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# SUPERFUND

# Non-Time-Critical Removals as a Tool for Faster and Less Costly Cleanups

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Mr. Chairman and Members of the Committee:

Since Superfund was created in 1980, the Environmental Protection Agency (EPA) has obligated more than $15 billion but has completed cleanups at only about 300 of the 1,300 sites on its list of the most contaminated sites in the country. Today, we would like to discuss an EPA initiative with the potential to clean up portions of sites more quickly and at less cost. EPA is expanding the use of its removal program, which it typically uses to respond to urgent situations, to conduct substantial nonemergency cleanup actions at portions of sites. These Non-Time-Critical (NTC) removals result in quicker cleanups than EPA's traditional remedial program because they streamline the steps used to study a site's contamination and design a cleanup method.

Last year, EPA surveyed site managers in the regions to obtain their estimates of the benefits and lessons learned from conducting NTC removals. Our testimony today is based on the results of that survey and interviews of EPA removal program officials, state cleanup managers, and private parties that have used the NTC process. Our testimony addresses three issues associated with EPA's initiative to use NTC removals: (1) the major benefits and potential disadvantages of using NTC removals, (2) the extent to which NTC removals can be used in more Superfund cleanups, and (3) the factors that constrain the use of NTC removals.

In summary, Mr. Chairman,

- Using NTC removals at portions of Superfund sites can accelerate cleanups, reduce costs, and better protect human health and the environment. EPA site managers estimate that using NTC removals can, on average, save 2 years and about half a million dollars from a remedial action that would have taken 4 years and cost about $4.1 million. These savings are achieved primarily by streamlining the cleanup's study and design steps. NTC removals also address hazardous wastes at a site sooner, thereby, reducing risks to human health and preventing contaminants from spreading further in the environment. However, NTC removals require more staff time for supervising contractors, and the states are not required to fund a portion of the costs, as they are for remedial actions.
- NTC removals show a high potential for use in cleaning up portions of most of the approximately 3,000 sites in EPA's inventory of current or expected Superfund sites, especially the portions that pose the highest health and environmental risks. NTC removals have been used at many different types of sites and for all environmental media. These removals have employed

many of the same kinds of cleanup actions as the remedial program and usually include an action that treats or extracts the contaminants. EPA data indicate that for about one-third of the sites in the survey, no further action will be required. To the extent that the remaining sites contain more complex contamination, the NTC removal will not be the final action. These sites will require more extensive study and design actions.

- EPA budgetary issues and legal factors have constrained the use of NTC removals. Overall spending for removals, while gradually increasing, has ranged from only 9 to 17 percent of all Superfund spending. Regions spend these funds first to cover the hundreds of emergency removals EPA conducts each year, leaving little funding for NTC removals. Also, because EPA headquarters must account for removal and remedial funds separately, regions cannot move funds between these two budgets to pay for more NTC actions. Finally, statutory limits on the duration and cost of federally funded NTC removals have precluded their wider use. Proposed legislation to reauthorize the Superfund program, H.R. 2500 and S. 1285, both include provisions that would ease these limits.

## Background

The Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980 to clean up hazardous waste sites. The act gives EPA the authority to compel the parties responsible for these sites to clean them up. The act also created a $1.6 billion trust fund, known as Superfund, for EPA to implement the program and pay for cleanups. The Superfund program has two basic types of cleanups: (1) remedial cleanups, which are long-term cleanup actions at sites on the National Priorities List (NPL), EPA's list of the nation's worst hazardous waste sites, and (2) removal cleanups, which mitigate more immediate threats at both NPL and non-NPL sites. EPA's removal cleanups include (1) emergency removals for threats requiring immediate action, (2) time-critical removals for threats requiring action within 6 months, and (3) NTC removals for threats where action can be delayed for at least 6 months in order to adequately plan for cleanups.

In March 1995, EPA surveyed site managers in the regions to obtain their estimates of the benefits and lessons learned from conducting NTC removals. EPA had initiated 81 such actions by then, and 40 were beyond the study phase. Our testimony today is based on the results of that survey and interviews of EPA headquarters and regional officials in charge of removals, state cleanup managers, private parties that used the NTC process, and representatives of environmental advocacy organizations. We did not independently validate EPA's survey results. We performed our

work from September 1995 through March 1996 in accordance with generally accepted government auditing standards.

