



Ĭ

ENVIRONMENTAL FACT SHEET Defense Depot Memphis, Tennessee

283

U.S. Army Corps of Engineers ® Huntsville Center

February 1990

283

THE SITE

The Defense Depot Memphis, Tennessee (DDMT), covers 642 acres of land in Memphis, Shelby County, Tenn. Throughout its fiftyfive years of operation, the site was used as a warehousing and supply distribution point for military services and some civilian agencies. Originally in 1942, the depot was operated by the U.S. Army Corps of Engineers as a storage and maintenance site for the Army's engineer, chemical, and quartermaster corps. Later during World War II, the depot served as a prisoner of war camp and a supply point for the signal and ordnance corps. From 1963 through 1997, the depot functioned as a distribution center for the Defense Logistics Agency by shipping and receiving textile products, food products, electronic equipment, medical supplies, and hazardous chemical supplies. The Defense Logistics Agency closed the depot September 30, 1997 as part of the Base Closure and Realignment process. The depot is now in a caretaker status, awaiting economic redevelopment and environmental cleanup actions.

ENVIRONMENTAL RESTORATION

While the DDMT site contains groundwater and soil that is contaminated with pesticides, solvents, fuels, and other hazardous compounds, health assessments have indicated that the Memphis community has not been exposed to these substances at levels that could cause health problems. A detailed evaluation of risks posed by the facility will be completed before proposing clean-up requirements.

1

In order to assure the public's safety and make the depot site useful for economic redevelopment, the Defense Logistics Agency and the Corps of Engineers are working on an environmental restoration of the depot itself and impacts of actions at the depot.

The Corps of Engineers conducted a two-year "remedial investigation" to determine the nature and extent of environmental hazards at the depot. The study showed that contaminants came primarily from the depot's past disposal operations and from accidental spills.

(Continued on back)



Continued

That study was completed at the end of 1990.

Specifically, the study showed that:

* A layer of water that is not used, lying about 75 feet beneath the ground surface of the depot, was contaminated with potentially hazardous compounds and metals. No depot-related contamination is present in water used for distribution to the public.

* The contamination is primarily beneath Dunn Field with a much smaller amount found under the main installation.

* The contaminants in the water beneath the depot have spread beyond the property's boundaries.

* Surface soils and surface water on the depot are contaminated in a half-dozen areas.

The 1990 study also determined that more investigation was required to properly restore the depot's environment. So, in 1994 the Corps of Engineers continued its investigation.

CURRENT AND PLANNED ACTIONS

Regularly scheduled groundwater sampling is taking place under the oversight of state and federal environmental regulators. This will establish groundwater trends for the entire installation. Sampling was done in June and September 1997. It will continue through 1998. The Corps has installed monitoring wells to determine the nature and extent of the ground water contamination beneath the western end of Dunn Field. The installation of wells is scheduled to be complete by June 1998.

In the meantime, the Corps has awarded a contract for a groundwater extraction system at Dunn Field in an interim effort to stop contamination from spreading and to remove the contaminants from the water beneath the field.

Soil sampling took place for the purpose of transferring and leasing depot property for economic redevelopment and to assure that no hazardous conditions will continue to exist on property used by DDMT. Sampling was done to determine the levels of contamination at sites across the depot and the preliminary results have been discussed with the Tennessee Department of Environmental Conservation and the Environmental Protection Agency. Several sites are now leasable.

Other investigative field work to collect and analyze soil, sediment, and surface water samples where contamination is know to have occurred is also taking place. The field work is scheduled for completion in May 1998. This investigation will determine if there is a need for early cleanup actions or if clean up should wait until the formal cleanup plan is approved.

SUMMARY

The Defense Logistics Agency and the Corps of Engineers take seriously their obligation to cleanup the contaminants left behind at DDMT from past practices. Several actions are underway to further examine the contamination and to reduce the amount of contamination until a overall cleanup strategy is approved.

