state's more recent experience with EPA's oversight of state-led sites has been less onerous than in the past.

EPA's Dallas region sees the question of an increased state role in different terms. In connection with the number of sites that Texas could lead, the Dallas office's Superfund Branch Chief explained that in the early 1980s, the region was reluctant to allow TNRCC to lead PRP-financed sites. The PRP sites were fairly large, and the region did not want to give the lead to the state since its experience was still limited, given the newness of the Superfund program. Since then, the Superfund Branch Chief said that the Texas sites listed on the NPL have generally been fund-led sites. He said that if PRPs are identified for a site, the state tends to work with the PRP to clean up the site under the state statute. In addition, he said that TNRCC already "has its hands full" with fund-led sites and probably does not have sufficient resources to take on additional responsibilities.

The TNRCC Technical Support Section Manager disagreed with this explanation. He said that the decision to allow the state to lead only fund-financed sites was made unilaterally by the region. He said that if provided with adequate resources, TNRCC could handle the responsibilities of a PRP-financed NPL site and would welcome the opportunity to do so.⁹

⁸This point was substantiated in our interview with a Senior Vice President of the Texas Chemical Council, who cited TNRCC's simplified procedures as one reason why PRPs generally believe cleanups can be performed faster under state oversight than under EPA direction.

⁹As we discuss later in this chapter, the availability of criteria to guide and communicate EPA's decisions in these circumstances could help to achieve agreement on the delegation of responsibilities to the states and could serve as a vehicle for the region to explain and justify its decisions.

In connection with Texas' concerns about oversight, Dallas regional officials cited the region's responsibility to account for the expenditure of Superfund dollars. The region maintains that this responsibility requires it to prepare the ROD and track closely how federal funds are spent in the cleanup process. While TNRCC's Section Manager said that EPA would be remiss if it did not monitor how the states were spending federal dollars, he reiterated his concern about the intensity of EPA's oversight and the problems it can cause.

New Hampshire and Texas: Difficulties in Dividing Responsibilities With EPA

The experiences of both New Hampshire and Texas point to the state and EPA officials' significantly different perceptions of the states' capability to lead NPL cleanups without EPA's detailed involvement. In each case, state officials have pointed to the inherent advantages of a state lead, including their closer connection to both the environmental problems within their state and to the key stakeholders involved in addressing these problems. They also cited their experiences to date cleaning up both NPL sites and the larger number of non-NPL sites within their jurisdiction. Accordingly, they objected strongly to what they perceived as their regions' reluctance to allow them additional lead responsibilities and the regions' intense level of involvement in those instances where a state lead was allowed.

The two states' EPA regional offices, however, expressed a different view. While the Boston and Dallas offices have both acknowledged their respective states' improved cleanup capability, each has questioned whether the state had the resources necessary to lead PRP-financed sites. And having restricted state-led cleanups in New Hampshire and Texas to fund-financed sites, these regions believed their responsibility for tracking federal expenditures necessitated an active role in overseeing the states' activities. In recent months, however, Boston officials have acknowledged the need to move toward a greater division of responsibility with New Hampshire on the management of that state's NPL sites.

Improving EPA's Working Relationship With States

The experiences of the five states we visited make it clear that an improved EPA-state working relationship can improve the timeliness and reduce the costs of NPL cleanups. A key prerequisite is a systematic determination, negotiated between the state and its EPA regional office, of the responsibilities the state should be permitted to handle. The negotiations should be guided by objective criteria prepared jointly by EPA and representatives of state Superfund offices. Once these responsibilities are decided, EPA must establish an arrangement that clearly articulates the

roles and responsibilities of the state and its EPA region and that minimizes duplication of effort.

Criteria Would Help EPA Judge States' Readiness

As noted in chapter 1, EPA has acknowledged that in order to more effectively address the nation's hazardous waste sites, it needs to rely more on states' growing interest and ability to lead site cleanups. At the same time, the agency also acknowledges that states have made tremendous progress in recent years in developing their own state programs and have gained experience in cleaning up both NPL and non-NPL sites. Studies such as the Environmental Law Institute's (ELI) 50-State Study¹⁰ lend support to EPA's claim. For example, when ELI first studied the states' programs in 1989, half of the states were actively managing cleanup activities at non-NPL sites. By 1995, 44 states were actively managing non-NPL cleanups.

Nonetheless, the states vary in their capability to assume greater NPL responsibilities. A recent position paper prepared by the Regional Superfund Division Directors for the Assistant Administrator for Solid Waste and Emergency Response noted, for example, that while some states have authorities, cleanup standards, staffing, and technical resources that match or exceed those of EPA, others have few or no specific authorities for cleaning up contaminated sites, no independent cleanup standards, and/or limited staffing and technical resources. In such situations, national criteria on states' readiness to lead NPL cleanups could help guide regions and states through their negotiations as they decide which responsibilities the states should assume and which should remain with EPA.¹¹

The experiences of New Hampshire and Texas illustrate how such criteria could help to achieve agreement on the delegation of responsibilities to the state, and perhaps to explain and justify the decisions made. In each of these cases, the state's perception of its capability to assume added responsibilities without detailed regional oversight was at variance with that of EPA. Specifically, the two states believed that their experience,

¹⁰Environmental Law Institute, "An Analysis of State Superfund Programs: 50-State Study, 1995 Update" (ELI Project No. 941724).

¹¹The term "criteria" refers to the critical program elements a state needs to handle its lead responsibilities. Other environmental statutes establish criteria that states must meet before EPA approves their programs. For example, a state wishing to administer a hazardous waste program under the Resource Conservation and Recovery Act (RCRA) must apply to EPA for authorization. Unless EPA finds that the state's proposed program is not equivalent to the federal program, or is inconsistent with the federal or other state programs, or would not provide adequate enforcement of compliance with RCRA requirements, the state is authorized to carry out its program.

resources, and commitment demonstrated that they were capable of overseeing cleanups of PRP-financed sites as well as fund-financed sites. Their respective regions (Boston and Dallas) questioned whether the states had the resources to oversee these cleanups. In addition, the Boston office questioned whether New Hampshire had the legal authority to take effective action against PRPs if necessary.

Without any objective criteria for decision-making, a regional determination under such circumstances could perpetuate the appearance of an arbitrary regional decision—a problem that was cited in earlier years in connection with EPA's delegation of the hazardous waste management program under the Resource Conservation and Recovery Act (RCRA). In a 1990 EPA analysis of that program entitled, "The Nation's Hazardous Waste Management Program at a Crossroads," a federal/state roles subcommittee—which included representation from both EPA and state cleanup agencies—noted that "regions, states, and some headquarters officials [felt] that standards for what constitutes adequate state capability [were] unclear and a moving target." The report quoted one respondent as noting that the standard for sufficient capability was "one of the great mysteries of life."