## NTC Removals Can Provide Valuable Benefits but May Have Some Disadvantages

Compared to traditional remediation, NTC removals significantly accelerate the study and design steps of cleanups at portions of sites, thereby reducing overall cleanup costs and more quickly protecting human health and the environment. However, increasing the use of NTC removals may increase the amount of EPA staff time required to oversee contractors. Also, using these removals could shift a portion of the cleanup costs from the states to EPA.

### NTC Removals Save Time and Money and Improve Environmental Protection

According to the site managers EPA surveyed, using the NTC program instead of the remedial program reduced the overall time spent on cleaning up portions of sites from about 4 years to 2 years, on average. In many cases, site managers reported time savings of more than 3 years. These savings occur primarily because NTC actions take much less time than remedial actions to study the contamination and design a cleanup method.

According to EPA technical and regional staff who manage cleanups, they use NTC actions when they are relatively certain about the nature of the contamination that is present and the type of cleanup method they should use. For such cleanups, they do not need to use the extensive study and design steps that the remedial program calls for. Like remedial actions, NTC actions also include steps, although abbreviated, for the public and the state to participate in planning the cleanup. Also, because EPA's guidance requires that NTC removals generally meet states' cleanup standards, the level of cleanup achieved with these removals is not expected to be significantly different from the level achieved with remedial cleanups.

The streamlined NTC process also results in reduced cleanup costs. According to EPA's survey, conducting an NTC action costs, on average, about $3.6 million, or about $0.5 million less than a similar remedial action would have cost. In many cases, larger savings have been reported. For example, one private party estimated that conducting the cleanup as an NTC action instead of a remedial action reduced the cleanup costs by about $2 million—at least half of the total cleanup costs. Savings of more than $1 million have also been reported for federally funded cleanups.

Faster cleanups through the use of NTC removals also mean better protection of human health and the environment. According to EPA site managers, NTC removals can be used to clean up the portions of Superfund sites where contaminants pose a current risk to human health or could spread further in the environment. For example, EPA used the NTC process to accelerate a cleanup by more than 4 years at a chemical processing plant where contaminants in the soil were migrating toward a schoolyard. In another case, a private party used the NTC process to accelerate a cleanup by more than 4 years, removing contaminants from the soil and shallow groundwater before they could spread to deep groundwater, which is difficult and costly to clean up.

## NTC Removals Have Potential Disadvantages

While NTC removals demonstrate valuable benefits, they may also present some disadvantages, including the need for more staff time to monitor NTC cleanups, less ability for EPA to enforce cleanup agreements with private parties, and a potential for states to decrease their funding of a portion of the cleanup costs. Opinions vary about the significance of these disadvantages.

Under a remedial cleanup contract, EPA pays a contractor to conduct a fixed set of actions that both parties have agreed to at the start of the cleanup. In contrast, under an NTC cleanup contract, EPA pays a contractor for the company's time and materials, but an EPA site manager directs the contractor's actions. EPA technical and regional staff involved in NTC removals agree that time and materials contracts require almost daily on-site supervision, whereas remedial cleanup contracts do not. However, EPA site managers argue that close supervision of the contractor offers EPA greater control over the work and more flexibility to make adjustments.

Under its NTC removal authority, EPA may have more difficulty enforcing private party cleanup agreements than it would under its remedial authority. For a remedial action, EPA uses a consent decree issued by a court, whereas, for an NTC removal, it uses an administrative order issued by its regional management. EPA headquarters and regional officials involved in both processes are concerned about the potential for a private party to default on an NTC removal because an administrative order does not provide EPA with immediate penalties for enforcing a cleanup agreement. If a party does default, EPA may then have to fund the rest of the cleanup while the matter is being resolved in the courts. Private parties have told us, however, that even with the consent decree for remedial agreements, a default will also likely have to be resolved in the courts.

Finally, NTC cleanups may shift some portion of the cleanup costs from the states to the federal government. Under CERCLA and EPA's regulations, a federally funded remedial action cannot proceed until the state in which the site is located agrees to pay 10 percent of the cleanup costs and to handle most of the follow-on operations and maintenance activities. Because the law generally does not require such state participation in removals, including NTC removals, the federal government may have to bear the costs of NTC removals without state support. However, some states already have voluntarily shared the cost of NTC removals and assumed the responsibility for operations and maintenance in exchange for quicker and less costly cleanups. Also, EPA removal guidance advises regions to obtain such state participation.

