

7. SUPERFUND AND DEFENSE ENVIRONMENTAL RESTORATION PROGRAM

7.1 *Purpose and Scope*

Superfund Program: (www.IN.gov/idem/4152.htm) The goal of IDEM's Superfund Program is to reduce or eliminate risk to human health and the environment at hazardous substances sites. The program is currently addressing sites on the National Priorities List (NPL) and sites under alternative Superfund cleanup agreements. Sites include current and former chemical and manufacturing plants; rail yards; smelter sites; landfill and dump sites; and sediment sites. These sites are typically large and complex, requiring long-term investigations and cleanups. Many sites require ground water treatment and monitoring that may continue for 30 years or more after construction completion. Information about Indiana Superfund sites is available on the U.S. EPA Superfund website (www.epa.gov/superfund).

IDEM's Superfund Program is funded primarily through grants from the U.S. EPA, which fund 90 percent of the core (*administrative*) activities and 100 percent of the site-specific activities. At Superfund sites without responsible parties, IDEM pays for 10 percent of the cleanup actions and all of the cost to operate and maintain the remedies. IDEM also recovers its costs directly from some responsible parties.

Defense Environmental Restoration Program: (www.IN.gov/idem/4152.htm) IDEM's Defense Environmental Restoration Program (DERP) oversees and assists the Department of Defense, in cooperation with U.S. EPA, in the investigation and cleanup of active, closing or formerly used military installations at which hazardous substances and/or petroleum products were used, stored, or disposed of during past operations, such that human health and the environment are protected and economic redevelopment can occur. The sites are identified by the Department of Defense, and follow the same investigation and cleanup process as the federal Superfund Program as described in this chapter. None of these sites in Indiana are on the NPL.

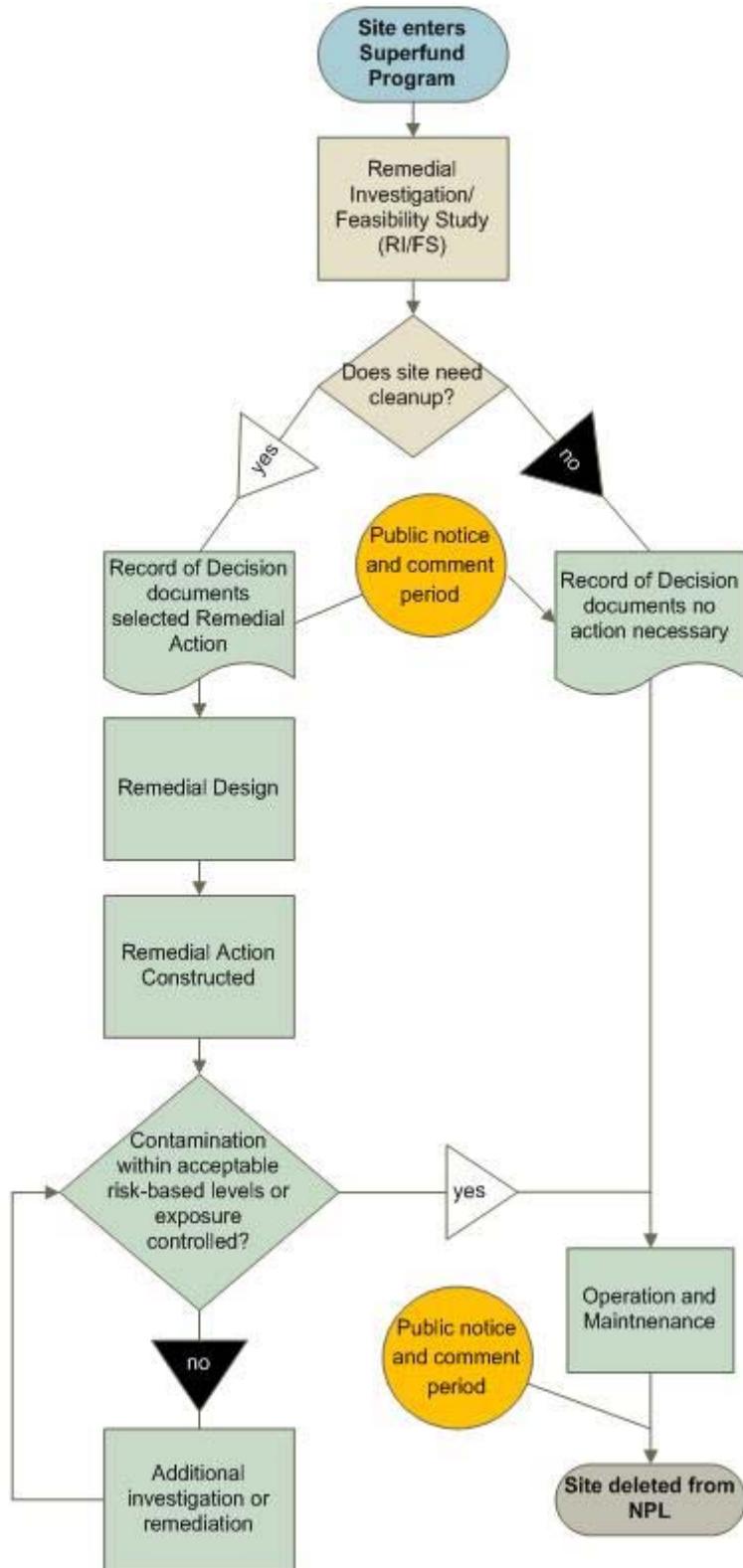
IDEM's DERP Program is funded by the Department of Defense.

