EPA Superfund Program 101

Superfund 101 Agenda

- What is Superfund?
- Two Types of Superfund Program Actions
  - Removal
  - Remedial
- The Superfund Process
- Who pays?
- Community Involvement
- Additional Contact Information

What is Superfund?

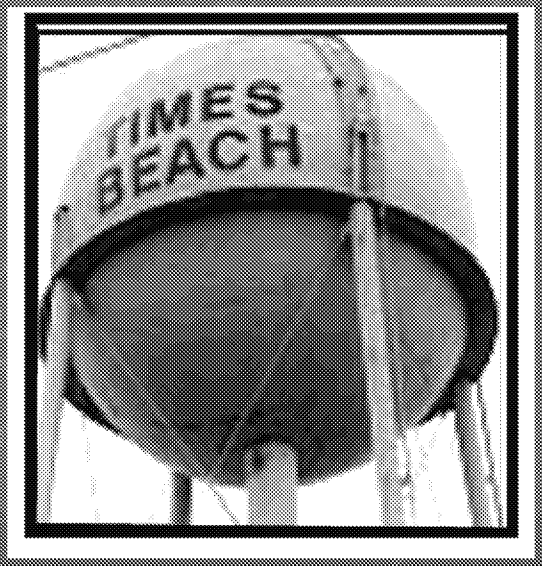
Goals of Superfund:

- Protect human health and the environment by cleaning up abandoned or uncontrolled hazardous substance sites
- Involve communities in the cleanup process
- Make responsible parties pay for the cleanups
- Return previously polluted land to productive use

Love Canal, NY (1978)

Valley of the Drums, KY (1979)

Times Beach, MO (1982)



What is Superfund?

Superfund Law:

- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980.
  - The law created a tax on chemical and petroleum industries that went into a trust fund called Superfund.
  - Established a broad Federal power to respond to releases or threatened releases of abandoned hazardous substances.
  - Provided for liability of persons responsible for releases of hazardous substances at these sites. If EPA can't identify a responsible person, or they have no financial means, the Superfund program pays for the cleanup.

What is Superfund?

Superfund Law cont'd:

- Superfund Amendments and Reauthorization Act (SARA) of 1986
  - stressed the importance of permanent remedies and use of innovative treatment technologies;
  - required Superfund actions to consider the standards and requirements found in other State and Federal environmental laws and regulations;
  - provided new enforcement authorities and settlement tools;
  - increased State involvement;

Cont'd . . .

What is Superfund?

Superfund Law cont'd:

- SARA cont'd:
  - increased the focus on human health problems;
  - encouraged greater citizen participation;
  - increased the size of the trust fund to $8.5 billion; and
  - required EPA to revise the Hazard Ranking System (HRS) to ensure that it accurately assessed the relative degree of risk to human health and the environment.

What is Superfund?

Regulations:

- 40 CFR Part 300 - National Oil and Hazardous Substances Pollution Contingency Plan otherwise referred to as the National Contingency Plan (NCP)
  - The purpose of the NCP is to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.

Two Types of Superfund Program Actions

There are two types of Superfund actions under the NCP:

- Removal Action
  - Emergency Response – requires immediate response
  - Time-Critical Removal – action within 6 months
  - Non-time Critical Removal – action after 6 months
- Remedial Action
  - National Priority List (NPL) Sites

The Superfund Process

- Begins when a site is discovered. EPA may learn about a site from other federal agencies, state, local government, tribes, or private citizens.
- EPA does a quick site assessment and determines whether the cleanup will require a short term action or long term action.

The Superfund Process

- If the site is determined to be a long term action, EPA performs a preliminary assessment and site inspection to determine if the cleanup can be done for less than $2 million and in under 5 years.
  - If yes, it becomes a non-time critical removal
  - If no, EPA proceeds with evaluating whether it meets the NPL listing criteria.

Cont'd . . .

The Superfund Process

3 ways for how a site becomes listed on the NPL:

1. The first mechanism is EPA's Hazard Ranking System (HRS).
   - The HRS uses a structured analysis approach to scoring sites. This approach assigns numerical values to factors that relate to risk based on conditions at the site.

Cont'd . . .

The Superfund Process

3 ways cont'd:

- The HRS factors are grouped into three categories:
  - likelihood that a site has released or has the potential to release hazardous substances into the environment;
  - characteristics of the waste (e.g. toxicity and waste quantity); and
  - people or sensitive environments (targets) affected by the release.

