



Non-Time-Critical Removal Actions

Background: Section 104(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), authorizes the President "... to remove or arrange for the removal of ..." hazardous substances, pollutants, or contaminants whenever there is a release or threat of release of such materials that may endanger human health or the environment. CERCLA § 105 (a)(3) also requires that the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) include, among other things, "... methods and criteria for determining the appropriate extent of removal, remedy, and other measures ..."

DOE and the U.S. Environmental Protection Agency (EPA) support the use of non-time-critical (NTC) removal actions to respond quickly to releases or threats of releases. DOE's *Phased Response/Early Actions* (Ref. 3) and *Remedial Investigation/Feasibility Study (RI/FS) Process, Elements and Techniques* (Ref. 5) publications support the use of NTC removal actions.

Since May 1995, it has been DOE policy to use NTC removal actions as the approach to facility decommissioning. In addition, the Department is in the process of finalizing changes to O 430.1A, which includes an explicit requirement to conduct decommissioning using the NTC removal approach. Guidance on this approach will be included in the pending G 430.1A-4, *Decommissioning Implementation Guide*, which will accompany the revised Order.

Statute: CERCLA as amended by the Superfund Amendments and Reauthorization Act of 1986.

Regulation: 40 CFR Part 300, National Oil and Hazardous Substances Pollution Contingency Plan

- References:**
1. *National Oil and Hazardous Substances Pollution Contingency Plan, Final Rule*, 55 *FR* 8666, March 8, 1990.
 2. *Guidance on Conducting Non-Time-Critical Removals Under CERCLA*, EPA, Office of Emergency and Remedial Response, EPA/540/R-93/057, OSWER Directive 9360.0-32, August 1993.
 3. *Phased Response/Early Actions*, DOE, Office of Environmental Policy and Assistance, RCRA/CERCLA Division (EH-413), and Office of Environmental Activities (EM-22), DOE/EH-0506, November 1995.
 4. *CERCLA Removal Actions*, DOE, Office of Environmental Guidance, RCRA/CERCLA Division and Office of Environmental Restoration, Regulatory Integration Division (EM-431), DOE/EH-0435, September 1994.
 5. *Remedial Investigation/Feasibility Study (RI/FS) Process, Elements and Techniques*, DOE, Office of Environmental Policy and Assistance, RCRA/CERCLA Division, DOE/EH94007658, December 1993.
 6. *Greater Use of Removal Actions Could Cut Time and Cost for Cleanups*, U. S. General Accounting Office, GAO/RCED-96-124, May 1996.
 7. *Streamlined Site Characterization Approach for Early Actions and Impact on Risk Assessment Data Requirements*, RCRA/CERCLA Information Brief, DOE/EH-231-025/1294, December 1994.
 8. *Non-Time-Critical Removal Risk Evaluation*, CERCLA Information Brief, DOE/EH-413/9710, August 1997.
 9. "Superfund Removal Procedures-Removal Response Reporting-POLREPS&OSC Reports," EPA, June 1994.
 10. "Superfund Removal Procedures - Guidance on the Consideration of ARARs During Removal Actions," EPA, 540/P-91/011, 1991.
 11. "Guidance on Accelerating CERCLA Environmental Restoration at Federal Facilities," memo from EPA, Office of Enforcement; EPA, Office of Solid Waste and Emergency Response; DOE, Office of Environmental Management; and DOD, August 22, 1994.
 12. "Policy on Decommissioning of Department of Energy Facilities Under CERCLA," memo from EPA, Office of Enforcement; EPA, Office of Solid Waste and Emergency Response; and DOE, Office of Environmental Management, May 22, 1995.

What are removal actions?

CERCLA and the NCP authorize two types of responses to releases of hazardous substances into the environment: remedial and removal actions. Remedial actions involve the study, design, and construction of long-term actions directed toward permanent remedy. In contrast, removal actions are short-term actions typically taken within hours, weeks, or months to "abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release" [40 CFR 300.415(b)].

For environmental restoration activities conducted under CERCLA authority at DOE sites, DOE is the lead agency. The DOE environmental restoration program manager (ERPM) declares which action (removal or remedial) should be taken and follows the required activities specified in the NCP. While many site problems can be addressed by either action, some Federal Facility Agreements (FFAs) may limit this flexibility (see ref. 3).

What are the three types of removal actions?

