
Superfund at 25: What Remains to Be Done

By Katherine N. Probst

Superfund turns 25 this year, but the program is in the press much less frequently than it was in its early years, or even in the 1990s. Now if there is a newspaper story, it is almost certainly about a specific contaminated site or about funding shortfalls in the cleanup program. Even though the Superfund landscape is relatively quiet, many important questions have yet to be answered about the program and what it has accomplished. Hundreds of sites across the country have been remediated, but there's not enough money to finish work on the sites already designated, never mind the new ones that are still being added. How did this come to pass? And what can be done to invigorate the Superfund program to address the challenges that remain?

Putting Superfund in Perspective

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known "Superfund," was signed into law by President Jimmy Carter on December 11, 1980. It signaled a major change in the federal government's approach to addressing sites contaminated with hazardous substances.

CERCLA put in place a two-pronged approach to assure that sites would be cleaned up. First, it created a powerful liability system to get former and current owners and operators of contaminated sites (the "responsible parties") to pay for and clean up sites themselves. Second, it created a designated trust fund to pay for site studies and cleanups where responsible parties could not, or would not, foot the bill. The original law authorized the program for five years at \$1.6 billion, with an annual budget of \$320 million. It also created a new set of excise taxes on petroleum and on chemical feed-

stocks that generated the majority of the program's funds. The logic was to raise the bulk of the funds for the new program from the set of companies most likely to have generated the hazardous chemicals creating the risks to human health and the environment in the first place.

Perhaps the most important decision EPA made in the early years was identifying those sites where trust fund monies could be used to pay for long-term cleanups. While Superfund's liability provisions can, in fact, apply to any contaminated site in the country, to be eligible for federal funds for cleanup, a site must be designated a "national priority." To make sure that the program had the necessary momentum, Congress required that EPA identify at least 400 sites for inclusion on the National Priorities List (NPL) at the start of the program. In September 1983, 406 sites were declared "final" NPL sites and eligible for federally funded cleanups, including many of the most notorious sites in the country—Love Canal, Times Beach, and Tar Creek among them.

When the Superfund program first began, most thought there were a limited number of contaminated sites across the country and that the \$1.6 billion trust fund would be adequate to do the job. Little did we know that by 1990, EPA would have listed more than 1,200 NPL sites and that some of these sites would cost hundreds of millions of dollars to clean up and decades to address. In retrospect, EPA was unprepared to deal with the huge number of sites listed in the early years of the program, and many of these sites stagnated, leading to increasing frustration on the part of those living near them. Some of the cleanups at these sites are still not completed today.

The figure on page 21 shows the number of sites listed on the NPL since the inception of the program. Almost 80 percent of all sites were added to the NPL in the first 10 years, between 1980 and 1990. In the 15 years since then, EPA listed

an average of 22 sites a year. Since the first round of sites was listed in 1983, 1,547 sites have been added to the NPL. Federal facilities—sites owned and operated by federal agencies, such as the Departments of Energy, Defense, and Interior—account for 172 of these, or just over 10 percent. Funds for cleanup of federal facility sites come from the individual agencies, not out of Superfund monies. Today, there are 1,239 sites on the NPL, as 308 sites have been deleted because EPA has determined that no further response is required to protect human health and the environment.

When Congress reauthorized the law in 1986, it quintupled the program’s appropriations to \$1.6 billion annually, and added a second tax—the corporate environmental tax—to raise increased revenues. For the past 25 years, more than \$28 billion has been appropriated to EPA to pay for the day-to-day operations of the program as well as the government-financed portion of site studies and cleanups. Authorization for both taxes expired at the end of 1995. For the last two years, 100 percent of Superfund appropriations have come from general revenue because the trust fund is empty.