To help avoid repetition of this problem, written criteria—prepared with state input—could help to (1) communicate the region's rationale in making its decision, (2) convey to the state a better understanding of the decision and any deficiencies that would need to be addressed in order for the state to assume the responsibilities it seeks, and (3) help to ensure that decisions on this matter are based more on an objective assessment of a state's readiness and less on an individual regional manager's preferences. Officials in both the Boston and Dallas offices said that having such criteria would be useful in helping to determine if states can lead NPL site cleanups and in justifying the regions' decisions.

A recent EPA headquarters effort suggests that EPA may already be moving to establish criteria to assess states' readiness to assume greater NPL cleanup responsibilities. Acknowledging the increasing interest among the states to assume greater Superfund responsibilities, EPA is seeking to establish minimum standards against which the state could compare its current program. In doing so, the state and its EPA regional office would know whether the state was ready to assume greater cleanup responsibilities, or whether certain improvements needed to be made first. The agency therefore established a workgroup, made up of both EPA and state officials, to develop a process for regions and states to use in

assessing states' readiness and developmental needs. According to the leader of the State Readiness Workgroup, this process will consider all major programmatic areas, including technical response activities, enforcement, and financial management.

To date, the workgroup has met with officials from other environmental programs to discuss the criteria they use and the lessons they have learned in determining states' readiness to assume greater responsibilities for those programs. In addition, the workgroup has identified various aspects of the cleanup process, such as site identification and enforcement, and is attempting to identify the resources needed to carry out these responsibilities.¹²

Criteria Should Facilitate, Not Complicate, a Greater State Role

We believe such criteria would be an important ingredient in any strategy to provide states with greater NPL cleanup responsibilities. Their success, however, will depend heavily on the approach taken by the agency. Specifically, detailed and prescriptive criteria could have the effect of preventing, rather than encouraging, a greater state leadership role in NPL cleanups. The state officials interviewed generally told us that this had indeed been their states' experience with the hazardous waste management program authorized by RCRA—a view widely supported in the 1990 EPA report noted above. Among other problems, the report noted that “rather than examining the overall environmental effectiveness of a program, the states believe EPA compares every aspect of a state's program to some theoretical ideal.” The report further observed that “states believe they are held to higher standards than those by which EPA judges itself” and that meeting EPA's requirements in the reauthorization process led many states to “question whether receiving and maintaining authorization is worth this extensive use of state resources.”

These sentiments were echoed by officials from most of the five states we visited, who all expressed their desire that EPA's criteria not be used to

¹²The concept of developing criteria to assess states' readiness to lead NPL cleanups was also considered by the Congress last year, as part of the larger question of how to encourage a greater state role in NPL cleanups. Specifically, two Superfund reauthorization bills, H.R. 2500 and S. 1285, would have established procedures for delegation and limited EPA's authority at NPL sites for which states had assumed responsibility. Recognizing that the decisions to allow states to lead site cleanups should be made consistently, both bills would have required states to certify that they had adequate legal authority and resources to carry out the delegated cleanup responsibilities. Specifically, H.R. 2500 would have required the states to certify that they have the legal authority to ask for and receive the requested delegation and to enforce the authorities requested for delegation. States without approved RCRA corrective action programs would also have had to certify that they had the financial resources to administer and enforce the requested authorities. S. 1285 would have required the states to certify that they have adequate legal authority, resources, and public involvement procedures to carry out delegated authorities. Under each bill, EPA could deny a state's request for delegation if it found that the state did not possess the legal authority or resources addressed in the certification.

impose unnecessary and unwanted program requirements that limit states' flexibility to tailor their programs to meet their needs. Each maintained that a repeat of the RCRA experience would indeed discourage their states from assuming greater Superfund cleanup responsibilities.

One way to help ensure that criteria facilitate, rather than complicate, greater state involvement in the program is to provide for state representation throughout the criteria development process and to ensure that states' views are reflected in the final product. It would also be useful if the ground rules for criteria development include an understanding that the final product must be consistent with EPA's stated intention of providing greater opportunities for states to lead NPL cleanups.

Working Agreements Help to Clearly Delineate Agencies' Roles

Once states are deemed "ready" to handle an increased cleanup responsibility, they need an effective and efficient working relationship with their EPA regional offices for the cleanup process to work as intended. Such a relationship would minimize the duplication of effort by both agencies, allowing both to use their limited resources most effectively. The need for such an approach was highlighted in the Regional Superfund Division Directors' position paper cited above, which noted that:

"EPA regions and state agencies should form partnerships to address contaminated sites. They should divide the work, using both state and EPA funds and enforcement tools and resources, minimizing overlap. The division of work will differ in each state, based on the workload, interests, and resources of the state and the EPA region . . . EPA regions and states should consult on a regular basis about their division of labor on specific sites."

We found that EPA regions and their states could best achieve an effective working relationship through an explicit agreement that clearly divides EPA and state responsibilities. This lesson became most abundantly clear in the case of Washington, where preexisting conflict had led to paralysis among state and EPA regulators, to the detriment of other participants and the cleanup process as a whole. In this case, a written agreement signed by regional and state management served both to institutionalize the arrangement and communicate it to staffs of both agencies, PRPs, and other participants in the cleanup process at all of the state's NPL sites.

Few states have achieved the division of responsibility experienced by Washington and EPA's Seattle office. But it is reasonable to assume that other states and regions could benefit from a systematic analysis of how their efforts could better complement rather than duplicate each other. In

the cases of Texas and New Hampshire, for example, efficiencies could still be achieved by reconsidering whether all documents need to be approved by both state and EPA authorities, or whether all state actions should require EPA's approval before going into effect. Officials from each of these two states supported this concept as an opportunity to eliminate much of the duplication of effort that has affected their program. Their respective regions, however, did not see a real need for an "umbrella" type of agreement. Both the Associate Director of EPA's Boston Office of Site Remediation and Restoration and the Branch Chief of EPA's Dallas Superfund Division said the roles and responsibilities are clearly delineated in each of the cooperative agreements established between the region and state when the state accepts the lead responsibility for a particular site.