There are three types of removal actions: (1) emergency, (2) time-critical, and (3) non-time-critical. **Emergency removals** must be initiated within hours or days in response to acute problems. These emergency situations may involve fires or explosions, imminent contamination of a water supply, or the release or imminent release of hazardous substances. **Time-critical removals** respond to releases requiring onsite action within six months. Examples include removal of drums or small volumes of contaminated soil and stabilization of lagoons. **Non-time-critical (NTC) removals** respond to releases where a planning period of at least six months is available before onsite activities must begin and the need is less immediate. The categorization of a removal into one of these three types is based largely on the urgency of the situation.

What is the purpose of an NTC removal action?

NTC removals generally attempt to control the source of contamination and are sometimes followed by a remedial action to complete site response. However, NTC removals could be used to remediate a site completely. They also may help

DOE-ERPMS achieve prompt risk reduction prior to remedial response.

How can NTC removal actions expedite CERCLA cleanups?

NTC removal actions can provide substantial risk reduction by addressing specific problems without requiring the time-consuming investigations and decision-making involved with full remedial investigation/feasibility study (RI/FS) efforts (see 55 *FR* 8703-8705). DOE-ERPMS often face cleanups where radioactive wastes pose a current or near-term risk to the environment, workers, or other receptors, for which permanent treatment technologies are not yet available. In such cases, an NTC removal can facilitate interim risk reduction, e.g., through removal and storage.

To facilitate the CERCLA cleanup process, DOE issued guidance on a "phased response" approach. NTC removals, along with emergency and time-critical removals can be elements of a phased response strategy. As such, they can increase the effectiveness of DOE cleanup actions by using resources more efficiently (e.g., less time spent on collecting data and developing alternatives, and better tailoring of the action to the site.) (see 55 *FR* 8704 and ref. 3).

Who must approve the implementation of a removal action?

DOE is a lead agency under CERCLA, and has the authority, in many instances, to pursue removals without formal regulatory concurrence. However, DOE encourages ERPMS to seek consensus on the need for a removal action. DOE needs to coordinate removal actions with EPA and state authorities to ensure that removal actions are consistent with and will not preclude final actions.

What are the components of the NTC removal process?

NTC removal actions include four major components: (1) site evaluation, (2) Engineering Evaluation/Cost Analysis (EE/CA), (3) removal action, and (4) closeout. (For emergency and time-critical removals, an EE/CA is not required.)

1) What does the site evaluation entail?

All removals require a **removal site evaluation (RSE)** [40 CFR 300.410(b)]. The RSE includes a removal preliminary assessment (PA) and if warranted, a removal site inspection (SI). In the removal PA, the DOE-ERPM uses readily available information to identify the source and nature of the release, evaluate the magnitude of the threat, assess the threat to public health, and determine if more information is needed to characterize the release. If more information is required, the DOE-ERPM performs a removal SI. Section 300.410 of the NCP describes the RSE process.

Once the RSE is complete, the DOE-ERPM documents the findings [40 CFR 300.410(f)]. DOE-ERPMS can use an **Approval Memorandum** to document the findings for an NTC removal (see ref. 2). The Approval Memorandum documents that the site meets the NCP criteria for initiating an NTC removal and provides detailed information on the site. DOE-ERPMS can check individual FFAs and interagency agreements (IAGs) for additional removal action criteria and reporting requirements.

2) What does the EE/CA process involve?

This process involves development of the EE/CA, conducting community relations activities, and documentation of the removal action decision in an Action Memorandum. The EE/CA is comparable to the RI/FS in a remedial action, but it is less comprehensive. The NCP requires that the DOE-ERPM prepare an EE/CA for all NTC removals (40 CFR 300.415(b)(4)(i)). The EE/CA identifies the objectives of the removal action and analyzes the removal action alternatives in terms of cost, effectiveness, and implementability.

a) What are the components of the EE/CA?

The EE/CA includes the following six major components:

1. *Executive summary.*
2. *Site characterization.* In addition to site data, EPA guidance recommends completing a streamlined risk assessment (SRE) as part of the site characterization process (see refs. 2, 7, 8). The scope of the SRE is between that of the limited risk evaluation conducted for emergency removals and that of the baseline

risk assessment conducted for remedial actions.

