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NSA MID SOUTH
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STATEMENT OF BASIS SOLID WASTE MANAGEMENT UNIT 48 (SWMU 48) FORMER
HAZARDOUS WASTE ACCUMULATION POINT AT BUILDING S-9 MILLINGTON SUPPACT
TN
11/01/2005
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

STATEMENT OF BASIS



SWMU 48 — Former Hazardous Waste Accumulation Point at Building S-9 Naval Support Activity Mid-South Millington, Tennessee



Purpose of the Statement of Basis

This Statement of Basis (SB) has been prepared to inform the public and provide an opportunity to comment on a proposed remedy at solid waste management unit (SWMU) 48 — Former Hazardous Waste Accumulation Point at Building S-9 at Naval Support Activity (NSA) Mid-South, Millington, Tennessee. NSA Mid-South is responsible for corrective action at SWMU 48, as required by a Resource Conservation and Recovery Act (RCRA) permit. The Tennessee Department of Environment and Conservation (TDEC) has determined that the proposed remedy of No Further Action is protective of human health and the environment.

Before the remedy is finalized, TDEC would like to give the public an opportunity to comment

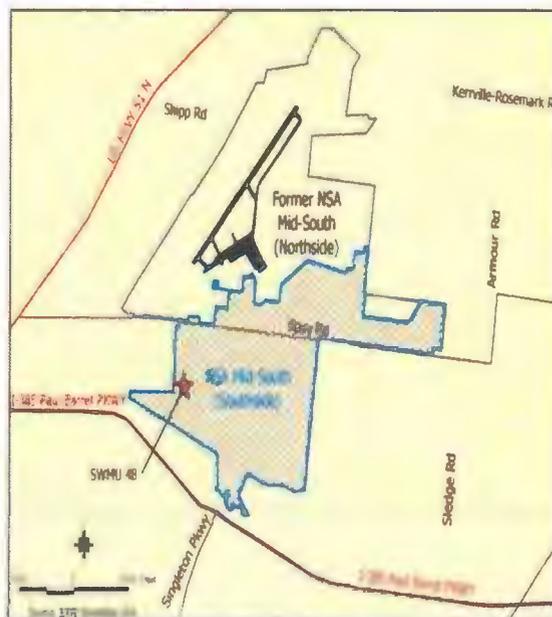


Figure 1 SWMU 48 at NSA Mid-South in Millington, Tennessee

Site Description
SWMU 48 is located approximately 150 feet north of Ticonderoga Street on NSA Mid-South's Southside (Figure 1), and on the service (west) side of the Building S-9 complex, just outside overhead doors and work bays. Reportedly operated since 1950, SWMU 48 consists of various inactive hazardous waste accumulation points for containerized paint thinners, degreasing agents, and batteries. No visual evidence of a release was identified during a 1990 inspection.

on the proposed remedy. At any time during the comment period, the public may comment as described in the following section "How Can You Participate?" Upon closure of the public comment period, TDEC will evaluate all comments and determine if there is a need to modify the proposed remedy.

remedy as the final one. The final remedy for SWMU 48 — Former Hazardous Waste Accumulation Point at Building S-9 will be incorporated in the Hazardous and Solid Waste Amendments Permit TNHW-094 for NSA Mid-South, scheduled to be updated in 2006.

Public comment on this SB and the proposed remedy will begin on the date that a notice of the SB's availability is published in *The Millington Star* and *The Commercial Appeal*, local daily newspapers. Since community input could affect selection of a final remedy for SWMU 48, a public comment period has been established for 45 days from (*insert date*). If requested during the comment period, TDEC will hold a public meeting to respond to any oral comments or questions regarding the proposed remedy. To request a hearing or to provide comments, contact the following person in writing within the 45-day comment period:

How Can You Participate?