EPA headquarters, however, recently established a workgroup to promote agreements between states and EPA on how best to develop an enhanced state role in cleaning up NPL sites. EPA created this group in order to be in a better position in the event that Superfund is reauthorized and provisions are included to enhance the states' cleanup role. The group is made up of both EPA and state representatives. According to the leader of the State-EPA Agreements Workgroup, they are attempting to develop a model agreement to be used by regions and states. Clearly defined EPA and state roles will be critical components of the agreement. This workgroup is cooperating with the other three workgroups and hopes to have its model agreement drafted in the spring of 1997 based on the results of the other workgroups and ongoing efforts to reauthorize Superfund.

We believe that the model agreement growing out of this workgroup's efforts could help to promote greater efficiency in NPL cleanups across the country. But much depends on the philosophy behind the exercise. Specifically, the agreement should reinforce the position stated by the Regional Superfund Division Directors' position paper, and other parties within EPA and among the states, that the Superfund cleanup process must move toward a greater division of responsibilities between EPA and state regulators, and with a level of EPA oversight that is commensurate with the states' cleanup capabilities.

Conclusions

The concept of providing the states with greater responsibility to manage Superfund NPL cleanups has broad support among EPA, the Congress, and many other participants in the cleanup process. Moreover, many states have substantially augmented their capabilities to lead Superfund cleanups

in recent years and have expressed an interest in taking on these responsibilities. However, as the regions move forward in making decisions about which responsibilities should be delegated to individual states, clear EPA criteria will be needed to help regions (1) communicate the rationale behind their decisions to the affected states and (2) convey to the states a clear understanding of any deficiencies that would need to be addressed in order for them to assume the responsibilities they seek. Such criteria would also help to ensure that decisions on this matter are based on an objective assessment of a state's readiness. To avoid repeating the problems widely acknowledged by EPA and state officials as affecting the development of criteria under EPA's RCRA program, the criteria should be developed with state input and should be prepared in a manner that is consistent with EPA's stated intention of providing greater opportunities for states to lead NPL cleanups.

Once these decisions are made, EPA and the states need a constructive and efficient working arrangement characterized by a clear division of responsibilities and a level of EPA oversight commensurate with each state's capabilities. A useful practice in establishing this relationship has been an explicit agreement between senior management representing both EPA and state agencies, which articulates each agency's responsibilities and the manner in which EPA's oversight will be exercised.

Recommendations to the Administrator, EPA

We recommend that the Administrator, EPA, direct the Office of Solid Waste and Emergency Response to work with state representatives in developing:

- Criteria identifying the requirements and circumstances under which states may be granted additional responsibilities to clean up NPL sites. The criteria development process should involve state representation and its outcome should be consistent with EPA's expressed desire to encourage greater state responsibilities in NPL cleanups.
- Guidance on how EPA regions and states can best divide NPL cleanup responsibilities. The guidance should recommend use of an explicit agreement articulating each side's responsibilities and should reinforce the agency's stated goal of eliminating duplication of effort by EPA and state regulators overseeing NPL cleanups.

Agency Comments

EPA officials said that we provided an accurate description of EPA-state relations in the Superfund program, including how past problems (such as

duplication of effort) impeded cleanups and how a better working relationship could improve the cleanup process. They also agreed with our assessment that states have demonstrated a range of experience in leading NPL cleanups. They agreed with our recommendation that EPA develop criteria under which states may be granted additional responsibilities and noted that it was consistent with work being undertaken by the agency's State Readiness Workgroup. They acknowledged the problems we identified with past efforts to develop criteria under the RCRA program and agreed with our recommendation that the outcome of the criteria development in the Superfund program must be consistent with EPA's expressed desire to encourage greater state responsibilities in NPL cleanups.

The officials also agreed with our recommendation calling for guidance on how EPA regions and states can divide NPL cleanup responsibilities, again noting that the agency is examining this issue through another workgroup. The officials did not address the specific recommendation calling for an explicit agreement articulating EPA and state responsibilities for states' NPL sites. We acknowledge the efforts of the agency's workgroup in this area. On the basis of our findings during this review, we continue to believe that the agency's efforts will stand a greater chance of achieving their goals on this matter if those efforts (1) encourage the use of an explicit agreement articulating both EPA and state responsibilities and (2) result in guidance that is consistent with EPA's stated goal of eliminating duplication of effort by EPA and state regulators.

Officials in each of the five states reviewed sections of this chapter describing their Superfund programs and their relationship with their respective EPA regional offices. In each case, the officials agreed with the thrust of the information provided but offered clarifications and suggested revisions. These changes were incorporated as appropriate.

States Will Need Technical and Financial Support If They Are to Assume Greater Superfund Responsibilities

A positive and constructive EPA-state relationship is important but will only go part of the way toward enabling the states to carry out additional NPL cleanup responsibilities successfully. Most face technical and resource limitations in expanding their NPL cleanup role—especially given the magnitude and complexity of these sites. Officials in each of the five states visited acknowledged that they have used, and must continue to use, EPA’s considerable technical expertise and resources to complete many NPL cleanups. They stressed in particular the need for EPA’s technical assistance in developing innovative cleanup technologies and in evaluating the effectiveness of such technologies. The states also discussed the need for EPA’s technical assistance in, among other things, assessing the health and environmental risks of sites, generating standards and technical guidance, and sharing information across states and regions. EPA has acknowledged that it will need to provide such assistance but has yet to develop a plan that identifies specific state technical needs and a strategy to meet them.

In addition to the provision of technical support, officials in the five states unanimously maintained that continued EPA involvement in certain areas is needed to keep an expanded state NPL cleanup role from imposing an unacceptable resource burden on the states. In particular, they noted that EPA will need to continue leading cleanups at some sites involving unusually large and complex remediations, large-scale emergency removal actions, or cases in which a PRP cannot be identified (“orphan” sites). In addition, each state has, on occasion, used the threat of turning a site over to EPA as a tool for encouraging cooperation from PRPs. Officials cited this EPA role as an effective way to encourage reluctant PRPs to participate in site cleanups and agreed that the option to use EPA as a backup regulatory authority should also continue.

In addition, each state maintained that the federal government needs to continue its financial commitment to NPL site cleanups. All five states rely to some degree on EPA funding, primarily through a variety of cooperative agreements, to support their current level of participation in NPL cleanups. Officials in each state maintained that while their respective states are willing to take on more of the federal government’s traditional role in leading NPL cleanups, they are not in a position to assume an additional financial burden of cleaning up these sites.

