



The New Superfund

What It Is, How It Works



The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted in 1980. This law provided broad federal authority and resources to respond directly to releases (or threatened releases) of hazardous substances that could endanger human health or the environment. Costs for the first five years of the Superfund program were covered by a \$1.6 billion Hazardous Substance Response Trust Fund established to pay for cleanup of abandoned or uncontrolled hazardous waste sites. The law also authorized enforcement action and cost recovery from those responsible for a release.

The hazardous waste problem, brought to public attention in the late 1970s by Love Canal in Niagara Falls, New York, is now recognized as larger and more complex than originally expected — generating a need for new and stronger legislation.

On October 17, 1986, the Superfund Amendments and Reauthorization Act of 1986 (SARA) was enacted. The new Superfund:

- reauthorizes the program for five years;
- increases the size of the Fund to \$8.5 billion;
- strengthens and expands the cleanup program;
- focuses on the need for emergency preparedness and community right-to-know;
- and
- changes the tax structure for financing the Fund.

How Superfund Works

The U.S. Environmental Protection Agency (EPA) has the primary responsibility for managing the cleanup and enforcement activities under Superfund. A comprehensive regulation known as the National Contingency Plan (NCP) describes the guidelines and procedures for implementing this law.

Every Superfund site is unique, and cleanups must be tailored to the specific needs of each site or release of hazardous substances. From the beginning of the process, EPA makes a concerted effort to encourage those responsible to pay for cleanup. However, if an immediate problem threatens human health, welfare,

or the environment, EPA will take action.

If efforts to ensure responsible party response do not lead to prompt action and EPA determines that action is necessary, EPA can initiate:

- *removal actions* — short-term actions which stabilize or clean up a hazardous site that poses a threat to human health or the environment. Typical removal actions include removing tanks or drums of hazardous substances on the surface, installing fencing or other security measures, and providing a temporary alternate source of drinking water to local residents.

or

- *remedial actions* — the study, design, and construction of longer-term and usually more expensive actions aimed at permanent remedy. EPA can respond in this way only at sites on the National Priorities List (NPL) — the list of the nation's most serious hazardous waste sites. Typical remedial responses include removing buried wastes from the site; installing a clay "cap" over the site; constructing underground walls to control movement of ground water; on-site incineration or solidification of wastes; or providing a permanent alternate source of drinking water.

Removal Actions

Removals can take place at any site, including those on the NPL. Removals may be ordered, for example, to clean up spills of hazardous materials when a truck or train overturns, to keep the public from being exposed to hazardous substances, or to protect a drinking water supply from contamination.

Under the 1980 law, each removal was limited to six months and a total cost of \$1 million. EPA could grant an exemption to these limits if:

- continued federal response was needed to prevent, limit, or control an emergency;
- there was an immediate risk to human health or welfare or the environment; and
- such assistance was not otherwise available on a timely basis.

The new Superfund raises the limits on removal actions to 12 months and \$2 million and provides an additional exemption. The removal can continue if it is consistent with long-term action to be taken at the site.

Remedial Actions

Remedial response is a long and complicated process. After learning of a site, EPA's first step is to review all available information about the site. If this preliminary assessment indicates that there may be a hazardous waste problem that poses risks to human health or the environment, EPA orders a site inspection. These inspections include visiting the site, sampling drums, soil, surface water, and ground water, where necessary, and documenting the site layout and terrain. By using a system designed to rank the hazards associated with a site, sites to be proposed for the NPL are identified. After a public comment period, sites that meet established criteria will be placed on the final NPL.

The New Superfund at a Glance

The new Superfund reflects EPA's experience in administering this complex cleanup program since 1980. The new program builds on the existing program by:

- increasing the size of the Fund;
- stressing permanent remedies and treatment or recycling technologies in cleaning up hazardous waste sites;
- setting specific cleanup goals and standards;
- providing new enforcement authorities and responsibilities;
- increasing state involvement in every phase of the Superfund program;
- increasing attention to community and state emergency preparedness activities;
- increasing the focus on human health problems posed by hazardous waste sites;
- encouraging greater citizen participation in making decisions on how sites should be cleaned up;
- expanding research and training activities to promote the development of alternative and innovative treatment technologies;
- requiring cleanup of federal facilities to meet Superfund requirements;
- and
- expanding the statutory cost and duration limits on removal actions.