For most of the program’s recent history, EPA has paid for approximately 30 percent of site cleanups, and responsible parties have paid for the remaining 70 percent of cleanup actions. However, no one actually knows the total amount of money paid to clean up NPL sites, because responsible parties, which pay for the lion’s share of these efforts, do not publicly disclose their costs. This is huge and important gap

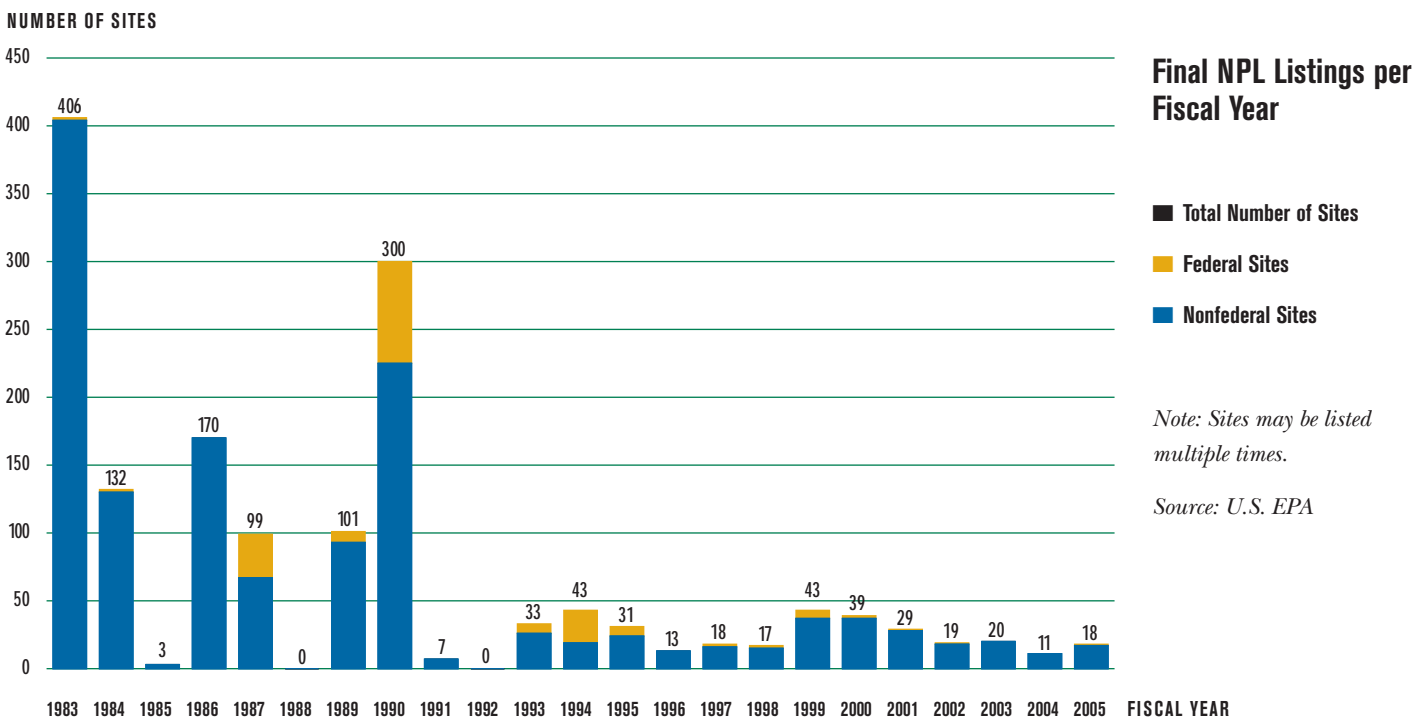
in any attempt to tote up the costs of the Superfund program.

Since 1987, Superfund’s annual appropriations have fluctuated from a low of \$1.1 billion to a high of \$1.6 billion, as shown in the figure on page 22. In recent years, EPA Superfund appropriations have been relatively constant at just under \$1.3 billion a year, at least in what are referred to as “nominal dollars.” In constant 1987 dollars, however, the Superfund’s program spending power has decreased substantially since 1987, as also shown in the figure on page 22. The program’s FY 2005 appropriations of \$1.2 billion are the equivalent of \$820 million in constant 1987 dollars—a 40 percent decrease in purchasing power when compared with actual FY 1987 appropriations of \$1.4 billion.