States Leading NPL Cleanups Look to EPA for Technical Support

Officials in the five states we visited indicated that they rely upon EPA, to varying degrees, for technical assistance to help them lead Superfund cleanups. In particular, these officials mentioned that they rely on the agency to (1) provide expertise and advice about technical issues that arise at specific state-led sites, (2) conduct and fund research having potential applications for hazardous waste cleanups, and (3) develop standards and technical guidance. All agreed that their needs in these and other areas will continue if they take on additional program responsibilities. In addition to the state officials, other stakeholders in the Superfund process, namely industry representatives and environmental organizations, also cited instances in which they have relied, and expect to continue to rely, upon EPA for technical support.

Site-Specific Assistance

One of the key ways in which EPA has provided assistance to the states leading Superfund cleanups has been to offer technical expertise at state-led NPL sites. Officials described two situations in which EPA has offered valuable technical assistance:

- The agency has provided expertise on complex issues that are beyond the state's own in-house technical capability.
- States have used EPA as a consultant, or "sounding board," in dealing with difficult problems or making difficult decisions.

One area in which EPA has provided particularly valuable expertise has been in helping evaluate innovative technologies proposed as remedies for NPL sites. As an example, New Hampshire officials cited EPA's assistance in evaluating an innovative remediation strategy proposed by a PRP for the Dover Municipal Landfill. The proposal involved bioremediation, which uses microorganisms to break down contaminants into less harmful forms, such as carbon dioxide and water. The officials indicated that the state did not have staff with the necessary knowledge to evaluate this proposal on their own, and therefore they relied on a bioremediation expert from one of EPA's Environmental Research Laboratories to help in evaluating the proposal's feasibility. They found the EPA scientist's assistance extremely helpful, noting that this expert also suggested ways to pilot test the proposal's effectiveness before a final remediation decision was made. On the basis of the scientist's advice and guidance, state officials eventually concluded that the remediation would indeed be effective and would cost about \$10 million less than the traditional pump-and-treat and capping remediation that would otherwise have been used at this site.

Some of the state officials indicated that they also have found EPA to be a valuable sounding board to get a second opinion on how to handle technical problems at sites. For example, officials from Texas indicated that some of their counterparts in EPA's Dallas office have served as effective problem solvers on a number of technical and/or engineering issues. Likewise, the state project manager for the Centralia Municipal Landfill NPL site in Washington described how helpful it was to "have the ability to check in with EPA" on technical and policy issues. She explained, for example, that it was useful to ask her EPA colleagues how to assess arsenic contamination data at the site, particularly because the site is located in an area with high background levels of the contaminant. She said that getting a second opinion on such matters from EPA was particularly valuable because the EPA staff could draw on the agency's experiences in other states.

Research

In addition to obtaining site-specific technical assistance from EPA, state officials have relied, to varying degrees, upon EPA for research support. State officials told us that conducting or funding such research is beyond the capabilities of most states. Some officials also commented that such efforts would be inefficient for each state to do on its own.

Some of the state, industry, and environmental stakeholders were especially interested in EPA's efforts to promote the development of cost-effective, innovative cleanup technologies.¹ Some cited the Superfund Innovative Technology Evaluation (SITE) program as a particularly useful EPA effort. Through the SITE program, EPA, among other things, provides financial assistance to developers of new technologies undergoing laboratory tests and disseminates information about the cost, performance, reliability, and applicability of new technologies.²

Standards and Technical Guidance

As with research support, some state officials, as well as some industry stakeholders, indicated that they look to EPA to provide standards and technical guidance on a variety of matters. For example, EPA has guidance for assessing risks at Superfund sites as well as for selecting remedies for these sites.

¹EPA considers a technology to be innovative if it has not been used in a full-scale application or if it is the first-time application of an existing technology to a new contaminant.

²For more information about the SITE program, see [Superfund: Use of Innovative Technologies for Site Cleanups](#) (GAO/T-RCED-96-45).

Part of EPA's remedy selection guidance, dealing with presumptive remedies, was cited by several stakeholders as being very helpful in achieving timely and cost-effective cleanups. These documents describe how to study particular types of sites (e.g., municipal landfills or sites contaminated with particular chemicals) and then offer the remedies likely to be useful for those sites. In addition, the Wisconsin Department of Natural Resources' site manager for the Sauk County Landfill cited as being very helpful EPA's guidance on conducting remedial investigations/feasibility studies at municipal landfills. According to this official, following this guidance allowed early action to be taken toward capping the Sauk County site, which ultimately cut more than a year from the time needed to complete the remediation.

EPA's Future Role in Providing Technical Assistance

Superfund program managers in the five states agreed that as their states continue to take a larger role in managing Superfund cleanups, they will continue to turn to EPA for technical assistance. Similarly, some representatives from industry and environmental organizations also called upon EPA to move away from directly managing cleanups, when possible, and to target its efforts in the Superfund program to providing greater technical support to the states. In some cases, these officials called for a continued EPA role in providing current services, such as in developing standards and technical guidance for state regulators to use in making site cleanup decisions. In other instances, they called for a new or enhanced EPA role, such as a more concerted effort to serve as a clearinghouse that promotes information sharing among states, industry, environmental organizations, and communities affected by Superfund cleanups.

Some of the state officials said that the overall need for EPA's technical assistance will not only continue, but may well increase—particularly since many of the states taking on greater NPL cleanup responsibilities will generally have greater technical assistance needs than the relatively experienced states discussed in this report.³ For example, technical training needs were discussed by representatives of “small states” at the August 1996 Superfund Managers' Conference sponsored by ASTSWMO. In discussing the states' anticipated increased role in the Superfund program, the representatives of these states indicated that they would need considerable technical training from EPA in order to take on greater Superfund responsibilities.

³As noted in chapter 1, the five states were chosen in large part because they already have had significant experience leading NPL cleanups.

EPA has acknowledged its responsibility to meet this challenge but has yet to detail a specific plan that systematically identifies states' needs and how the agency intends to meet these needs. Without such a plan, there is little assurance that states' technical needs for site-specific assistance, new and more efficient cleanup technologies, and other technical information will be met. On the basis of our discussions with state and EPA officials and with industry and environmental representatives, the following describes some of the needs that such a plan may address.

**Continued Need for
Site-Specific Technical
Assistance**

The state officials interviewed agreed that while their cleanup capabilities will continue to increase over time, they will still need to draw upon EPA's technical resources and expertise on site-specific matters. For example, some mentioned the need for continued EPA assistance in evaluating innovative remedy proposals at state-led sites and for EPA's advice on complex technical or engineering questions as they arise at specific sites.