3. *Identification of removal action objectives.* The DOE-ERPM identifies overall and specific removal action objectives. 40 CFR 300.415(b)(2)(i)-(viii) lists factors to consider in determining specific removal action objectives.
4. *Identification and analysis of removal action alternatives.* Each alternative is analyzed in terms of effectiveness, implementability, and cost.
5. *Comparative analysis of removal action alternatives.* The DOE-ERPM compares the relative performance of each alternative. (Ref. 2 provides criteria for use in the comparative analysis.)
6. *Removal action recommendation.* Based on the comparative analysis, the DOE-ERPM recommends an action and describes the basis for the recommendation.

b) What community relations and administrative requirements pertain to NTC removals?

Pursuant to 40 CFR 300.415(m)(4) and 300.820(a), the DOE-ERPM must conduct numerous community relations activities for NTC removals. These are summarized below:

- ! Before the Approval Memorandum is signed, the DOE-ERPM must establish a least one local information repository at or near the location of the NTC removal action. The repository must contain a copy of the administrative record file and may contain other information, such as general information about DOE's cleanup program. All repository items must be available for public inspection and copying.
- ! Before the EE/CA is completed, the DOE-ERPM must conduct interviews with the local community and prepare a formal community relations plan (CRP). Sitewide and program-specific public participation plans developed by DOE at many facilities may provide a foundation for NTC-specific CRPs.

- ! When the EE/CA is made available for public review and comment, the DOE-ERPM must publish a notice of availability in a major local newspaper of general circulation. A thirty-day public comment period for the EE/CA and administrative record file begins on the date they are made available for public comment. Significant public comments require written responses.

c) Is a decision document required for an EE/CA?

Although not required by law or regulation, the DOE-ERPM can prepare an **Action Memorandum** to serve as the official documentation of the removal action decision. The Action Memorandum is comparable to the Record of Decision (ROD) in a remedial response, in that it substantiates the need for a removal action, identifies the proposed action, and explains the rationale for the removal action. However, the Action Memorandum is less elaborate than a ROD (see refs. 2 and 4). The DOE-ERPM can use the Action Memorandum to help meet administrative record file and public participation requirements for NTC removals. Ref. 2 describes the components and use of Action Memoranda; DOE-ERPMs may also consult site-specific operating procedures, protocols, and related documentation when preparing the Action Memorandum.

3) What are DOE's responsibilities for NTC removal action implementation?

The DOE-ERPM manages the removal action and coordinates activities conducted by DOE and other parties, such as other Federal agencies and contractors. The DOE-ERPM reviews all decision documents and plans and ensures that onsite workers are adequately trained and equipped.

4) What determinations and documentation are required for closeout of the NTC removal action?

Closeout of the NTC removal process ensures that all objectives have been met. The DOE-ERPM must determine that the removal action objectives have been met and that no further threats to human health, welfare, or the environment that the removal action was designed to resolve, remain. If a threat

remains, the DOE-ERPM continues removal activity or examines other options to prevent, abate, or mitigate the threat. After determining that the action is complete, the DOE-ERPM must ensure that any post-removal site control activities needed to assure the ongoing integrity of the removal action are conducted (See refs. 3 and 4).

If completion of the NTC removal will constitute the basis for delisting the site from the National Priorities List, then remedial procedures for site closeout are followed. If the NTC removal completes onsite response activities, response contractors must be demobilized. Concurrence that the action is complete may need to be gained from appropriate regulatory agencies per FFAs or IAGs with EPA and/or the state (see ref. 4).

In summary, what are the processes and primary benefits of conducting NTC removals?

In conducting NTC removals, DOE-ERPMs must assess the site, analyze various removal alternatives, mobilize onsite resources, conduct the removal, determine when a NTC removal action is complete, and plan post-removal site control measures. DOE-ERPMs also need to comply with public involvement and administrative record file requirements throughout the process. Community relations efforts are conducted concurrently with the EE/CA activities prior to signing of the Approval Memorandum.

NTC removals are quicker, more focused, and more cost-effective than remedial actions. They enable expedited responses contamination problems, while still allowing for more resource-intensive planning and review if a remedial action is necessary.

Questions of policy or questions requiring policy decisions will not be dealt with in EH-413 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning the material covered in this Information Brief to Gerald DiCerbo, EH-413 by phone at (202-586-5047) or by e-mail at gerald.dicerbo@eh.doe.gov.