The new Superfund also sets the following goals:

- By January of 1988, EPA should complete preliminary assessments for all facilities that were listed in the inventory of potentially hazardous waste sites (CERCLIS) as of October 17, 1986.
- EPA should complete site inspections at all facilities in the inventory, where necessary, by January 1989.

Since each NPL site presents a unique set of challenges, there is no single, all-purpose solution. A workable and permanent solution is developed through a four-stage process.

- The *Remedial Investigation/Feasibility Study (RI/FS)* examines the type and extent of contamination and identifies possible remedies. The new Superfund sets several requirements for this phase of remedial response:

- Remedies must protect human health and the environment, be cost-effective, and emphasize use of permanent solutions that encourage treatment or recycling rather than land disposal.

- Remedies must meet all applicable and relevant federal and state standards for protecting human health and the environment.

- By December 1988, health assessments must be completed at all sites proposed for the NPL as of October 17, 1986 and at all newly-proposed NPL sites within one year of proposal.

- A *Record of Decision (ROD)* documents the action plan for the remedy chosen for a site and provides background on the decision. The ROD also provides the basis for future EPA efforts to recover Fund monies spent on cleanup from responsible parties.

- The *Remedial Design (RD)* details design plans and specifications for conducting the cleanup.

- *Remedial Action (RA)*, also known as the construction or implementation phase, follows the completion and approval of the remedial design and includes actual site cleanup measures. The new Superfund requires EPA to begin 175 new remedial actions by October 1989 and another 200 by October 1991.

**State
Involvement**

States have always been encouraged to participate in the Superfund process. (Under the new Superfund, Indian Tribes are generally treated as states.) Now, states are more formally involved in the selection, initiation, and development of remedial responses. EPA must develop state participation regulations that will provide for a number of opportunities to participate, including review and comment on planning documents, involvement in long-term planning activities, and participation in negotiations.

Either EPA or the state may take the lead role in managing cleanup activities. When EPA takes the lead, the U.S. Army Corps of Engineers manages the remedial design and remedial action phases for EPA. Private contractors actually complete the work at a site under federal or state government supervision.

**Research,
Development,
and Training**

The 1980 Superfund law had no specific provisions for research, development, and training. The new Superfund establishes a research and development program, including demonstration programs for technologies that offer alternatives to conventional methods of handling site cleanups, and favoring methods that lead to the destruction or recycling of wastes rather than land disposal.

It also calls for the establishment of training programs for hazardous substance response and research.

**Enforcement
Authorities**

Based on the principle that "the polluter should pay," Superfund contains authorities which allow EPA to ensure that those responsible for hazardous waste problems pay for their cleanup. Superfund enforcement authorities enable EPA to encourage responsible parties to undertake cleanup activities and recover Fund monies spent for cleanup from those responsible parties.

● **Cleanup Action** — In cases of imminent hazard to human health or the environment, Superfund authorizes EPA to order the responsible party to undertake necessary actions to control the threat. To accomplish this, the Agency can either issue an administrative order or bring a civil action against the responsible party. The new Superfund provides specific procedures for negotiating settlements with

responsible parties to conduct response actions. These are designed to encourage voluntary cleanup.

- *Criminal Authorities* — Criminal penalties for failure to notify proper authorities of a release have been increased and submitting false information is now a criminal offense.

- *Citizen Suits* — Superfund authorizes a citizen to sue any person, the United States, or an individual state for any violation of standards and requirements of the law.

- *Access to Sites* — Superfund strengthens EPA's ability to obtain access to sites in order to investigate and clean up.

- *Cost Recovery* — EPA can recover cleanup costs for Fund-financed responses from the responsible parties. Past and present facility owners and operators, as well as those who produce or transport hazardous substances can all be liable under Superfund for response costs and for damage to natural resources. EPA may recover federal response costs from any or all of the responsible parties involved in a cleanup action. The dollars recovered go back into the Fund for use in future response actions.

Community Involvement

Because the people in a community with a Superfund site personally face the hazardous waste problems associated with that site, EPA encourages community residents to participate in the process of determining the best way to clean it up. To ensure effective and substantive two-way communications from the outset at each remedial response site, a community relations program is tailored to local circumstances. Often, EPA or state staff will interview residents, local officials, and civic leaders to learn all they can about the site and about the community's concerns.

