

# SUPERFUND PROGRAM



# PROPOSED PLAN

To Clean Up the Defense Reutilization Marketing Office Yard (AOC 32) Soils Operable Unit,  
and Underground Storage Tank 13 (AOC 32) Groundwater Operable Unit  
Fort Devens, MA

## Introduction

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 117, the law that established the Superfund program, this document summarizes the Army's proposal for the site cleanup. This document helps the public understand and comment on the proposal. The public is encouraged to comment on the Army's proposal. A public hearing is planned for \_\_\_\_\_ 1996, during the public comment period for this Proposed Plan (see page \_\_ for details.) For detailed information on the proposed cleanup plan and other options evaluated for use at the site, see the Final Feasibility Study for Functional Area II (AOC 32 and AOC 43A), available for review at the site information repositories at the Base Realignment and Closure (BRAC) Environmental Office at Fort Devens and the Ayer Town Hall, Ayer Massachusetts.

## Site Description and History

The Defense Reutilization and Maintenance Office (DRMO) Yard (AOC 32) is in the northeast corner of the Main Post at Fort Devens, just south of the Shepley's Hill Landfill. The DRMO Yard consists of two fenced enclosures on either side of Cook Street, which serves as the entrance to the Shepley's Hill Landfill (Figure 1). The two enclosed areas are paved with asphalt. Together, the paved surface covers approximately 250,000 square feet.

The DRMO Yard was a material storage facility and had been operational in its current location for several decades. The yard on the west side of Cook Street contains various types of equipment. The northwest corner of the yard was dedicated to used lead-acid battery storage. In the yard on the east side of Cook Street, vehicles were cut up and disassembled to recovery usable parts.

Listed below are the major events that have occurred at the DRMO Yard:

- 1990 — DRMO Yard personnel report a polychlorinated biphenyl (PCB) spill in the east yard. A trench associated with the remedial action remains.
- 1992 — An underground storage tank (UST) used to store waste oil is removed from a location just east of the DRMO Yard.
- 1994 — Remedial Investigation (RI) report is finalized.
- 1995 — DRMO stops operations as a material storage facility.
- 1996 — Radiation survey completed and 12 "hot spots" cleaned up.

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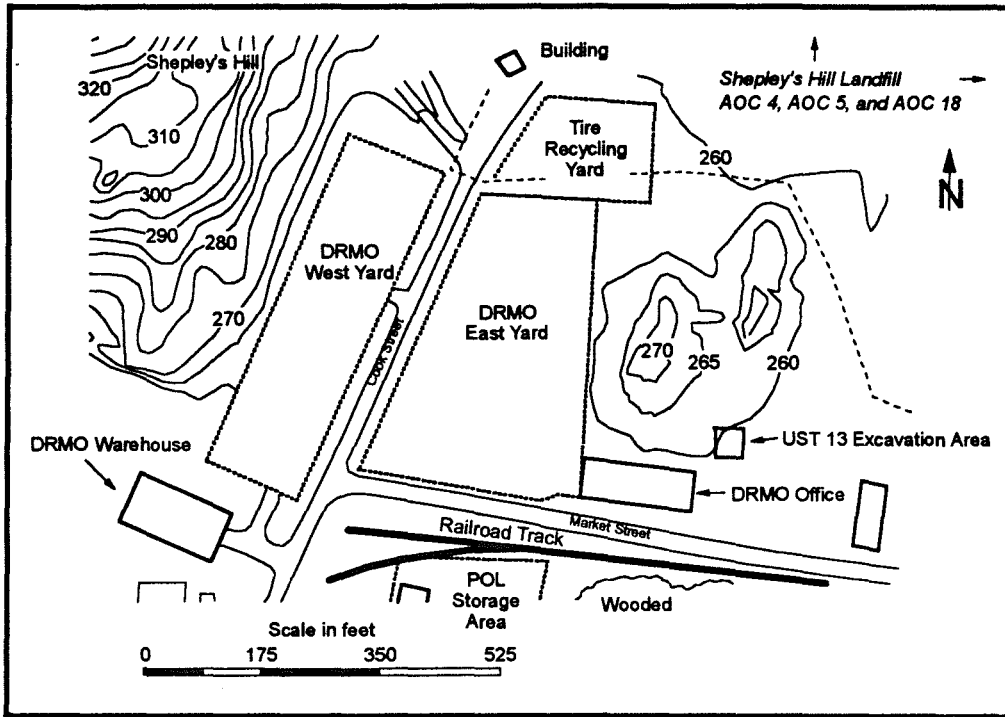
Terms shown in **bold** are defined in the glossary

