



The Superfund Cleanup Program

Years ago, before there were laws to control how hazardous chemicals were handled, many people disposed of hazardous waste by dumping it on the ground and in rivers or lakes, or burying it in the ground. The result? Eventually, thousands of hazardous waste sites were created at warehouses, harbors, manufacturing facilities, landfills, and many other kinds of places. In 1980 we began to get a handle on the problem, with the creation of the U.S. Environmental Protection Agency's (EPA) Superfund Program.



What is Superfund?

The U.S. Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in response to growing concern about health and environmental threats from hazardous waste sites. This law is commonly called Superfund. Working with states and Indian Tribal governments, Superfund requires EPA to deal with abandoned, accidentally spilled, or illegally dumped hazardous substances from the past, primarily from businesses and industry. Other types of pollution are handled by other environmental laws.

EPA can take three types of actions (known as **response actions**) to deal with abandoned hazardous waste sites: emergency responses, early actions, and long-term actions.

- An **emergency response** is used at a site that requires immediate action to eliminate serious risks to human health and the environment (for example, cleaning up chemicals spilled from an overturned truck on the highway).
- An **early action** is used at a site posing a threat in the near future by preventing human contact with contaminants such as providing clean drinking water to a neighborhood, removing hazardous materials from the site, or preventing contaminants from spreading. Early actions may last a few days or up to five years.
- A **long-term action** is used at a site where cleanup may take many years or decades (groundwater cleanups are frequently in this category). Often both early and long-term actions are performed at the same time. For example, leaking storage drums may be removed in an early action while contaminated soil is cleaned up under a long-term action.

How does Superfund work?

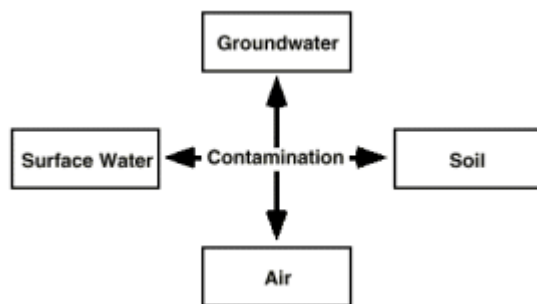


EPA and state agencies find out about sites many ways – a phone call from a citizen, a reported accident, or a planned search to discover sites. EPA first reviews a site to decide what needs to be done. EPA collects information, inspects the area, and talks to people in the community to find out how the site affects them and the environment. Some sites don't require any action; others may be cleaned up by state agencies or other programs. The remaining sites – those that meet certain requirements – call for action by the Federal government.

At sites that require Federal action, EPA conducts tests to find out what hazardous substances are present and how serious the risks may be to people and the environment. To figure out how dangerous a hazardous waste site is, EPA uses a "scorecard" called the **Hazard Ranking System (HRS)**. EPA uses the information it collected to score a site according to the risk it poses to people's health and the environment. Risk is a way of saying how likely it is that someone will be exposed to a hazardous substance, and the chance he or she will be harmed by that exposure. Environmental risk estimates how likely it is that a hazardous substance will harm the environment (water, plants, animals, air, and so forth).

To give an HRS score to a site, EPA looks at **migration pathways** – how contamination moves in the environment. EPA examines four migration pathways:

- **Groundwater** that may be used for drinking water
- **Surface water** (like rivers and lakes) used for drinking water, as well as for plant and animal habitats
- **Soil** that people may come in contact with or that can be absorbed lower in the food chain
- **Air** that carries contaminants.



Sites that get a high score on the HRS can be put on the National Priorities List (NPL). The NPL is a list of the nation's worst hazardous waste sites that qualify for extensive, long-term cleanup action under Superfund. Once a site is placed on the NPL, a more detailed study further pinpoints the cause and extent of contamination, as well as the risks posed to people and the environment nearby. This information helps identify different ways to clean up the site. EPA lists these



cleanup options in a proposed plan for long-term cleanup. The proposed plan describes different ways to clean up the site and the choice EPA prefers. The public has at least 30 days to comment on the plan.

After EPA answers the public's concerns, it publishes a Record of Decision (ROD) that describes how it will clean up the site. The cleanup method is designed to address the unique conditions at the site. The design and actual cleanup is conducted either by EPA, a state, or the people responsible for contaminating the site.

Who pays for the cleanup?

The law says EPA can make the people responsible for contamination pay for site studies and cleanup work. EPA negotiates with these **Potentially Responsible Parties (PRPs)** to reach an agreement. Sometimes EPA pays for the cleanup out of a pool of money called the Superfund and then tries to make PRPs pay back the costs. Superfund money comes mainly from taxes on chemical and petroleum industries.

Who's involved in the cleanup?

Like any team, EPA works with many other groups to clean up a Superfund site:

- **Communities** provide important information about the site and surrounding area. They ensure that citizens' concerns are addressed during the cleanup process. They also help determine what cleanup method should be used and how the site will be used in the future.
- **States** work with EPA on making cleanup decisions, pay for 10 percent of cleanup costs in their state, and make sure sites are maintained after cleanup. They may also lead the cleanup activities. In addition, states address other sites on their own.
- **PRPs** are responsible for and are encouraged to participate in all aspects of the cleanup. If PRPs refuse or are unable to pay for a cleanup, EPA may either legally require them to perform certain cleanup tasks or conduct the cleanup itself and try to make the PRPs pay EPA back.
- **Federal agencies** can be involved in site cleanup either as site owners, as PRPs, or as EPA's partners in conducting the cleanup (the Department of Justice, for example, provides legal help).
- **Contractors** can be hired by the PRP or EPA, and usually perform much of the actual cleanup work at a Superfund site.



For more information on the Superfund Cleanup Program, visit:

<http://www.epa.gov/superfund/students/index.htm>

<http://www.epa.gov/superfund/index.htm>