Some officials also suggested creative ways in which future EPA assistance could be made available. Officials from EPA's Seattle office, for example, suggested that states may be able to take greater advantage of EPA's pool of technical contractors. They noted that in some circumstances, EPA's contractors may possess expertise (e.g., cleaning up radiation waste) unavailable at either the state or EPA. They suggested that the agency would still need to work through the procedures by which states could tap into such contractor expertise.

**Continued Need for EPA
Research on Innovative
Cleanup Technologies**

Officials from all five states, as well as other stakeholders, indicated that EPA will need to expand its support for research and development, emphasizing the need for research on innovative, cost-effective hazardous waste cleanup technologies. They cited a number of factors driving the need for such technologies, including (1) the increasing number of hazardous waste sites (both NPL and non-NPL sites), (2) constraints on state and federal cleanup budgets, (3) the increasing costs of remediation, and (4) the need to encourage the redevelopment of such sites, which they believe is not likely to happen without cost-effective cleanups.

These officials suggested a number of ways in which EPA's research role could be expanded, such as providing additional grants to support university and private sector research. One state official suggested that EPA could work with private companies to develop new products or techniques useful in hazardous waste cleanups. In return, the companies could get an

“EPA endorsement” of their products or techniques. Others suggested that EPA could use fund-financed sites as demonstration projects for testing innovative cleanup technologies. Under this strategy, Superfund, not private PRPs, would absorb the financial risk if an innovative technology did not work and a second, more traditional remedy had to be used instead.

Several state officials expressed strong interest in future research that would allow greater use of bioremediation in cleanups. On the basis of applications of the techniques to date, bioremediation is seen by many as holding promise for future cleanups. According to the Section Manager of Washington’s Toxics Cleanup Program, for example, the state’s experience suggests that while a cleanup using bioremediation may take longer than one using more traditional engineering methods, the cleanup using bioremediation can be more cost-effective.

**Need for EPA to Play a
Greater Role as an
Information Clearinghouse**

Many of the state, industrial, and environmental officials we interviewed said that while they use EPA as a source of information on a variety of technical issues, the agency’s central role in addressing the nation’s hazardous waste problems should allow it to serve more effectively as a national clearinghouse. State officials and others in the cleanup process consistently told us that they want EPA to provide easier access to information about what is happening at other NPL sites across the country. The information needs they mentioned included such items as toxicological data about chemical contaminants and advice from community organizations with experience in promoting effective public participation in the Superfund process.

The most frequently cited need, however, was for information about innovative cleanup technologies. For example, officials from the USX Corporation, a steel and energy company, told us that having been involved at more than 80 Superfund sites, they have been frustrated when EPA or state regulators from one region or state were reluctant to consider the company’s success in using innovative remedies at other sites with similar contamination problems. The USX officials said that it would be helpful if EPA headquarters could disseminate this kind of information to EPA regional staff and state regulators and encourage them to consider these alternatives’ success at different sites around the country. According to the USX officials, this practice would also help promote consistency in the cleanup decisions being made from one region of the country to another.

An Overall Strategy Would Help EPA Meet States' Future Technical Assistance Needs

Aside from the specific roles suggested above, a well-focused strategy would help EPA identify states' future technical assistance requirements and help ensure that those requirements are met. The need for such a strategy has indeed been recognized by some within the agency, including the Regional Superfund Division Directors. In their July 1996 position paper, for example, they noted that states' technical capabilities vary widely and suggested a number of areas in which the agency could augment its technical assistance (many of which were also identified during our interviews).⁴

In addition, EPA formed a workgroup last year to address these issues. According to officials in EPA's State, Tribal, and Site Identification Center, the workgroup has begun to gather perspectives from state officials about their technical assistance needs and expectations. We believe this is an important prerequisite toward addressing the issues raised in this chapter by the state, industry, and environmental representatives contacted during our work. Completing this information-gathering exercise, and then following through with a systematic plan identifying how these needs will be met, would go a long way toward providing states with the tools they need to assume greater NPL cleanup responsibilities.

States Leading NPL Cleanups Look to EPA for Assistance in Meeting Resource Needs

In addition to the technical challenges involved in leading complex hazardous waste cleanups, states have also cited budgetary constraints as a significant factor affecting their inclination and ability to take on additional NPL cleanup responsibilities. State officials asserted that federal dollars currently support significant segments of their programs and constitute the greatest portion of most publicly funded NPL cleanups. Overwhelmingly, these state officials said that their states' budgets could not support new Superfund responsibilities without continued federal financial support. They also said EPA can help states conserve their resources by (1) continuing to lead some cleanups and (2) retaining its capacity to act as a backup regulatory authority to encourage recalcitrant PRPs to cooperate with state cleanup authorities.

States Depend on Federal Funding

Officials from all five states acknowledged that EPA's financial support has been instrumental both in assisting them to build and maintain their Superfund programs and to carry out site-specific work. EPA's main vehicle for providing the states with such financial support is the cooperative

⁴Specifically, the position paper identified the need for site-specific technical assistance to support state implementation of investigations and cleanups; assistance on risk assessment and sampling methods; and access to information on innovative technologies.

agreement. Cooperative agreements support agency funding for non-time-critical removal assistance, enforcement assistance, pre-remedial and remedial planning, and remedial actions, and provide funding for core grants. Core grants provide the states with general program management assistance, such as recordkeeping and computer resources, while the other categories provide site-specific assistance.⁵

In connection with site-specific work, EPA and the states share the responsibilities and costs of site cleanups, but ultimately EPA pays for large portions of most publicly funded cleanups. For example, during fiscal years 1991 through 1996, EPA provided the 50 states an average of \$144.3 million per year in cooperative agreement funds. States depend on this funding to help finance their participation in NPL cleanups. Cooperative agreements can provide states with significant amounts of money to pay for particular cleanups. In fiscal year 1994, for example, Texas received cooperative agreement funds totaling almost \$30.5 million, at least in part to pay EPA's share of a remedial action.

In funding the implementation of a particular remedial action for cleanups financed by the federal trust fund (regardless of whether EPA or the state has the lead), EPA contributes 90 percent of the cleanup costs for sites that were privately operated. The states assume ultimate responsibility for performing 100 percent of all operation and maintenance at fund-financed sites. If PRPs finance the site remediation, then they pay for the entire cleanup, including operation and maintenance.

Officials in all five states emphasized that in light of their own budget constraints, they could not accept additional Superfund responsibilities unless EPA continues its historical role of providing general program support and site-specific funding. Texas, for example, is the lead agency on 10 of 28 NPL site cleanups and is studying another 11 sites for possible inclusion on the NPL. However, the state is also working on 47 non-NPL sites—some of which involve extensive cleanups. According to the director of the Texas Superfund program, the state is already having great difficulty funding its NPL and non-NPL responsibilities. As a result, he said, the state could take on additional duties only if EPA continues to provide financial support.