1996 — Feasibility Study (FS) is finalized.

The DRMO site has been divided into two separate **operable units (OU)** for cleanup: the DRMO Yard Soils and the UST 13 Groundwater.

The Petroleum, Oils, and Lubrication (POL) Storage Area (AOC 43A) is in the northeast corner of the Main Post adjacent to Shepley's Hill Landfill. The POL Storage Area

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Area from Antietam Street. The driveway is bermed to contain any spills. A pump station is in the center of the fenced area. The POL Storage Area is currently used to store fuel for military vehicles.

Listed below are the major events that have occurred at the site:

- 1940's - 1950's — POL Storage Area served as central distribution point for all gasoline stations at Fort Devens.
- 1989 - 1990 — Three USTs and 800 cubic yards of soil beneath the pump house were excavated.
- 1991 — Five new USTs were installed.

Figure 1. DRMO Yard (AOC 32)

consists of a fenced lot within a developed industrial area of buildings, roads, and grass lots with the exception of the east side, which is bounded by a wooded area on a rock outcrop (Figure 2). A set of railroad track, formerly used to transport gasoline to the site is on the north side of the site. The UST area within the POL Storage Area is fenced. An asphalt driveway leads into the POL Storage

1992 — Waste oil UST and a quantity of contaminated soil east of the DRMO Yard are removed.

The Army is not proposing remediation at the POL Storage Area. As part of the no further remedial action alternative, the Army proposes to monitor the DRMO Yard and POL Storage Area groundwater. The Army proposes to monitor groundwater wells down gradient of the DRMO Yard and the POL Storage Area annually for 5 years.

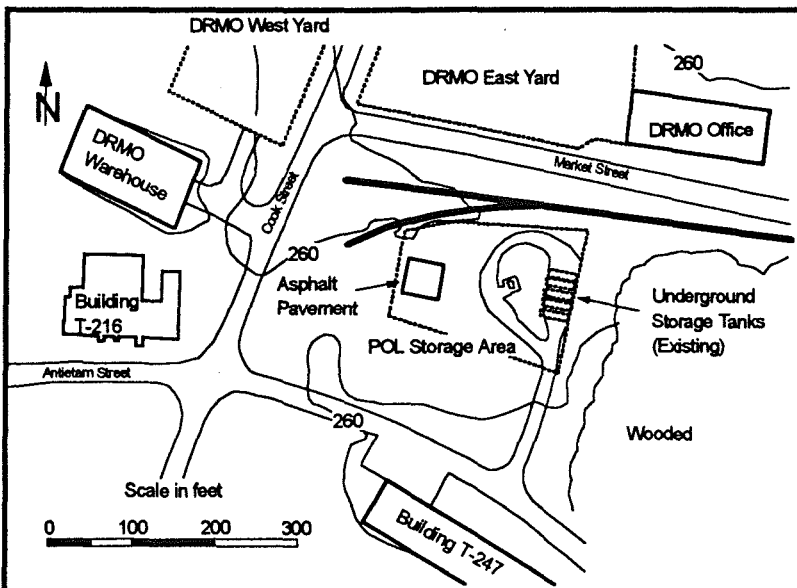


FIGURE 2. POL Storage Yard (AOC 43A)

### Why is Cleanup Necessary?

The main yards of the DRMO (east and west yards) have been used to store used equipment, vehicles, automotive batteries, and containerized hazardous waste and to process and sort used parts and scrap metal. Spills from storage yard operations have contaminated the asphalt pavement in the yards and the surrounding surface soils with PCB and metals. Additionally, subsurface soils and groundwater to the east of the DRMO Yard are contaminated with metals and petroleum constituents from waste oil operations.