These interviews are conducted before and during field work on the Remedial Investigation. The new Superfund formalizes existing EPA community relations policy and public participation requirements outlined in the National Contingency Plan. It also requires EPA to:

- publish a notice and brief analysis of the proposed remedial action plan;
- provide an opportunity for the public to comment on that plan;

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- provide an opportunity for a public meeting to allow for two-way communication on the remedial action plan;
 - make a copy of the transcript of the public meeting available to the public; and
 - prepare a response to each significant comment made on the proposed remedial action plan.

Community relations activities are somewhat different during a removal action, where human health and the environment must be protected from an immediate threat. During the initial phase of these response actions, the Agency's primary responsibility is to inform the community about actions being taken and the possible effect on the community.

The new Superfund also requires EPA to develop a grant program to make funding for technical assistance available to those who may be affected by a release. The purpose of these grants is to help concerned citizens understand and interpret technical information on the nature of the hazard and recommended alternatives for cleanup. Grants are limited by law to one grant of no more than \$50,000 per NPL site. In addition, the grant recipient must contribute at least 20 percent of the total cost of the grant.

Federal Facilities

The new Superfund confirms that Superfund applies to federal agencies and states that they must comply with its requirements. It also defines the process federal agencies must follow in undertaking remedial responses. If the federal agency and EPA disagree, EPA is responsible for selecting the remedy. State and local officials must be given the opportunity to participate in the planning and selection of any remedy at a federal facility, including reviewing all data. States are given a formal opportunity to review remedies to ensure that they incorporate state standards. The new Superfund also provides a schedule for response actions at federal facilities, including a schedule for preliminary assessments, listing on the National Priorities List, remedial investigations/feasibility studies, and remedial actions.

New Authorities

In passing the new Superfund, Congress gave EPA a number of significant new authorities. These authorities formalize federal, state, and local cooperation in emergency preparedness and expand EPA's authorities to include identifying and cleaning up leaking underground petroleum storage tanks through state cooperative agreements.

Emergency Preparedness and Community Right-to-Know

In response to the tragic toxic chemical release in Bhopal, India, and a subsequent serious incident in Institute, West Virginia, Congress established new reporting requirements for facilities that handle hazardous chemicals. It also authorized new measures to increase the nation's focus on emergency preparedness. Provisions in Title III of the Superfund Amendments and Reauthorization Act establish a *Preparedness and Community Right-to-Know* program.

There are four major elements of this program:

- *Emergency Planning* requires the designation of state emergency response commissions and local emergency planning committees that are responsible for developing local contingency plans. This planning is done in cooperation with local hazardous chemical handlers.
- *Emergency Notification* requires hazardous chemical handlers to notify the local emergency planning committee and state emergency response commission immediately when there has been a release of a hazardous chemical.
- *Right-to-Know* requires handlers to provide information on the chemicals they produce, use, or store to the local planning committee and the public.
- *Emissions Inventory* requires chemical handlers to report any emissions of hazardous chemicals to EPA annually. EPA will maintain this information in a public inventory.

Leaking Underground Storage Tank (LUST) Trust Fund

Based on increasing evidence of ground water contamination from leaks in underground petroleum storage tanks,

Congress added new response authorities to the Resource Conservation and Recovery Act (RCRA) to regulate underground storage tanks and respond to leaks that seriously threaten the nation's ground water. Under these authorities, EPA is issuing regulations for underground storage tanks. EPA (and states that have entered into cooperative agreements with EPA) have also been given the authority to take corrective action or order a tank owner or operator to take corrective action to protect human health and the environment.

To finance the corrective actions and enforcement measures taken, Congress established a \$500 million LUST Trust Fund, supported by a tax on gasoline. States can receive Trust Fund money after they enter into cooperative agreements with EPA. In addition to cleaning up leaks from underground petroleum storage tanks, states can use Trust Fund money to assess exposure, temporarily or permanently relocate residents, and provide alternate household water supplies. Priority for Trust Fund cleanups is given to releases posing the greatest threat to human health and the environment and to sites where there is no solvent owner or operator of the tank who will take proper action. In cases where a responsible party is identified, EPA or states may recover money spent out of the LUST Trust Fund from the tank owner or operator.

Conclusion The Superfund program is a coordinated effort of federal, state, and local governments, private industry, and citizens. The problems are widespread and will take time to solve. But the Superfund program is a significant part of our national response to one of the major environmental challenges of the decade.

