



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 1003



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, S.W.
ATLANTA, GEORGIA 30303

October 21, 2009

4SFD/FFB

Mr. Michael A. Dobbs
Environmental Program Manager
Defense Distribution Center
S Avenue, Bldg. 1-2
DES-DDC-EE
New Cumberland, PA 17070-5000

Re: EPA Approval of DLA's Demonstration That the Remedial Action Conducted OU-1 (Dunn Field) at the Former Memphis Depot NPL Site is Operating Properly and Successfully

Dear Mr. Dobbs:

By this letter EPA recalls its previous approval letter dated September 21, 2009. The recall is due to errors identified in the text. This letter continues to provide EPA approval as before.

In your letter dated June 9, 2009, with supporting technical memorandum (TM), you submitted a demonstration by the Defense Logistics Agency (DLA) that the remedial action (the Remedy) currently being conducted on Department of Defense (DOD) property at Dunn Field (CERCLIS operable unit 1) at the Former Memphis Defense Depot is in place and is operating properly and successfully (OPS), as required under Section 120(h)(3) of the Comprehensive Response, Compensation, and Liability Act (CERCLA). The supporting TM contained the rationale, objective data and weight of evidence you deem sufficient to support your demonstration for review by the U.S. Environmental Protection Agency, Region 4 (EPA). EPA hereby approves of the DLA's demonstration that the remedy at OU-1 on Dunn Field is in place and operating properly and successfully. EPA approval of this OPS demonstration is a pre-condition to the deed of transfer of this federally-owned property. It is solely for the purpose of allowing property transfer to proceed while a long-term remedy is operating, and does not imply that all cleanup actions are completed. This approval is made without any independent EPA investigation or verification but rather, by taking into account case-specific circumstances presented by DLA and evaluation criteria contained in EPA's Guidance for Evaluation of Federal Agency Demonstrations that Remedial Actions are Operating Properly and Successfully Under CERCLA Section 120(h)(3). EPA expressly reserves all rights and authorities relating to information not contained in the DLA submittal, whether such information is known as of this date, or discovered in the future. EPA's approval applies only to the property known as Dunn Field, which contains known releases of hazardous substances, pollutants, or contaminants. EPA has worked closely with DLA and the Tennessee Department of Environment and Conservation (TDEC) over more than a decade

to ensure that appropriate response actions have been considered in cases where the DLA/DOD stored for one year or more, or released, hazardous substances.

The elements of the Remedy that are relevant to this OPS demonstration were selected in a record of decision (ROD) approved by the EPA on April 12, 2004, as amended on March 19, 2009. The Remedy includes remedial actions for surface and subsurface soils and ground water. In addition to approval of the ROD, EPA reviewed and approved the remedial design (RD) for this Remedy. EPA has also reviewed a final and an interim remedial action completion report (IRACR) submitted by DLA, as further discussed below. The IRACR summarizes the ROD and the RD process, and fully documents all actions taken to implement the Remedy within the Dunn Field boundary that are the subject of this OPS demonstration. The IRACR documents operational details of all remedial actions, as well as contaminant trend data indicating significant ongoing reductions in concentration. EPA has conducted site visits during construction and operation, and participated in regular site meetings to follow progress of the Remedy. The rationale for EPA's approval of the OPS demonstration is presented below, organized by the environmental media addressed by the Remedy.

Surface Soil

Land use controls (LUCs) are the primary means selected in the ROD for controlling unacceptable exposures to surface soil. A land use control implementation plan (LUCIP) was approved by EPA. This LUCIP contains enforceable measures that are currently in place, as well as additional LUCs to be implemented during transfer activities (e.g., deed restrictions to prevent residential development). These are the only measures necessary to address contaminated surface soil. DLA is implementing the LUCIP and has submitted annual reports, as required, since its approval. The LUCIP includes figures depicting the area within which specific LUCs apply. DLA/DOD is obligated to conduct periodic inspections to ensure that the LUCs remaining place and are not violated, for as long as the conditions at the site do not allow for uncontrolled use and unlimited exposure.