7.2 *Rules and Laws*

- *The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*, 42 U.S.C. 9601 *et. seq* – CERCLA, (www.epa.gov/superfund/policy/index.htm) commonly known as the Superfund Law, was created by Congress in 1980 to clean up properties contaminated with hazardous substances. Among other things, CERCLA authorized EPA to identify parties responsible for contamination and compel cleanup or recover cleanup costs, and provided a trust fund to pay for cleanups at sites where no responsible parties could be found.
- *The National Oil and Hazardous Substances Contingency Plan (NCP)*, 40 C.F.R. Part 300 - (www.epa.gov/superfund/policy/index.htm). The NCP is the federal government's blueprint for responding to oil spills and hazardous substance releases. It identifies the Superfund process and designates roles for state and federal response. The NCP is set forth in rules.
- *Superfund Amendments and Reauthorization Act (SARA)*, P.L. 99-499, 100 STAT. 1613 *et. seq.* – (www.epa.gov/superfund/policy/index.htm). SARA amended CERCLA in 1986, and implemented key changes including requiring an increased focus on human health impact, requiring adherence to substantive requirements of other agencies rules and laws, and increased state involvement. It also expanded CERCLA and formally established the DERP Program.

7.3 Process Overview

Figure 7.1 Superfund Program Process Overview



7.4 *How Does a Site Enter the Program?*

A site becomes a Superfund site by being placed on the NPL by U.S. EPA (www.epa.gov/superfund/about.htm). A site is proposed for the NPL by being published in the Federal Register, and a public comment period takes place. After the public comment period, a site selected is again published in the Federal Register as a final NPL site. An IDEM project manager may be assigned during the Site Investigation process, (*usually conducted by IDEM staff, see Chapter Five*) once it is known that a site will be proposed for the NPL, so that the project manager can be involved as early in the process as possible. When IDEM is notified the site is has been placed on the NPL, a project manager is always assigned.

7.5 *Emergency or Immediate Actions*

Emergency Removals: (www.epa.gov/superfund/programs/er/hazsubs/timecrit.htm) U.S. EPA response teams respond to immediate or emergency threats, including chemical spills, toxic fumes, or contaminated water 24 hours a day.

Time Critical Removals: Time-critical removal actions are conducted at sites when the lead agency determines actions to protect public health must be undertaken with limited planning time. (*Usually U.S. EPA is the lead agency. In some cases IDEM may be the lead agency.*) These actions must be completed within one year, and cost less than \$2 million.

Non-time Critical Removals: Non-time-critical removal actions are conducted at Superfund sites when the lead agency determines based on the site evaluation, that a removal action is appropriate, and a planning period of at least six months is available before on-site activities must begin.

7.6 *How Is the Public Involved or Notified?*

There are multiple opportunities for the public to become involved and obtain information:

- **Community Relations Plan** – U.S. EPA will appoint a Community Involvement Coordinator (CIC) to work with the community throughout the cleanup process. A Community Relations Plan is created to outline the kind of outreach that will take place and how the community may expect to receive information.
- **Information Repository** – An information repository, usually in a library or other public location, is established in a central location in the community to store site-related information.
- **Administrative Record** – major site documents that are used to make site decisions are placed in an administrative record file. Copies are maintained with the U.S. EPA, IDEM, and at the Information Repository.
- **Public Comment Periods** – Public comment periods are required before a site is placed on the NPL list, when there is a proposed plan for a Record of Decision (ROD), and when U.S. EPA proposes to delist a site. Project managers also may hold informal meetings to update the public about site information.

When a remedy will include the use of an Environmental Restrictive Ordinance (ERO), it is important to obtain feedback from the water utility and from the local government unit that has enacted or that has proposed adoption of the ERO. Consultants are encouraged to work directly with the local government unit. Because IDEM must rely on local governments to enforce EROs, municipal involvement throughout the review process will help IDEM evaluate the effectiveness of proposed EROs. Local governments should be contacted for information including:

- Current and future local water resource planning
- Procedures for granting exceptions and variances to the ERO
- Local point of contact for ERO monitoring and compliance
- Notification provisions for EROs

IDEM will notify local government units and water utilities in writing of any formal proposal to utilize an ERO at a particular site; and will request input on the items listed above if the information has not already been provided in the work plan.

