United States Environmental Protection Agency Office of Solid Waste and Emergency Response Publication 9230.0-05FSm September1992

SEPA

Superfund Fact Sheet: The Remedial Program

Office of Emergency and Remedial Response Hazardous Site Control Division (5203G)

Quick Reference Fact Sheet

Releases of hazardous substances often spread contaminants from a site into drinking water, soils, and air. Such releases can occur as spills, accidents, or willful dumping and may occur anywhere over any length of time. Under the Superfund Remedial Program, the U.S. Environmental Protection Agency (EPA) takes long-term cleanup actions to stop or substantially reduce actual or potential releases of hazardous substances that are serious but not immediately life-threatening.

How does EPA learn about potential remedial sites?

EPA learns about sites that may require remedial action through a variety of sources, including reports of waste generators and haulers, visible evidence, citizen reports, and routine inspections of facilities that treat, store, or dispose of hazardous wastes. Citizens can notify EPA of an actual or potential release of a hazardous substance by calling the National Response Center's 24-hour hotline at 1-800-424-8802. Once a site is identified, EPA or the State reviews available documents pertaining to the site, in what is called a *preliminary assessment*, to determine if further action is needed. EPA may not require further action if it determines that a site does not threaten human health or the environment.

If a potential problem does exist, EPA or the State conducts a site inspection. Typically, the site inspection involves collecting information about the site, such as types of soils on site, streams or rivers on or near the site, the area's population, weather conditions, and who owns or operates the site. Samples of wastes, soil, well water, river water, and air are collected to determine which hazardous substances are present. Samples also are taken nearby to determine if hazardous substances have spread from the site.

Based on information collected during the site inspection, EPA uses its Hazard Ranking System (HRS) to establish a score for the site. The HRS score indicates whether hazardous substances have migrated, or may migrate, through ground water, surface water, soil or air. Sites with high enough scores are considered for EPA's National Priorities List (NPL). Sites on the NPL present the most serious problems among hazardous waste sites nationwide. Only NPL sites are eligible for long-term remedial actions through the Superfund program.

What is the State role in the remedial process?

Superfund, and the legislation behind it, ensures that States play a substantial and meaningful role in the remedial process. EPA involves the States when 1) conducting initial site evaluations, 2) studying sites to determine whether remedial action is necessary, 3) negotiating with potentially responsible parties (PRPs) who may have caused or contributed to the site contamination, and 4) adding sites to, and removing sites from, the NPL. EPA can provide money for States to take the lead role in directing removal and remedial activities through a cooperative agreement. States can also enforce any required remedial actions. Finally, States are responsible for long-term maintenance of a site once a remedial action has been completed.

What happens during a remedial response?

A remedial response has two main phases. During the first phase, the Remedial Investigation/Feasibility Study (RI/FS), conditions at the site are evaluated, any problems are defined, and alternate methods to clean up the site are compared. A typical RI/FS takes approximately 25 months to complete. Citizens are encouraged to comment on the RI/FS and the proposed cleanup plan for 30 days. If a timely request is made, the public comment period will be extended by at least 30 days.

During the second phase, the Remedial Design/Remedial Action (RD/RA), the recommended cleanup is designed and construction begins. Designing the remedy takes approximately nine months. The time required to complete the remedy varies according to the complexity of the site.

During a remedial investigation, EPA, the State, or the PRPs collect and analyze information to determine the type and extent of contamination at the site. Aerial photographs of the site and surrounding area may be taken to map the physical features of the land, including rock formations and sources of water. A variety of techniques are used to locate contaminated ground water and buried drums or tanks that might contain hazardous substances.

Samples are taken from soils, drums, lagoons, rivers, ground water, and air, for analysis by EPA-approved laboratories to determine the type and amount of hazardous substances present. EPA, the State, or the PRPs review and interpret results of the laboratory analyses.

Once the extent of contamination is known, the feasibility study can begin. During the feasibility study, EPA and the public evaluate specific alternate remedies. EPA may consider any or all of the following options:

- Destroying or treating the waste on site through incineration or other treatment technologies;
- Containing the waste on site so it safely remains there and presents no further problems; and
- Removing hazardous substances from the site to an EPA-approved, licensed hazardous waste facility for treatment, containment, or destruction.

In rare circumstances, the recommended remedy may involve relocating residents to prevent further exposure.

Design and construction activities are conducted under the supervision of EPA and the U.S. Army Corps of Engineers, or the State can manage all site activities on its own. The process of choosing a cleanup option involves balancing many site-specific factors. Remedial alternatives are evaluated using nine criteria:

- Overall protection of human health and the environment;
- · Compliance with applicable State and Federal laws;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume of the hazardous waste through treatment;
- · Short-term effectiveness;
- Ease of implementability;
- · Cost;
- · State acceptance; and
- · Community acceptance.

How is the best cleanup alternative chosen?

The process is designed to choose remedies that will protect human health and the environment, maintain protection over time, and minimize untreated waste.

Can EPA make those responsible pay?