⁵In addition, EPA has provided funding for other Superfund activities, such as technical assistance grants (TAG) for communities. These grants permit community members to hire independent advisors who can help them understand technical information pertaining to an NPL site, such as remedy proposals or information about the health risks posed by site contaminants. One community group with whom we met stressed that TAGs are important tools in keeping the local community involved in NPL cleanups, which can help speed the remediation process.

The EPA Regional Superfund Division Directors' position paper acknowledged these resource constraints, adding that

"Now, as states are picking up more direct implementation responsibility, EPA has an increasing role in providing assistance and support to enhance the effectiveness of state programs. EPA can assist in building the capacity of state programs, and also provides ongoing support to maintain state program capacity."

In particular, the paper noted that while many state cleanup programs have grown in recent years, the total workload of contaminated sites (NPL and non-NPL) is much greater than state resources alone can handle—a problem exacerbated in many states by budget reductions. Among the states we visited, Washington, Wisconsin, and Texas are experiencing such cutbacks. In Washington, for example, state funding for the Toxics Cleanup Program, which supports the state's Superfund activities, has declined 30 percent since 1993. In Wisconsin, according to the Director of the Bureau of Remediation and Redevelopment, the state Superfund legislative appropriation has declined roughly 40 percent over the past 2 years. And the Director of the Texas Superfund program reported that his appropriation for fiscal year 1998 has been reduced by almost 50 percent from its fiscal year 1997 level.

EPA's workgroup on providing technical and financial assistance to the states held its first face-to-face meeting in February 1997, focusing on how current cooperative agreements can be combined to provide states with greater spending flexibility. Currently, most states have fairly large numbers of cooperative agreements for pre-remedial, remedial, site assessment, and core activities. Federal regulations restrict states in how they can use this money to fund NPL cleanup activities. The technical and financial assistance workgroup is studying ways that such multiple cooperative agreements can be combined to make it easier for states to move federal funds to program areas where they are needed most. EPA's Chicago and Denver offices have pilot projects under way to test how this kind of block funding might work. For example, Illinois and the Chicago office have entered into an agreement whereby all of the state's Superfund cooperative agreements (except for remedial actions and emergency removals) will be combined into a single agreement. According to the Director of EPA's State, Tribal, and Site Identification Center, this type of arrangement requires only an exception from the EPA regulations, which has been forthcoming in most cases. The workgroup plans to have a follow-up meeting on these issues in May 1997.

Some Sites Require an EPA Lead

EPA regional officials, as well as several state officials, agreed that even states with strong Superfund programs sometimes need EPA to assume lead responsibilities at certain sites. According to these officials, some sites can present a unique set of problems, or the state may simply have its resources fully committed at other site cleanups already under way.

For example, the Section Manager of the Washington Department of Ecology's Toxics Cleanup Program noted that the Commencement Bay site near Tacoma was a site that the state was glad to have EPA lead. He elaborated that the site was enormous, covering the entire bay and involving numerous industries, and that the state cleanup program was somewhat new when the site was listed on the NPL in 1983. EPA's presence at this site helped to get the various PRPs actively involved, and it probably helped to get them involved more quickly than if the state had tried to act alone. However, he added that since the Washington program has matured, it does not necessarily shy away from sites simply because they are large, complicated, or have reluctant PRPs. He cited the Hanford Nuclear Reservation as a large and complicated site for which the state has largely assumed the lead. He noted, however, that there are instances in which it makes sense for EPA to take the lead. Washington and EPA usually try to agree on who should take lead responsibility on a case-by-case basis. The lead designation is based on a joint assessment of the factors involved at individual sites, such as whether the situation involves great political sensitivity, unusually difficult technical issues, or numerous PRPs.

A state's ability and willingness to assume the lead can also be affected by its existing workload. For example, Wisconsin officials told us they initially accepted the lead for the N.W. Mauthe site but relinquished it when the state's project manager left the agency and other qualified staff members were fully occupied at other sites.

EPA also typically carries out removal actions for large chemical spills and other time-critical cleanups. Officials in New Hampshire cited the Manville asbestos site as a large removal operation that required EPA's resources and expertise. They noted that the state's removal program can handle only relatively small spills and that the state must rely on EPA for larger removals, such as Manville. According to the Regional Superfund Division Directors' position paper, some states have expressed an interest in carrying out such emergency cleanups but may be precluded from doing so under current regulations. They indicated that the agency could explore the circumstances under which a state lead in these instances would be

advisable. EPA headquarters and its Boston and Dallas offices are currently working with ASTSWMO and the states of New Hampshire and Texas to pilot state-led, federally funded removal actions. According to EPA, plans call for obtaining the necessary regulatory approvals to initiate these pilots during fiscal year 1997.

EPA as a Backup Regulatory Authority

The cooperation of PRPs is important, both because they are an important potential source of revenue needed for the cleanup and because their recalcitrance can drain the state's enforcement capacity. However, such cooperation is sometimes difficult to obtain. Superfund officials in all five states agreed, however, that EPA's mere presence is often enough to gain cooperation from recalcitrant PRPs because they generally prefer to deal with the state rather than EPA.

The Section Manager of Washington's Toxics Cleanup Program, for example, attested to the effectiveness of EPA's role as a backup regulatory authority, noting that PRPs know that "EPA is only a phone call away." He explained that PRPs know that if they do not deal in good faith with the state, then they will have to deal with EPA, a prospect that most of them find less desirable. Officials in New Hampshire noted that it is not usually necessary to mention EPA in the course of discussions with PRPs because they know that New Hampshire will not hesitate to call on EPA for assistance, if necessary. The director of the Texas Superfund program credited EPA's enforcement presence as an important factor in the success of the state's voluntary cleanup program. EPA's Regional Superfund Division Directors also referred to this role for EPA in their position paper, suggesting that

"If EPA's independent ability to take action at sites is maintained and properly employed, it can be a tool to enhance state programs. This independence can create incentives for PRPs to cooperate with states when they otherwise might not."

These views were consistent with the opinions expressed during our discussions with industry representatives. Business and industry groups from New Hampshire, Texas, and Wisconsin all said that many of their members would go to great lengths to avoid having to deal with EPA, or become involved in the federal Superfund process. According to these representatives, PRPs often find EPA-led sites more expensive and EPA's process and procedural requirements less flexible. They added that PRPs frequently find state officials more accessible, allowing them to have a greater voice in decisions affecting them.