7.7 Investigation

After a site is listed on the NPL, a Remedial Investigation/Feasibility Study (RI/FS) is performed (www.epa.gov/superfund/cleanup/index.htm). The RI evaluates the nature and extent of contamination, and the FS assesses the feasibility of several cleanup alternatives. The FS considers treatability of site contamination and evaluates the potential performance and cost of the remediation alternatives. A Human Health Risk Assessment and Ecological Risk Assessment (www.epa.gov/oswer/riskassessment/risk_superfund.htm) are conducted during the RI/FS to determine the need for cleanup actions to protect human health and the environment, and if the proposed remedial actions will be protective.

7.8 Remedy Decision

A ROD documents a cleanup decision at a site (www.epa.gov/superfund/cleanup/rod.htm). A ROD summarizes:

- Site history, description, and characteristics
- Community participation
- Enforcement activities
- Past and present cleanup and investigation activities
- Contaminants and contaminated media
- Summary of site risks
- Scope and role of response action
- The remedy selected for cleanup, including remediation objectives

A remedy decision is based on nine evaluation criteria listed in the NCP (*40 CFR Part 300.430[e] [9] [iii]*):

1. Overall protection of human health and the environment
2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)
3. Long-term effectiveness and permanence
4. Reduction of Toxicity, Mobility or Volume Through Treatment
5. Short-term effectiveness
6. Implementability
7. Cost
8. State acceptance
9. Community acceptance

7.9 Remedial Action

The cleanup phase is called Remedial Design/Remedial Action (RD/RA) (www.epa.gov/superfund/cleanup/rdra.htm). The RD includes development of the engineering design and technical specifications for the construction of the remedy, which are presented in the RD Report. The RA includes development of the plans to implement the RD, and implementation. Construction projects can take from months to years to complete. Once all physical construction is finished, the site has reached Construction Completion.

7.10 Closure

When a site requires no further remedial action to protect human health and the environment, it can qualify for deletion from the NPL (www.epa.gov/superfund/programs/npl_hrs/nploff.htm).

- A Deletion Package is prepared, including the Final Close-Out Report and any other information that supports site deletion.
- U.S. EPA publishes a Notice of Intent to Delete in the Federal Register for public comment.
- After the public comment period, if the site still warrants deletion, U.S. EPA will publish a final Notice of Deletion in the Federal Register.
- If a site is deleted from the NPL with contamination left in place (*where exposure is prevented through engineering or institutional controls*), it may still require Operations and Maintenance and Five-Year Remedy Reviews.

7.11 Conditions Subsequent

Monitoring/Operations and Maintenance

Most sites require monitoring and operation and maintenance of remedy components (*such as landfill caps, slurry walls, fences, and other permanent engineered remedies*) (www.epa.gov/superfund/cleanup/post.htm). In many cases, monitoring and operations and maintenance activities continue indefinitely, as long as waste is in place at the site. U.S. EPA and the State review sites with waste left in place every five years to ensure the remedy continues to protect human health and the environment. The Five-Year Remedy Review process (www.epa.gov/superfund/cleanup/postconstruction/5yr.htm) evaluates all data collected in the previous five years about the status of the remedy, including sampling, inspections, public comments, and effectiveness of institutional controls.

7.12 *When Issues Arise*

CERCLA gives U.S. EPA the authority to negotiate agreements (*usually a Consent Decree or Administrative Order on Consent*) with responsible parties and government parties to pay for cleanups on Superfund sites. Under most circumstances, IDEM, U.S. EPA, and the responsible parties will complete work at a Superfund site under a Consent Decree that includes specific dispute resolution procedures.

Many disagreements regarding the technical aspects of a project can be resolved through discussions between the project manager and the other parties. An issue may be raised through the IDEM and/or U.S. EPA chain of command for resolution. Formal dispute resolution procedures may be necessary.

If responsible parties do not agree to perform the cleanup or refuse to perform work they previously agreed to perform under a settlement agreement, U.S. EPA may issue a Unilateral Administrative Order (UAO). If the responsible parties do not comply with the UAO, the courts may assess penalties, order treble damages, and/or issue a judicial order requiring cleanup.

7.13 *Forms and Checklists*

Sample copies of many forms, templates and checklists discussed in this *Remediation Program Guide* (RPG) may be found at the end of each Chapter of this guide. **The sample forms, templates and checklists in this guide are images only, may not be current, and cannot be completed electronically.**

Current State Forms that can be completed electronically are posted on the IDEM Forms website (www.IN.gov/idem/5157.htm) as PDF fillable forms, Microsoft Word documents or Excel documents. Links to those forms and checklists as well as links to many other documents and websites have been provided where the document is discussed in the text.

The following links and documents are good sources of information regarding the Superfund Program:

- U.S. EPA Superfund Laws, Policies and Guidance (www.epa.gov/superfund/policy/index.htm)
- EPA Superseded Remedy Guidance Documents (www.epa.gov/superfund/policy/remedy/sfremedy/supersede.htm)