



# Environmental Update #13

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## Guidelines for Getting a Contaminated Site Placed on the National Priorities List

The Superfund cleanup process begins with site discovery or notification to the U.S. Environmental Protection Agency (EPA) of actual or threatened releases of hazardous substances. Sites can be discovered by various parties, including private citizens, state agencies, and EPA regional offices. Once a site is discovered, it is entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), which is EPA's computerized inventory of potential hazardous substance release sites. The EPA then evaluates the potential for a release of hazardous substances from the site through a defined series of steps:

### 1. Preliminary Assessment/Site Inspection (PA/SI)

A PA is a limited-scope investigation performed on every CERCLIS site. During the PA, readily available information about the site and its surroundings are collected. No samples are collected during the PA phase. This step distinguishes between sites that pose little or no threat to human health and environment and those that may pose a threat and require further investigation. The EPA uses an electronic scoring program (PA Score) to determine if there is enough information for the site to move into the SI stage.

If a site poses a threat to the environment and/or human health, a more detailed investigation is completed during the SI. Investigators gather more site information and collect environmental and waste samples to determine if hazardous substances have been released at the site and reached potential sensitive receptors. The data collected in the SI is used for hazard ranking system scoring and documentation.

### 2. Hazard Ranking System (HRS) Scoring

The HRS is the principal mechanism the EPA uses to place sites on the National Priorities List (NPL). It is a scoring system that uses information collected during the PA/SI phase to assess the relative potential of sites to pose a threat to human health or the environment. The HRS scoring only determines if a site will be placed on the NPL and does not assign priority to NPL sites.

The HRS assigns numerical values to factors that relate to risk based on conditions at the site. The factors are grouped into the following categories:

- Likelihood a site has released or has the potential to release hazardous substances into the environment;
- Characteristics of the waste (i.e. toxicity and waste quantity); and
- People or sensitive environments (called targets) affected by the release.

The system scores four pathways of exposure, each with one or more potential contact points. The pathways are listed below with the contact points in parenthesis:

- Groundwater 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).

After each pathway is scored, an overall site score is calculated. For more HRS information, click on the following web address: [http://www.epa.gov/superfund/programs/npl\\_hrs/hrsint.htm](http://www.epa.gov/superfund/programs/npl_hrs/hrsint.htm).

### **3. NPL Site Listing**

The NPL (or Superfund List) is a list of national priorities among the known or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. It is revised at least once a year. The Superfund List is intended primarily to guide EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances. The Superfund List does not assign liability to any party or to the owner of any specific property. Placing a site on the Superfund List does not mean that any remedial or removal action necessarily will be taken.

There are three mechanisms for placing sites on the Superfund List for possible remedial action:

- A site may be placed on the Superfund List if it scores high enough on the Hazard Ranking System (HRS).
- Each state or territory may designate a single site as its top priority for the Superfund List.
- The third mechanism for listing allows sites to be included if all of the following conditions are met:
  1. The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Public Health Service has issued a health advisory recommending removal of people from the site.
  2. EPA determines that the release poses a significant threat to public health.
  3. EPA anticipates that it will be more cost-effective to clean up the release than to remove it.

After the EPA determines which sites will potentially be listed on the Superfund List, an official notice is published in the Federal Register. The EPA allows for a 60-day comment period following the publication date in the Federal Register. During the comment period, comments are placed in the headquarters docket and are available to the public on an “as received” basis. A complete set of comments will be available for viewing in the regional docket approximately one week after the formal comment period closes. Each regional docket contains all information in the Headquarters docket for sites in that region, plus reference documents principally relied upon and cited by EPA in evaluating the HRS scores for sites in that region. To locate your regional docket, click on the following web address: <http://www.epa.gov/superfund/sites/npl/pubcom.htm>.

The EPA will make final listing decisions after considering the relevant comments received during the public comment period. These decisions are provided in a rule-specific support document that includes all sites that are being finalized to the Superfund List for which comments have been received. A final list of sites added to the Superfund List is also published in the Federal Register.

### **4. Remedial Investigation/Feasibility Study (RI/FS)**

After a site is placed on the Superfund List, a RI/FS including the following phases is performed:

- Scoping;
- Site characterization;
- Development and screening of alternatives;
- Treatability investigations; and
- Detailed analysis.

The RI serves as the mechanism for collecting data to:

- Characterize site conditions;
- Determine the nature of the waste;
- Assess risk to human health and the environment; and
- Conduct treatability testing to evaluate the potential performance and cost of the treatment technologies under consideration.

The FS phase looks at the development, screening, and detailed evaluation of alternative remedial actions. Even though both the RI and FS have defined goals, they are conducted concurrently since the result of one affects the outcome of the other. This approach allows RI and FS activities to be continually modified in order to eliminate any unnecessary activities.

## **5. Record of Decision (ROD)**

The data generated during the RI/FS is used to make a decision about which cleanup alternative(s) will be implemented at a site. The ROD is a public document that is published in the Federal Register to explain which cleanup alternatives will be used to cleanup a Superfund site.

## **6. Remedial Design/Remedial Action (RD/RA)**

The RD phase is where the technical specifications for cleanup remedies and technologies chosen and described in the ROD are designed. The RA is the actual implementation of the cleanup strategies designed during the RD phase.

## **7. Construction Completion**

The construction completion list (CCL) was created by EPA to simplify its system of categorizing sites and to better communicate the successful completion of cleanup activities. Sites qualify when:

- Any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved;
- EPA has determined the response action should be limited to measures not involving construction; or
- The site qualifies for deletion from the Superfund List.

## **8. Operation and Maintenance (O&M)**

O&M activities protect the integrity of the selected remedy for a site. Remedies requiring O&M measures include landfill caps, gas collection systems, groundwater extraction and treatment, groundwater monitoring, or surface water treatment. The O&M monitoring includes four components:

- Inspection;
- Sampling and analysis;
- Routine maintenance; and
- Reporting.

## **9. NPL Site Deletion**

EPA may delete a final Superfund List site if it determines that no further response is required to protect human health or the environment. A site may be deleted where no further response is appropriate if EPA determines that one of the following criteria has been met:

- EPA, in conjunction with the State, has determined that responsible or other parties have implemented all appropriate response actions required;
- EPA, in consultation with the State, has determined that all appropriate Superfund-financed responses have been implemented and no further response by responsible parties is appropriate; or
- A remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, remedial measures are not appropriate.

Areas of the site may also be deleted from the Superfund List as a partial deletion because one area of the site may be clean and ready for productive use, whereas another area of the site may still be contaminated.

More information on the NPL siting process is available by clicking on the following web address: [http://www.epa.gov/superfund/sites/npl/npl\\_hrs.htm](http://www.epa.gov/superfund/sites/npl/npl_hrs.htm). A list of the NPL sites in the U.S. can be accessed by clicking on the following web address: <http://www.epa.gov/superfund/sites/npl/npl.htm>. To see a diagram of the Superfund regulatory process, click on: <http://www.hsrb.org/hsrb/html/tosc/sswtosc/cercla.html>.