TDEC solicits public review and comment on this SB prior to implementation of the proposed



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Investigative reports and documents related to SWMU 48 are referenced at the end of this SB and are included in the Administrative Record, which can be reviewed in the Information Repository that was established to provide public access to documents pertaining to the Navy's environmental program. The Information Repository is maintained at:

Millington Public Library
4858 Navy Road
Millington, Tennessee 38053
(901) 872-1585

Background Summary

Past operations at the former Naval Air Station (NAS) Memphis included metal plating, manufacturing, and other operations that involved the use of toxic and hazardous materials. Land use changed as a result of the 1990 Base Closure and Realignment (BRAC) Act, and the name of the facility was changed from NAS Memphis to Naval Support Activity (NSA) Mid-South.

A significant portion of NSA Mid-South's Northside was transferred to the City of Millington, and the remaining property was realigned (i.e., an operation was reassigned from NSA Mid-South to another facility, and/or an operation from another facility was reassigned to NSA Mid-South). Three facility operations changed: (1) Navy airfield operations ceased in October 1995, (2) training operations were realigned to NAS Pensacola in 1996, and (3) administrative operations for the

Navy Bureau of Personnel were realigned from Washington, D.C., to NSA Mid-South in 1997.

SWMU 48 is part of the remaining NSA Mid-South property. An open area of unprotected ground surface and on the service (west) side of the Building S-9 complex, just outside overhead doors and work bays, is the area identified as SWMU 48. Operated since 1950, SWMU 48 reportedly served as a storage area for containerized paint thinners, degreasing agents, and batteries. However, no visual evidence of a release was identified during a 1990 inspection.

As required by the Navy's RCRA Permit, NSA Mid-South is required to evaluate and assess all SWMUs for potential environmental impacts. Due to the former operations at the site, SWMU 48 was designated as a site warranting further evaluation to determine its potential risk to human health and the environment. Previous investigations at SWMU 48 include the *RCRA Facility Assessment* (RFA; ERC/EDGE, 1990) and a *Confirmatory Sampling Investigation* (CSI; EnSafe, 2000), from which the subsequent *Voluntary Corrective Action Report* (VCA; EnSafe, 2001) was produced and describes the removal of petroleum-contaminated soil at SWMU 48. Analytical results from the CSI and VCA resulted in a "No Further Action" remedy for SWMU 48. The basis for the remedy selection is provided under the "Summary of Contaminant Evaluation" and "Summary of Site Risk" sections of this SB.

Summary of Contaminant Evaluation

The primary objective of the CSI was to determine whether a release had occurred at SWMU 48. During the CSI, a soil investigation was conducted, but no groundwater samples were collected. Soil samples were collected in and around the former hazardous waste accumulation area. Eight soil samples were



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collected from four locations as shown on Figure 2 (Attachment 1), one outside each bay on the western side of Building S-9 in the area of the hazardous waste accumulation point. Two samples were collected at each location, one below the asphalt/concrete (to approximately 1 foot deep) and one 3-4 foot deep. The surface soils were used to inspect for surface releases, and subsurface samples were used to better define the vertical extent of contamination. The soil samples were analyzed for indicators of the types of materials once stored at SWMU 48 and included volatile organic compounds, semi-volatile organic compounds, Appendix IX metals, and total petroleum hydrocarbons. A summary of major findings is provided below.

Soil

Contaminant concentrations were compared to the United States Environmental Protection Agency's (USEPA) residential risk-based screening concentrations (RBCs) and site background reference concentrations, where applicable. Because no RBC values exist for total petroleum hydrocarbons (TPH), TDEC soil cleanup values were used for comparison.

Arsenic exceeded its residential and industrial RBCs; however, all detections were below the NSA Mid-South calculated reference background concentration. Therefore, arsenic was not deemed to be a contaminant of potential concern because it was found at concentrations comparable to natural soil background levels at the site.

TPH was detected in all eight soil sample. Of these, seven samples had detections between 120 parts per million and 230 ppm, which are above the most conservative TDEC soil cleanup value of 100 ppm. Based on these detections, the CSI recommended that the TPH-contaminated soil be removed. Details of

the soil removal are provided under the "Removal Actions" section of this SB.