For the past several years, it has been clearly documented that the Superfund program has a funding shortfall, and EPA has had to delay cleanup actions that are ready to go as a result. In fact, in the past two years, the administration has asked for an additional \$150 million targeted specifically for cleanup actions at NPL sites, which is likely the minimum shortfall, not the maximum.

Listing Sites, More Art than Science

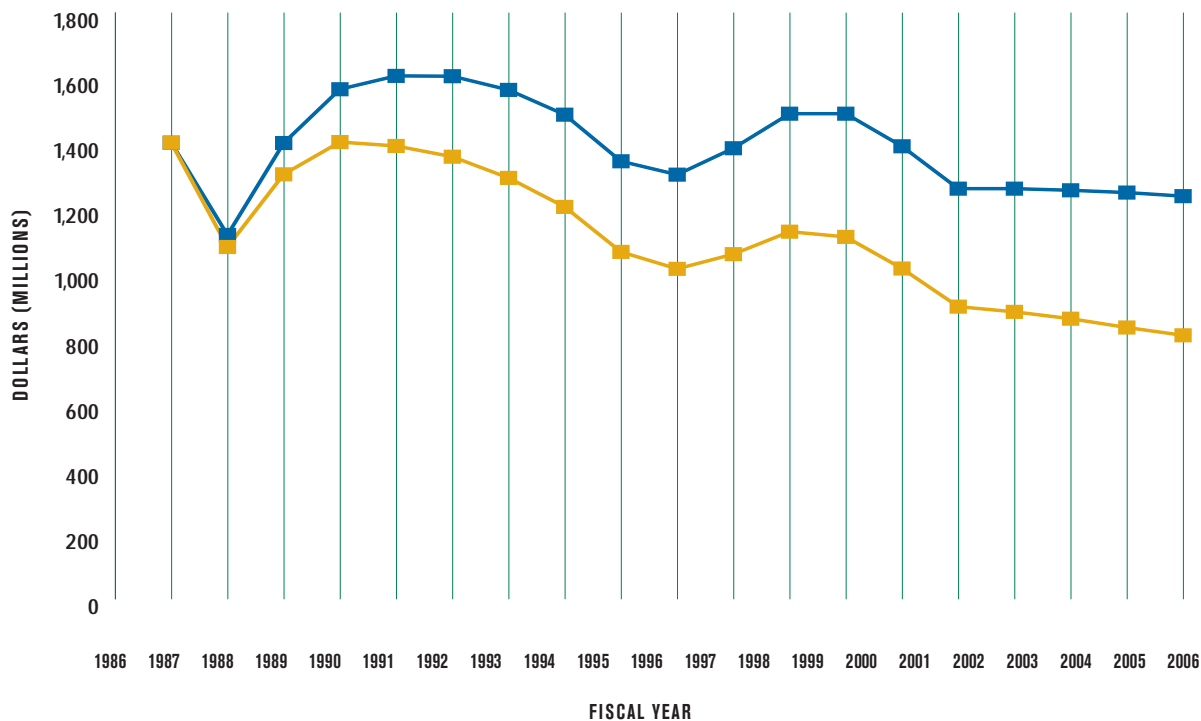
To some, the fact that Superfund is short of money and EPA continues to list sites is an unwelcome surprise. After 25 years, the logic goes, we should be finishing up the sites already on the NPL, and fewer sites should be coming down



Superfund Appropriations

■ Nominal Dollars
■ Constant 1987 Dollars

Source: U.S. EPA



the pike. This sounds good in theory, but, as in many things, the truth is more complicated.