The Army's study of the DRMO Yard has shown that long-term exposure to contaminants found in the soils and groundwater may pose a potential risk of exposure to site workers. The major factors driving estimated risk are as follows:

- The presence of PCBs, arsenic, and lead in site soils and potential exposure by sites workers and visitors,
- The presence of elevated concentrations of metals (primarily arsenic), 1,4-dichlorobenzene, and PCBs in the groundwater coupled with the possible future use of groundwater as a drinking water source

The Army studies show that the highest possible combined soil and groundwater risks are for outdoor workers using filtered groundwater from the UST area. However, any future use of the groundwater as drinking water is unlikely because there is an existing public water system and the wells at the DRMO Yard have a very low yield. The highest realistic future risks to outdoor worker are from exposure to soil contaminants alone. Exposure to soil contaminants is either currently occurring or could reasonably be expected to occur under current land-use conditions.

### **How Does the Army Choose the Final Cleanup Plan?**

The Army uses nine criteria to balance the pros and cons of all cleanup alternatives. The Army has already evaluated how well each of the cleanup alternatives meets the first seven criteria. Once comments from the state and the community are received, the Army will finish comparing the alternatives to select the cleanup plan to be used at the DRMO Yard site.

The following list of the nine criteria highlights the questions the Army must address in selecting a cleanup plan. Public comments that focus on these criteria help the Army to better evaluate all aspects of the alternatives. For more precise definitions of the criteria, see the **Feasibility Study (FS)**.

**1. Overall Protection of Human Health and the Environment:** Will the alternative protect you and the plant and animal life on and near the site? The Army will not choose a plan that does not meet this basic criterion.

**2. Compliance with Applicable or Relevant and Appropriate Requirement (ARARs):** Does the alternative meet all federal and state environmental statutes, regulations, and requirements?

**3. Long-term Effectiveness and Permanence:** Will the effects of the cleanup plan last or could contamination present a risk again over time?

**4. Reduction of Toxicity, Mobility, or Volume through Treatment:** Does the alternative reduce the harmful effects of the contaminants, their ability to spread, and the amount of contaminated material present?

**5. Short-term Effectiveness:** How soon will site risks be adequately reduced? Could short-term hazards to workers, residents, or the environment that could occur during cleanup?

**6. Implementability:** Is the alternative technically feasible? Are the goods and services (e.g., treatment machinery, space at an approved disposal facility) necessary to implement the plan readily available?

**7. Cost:** What is the total cost of an alternative over time in today's dollars? The Army must find a plan that gives necessary protection for a reasonable cost.

**8. State Acceptance:** Do state environmental agencies agree with the Army's recommendations?

**9. Community Acceptance:** What objections, suggestions, or modifications does the public offer during the comment period?

### **Four Categories of Cleanup Options**

When evaluating the best way to address the risks presented by a Superfund site, the Army looks at a large number of technical approaches. The Army then narrows the possibilities to approaches that best protect human health and the environment.

Although reducing risks often involves combinations of highly technical processes, the general approaches can be grouped into four categories:

**Take Limited or No Action:** In this option, the Army leaves the site as it is or restricts access and monitors the site. For comparison sake, the FS evaluates how well the

nine cleanup criteria are met if nothing is done to address contamination.

**Treat Contamination On Site:** In this option, the Army uses a chemical or physical process at the site to destroy or remove the contaminants from soil, water, sediments, and any other contaminated medium. The treated material can then be left on site. Contaminants captured by the treatment process are disposed in an off-site hazardous waste treatment facility.