Groundwater

Because SWMU 48 is within the SWMU 17 RFI area, SWMU 48 groundwater was addressed with SWMU 17. Consequently, no groundwater samples were collected at SWMU 48.

Summary of Site Risk

As part of the CSI, risks to human health and the environment from the contaminants identified at SWMU 48 were evaluated using human health and ecological risk assessments, which were developed in accordance with existing USEPA and TDEC methods.

No risks were identified based on TPH because the risk evaluation methods were based on individual chemicals only, and TPH includes multiple chemicals. However, TPH was identified as a concern based on TDEC's most conservative cleanup value of 100 ppm (EnSafe, 2000). The overall recommendation of the CSI was to remove TPH-contaminated soil to within TDEC-acceptable levels.

Human Health Risk

Analytical data collected from soil samples collected during the CSI were evaluated and compared to risk-based screening values. No chemicals of concern were identified. As discussed above, no groundwater samples were collected at SWMU 48.

Ecological Risk

The immediate area around SWMU 48 is covered with asphalt and is within the developed areas of NSA Mid-South. The CSI concluded that no complete exposure pathway exists due to lack of habitat and receptors. Consequently, without an exposure pathway, there are no ecological risks.



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Removal Actions

Based on the CSI recommendation, soil at SWMU 48 was excavated to dimensions of 6 feet wide by 6 feet long, to a depth of 5 feet below ground surface, to remove petroleum-contaminated soil in all four areas outside the Building S-9 work bays. The excavated soils were not visibly stained and had no petroleum odor. Following excavation, one five-part composite sample was collected from each of the SWMU 48 excavation areas (see Figure 2, Attachment 1); the composite samples included soils from the excavation bottoms and side walls. All confirmation TPH results were less than the most conservative TDEC cleanup standard of 100 ppm.

Results of the removal actions were forwarded to the USEPA and TDEC on June 29, 2001, in a *Voluntary Corrective Action Report*. Included in the report was a recommendation for No Further Action (EnSafe, 2001). Based on this report, TDEC approved the No Further Action request on August 24, 2001.

Selected Remedy for SWMU 48

Since TDEC's goals for human health and ecological risks have been met, no alternative remedies were evaluated. The Navy's proposed remedy of No Further Action is considered protective of human health and the environment. The remedy meets the four general standards of corrective measures, which are:

- Overall protection of human health and the environment
- Attainment of media cleanup standards
- Controlling the sources of release and
- Compliance with standards for management