For further information about Superfund, please contact EPA Headquarters or a Regional Office or call the national information number listed on the back page of this leaflet. The toll-free number of the National Response Center is also provided for citizens to report releases of oil and hazardous substances.

Superfund In Perspective

Superfund is the newest in a number of federal pollution control laws, including the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, the Safe Drinking Water Act, and the Federal Insecticide, Fungicide, and Rodenticide Act. Together, these interrelated laws provide EPA with the authorities needed to protect our environment.

Superfund is a significant addition to the pollution control effort because it is fundamentally action-oriented. Before Superfund, the federal government lacked the authority and resources to respond to releases of hazardous substances or to clean up hazardous waste sites. The earlier federal authorities are primarily regulatory:

- The Resource Conservation and Recovery Act (RCRA) establishes a regulatory system to track hazardous wastes from the time they are generated to their final disposal. RCRA also requires safe hazardous waste management and imposes standards for transporting, treating, storing, and disposing of hazardous wastes. It is designed to prevent the creation of new hazardous waste sites. RCRA provides administrative, civil, and criminal enforcement authorities for EPA to take action against facility owners and operators who do not comply with RCRA requirements. Some RCRA enforcement provisions apply to hazardous substance cleanup.

- The Clean Water Act (CWA) provides limited response authority, enabling the federal government to take action when oil or certain hazardous substances are released into navigable waterways. CWA does not authorize the government to act when hazardous substances are released elsewhere in the environment.

Even before enactment of the new Superfund, some states had established programs for responding to spills or cleaning up uncontrolled waste disposal sites. Like the federal government, however, state governments often lacked the funds and legal authority needed to deal fully with the problem. Superfund established a program to spearhead both federal and state efforts to respond to releases of hazardous substances into the environment.

EPA Superfund Offices

EPA Headquarters

Office of Emergency & Remedial Response
401 M Street, SW
Washington, DC 20460
(202) 382-2180

EPA Region 1

Emergency and Remedial Response Division
John F. Kennedy Building
Boston, MA 02203
(617) 565-3626
Connecticut, Maine,
Massachusetts, New Hampshire,
Rhode Island, Vermont

EPA Region 2

Superfund Branch
26 Federal Plaza
New York, NY 10278
(212) 264-8672
New Jersey, New York, Puerto Rico,
Virgin Islands

EPA Region 3

Superfund Branch
841 Chestnut Building
Philadelphia, PA 19106
(215) 597-8132
Delaware, District of Columbia,
Maryland, Pennsylvania, Virginia,
West Virginia

EPA Region 4

Emergency and Remedial Response Branch
345 Courtland Street, NE
Atlanta, GA 30365
(404) 257-4097
Alabama, Florida, Georgia,
Kentucky, Mississippi, North Carolina,
South Carolina,
Tennessee

EPA Region 5

Emergency and Remedial Response Branch
230 S. Dearborn Street
Chicago, IL 60604
(312) 353-9773
Illinois, Indiana, Michigan,
Minnesota, Ohio, Wisconsin

EPA Region 6

Superfund Program Branch
Allied Bank Tower
1445 Ross Avenue
Dallas, TX 75202-2733
(214) 255-6745
Arkansas, Louisiana, New Mexico,
Oklahoma, Texas

EPA Region 7

Superfund Branch
726 Minnesota Avenue
Kansas City, KS 66101
(913) 757-2855
Iowa, Kansas, Missouri, Nebraska

EPA Region 8

Waste Management Division
1 Denver Place
999 18th Street
Denver, CO 80202-2413
(303) 564-1720
Colorado, Montana, North Dakota,
South Dakota, Utah, Wyoming

EPA Region 9

Superfund Programs Branch
215 Fremont Street
San Francisco, CA 94105
(415) 454-8910
Arizona, California, Guam,
Hawaii, Nevada, American Samoa

EPA Region 10

Superfund Branch
1200 6th Avenue
Seattle, WA 98101
(206) 399-1987
Idaho, Oregon, Washington,
Alaska

Superfund/RCRA Hotline

(800) 424-9346 or 382-3000

in the Washington, DC, metropolitan area (for information on programs)

National Response Center (800) 424-8802

(to report releases of oil and hazardous substances)