Conclusions

Having gained substantial hazardous waste cleanup experience over the years, many states have demonstrated both a willingness and capability to take on additional Superfund cleanup responsibilities. Moreover, citing constraints on its own budget and staff, EPA has stated that the number and timeliness of cleanups can be improved with greater state involvement. Yet even the most experienced states will require some level of continued research support and technical information from EPA, and less experienced states may require additional assistance.

The states' capability and willingness to participate in future Superfund cleanups will also be contingent on continued federal financial participation. Other key EPA roles that could help alleviate the states' resource constraints as they take on a greater Superfund cleanup role include (1) continuing to manage cleanups and large-scale emergency removals that are beyond the states' capacity and (2) retaining its capacity as a backup regulatory authority to encourage recalcitrant PRPs to cooperate with state cleanup authorities.

EPA has acknowledged that it must play an increased role in helping to meet both the technical and financial needs of participating states, but it has yet to outline a strategy that identifies specific state needs and the manner in which the agency intends to meet these needs. Without such a strategy, there is little assurance that the states' technical and financial needs will be adequately addressed.

To its credit, the agency has established workgroups to obtain input from states and other participants on these issues. We believe the agency needs to pursue this process to its logical conclusion by developing the kind of comprehensive strategy needed to overcome the key technical and financial barriers to a broader state role in leading NPL cleanups.

Recommendation to the Administrator, EPA

GAO recommends that the Administrator, EPA, direct the Office of Solid Waste and Emergency Response to work with state representatives to develop a detailed strategy indicating how the agency will meet the states' technical and resource needs so that they may take a lead role in successfully cleaning up Superfund sites. Among the kinds of technical support such a plan might include are (1) providing technical assistance at specific sites; (2) identifying ways to accelerate research on innovative technologies; and (3) serving as a national clearinghouse for information on new cleanup technologies and other best practices. Among the potential elements of its plan to help address the states' resource

constraints are strategies to (1) use federal funds efficiently to assist state-led NPL cleanups, (2) continue leading certain NPL cleanups beyond the capability of individual states, and (3) encourage cooperation by recalcitrant PRPs with state authorities by serving as a backup regulatory authority.

Agency Comments

EPA officials generally agreed with our characterization of the states' reliance on EPA for technical and financial support and with our conclusion that such support will continue to be integral to the states' programs as they accept more NPL cleanup responsibilities. The agency officials also noted that our recommendation to develop a strategic plan for providing the states with technical assistance was useful.

The officials also requested that we cite additional information about their past efforts to provide the states with financial assistance. We added the information requested, identifying in particular the aggregate amounts of financial assistance provided to the 50 states through cooperative agreements. The officials provided other technical clarifications and suggestions, which we incorporated as appropriate.

Agreement Between Washington's Department of Ecology and EPA's Seattle Office



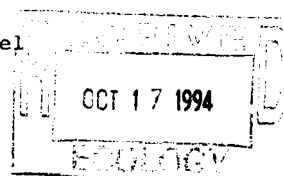
United States
Environmental
Protection Agency

October 14, 1994



TO: Ecology Toxics Cleanup Program Personnel
EPA Superfund Personnel

FROM: Dan Silver and Randy Smith



SUBJECT: Ecology/EPA Agreement on Roles and Responsibilities
at NPL Sites

We are pleased to inform you that we have come to agreement on a new framework for restructuring the working relationship between our two agencies. It is designed to focus limited resources on the mission of site cleanup. The agreement covers both private sites and federal facilities.

The attached management agreement describes the purpose, objectives and structure of the agreement for our new relationship. The purpose of the agreement is to:

- 1) reduce conflicts among regulatory staff;
- 2) conserve and maximize the effectiveness of agency resources and not duplicate effort; and
- 3) achieve environmental cleanups in a faster and more efficient manner.

The new working relationship relies on a restructuring of agency roles and responsibilities such that all NPL sites (with a few notable exceptions) will either be state lead or federal lead. The agreement identifies the lead agency for each NPL site. The agency not in the lead will be involved only through attendance at milestone briefings as outlined in the agreement or, for a few sites when special circumstances warrant, involved in a specified focused enhanced role described in a site-specific scope of work (SOW). The intent is to avoid duplication of effort and empower the lead agency to manage the specific technical details, document reviews and regulatory decisions.

We are very pleased with the outcome of the effort that resulted in this agreement. The management team at both agencies displayed creativity and genuine commitment in working through a myriad of difficult issues. We would like to recognize the fine work done by the Ecology unit supervisors (Brad Ewy, Russ Darr, Peter Brooks), EPA's section chiefs (Catherine Krueger, Bill Glasser, Mike Stoner, Wayne Pierre, Christine Psyk), EPA's branch chiefs (Carol Rushin and George Hofer), and Ecology's section manager (Tim Nord).

Appendix I
Agreement Between Washington's
Department of Ecology and EPA's Seattle
Office

We realize that much work still lies ahead in implementing the agreement and ensuring that it works as intended. The management team at the two agencies will be developing an implementation plan, including timeframes for transitioning leads on sites, transitioning sites to milestone briefing status, developing site-specific scopes of work (SOWs) for sites in the enhanced status, and communicating closely with staff to ensure that this agreement is successfully realized at NPL sites.

Agreement Between Minnesota's Pollution Control Agency and EPA's Chicago Office

MINNESOTA POLLUTION CONTROL AGENCY ENFORCEMENT DEFERRAL PILOT PROJECT

INTRODUCTION

The United States Environmental Protection Agency (U.S. EPA) and the Minnesota Pollution Control Agency (MPCA) have agreed to conduct an Enforcement Deferral Pilot Project to demonstrate full accountability for State enforcement-lead Superfund sites without Federal oversight/intervention. This Enforcement Deferral Pilot will gather information that can be used to demonstrate MPCA's capability for State authorization and/or referral. The first year of the pilot is Federal fiscal year 1995, from October 1, 1994 through September 30, 1995.

The State of Minnesota has historically played a significant role in the implementation of the Superfund program within Region V. The MPCA has demonstrated both an interest and a willingness to invest its staff and resources into site cleanup activities. Of the 36 currently active National Priorities List (NPL) sites within the State (43 NPL sites total), MPCA has the lead on 26 NPL sites, which is 72%. Of these 26 sites, 20 are being addressed as State-enforcement leads and 6 are State-lead CERCLA fund financed.