Subsurface Soil

Remedial actions to address releases of two distinct natures have been implemented for subsurface soils: solid materials disposed of in pits and trenches, and liquids disposed in trenches and through surface disposal that have contaminated soil and ground water. In 2005, DLA completed excavation of disposal pits to remove solid and hazardous wastes that were determined to present unacceptable risk to hypothetical future excavation workers. The contents of the pits were disposed off-site in compliance with applicable laws and regulations. Completion of this action was documented in a Remedial Action Completion Report (RACR) and approved by EPA. There are no ongoing operations associated with this action.

The remedial action objective (RAO) for general subsurface soils (excluding disposal pit contents) was to prevent further release of chlorinated volatile organic compounds (CVOCs) within the vadose zone (from ground surface to approximately 70 feet below) to ground water in excess of MCLs or risk-based concentrations. In 2007, DLA initiated treatment of CVOCs through installation of a soil vapor extraction system (SVE). The SVE system has been shown by DLA to have halted the migration of CVOCs to ground water and removed them from the subsurface. The

system continues to operate *and is the only active element of the Remedy that continues under operation and maintenance (O&M)* on DOD property at Dunn Field. SVE is expected to achieve the soil cleanup levels established in the ROD within 3 to 5 of this OPS approval.

In 2008, DLA supplemented the SVE system with in-situ thermal desorption (ISTD), a soil heating technology, to address CVOCs in the clay-rich top 30 feet of the vadose zone. The ISTD operated for approximately 5.5 months and confirmation sampling of soils within the treatment zone determined that the Remedy achieved the relevant soil cleanup levels selected in the ROD. Operation of the ISTD system was terminated and the system was demobilized from the site.

Ground Water

The 2004 ROD called for in-situ treatment of high-concentration ground water under the source areas, and for preventing use of the shallow ground water for drinking or other consumptive use. The LUCIP implements LUCs to address the latter objective. Ground water LUCs will continue until the remedial action objective to restore ground water to drinking water quality has been achieved.

Subsequent to initiation of SVE, CVOC concentrations in ground water under the source areas declined dramatically, such that EPA, TDEC, and DLA agreed that there was no longer any high-concentration ground water within the source areas within the meaning of the 2004 ROD. The element of the original remedy that called for treatment of high concentration ground water contamination on Dunn Field was therefore eliminated through the 2009 ROD Amendment. Ground water monitoring continues both on and off of the property, and the low concentrations of CVOCs that remain (less than 50 ug/L of any individual analyte) will be captured by a ground water treatment system constructed under the Dunn Field ROD to address ground water contamination that has migrated from, and is located outside, the property boundaries of the Depot.

Based on review of the relevant documents, site visits, and long-term participation by EPA personnel, the Agency hereby determines that the Remedy on Dunn Field is operating properly and successfully within the meaning of CERCLA section 120(h)(3). If you have any questions, please contact me at 404/562-8553.

Sincerely yours,

**Wm. Turpin
Ballard**

Digitally signed by Wm. Turpin Ballard
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Wm. Turpin Ballard, RPM
Federal Facilities Branch
Superfund Division
U.S. EPA, Region 4

Cc: Jamie Woods, DOR/TDEC/Memphis
Martha Brock, EAD/OLS

References

1. Defense Logistics Agency, Transmittal Memorandum, June 9, 2009 – *Operating Properly and Successfully Demonstration, Source Areas RA Dunn Field – Defense Depot, Memphis Tennessee*
2. Defense Logistics Agency (e2m Report), May, 2009 – *Source Areas Interim Remedial Action Completion Report*
3. Defense Logistics Agency (CH2M Hill Report), April 2007 – *Memphis Depot Dunn Field Source Areas Final Remedial Design*
4. Defense Logistics Agency (CH2M Hill Report), April 2004 – *Memphis Depot Dunn Field Record of Decision*
5. e2m Technical Memorandum, June 3, 2009. *Operating Properly and Successfully Demonstration - Source Areas Remedial Action Dunn Field - Defense Depot Memphis, Tennessee*
6. U.S. Environmental Protection Agency, Guidance, 1996 – *Interim Guidance for Evaluation of Federal Agency Demonstrations that Remedial Actions are Operating Properly and Successfully under CERCLA Section 120 (h)(3)*

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