

continued from cover

DISPOSAL SITES:

The cleanup alternatives evaluated for the disposal sites and the associated subsurface soils are:

1. No action (as required by CERCLA);
2. Soil containment, including the placement of a protective cover or cap over disposal sites, and institutional controls;
3. Ex-situ (off-site) treatment through a process known as solidification or stabilization
4. Excavation, transportation and off-site disposal

GROUNDWATER:

There are a number of potential cleanup options for groundwater in the shallow aquifer. These were also evaluated for their effectiveness in protecting the deeper (drinking water) aquifer:

1. No action (as required by CERCLA);
2. A combination of options that includes:
 - Enhanced Bioremediation in an off-site position;
 - Zero-Valent Iron (ZVI) Injection, a process that uses chemicals to reduce environmental conditions;
 - Enhanced Extraction and Monitored Natural Attenuation (MNA) to reduce environmental conditions in untreated areas of the plume;
 - Institutional Controls to prohibit the use of groundwater in shallow aquifers



Steve Offner of CH2M Hill presents details of the Dunn Field Feasibility Study at the February 2003 RAB meeting.

3. A combination of options that includes:
 - ZVI Injection;
 - Permeable Reactive Barrier (PRB) constructed with iron that treats the groundwater as it passes through the treatment area;
 - MNA with Institutional Controls to prohibit the use of groundwater in shallow aquifers
4. A combination of options that includes:
 - Air Sparging, SVE, PRB, and MNA with Institutional Controls

SOIL-TO-INDOOR AIR:

Although there are currently no structures on Dunn Field that would be affected, the cleanup goals require that any vapors entering indoor air from soil must meet standards for health protection.

To protect indoor air quality, Soil Vapor Extraction (SVE) has been chosen as a "presumptive remedy" according to EPA guidelines. A presumptive remedy is a technology that has been shown to be the most appropriate cleanup remedy for a specific type of CERCLA site, based on past experience. SVE was pilot tested on Dunn Field in the fall and winter of 2002 and was found to meet the cleanup objectives.

The cleanup alternatives outlined in the Dunn Field FS are now being evaluated by the Depot's Base Realignment and Closure Cleanup Team (BCT), which includes representatives from the Depot, EPA and TDEC. The BCT will choose a preferred cleanup alternative and present it to the public for comment and evaluation in the Dunn Field Proposed Plan this spring (see article on next page for more information).

A copy of the Dunn Field FS has been placed in the Depot's Information Repositories, which are listed on Page 4. For more information, call the Depot's Community Relations Office at (901) 544-0613.

PROGRESS REPORT: Cleanup moves forward at Dunn Field

Work will begin this spring to confirm the contents of disposal sites, as the next phase in the cleanup program at Dunn Field.

As part of the Dunn Field Feasibility Study (FS), the Depot's environmental contractors are preparing to investigate 16 former disposal locations on Dunn Field over the next few months. The purpose of the investigation is to determine which cleanup alternative will be most effective in meeting the cleanup goals for the sites, based on the environmental conditions.

Dunn Field has undergone several cleanup projects since the environmental program began at the Depot, and additional projects are planned for the next two years. All cleanup projects are conducted in accordance with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and are reviewed by the Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC).

Here are a few highlights of the Dunn Field environmental program since it began:

- **January 1990** – Environmental Protection Agency (EPA) completed a Resource Conservation and Recovery Act (RCRA) Facility Assessment of the Depot, including Dunn Field.
- **September 1990** – A site investigation was completed.
- **January 1995** – The Corps of Engineers issued the Archives Search Report for ordnance and explosive waste/chemical warfare materials at Dunn Field.
- **May 1996** – EPA concurred with the Record of Decision for the Interim Remedial Action (IRA) for groundwater at Dunn Field.
- **August 1998** – The Corps of Engineers completed the Chemical Warfare Materiel (CWM) field investigation at Dunn Field.
- **September 1998** – Work began on the groundwater beneath Dunn Field with the installation of pumping wells connected to the city's sanitary sewer system.

- **June 1999** – The mounds of bauxite and fluorspar were removed from Dunn Field.
- **June 1999** – Roads were paved on Dunn Field in preparation for future removal projects.
- **May 2000** – CWM removal project began at Dunn Field. Weekly CWM briefings began to update the community about the CWM cleanup progress at Dunn Field.
- **May 2001** – CWM removal project was completed at Dunn Field.
- **January 2003** – Lead removal project began at the former pistol range on Dunn Field.
- **Spring 2003** – Pre-design investigation of former disposal sites on Dunn Field is scheduled to begin.

For more information on past and future cleanup activities on Dunn Field, please call the Depot's Community Relations Office at (901) 544-0613.



Work crews remove soil from the northeastern section of Dunn Field near Person and Hays Road as part of the Lead Removal Project. The soil, from the former pistol range, was transported to a licensed disposal facility and samples were collected to ensure the remaining soil is safe for future use. The removal project was completed in March 2003 when new grass seed was planted in the area.