Cont'd . . .

The Superfund Process

- The four pathways can be scored under the HRS:
  - ground water migration (drinking water);
  - surface water migration (drinking water, human food chain, sensitive environments);
  - soil exposure (resident population, nearby population, sensitive environments); and
  - air migration (population, sensitive environments).

Note: EPA is considering revising the HRS to include indoor air.

Cont'd . . .

The Superfund Process

- If HRS score is over 28.5, EPA may propose the site for listing on the NPL.

2. The second mechanism for placing sites on the NPL allows States or Territories to designate one top-priority site regardless of score. This is often referred to as the "Silver Bullet".

Cont'd . . .

The Superfund Process

3. The third mechanism allows listing a site if it meets all three of these requirements:
   - the Agency for Toxic Substances and Disease Registry (ATSDR) has issued a health advisory that recommends removing people from the site;
   - EPA determines the site poses a significant threat to public health; and
   - EPA anticipates it will be more cost-effective to use its remedial authority (available only at NPL sites) than to use its emergency removal authority.

The Superfund Process

Public Input for Listing

- Listing a site involves federal rulemaking with a 30 day public comment period
- Public meeting
- Governor's support

The Superfund Process

Remedial Investigation (RI)

- Once a site becomes listed, a RI is done to characterize the nature and extent of contamination and source(s).
  - Nature and Extent involves:
    - Baseline Risk Assessment
    - Field Sampling and Analysis

The Superfund Process

Feasibility Study (FS)

- Based on information found in the RI, an FS is done which identifies and evaluates options for reducing site risks. Essentially how to break the exposure pathway. The options identified are then evaluated against 9 criteria.

The Superfund Process

9 criteria EPA considers when evaluating each option:

- Threshhold
  - Protection of health and sensitive environments
  - Compliance with applicable state & federal regulations
- Balancing
  - Long-term protectiveness
  - Short-term protectiveness
  - Implementability
  - Reduction of toxicity, mobility, volume through treatment
  - Cost effectiveness
- Modifying
  - State acceptance
  - Community acceptance

The Superfund Process

Public Involvement During RI/FS

- Community Interviews
- Community Involvement Plan (CIP)
- Form a Community Advisory Group (CAG)
- Apply for a grant or request assistance through an EPA contract:
  - Technical Assistance Grant (TAG)
  - Technical Assistance Service for Communities (TASC)
- Other examples

The Superfund Process

- EPA then publishes a Proposed Plan (PP), identifying the alternatives and what the agencies preferred alternative for reducing site risks. EPA takes comments on the Proposed Plan.
- Following the PP, EPA evaluates any comments received and issues a Record of Decision (ROD) identifying the clean up approach the agency plans to implement.

The Superfund Process

- Remedial Design (RD) - the phase in Superfund site cleanup where the technical specifications for cleanup remedies and technologies are designed. Future reuse of the site is also considered at this point.
- Remedial Action (RA) - follows the remedial design phase and involves the actual construction or implementation phase of Superfund site cleanup.