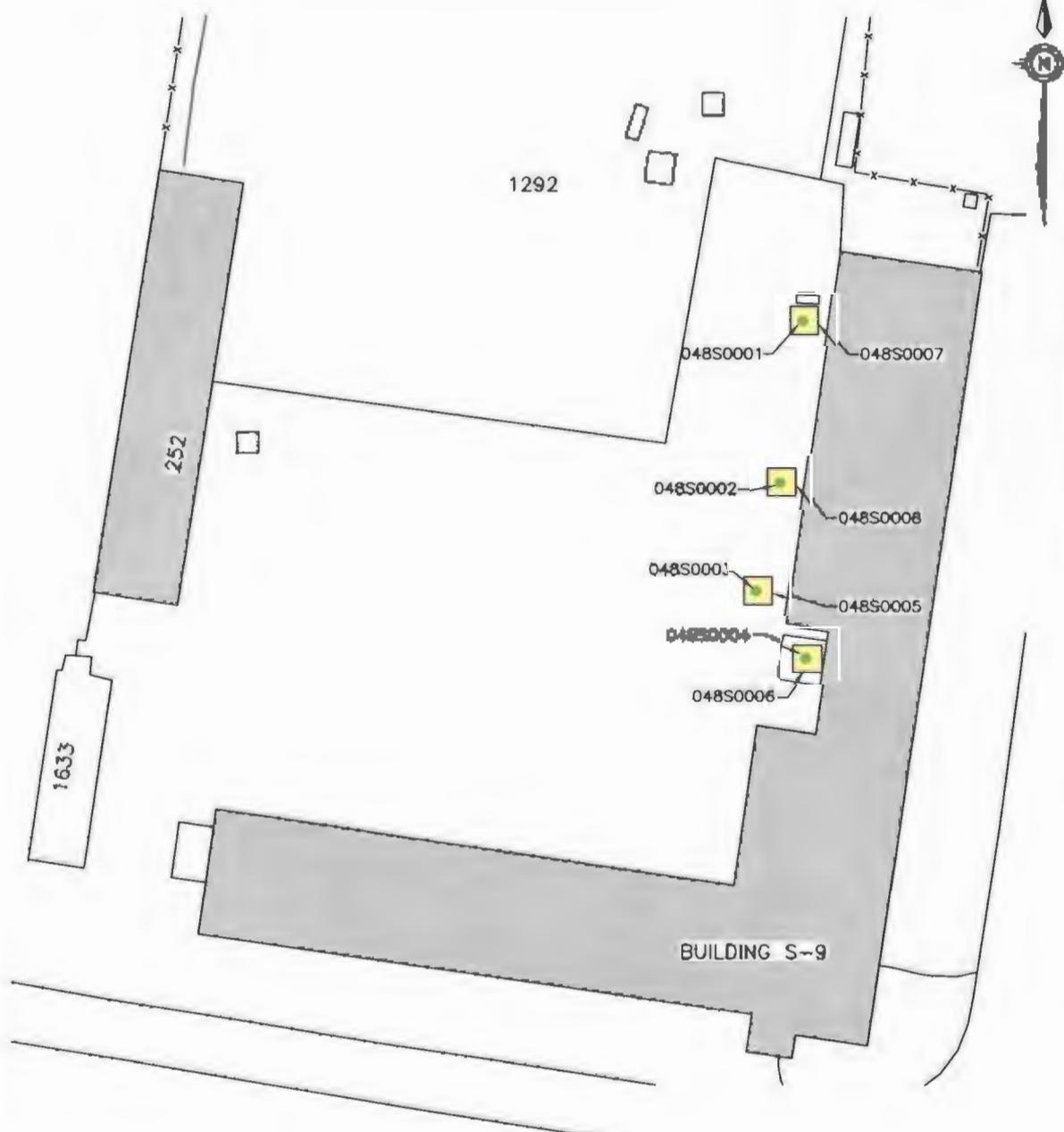
There are no site-related contaminants that would pose an excessive risk to an unrestricted reuse of the property or warrant implementation of institutional controls.

References

- EnSafe Inc. (2000, April 28). *Confirmatory Sampling Investigation Report, Assemblies G and H, Naval Support Activity Mid-South, SWMUs 23, 24, 41, 43, 47, 48, 49, and 61*. Revision 2. Memphis, Tennessee.
- EnSafe Inc. (2001, June 29). *Voluntary Corrective Action Report, RCRA Facility Investigation, Naval Support Activity Mid-South, Petroleum-Contaminated Soil Removal Buildings S-362/SWMU 65, S-235, S3-94, N-114/SWMU 24, N-1211, N-105, N-108, S-203, SWMU 41, SWMU 43, SWMU 47, SWMU 48, and SWMU 49*, 2001. Revision 1. Memphis, Tennessee.
- ERC/EDGE. (1990, September). *RCRA Facility Assessment (RFA), NAS Memphis*. Nashville, Tennessee.

Attachment 1
Figure

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K:\CAD\084\084-001\08S001000_FIG 2_SWMU 48 STATEMENT OF BASIS SOIL SAMPLING LOCATIONS.DWG



- LEGEND**
- - CSI SOIL SAMPLE LOCATION
 - 048S0005 - CONFIRMATION 5-PART COMPOSITE SOIL SAMPLE LOCATION FROM VCA
 - - EXCAVATION AREA (FORMER HAZARDOUS WASTE ACCUMULATION AREA)
 - - AREA OF INVESTIGATION
 - - NSA MID-SOUTH BOUNDARY
 - - BUILDING



FIGURE 2
SWMU 48 STATEMENT OF BASIS
SOIL SAMPLE LOCATIONS