EPA always makes a thorough effort to identify and locate those responsible for causing contamination problems at the site. Although EPA is willing to negotiate with responsible parties and encourages voluntary cleanup, it has the legal authority to force them to take specified cleanup actions. In cases where responsible parties have been identified, EPA will take legal action to make them pay the costs of cleanup actions; this allows EPA to save Superfund monies for those cases where no responsible party can be identified. All work performed by responsible parties is closely guided and supervised by EPA and must meet the same standards required for actions financed through Superfund.

How are citizens involved in Superfund clean-ups?

Before beginning a remedial response, the lead agency must prepare a Community Relations Plan (CRP), establish an *information repository*, and inform the community about the availability of Technical Assistance Grants (TAGs).

The CRP details how the lead agency will ensure that local residents are informed about any actions at the site throughout the cleanup, and how local residents can express their opinions and concerns.

The information repository contains both technical and non-technical information about a site. Usually, it is located near the site in a public building such as a school, town library, or town hall. EPA can provide Technical Assistance Grants (TAGs) of up to \$50,000 per site to groups of individuals affected by the actual or potential release of hazardous substances at an NPL site. Citizen groups can use TAGs to hire experts to interpret technical information on site hazards and on the recommended alternatives for investigation and cleanup. Citizen groups must contribute at least 20 percent of the total project costs. In-kind services, such as administrative support, may be used instead of cash to meet this requirement. Under certain circumstances, the matching requirements may be waived.

The public must have a chance to comment before any major decisions are made concerning remedial actions at a site. Citizens are encouraged to comment on the RI/FS and the proposed remediation plan during a 30-day comment period. The proposed remediation plan explains in non-technical language the preferred method of cleaning up the site and the other alternatives under consideration. EPA or the State lead agency must publish in a major local newspaper a brief analysis of the proposed plan, including when and where it can be examined. If a timely request is made, the public comment period may be extended by 30 days.

During the public comment period, EPA must provide an opportunity for a public meeting. EPA encourages and gives strong consideration to public comments on all the alternative remedial actions being considered at a given site, and on other site activities. EPA also considers each alternative's reliability, effectiveness, construction cost, and maintenance cost. After this consideration, EPA must prepare a Responsiveness Summary describing the significant public comments and responding to the issues raised. After the lead agency selects the final engineering design, it must issue a fact sheet and give a public briefing before starting the remedial action.

EPA is developing the Superfund Accelerated Cleanup Model (SACM) to make hazardous waste cleanups more timely and efficient. This will be accomplished through more focus on the front end of the process and better integration of all Superfund program components. The approach involves:

- A continuous process for assessing site-specific conditions and the need for action.
- Cross-program coordination of response planning.
- Prompt risk reduction through early action (removal or remedial).
- Appropriate cleanup of long-term environmental problems.

SACM will operate within the existing statutory and regulatory structure. As SACM develops, there may be modification of certain policies noted in this fact sheet. However, overall priorities will remain the same: deal with the worst problems first; aggressively pursue enforcement opportunities; and involve the public in every phase of the process.

Regional Superfund Community Relations Offices

Region 1

Superfund Community Relations Office of Public Affairs EPA Region 1 (RPA-74) #1 Congress Street Boston, MA 02203 (617) 565-3425

Region 2

Community Relations Branch External Programs Division EPA Region 2 (2-EPD) 26 Federal Plaza New York, NY 10278 (212) 264-7054

Region 3

Superfund Community Relations Office of External Affairs EPA Region 3 (3EA21) 841 Chestnut Street Philadelphia, PA 19107 (215) 597-9905

Region 4

Superfund Community Relation Waste Management Division EPA Region 4 345 Courtland Street, N.E. Atlanta, GA 30365 (404) 347-2643

Region 5

Superfund Community Relations
Office of Public Affairs
EPA Region 5
Metcalfe Federal Bldg.
77 West Jackson Blvd.
Chicago, IL 60604
(312) 353-2073

Region 6

Superfund Community Relations Hazardous Waste Mgmt. Division EPA Region 6 (6H-SS) 1445 Ross Avenue 12th Floor, Suite 1200 Dallas, TX 75270 (214) 655-2240

Region 7

Community Relations Office of Public Affairs EPA Region 7 726 Minnesota Avenue Kansas City, KS 66101 (913) 551-7003

Region 8

Community Relations Branch Office of External Affairs EPA Region 8 (80EA) 1 Denver Place 999 18th Street, Suite 1300 Denver, CO 80202 (303) 294-1144

Region 9

Superfund Community Relations Hazardous Waste Mgmt. Division EPA Region 9 (T-1-3) 75 Hawthome Street San Francisco, CA 94105 (415) 744-2178

Region 10

Community Relations Section Hazardous Waste Division EPA Region 10 (HW117) 1200 6th Avenue Seattle, WA 98101 (206) 553-6901

SEPA

United States Environmental Protection Agency (5203G) Washington, DC 20460

Official Business Penalty for Private Use \$300 First-Class Mail Postage and Fees Paid EPA Permit No. G-35