The Superfund Process

Public Involvement During RD/RA

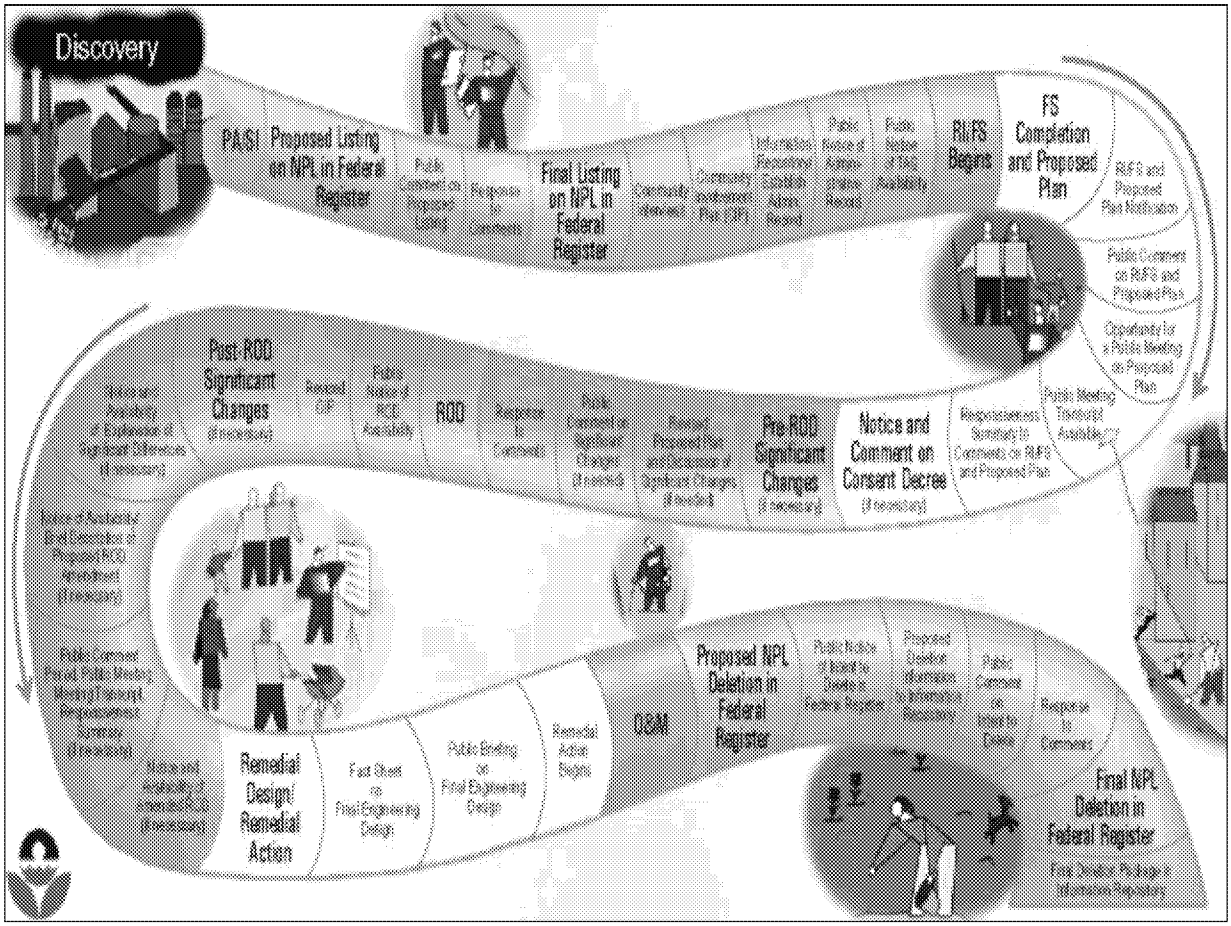
- Learn about the final design for the cleanup by attending public events or reading the information EPA distributes.
- Work through your CAG, TAG recipient, or TASC provider to stay informed about the progress of the cleanup.
- Attend periodic public events about progress at the site. If you can't attend, visit the Information Repository and read site information.
- Contact the CIC with questions or comments.
- Visit the site to observe cleanup activities.

The Superfund Process

- Construction Completion - When all elements of remedy are constructed and in operation.
- Operations & Maintenance (O&M) - if waste is left in place, the State becomes responsible for O&M of implemented remedial actions for the expected life of such actions.

The Superfund Process

- When appropriate, the state must assure that any institutional controls implemented as part of the remedial action at a site are in place, reliable, and will remain in place after the initiation of O&M.
- 5 Year Review - if waste is left in place
- Deletion - a federal rule making.


Discovery
PA/SI
Proposed Listing on NPL in Federal Register
Final Listing on NPL in Federal Register
RI/FS Begins
FS Completion and Proposed Plan
Post ROD Significant Changes
ROD
Pre-ROD Significant Changes
Notice and Comment on Consent Decree
Remedial Design/ Remedial Action
Fact Sheet on Final Engineering Design
Public Briefing on Final Engineering Design
Remedial Action Begins
O&M
Proposed NPL Deletion in Federal Register
Final NPL Deletion in Federal Register

Who pays?

- Superfund allows the federal government, states, and private parties to recover what they spent on cleanup activities.
- If EPA does the cleanup work using Superfund money, it will try to recover those costs from responsible parties often referred to as "Potential Responsible Parties" (PRPs).

Who pays?

- Either the people or businesses responsible for the contamination
  - who generated the hazardous substance.
  - who disposed it.
  - who made it worse.
  - who owned the property at the time of disposal
  - Who is the current owner of the property

Who pays?

- EPA may recover all of its costs that are "*not inconsistent*" with the NCP. Examples of costs that the courts have found are recoverable include:
  - Planning and implementing cleanup actions
  - Investigation and monitoring
  - Actions to limit access to the site
  - Indirect costs needed to support the cleanup work
  - EPA's contractor costs
  - Annual allocation costs

Who pays?