In addition, the MPCA has been active in the implementation of the Minnesota Environmental Response and Liability Act (MERLA) of 1983 to investigate and cleanup releases of hazardous substances, pollutants, or contaminants. The MPCA will administer the Enforcement Deferral Pilot through its authority under MERLA.

ENFORCEMENT DEFERRAL PILOT

Under the Enforcement Deferral Pilot, MPCA will assume full responsibility at the following 13 State-enforcement lead sites.

Agate Lake	Nutting Truck and Caster Co.
Baytown Township ***	St. Louis River *
General Mills	UMRRC
Joslyn	Waite Park Water Supply **
Koch Refining/N-ReN Corp.	Whittaker
Koppers Coke	Windom
Kurt Manufacturing	

* Includes Interlake and USX State sites.

** Includes Waite Park Wells, Electric Machinery, and Burlington Northern State sites.

*** Baytown Township was added to the pilot after its start. Boise Cascade - Onan & Medtronic were removed from the original pilot sites.

Appendix II
Agreement Between Minnesota's Pollution
Control Agency and EPA's Chicago Office

This assumption of responsibilities includes: utilizing State authorities to investigate and cleanup these sites; conducting the necessary enforcement actions available to the State of Minnesota; and, planning and reporting site progress information to U.S. EPA.

As part of this pilot, U.S. EPA is deferring to the MPCA on site decisions and will no longer oversee MPCA on the designated sites. U.S. EPA will not review technical documents or decision documents, nor concur on any Records of Decision (RODs) or equivalents issued as a result of the pilot. However, U.S. EPA will retain approval/concurrence of 5 year reviews and final site closeout reports for Agate Lake, UMRRC, Waite Park and Windom Municipal Dump because U.S. EPA previously concurred on RODs for these sites. U.S. EPA's role with regard to all of the Enforcement Deferral Pilot sites is to ensure that the selected remedies are protective of human health and the environment and that decisions made by the MPCA are not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). U.S. EPA does not plan or anticipate any Federal action under CERCLA as long as these conditions are met.

U.S. EPA has historically awarded funds to MPCA for several of the State-enforcement lead sites. As part of this pilot, U.S. EPA will not provide site specific Cooperative Agreement funds for the Enforcement Deferral Pilot sites.

ADDING AND REMOVING SITES

Additional sites may be added to the Enforcement Deferral Pilot provided they meet the pilot criteria and both Agencies mutually approve of their inclusion.

Sites can be removed from the pilot provided the MPCA has exhausted its enforcement authorities against the site's responsible parties. In addition, a site can be removed from the pilot if both Agencies mutually agree that there is a more efficient/cost effective manner of proceeding towards site cleanup. The MPCA would request U.S. EPA's approval for removing sites from the pilot. These removed sites would be subject to CERCLA authorities.

SCHEDULING AND REPORTING

Scheduled milestones for the 13 Enforcement Deferral Pilot sites have been reviewed and re-targeted by MPCA. These site milestone schedules are in Table 1. MPCA intends to accomplish site activities on or before the targeted dates. Changes to the site schedules will be reflected in semi-annual updates to Table 1 by MPCA. These updates will coincide with the Enforcement Deferral

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Pilot reviews conducted at the agencies' mid-year and end-of-year reviews. The CERCLIS database shall be amended to reflect the current Enforcement Deferral Pilot site schedules and any subsequent changes.

Because the CERCLA and MERLA processes are not identical, the two agencies have/will establish equivalents for some of the CERCLA-required milestones. One example is the MPCA will provide U.S. EPA with preliminary close-out reports (PCORs) for those pilot sites where construction has been completed on the last operable unit and a pre-final inspection has been conducted. U.S. EPA understands that PCORs are not required under the provisions of MERLA. Another example is the MPCA will provide U.S. EPA with 5 year reviews for all pilot sites to ensure that the implemented remedy continues to provide adequate protection of human health and the environment, even though U.S. EPA concurrence is not required.

As site targets are met, MPCA shall issue an approval letter or document which allows the milestone target to be turned into an actual date. Until MPCA has access to the CERCLIS database, the MPCA pilot contact person shall inform the U.S. EPA pilot contact person of the milestone accomplishment date. When MPCA is granted access to the CERCLIS database, milestone accomplishment dates can be entered by MPCA.

MEASURING THE SUCCESS OF THE PILOT

Since one of the objectives of the Enforcement Deferral Pilot is to gather information that could be used as part of an assessment of capability for authorization and/or referral, an assessment process is essential.

Within 45 days of the end of each Federal fiscal year (September 30th) for which the pilot is conducted, MPCA shall prepare a report which assesses its success in meeting the milestones targeted. The format of the report shall be:

- 1) Introduction; Statement of Purpose
- 2) Narrative Highlighting Work Accomplished During the Reporting Period
- 3) Narrative Highlighting Problems Encountered During the Reporting Period
- 4) Narrative Highlighting Corrective Measures Taken or Planned
- 5) Prospective Analysis of Actions Targeted for Next Reporting Period.

The measure of success of the Enforcement Deferral Pilot will be demonstrated in three areas. The first area is the capability of MPCA to meet all or a majority of the targeted milestones on or before the targeted date. This will be depicted in the annual

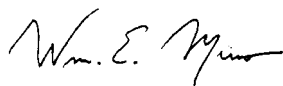
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report with a site-by-site analysis of each target planned for the reporting period. The report will acknowledge the actual date that the milestone is achieved, or analyze the basis of the actual date not being achieved. The second area is the quality of the remedies being implemented. The report will analyze the approval letters or Records of Decision issued. For remedies selected prior to the pilot, the quality of the remedies will be evaluated in MPCA's review and approval of the operation and maintenance report. The third area is the level of community participation. This will be analyzed and reported in the annual report.

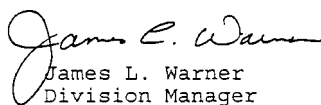
The opportunity for dialog between U.S. EPA and MPCA regarding the on-going progress of the pilot exists during the course of the mid-year and end-of-year reviews. These semi-annual reviews shall incorporate the Enforcement Deferral Pilot as a standing item on each meeting agenda.

LENGTH OF THE PILOT

As structured, there are enough controls and measures to assess the success of the Enforcement Deferral Pilot. Annual reports, mid-year and end-of-year reviews provide opportunities to document progress. U.S. EPA will use these opportunities to determine whether or not the pilot will continue. It is, however, U.S. EPA's intention that the Enforcement Deferral Pilot will end once the last pilot site event has been completed. MPCA reserves the right to withdraw from the pilot due to funding/resource constraints.



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6/20/95

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