**Contain Contamination:** In this option, the Army leaves the contamination where it is and covers or contains it in some way to prevent exposure to or spread of the contaminants. This method reduces risks from exposure to contamination, but does not destroy or reduce the contaminants themselves.

**Move Contamination Off Site:** In this option, the Army removes the contaminated material (e.g., soil, groundwater) and dispose of it or treats it elsewhere.

**Site Cleanup Options**

The FS developed for the DRMO Yard (AOC 32) reviews all of the options the Army considered for cleanup as well as the Army's recommended approach. The options, referred to as "remedial alternatives," are different combinations of plans to contain, move, or treat contaminants to protect public health and the environment.

At the DRMO Yard, separate options have been developed for the contaminated soil and groundwater (UST 13 area). During the upcoming comment period, the Army welcomes your comments on the recommended cleanup plans, as well as the other technical approaches described below. Please consult the Final FS Report for detailed information about the remedial alternatives.

**DRMO Yard Soils Operable Unit (AOC 32)**

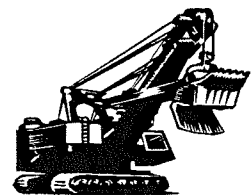
Nine Criteria	1) No Further Remedial Action	2) Institutional Actions	3) Containment Using Capping	4) Excavation, Solidification, and On-site Disposal	6) Excavation and Disposal
Protects human health and the environment	●	●	○●	○	○
Meets federal and state requirements	●	●	○●	○	○
Provides long-term protection	●	●	○●	○	○
Reduces mobility, toxicity, or volume	●	●	○●	○	○
Provides short-term protection	●	●	○●	○	○
Can be implemented	○	○	○	○	○
Cost over 30 years	\$80,380 (5 years)	\$103,690	\$836,520	\$778,140	\$563,550
MADEP acceptance	To be determined after the public comment period.				
Community acceptance	To be determined after the public comment period.				
Would not restrict property use	●	●	●	○	○
Time to complete remedial action	No additional protection to human health over the present state.	No remediation would occur under this alternative.	3 months construction and annual monitoring for 30 years.	6 months construction and annual monitoring for 30 years.	5 months construction and annual monitoring for 5 years.
● Does not meet criteria      ○● Partially meets criteria      ○ Meets or exceeds criteria					
<b>Army's preferred alternative is shaded.</b>					

**Alternative 1: No Further Remedial Action** — No remedial action of any type would be taken. The soils at the east of the DRMO Yard would not be removed or treated in any way. The contaminants would most likely remain in their present state and continue to pose the same risk. Groundwater monitoring of the wells south of the POL Storage Yard would be performed annually under this alternative, with a review of the site conditions after 5 years.

**Alternative 2: Institutional Actions** — No remediation would occur under this alternative; activity would be limited to minimal measures intended to reduce exposure to contaminated media. Deed restrictions would limit development and land use. Groundwater monitoring would be performed under this alternative, with a review of the site conditions after 5 years.

**Alternative 3: Containment Using Capping** — Approximately 360 cubic yards of contaminated soils would be excavated along the edges of the DRMO Yard. This soil would be consolidated and covered with an impermeable cap.

**Alternative 4: Excavation, Solidification, and On-site Disposal** — Approximately 1,300 cubic yards of contaminated soils would be excavated; treated on site using solidification; and disposed of on site at the northern DRMO Yard, the southern tire recycling area, or at a possible central disposal facility at Fort Devens.



**Alternative 6: Excavation and Off-site Disposal** — Approximately 1,300 cubic yards of contaminated soil would be excavated and disposed of off site at either a nonhazardous, Toxic Substances Control Act (TSCA) permitted or Resource Conservation and Recovery Act (RCRA) permitted landfill. The ultimate disposal location(s) would depend on the analysis results of samples taken during the remedial action.