States Financial Responsibilities:

- States are required to share 50 percent, or greater, in the cost of all Fund-financed response actions if the facility was publicly operated at the time of the disposal of hazardous substances.
- For other facilities, except federal facilities, the state shall be required to share 10 percent of the cost of the remedial action and 100% O&M costs.

Who pays?

- Who is not liable?
  - Residential homeowners
  - Properties with underlying contaminated ground water
  - Banks & lending institutions if only exercising fiduciary responsibilities.
  - Those who inherit property
  - Those who exercised due diligence at the time of acquisition
- If no viable responsible parties, the federal government pays for the cleanup out of the General Tax Fund

Who pays?

- Budget realities
  - The Superfund Trust Fund is nearly depleted & Congress let the tax expire on Dec. 31, 1995
  - Superfund cleanups must now compete for funding from the General Fund with Dept. of Defense, Homeland Security, Dept. of Education, etc . . .
  - Budget shortfalls may impact timeliness of clean ups
  - Prioritization process

Community Involvement

- Individuals potentially affected by a site have a voice in the cleanup process
- EPA's Regional staff help communities get involved by providing:
  - Educational materials
  - Outreach activities
  - Site information
  - Training
  - Technical assistance
  - Other support (example: translating information into local language and dialects)

Community Involvement

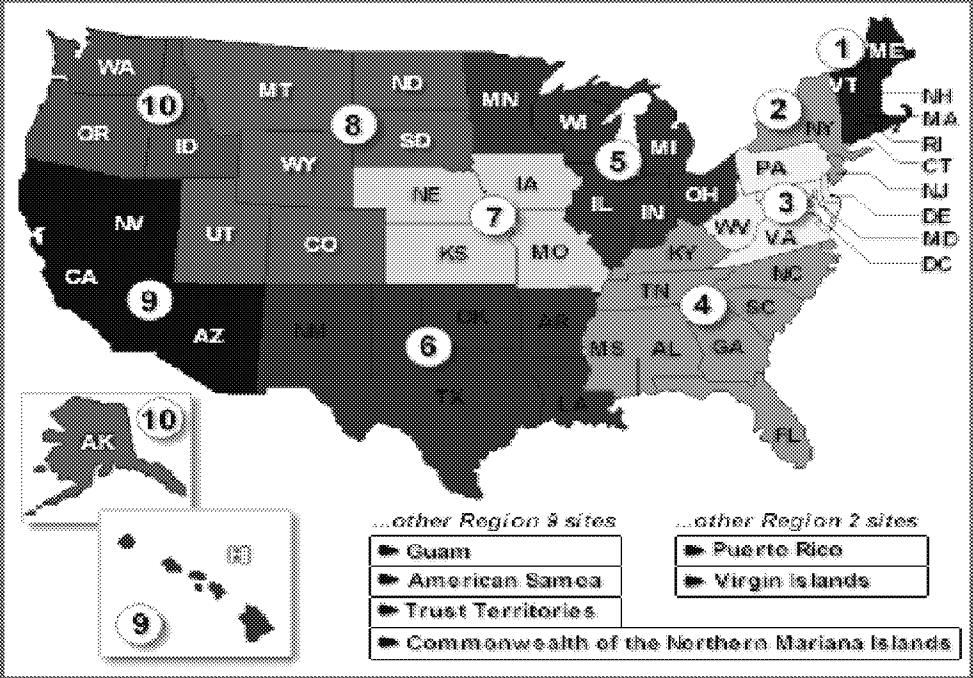
- Keep you informed of the cleanup process
- Provide opportunities for you to comment and provide input
- Resolve community issues related to the site

Community Involvement

Ways to get involved:

- Attend public meetings and hearings
- Participate in community interviews
- Join/form a CAG
- Visit local information repository sites
- Contact your local Community Involvement Coordinator and/or Site Manager

EPA Regional Offices



Additional Information

- Superfund Hotline: 800-434-9346
  TDD: 800-553-7672
- EPA Homepage: epa.gov
- Superfund Homepage: epa.gov/superfund
- Community Involvement Homepage: epa.gov/superfund/community
- Agency for Toxic Substance and Disease Registry: www.atsdr.cdc.gov
- Federal Government Jobs: usajobs.gov

Contact Information

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