Federal law requires that this final strategy be presented to the public as a "proposed plan" and that public concerns be addressed before defining the specific clean-up requirements in a "record of decision." The agencies are also working together so that land can safely be made available for economic redevelopment.

Environmental health scientists from the national Agency for Toxic Substance and Disease Registry have studied the environmental circumstances at DDMT and have concluded that people living near the depothave not been exposed to contamination at levels that could cause health problems. This conclusion will be reevaluated as part of the risk assessment process required during the site investigation.

For More Information Public Affairs Office (205) 895-1690 http://www.ind.usace.army.mil-

283 2



ENVIRONMENTAL FACT SHEET Defense Depot Memphis, Tennessee

U.S. Army Corps of Engineers ® Huntsville Center

February 199

Working Toward a Safer Tomorrow Cleanup of Recovered Chemical Warfare Materiel

The Site

The Defense Depot Memphis, Tennessee (DDMT), covers 642 acres of land in Memphis, Shelby County, Tenn. Throughout its fifty-five years of operation, the site was used as a warehousing and supply distribution point for military services and some civilian agencies.

It began operations in 1942 during which time the Chemical Warfare Section was activated at the defense depot. At that time it functioned as a storage and distribution site specifically for the Army's engineer, chemical, and quartermaster corps.

Chemical Warfare Materiel

In 1946, a single incident occurred involving bombs filled with the toxic blistering agent, Mustard. The World War II German chemical bombs were being shipped by railroad between the shipping port at Mobile, Ala., and storage facilities at Pine Bluff Arsenal, Ark. Some munitions were found to be leaking the Mustard chemical agent while the railcars were traveling through Memphis on the Missouri Pacific Railroad. Three railcars carrying the munitions were moved to the depot where the munitions could be handled properly.

Twenty-nine bombs were decontaminated at Dunn Field by being drained into a pit containing bleach and then burned. The bomb casing were detonated and then were probably buried in the pit.

In addition, the depot operated as a supply point for the Chemical Corps. It likely stored chemical agent identifications sets. Chemical agent identification sets are kits of glass vials that contain dilute solutions of chemical warfare agents. The glass vials were used to train soldiers to identify the odors of chemical agents.

Environmental Restoration

The Corps of Engineers has begun a study, an "engineering evaluation/cost analysis," to confirm the exact location and extent of the buried chemical warfare materiel. An engineering evaluation/cost analysis provides a detailed look at the situation and recommends alternate courses of action. The study requires field work, soil sampling and the use of sophisticated detection devices (similar to metal detectors).

The study is being conducted by Parsons Environmental Services, Inc. Before Parsons could begin its work, the company had to prepare

(Continued on back)

Centinuod

comprehensive work and site safety and health plans that required approval through the Corps of Engineers, the Department of Defense, and the national Department of Health and Human Services. So far, the Corps has approved only the work plan for geophysical work that does not require digging. Field work began in January 1998.

A draft engineering evaluation/cost analysis will be completed in the summer of 1998 at which time it will be presented to the state environmental regulators and the public for comment. No decisions are made about a response to these buried items until these comments are received.

Chemical warfare materiel has been successfully and safely recovered from various sites across the country: a suburb of Washington, D.C., in 1993; the Mississippi State Fairgrounds in Jackson, Miss., in 1995; the former Raritan Arsenal in Edison, N.J, in 1996; and the former Fort Ord, Calif., in 1997.

Summary

The Defense Logistics Agency and the Corps of Engineers take seriously their obligation to cleanup the recovered chemical warfare materiel left behind at DDMT from past practices.

The circumstances surrounding the chemical warfare materiel at the defense depot are well-documented and therefore the Corps is confident that the burials are not extensive. They are limited and isolated to Dunn Field.

Also, while the contents of these buried items can be toxic and dangerous, the procedures and precautions used by the Corps of Engineers assure public safety while the investigation and, later, the removal actions take place.