**UST 13 Groundwater Operable Unit**

Nine Criteria	1) No Further Remedial Action	2) Institutional Actions
Protects human health and the environment	●	●
Meets federal and state requirements	●	●
Provides long-term protection	●	●
Reduces mobility, toxicity, or volume	●	●
Provides short-term protection	●	●
Can be implemented	○	○
Cost (30 years)	\$75,820	\$58,140
Massachusetts Department of Environmental Protection (MADEP) acceptance	To be determined after the public comment period.	
Community acceptance	To be determined after the public comment period.	
Would not restrict property use	○	○
Time to complete remedial action	Annual monitoring for 5 years	Monitoring every 5 years for 30 years
● Does not meet criteria      ○● Partially meets criteria ○ Meets or exceeds criteria		

**Alternative 1: No Further Remedial Action** — No remedial action of any type would be taken. Neither the soils or groundwater in the vicinity of the former UST would be removed, contained, or treated in any way. The contaminants would most likely remain in their present state and continue to pose the same risk. Groundwater monitoring would be performed under this alternative, with a review of the site conditions after 5 years.

**Alternative 2: Institutional Actions** — No remediation would occur under this alternative: activity would be limited to minimal measures intended to reduce exposure to contaminated media. Deed restrictions would limit land use and development. Groundwater monitoring would be performed under this alternative, with a review of the site conditions after 5 years.

**Alternative Comparison and Short-term Local Impacts of the Cleanup**

Alternatives 1 and 2, “No Further Action” and “Institutional Actions” respectively, would not have any effect on the toxicity, mobility, or volume of contamination and would not meet the remedial action objectives.

### **At DRMO Yard Soil Operable Unit**

Alternatives 3, 4, and 6 would reduce the potential for exposure to the contaminated soil. Alternatives 4 and 6 would provide additional protection through treatment and off-site disposal, respectively. Alternative 1, 2, 3, and 4 would require continued institutional controls.

### **At UST 13 Groundwater Operable Unit**

Neither alternative would actively reduce the levels of contamination present. However, both would allow for a reevaluation of the site conditions after 5 years.

### **The Proposed Remedial Alternative**

After careful study of the DRMO Yard soil operable unit and the UST 13 groundwater operable unit, the Army has developed a plan to reduce risks from site contamination. The Army is proposing the following remedial alternatives:

#### **DRMO Yard Soil Operable Unit**

Alternative 6: Excavation and Offsite Disposal — Contaminated soil would be excavated and removed from the site, eliminating the potential for long term exposure. The excavated soils would be disposed at an offsite location in accordance with applicable laws. Any trace contamination remaining onsite would be below accepted EPA and State standards and no institutional controls would be required, which could restrict future land use..

#### **UST 13 Groundwater Operable Unit**

Alternative 2: Institutional Actions — The Army, through careful study, which is documented in the RI reports for this site, concluded that the risk of exposure to the contaminated groundwater is minimal under current site conditions. The risk could only be increased if a water well were installed, which is highly unlikely do to the low yeilds of the material below the DRMO Yard, and the groundwater used a potable water source. Therefore the Army through institutional controls would ensure that this possibility would not occur, thus reducing the possibility

of exposure and risk. This alternative would provide for more thorough monitoring of the long-term potential for human health risk.

### **Why Does the Army Currently its Proposed Alternatives?**

#### **DRMO Yard Soil Operable Unit**

The Army recommends the excavation and offsite disposal of the conatminated soil because the alternative:

Meets the nine criteria, including protecting public health and the environment.

Provides a more permanent solution by removing the contamination from the site to a secure disposal facility.

Would allow for a greater range of site reuse options by eliminating the need for institutional controls which would be required with any of the other alternatives.

#### **UST 13 Groundwater Operable Unit**

The Army recommends no further action because current site risks are minimal and would only increase if a water well were installed. Groundwater will ost likely never be developed in the area do to the low yeilds of the material below the DRMO Yard.