Of the 1,239 sites currently on the NPL, there are approximately 280 where cleanup activities are not completed. In addition, for many of those 960+ sites where the engineering components of the remedy are fully implemented, it will be years before cleanup standards are met. The question of why so many sites are not yet “done” is one that has plagued the program for years. Multiple explanations certainly exist: at some sites, funding shortfalls have delayed cleanups; at other sites, the remedy that was originally selected needed to be revised; and at still other sites, responsible parties are moving more slowly than anticipated. And, of course, at some of the largest and most complex sites, it may just take literally decades to complete the task at hand. That is cold comfort indeed to those living and working near these sites who were promised cleanup years ago.

The process of listing sites on the NPL is more an art than a science. While there is guidance in the law, whether to list a site on the NPL is at EPA’s discretion. It is a tough balancing act to make sure that sites needing federal funds or federal enforcement muscle are listed, while ensuring that there are, in fact, adequate resources to respond. EPA found in the early years of the program that listing hundreds of sites on the NPL and then not acting on them because the

lack of staff and funding undermined the credibility of the program.

Superfund’s liability provisions, as well as the regulations governing the management and disposal of hazardous waste under the Resource, Conservation, and Recovery Act, have almost certainly led to better management of hazardous substances, thereby decreasing the creation of new NPL sites. Still, plenty of “old” contaminated sites exist that need federal attention. The seven sites added to the NPL in September 2005 fall in both the “old” and “new” categories, including a former hard rock mine in Colorado dating back to 1874, a contaminated groundwater plume in Georgia where contamination was first detected in 1996, and a North Carolina electroplating and metal finishing facility that began operating in 1974.

Coming Clean about What Lies Ahead

What should we look for as we think about the next 25 years of Superfund?

The most important element for the future is more transparency in the program. How can this be accomplished?

First, EPA should come clean about the likely pace of cleanup and funding shortfalls. We should not have to rely on reports from the EPA Office of the Inspector General or

the U.S. Government Accountability Office to obtain information on which cleanups are on hold due to lack of funds and how much additional funding is needed. This information should come directly from EPA and it should be credible. EPA should ask for the funds it needs to implement cleanups and, if there is a shortfall, EPA should be clear about the implications.

EPA should continue to improve the information it provides about contamination, and health and environmental concerns at individual sites. There has been some improvement in recent years—but not enough. A critical component of assuring future protection is making sure that governments, private businesses, and private citizens know about any and all restrictions on the use of land, water, and groundwater that are needed to ensure protection.

In this era of ever-scarcer federal dollars, the Superfund program also must take a hard look at its own budget, identify areas that are not very productive, and reprogram funds wherever possible to activities that are directly related to cleanup. This does not mean cutting the enforcement program, but it does mean examining the myriad initiatives that have sprouted over the years to assess which ones are truly worthwhile. These include everything from efforts to focus on redevelopment of Superfund sites to efforts to stimulate new technologies for cleanup. While almost all the initiatives sound good, it is critical that their benefits and costs be evaluated to make sure that the best use is being made of scarce Superfund dollars.

Finally, the Superfund program—like many federal programs—needs to do a better job of self-evaluation. The goal of program evaluation should be to improve implementation in the future and to assure that funds are being spent in the most efficient and cost-effective fashion. With Superfund, everyone has an anecdote about what works, what doesn't, and what the benefits and costs are. All of these elements need to be part of a broader, credible assessment of the program's accomplishments—not simply as a "communications" initiative.

We ought to know, for example, why some sites are taking so long to clean up, and why this is just as true at sites where responsible parties have the lead as at EPA-funded sites. We ought to know what it will cost to finish cleanup at all the current sites on the NPL. We ought to know whether human exposure is under control at 100 percent of NPL sites, not at 88 percent. And we ought to know—and be willing to tell people—which sites are taking longer to address and why. This does not seem too much to ask of a program begun a quarter of a century ago to address the nation's worst sites contaminated with hazardous substances. ■

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