## NTC Removals Can Be Used to Clean Up the High-Risk Portions of Most Superfund Sites

The variety of sites, media, and actions addressed under the NTC process to date indicate a strong potential for using NTC removals to clean up portions of most Superfund sites, especially the high-risk portions. However, the remaining portions of many of these sites may still require some long-term action, such as groundwater restoration, which is more appropriately conducted under the full remedial process.

Like Superfund sites in general, NTC sites include manufacturing sites, landfills, mining sites, and chemical processing sites, among others.[1] NTC removals have been used on relatively small and large areas, some exceeding 20 acres. While these actions have primarily addressed contaminated soil and shallow sources of groundwater, they have also been used to clean up sediment, surface water, and site debris. NTC removals have employed many of the same kinds of permanent cleanup actions as have the remedial program, including extracting contaminants from soil and shallow groundwater and treating contaminants. NTC removals have also relied on engineering controls to contain contamination.

NTC removals have been performed at so many different kinds of sites that, according to several site managers, they could be used for portions of almost any Superfund site. Currently, about 1,000 NPL sites await cleanup and about another 1,400 to 2,300 sites are estimated to be contaminated enough to be listed in the future. If we assume that NTC removals could be performed at all of these sites and that cost savings could average $0.5 million per site, the federal government and private parties could save

[1]We recently testified that the NTC process has also been used successfully at the Department of Energy's large weapons production sites. See Environmental Protection: Issues Facing the Energy and Defense Environmental Management Programs (GAO/T-RCED/NSIAD-96-127).

from $1.2 to $1.7 billion over the life of the Superfund program by using NTC removals instead of remedial actions.

Site managers expected that for about one-third of the sites in the survey, no further action would be required beyond the NTC removal. The remaining sites most likely have portions that contain more complex contamination. Such sites would warrant a full remedial study and design, according to EPA cleanup managers. For example, contaminated groundwater may require decades of treatment and millions of dollars in cleanup costs. Such an investment would justify more extensive planning.

## Several Factors Constrain the Use of NTC Removals

Several factors have constrained the use of NTC removals, including the difficulty regions encounter in funding these actions and the current statutory limits on the time and costs that can be spent on NTC removals.

### Funding for NTC Removals Is Limited

According to regional cleanup managers, funding inflexibility limits the number of NTC removals they can conduct. Although spending for removals has increased gradually since 1992, it has represented only 9 to 17 percent of the total Superfund spending. Of this percentage, most must go to fund the hundreds of emergency and time-critical removals that regions conduct, leaving little for NTC removals. Although regions may have unobligated funds in their remedial budgets, EPA headquarters does not permit the regions to transfer these funds to their removal budgets. According to EPA budget officials in headquarters, the agency must allocate funds among many competing activities within the Superfund program and has an obligation to focus on the longer-term remedial program. Also, since the agency reports quarterly to the Congress on its Superfund expenditures, EPA has to account separately for its remedial and removal activities.

### Time and Cost Limits Set in Law Constrain the Use of NTC Removals

CERCLA limits the cost of removal actions financed by the trust fund to $2 million. Furthermore, the law states that a removal action cannot take more than 12 months to complete. EPA can justify a waiver of these limits if it demonstrates either that the situation is an emergency—unlikely for an NTC removal—or that the action is "consistent with the remedial action to be taken." EPA's regions have interpreted this latter requirement inconsistently. For example, according to a site manager in San Francisco, the regional counsel advised that an NTC removal be used only if a remedial cleanup plan had been signed. This region had conducted only one of the

NTC actions in EPA's survey. Also, according to the site manager in Boston, the regional counsel advised that an NTC removal be used only at an NPL site. That region had conducted five of the NTC removals.

More than half of the NTC removals in EPA's survey had exceeded either the time or the cost limits.[2] Proposed legislation to reauthorize Superfund, H.R. 2500 and S. 1285, would raise the limits on removals and relax the consistency requirements.

Mr. Chairman, this completes our prepared statement. We would be pleased to respond to any questions you or other Members of the Subcommittee may have.

[2]While the law applies these limits only to NTC removals financed by Superfund, EPA officials have told us that they also consider these limits when approving privately funded cleanups, in case the private party defaults and EPA assumes the cleanup costs.

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