### **Learn More About the Proposed Plan's Potential Effect on the Surrounding Community**

The Army will describe the proposed cleanup plan and how it compares with other cleanup options for the site, as well as respond to your questions and concerns at an informational public meeting.

For further information on the meeting, call James Chambers, Fort Devens BRAC Environmental Coordinator at (508) 796-3114, extension 311.

## What Do You Think?

The Army is accepting public comment on this Proposed Plan from \_\_\_\_\_. You don't have to be a technical expert to comment. If you have a concern or preference, the Army wants to hear it before making a final decision on how work should proceed to protect your community.

You can formally register a comment in two ways:

1. Offer oral comments during the public information session on \_\_\_\_\_.



2. Send written comments, postmarked no later than \_\_\_\_\_ to the following address:

James Chambers, BRAC Environmental Coordinator  
U.S. Army  
HQ, Fort Devens  
AFZD-BEO, Box 1  
Building P-12, Buena Vista Street  
Fort Devens, MA 01433-5010

## What Is a Formal Comment?

During the 30-day formal comment period, the Army will accept formal written comments and hold a hearing to accept formal verbal comments. It is important to note that regulations distinguish between "formal" and "informal" comments. While the Army uses your comments throughout site investigation and cleanup, regulations require that the Army respond to formal comments in writing only. To make a formal comment, you need only to speak during the public hearing on \_\_\_\_\_ or submit a written comment during the comment period.

The Army will not respond to your comments during the formal hearing portion of the \_\_\_\_\_ information session. Once the formal hearing is closed, the Army can respond to questions. The Army will review the transcript of all formal comments received at the hearing and all written comments received during the formal comment period before making a final cleanup decision and developing a written response to the comments.

## Cleanup Options

Your formal comment will become part of the official public record, a crucial element in the decision-making process. The transcript of comments and the Army's written responses will be issued in a document called a Responsiveness Summary when the Army releases the final cleanup decision.



## Next Steps

In \_\_\_\_\_, the Army expects to have reviewed all comments and to have signed the Record of Decision document describing the chosen cleanup plan. The Record of Decision and Responsiveness Summary will then be made available to the public at the BRAC Environmental Office at Fort Devens, the Ayer Town Hall, Ayer, Massachusetts, and through EPA-New England. EPA -New England will announce the decision through the local news media and the community mailing list.

## Glossary

**Feasibility Study (FS)** — An analysis of the potential cleanup alternatives for a site.

**Operable Unit (OU)** — Separate units into which a site may be divided for investigation and/or cleanup.

**Remedial Investigation (RI)** — An in-depth study to gather the necessary data to determine the nature and extent of contamination at a site.





## Mailing List Additions/Deletions/Changes

If you or someone you know would like to be added to (or deleted from) the DRMO Yard site mailing list, please fill out and mail this form to the following address:

James Chambers, BRAC Environmental Coordinator  
U.S. Army  
HQ, Fort Devens  
AFZD-BEO, Box 1  
Building P-12, Buena Vista Street  
Fort Devens, MA 01433-5010

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Affiliation: \_\_\_\_\_  
Phone: \_\_\_\_\_

Add to Mailing List

Delete from Mailing List

Change Information

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James Chambers, BRAC Environmental Coordinator  
U.S. Army  
HQ, Fort Devens  
AFZD-BEO, Box 1  
Building P-12, Buena Vista Street  
Fort Devens, MA 01433-5010

First Class Mail Postage and Fees Paid by _____ Permit no. ____
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*Official Business  
Penalty for Private Use \$300*

*Forwarding address correction requested*

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**DRMO Yard Site  
Public Comment Sheet**

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Fold on dotted lines, staple, stamp, and mail.

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James Chambers, BRAC Environmental Coordinator  
U.S. Army  
HQ, Fort Devens  
AFZD-BEO, Box 1  
Building P-12, Buena Vista Street  
Fort Devens, MA 01433-5010