

N00639.AR.002404  
NSA MID SOUTH  
5090.3a

STATEMENT OF BASIS SOLID WASTE MANAGEMENT UNIT 23 (SWMU 23)  
UNDERGROUND STORAGE TANK S-8 FIRE STATION 1 MILLINGTON SUPPACT TN  
08/01/2005  
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION



STATEMENT OF BASIS

SWMU 23 — UST S-8, Fire Station No.1  
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 the proposed remedy at solid waste management unit (SWMU) 23 — S-8 Underground Storage Tank at Naval Support Activity (NSA) Mid-South, Millington, Tennessee. NSA Mid-South is responsible for corrective action at SWMU 23, 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

**Site Description**  
Located south of Building S-8 on NSA Mid-South's Southside, SWMU 23 (Figure 1) is the underground storage tank (UST) reportedly used for storage for No. 2 fuel oil and/or diesel fuel from 1944 through 1987. SWMU 23 and surrounding areas are of low relief, generally draining south and west. During a 1992 attempt to remove the UST, the UST could not be located; the excavation was backfilled and compacted. Additional investigation and geophysical data suggest anomalies nearby but do not indicate presence of a UST.

to give the public an opportunity to comment on the proposed remedy. At any time during the public 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.

**How Can You Participate?**

TDEC solicits public review and comments on this SB prior to implementation of the proposed remedy as the final one. The final remedy for SWMU 23 will be incorporated into the Hazardous and Solid Waste Amendments Permit TNHW-094 for NSA Mid-South, scheduled to be updated in 2006.



Figure 1 SWMU 23 at NSA Mid-South, Millington, Tennessee

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 23, 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 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:



## STATEMENT OF BASIS

### ***SWMU 23 — UST S-8, Fire Station No.1 Naval Support Activity Mid-South Millington, Tennessee***



**Mr. Roger Donovan**  
**TDEC — Division of Solid Waste**  
**Management**  
**5th Floor, L&C Annex**  
**401 Church Street**  
**Nashville, TN 37243-1538**  
**Telephone: (615) 532-0864**  
**Email: [roger.donovan@state.tn.us](mailto:roger.donovan@state.tn.us)**

Investigative reports and documents related to SWMU 23 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 23 is part of the remaining NSA Mid-South property.

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 reported former storage of fuel oil and diesel fuel at the site, SWMU 23 was designated as a site warranting further evaluation to determine whether or not a risk to human health and the environment is present. Previous investigations at SWMU 23 include the underground storage tank removal (National Salvage, 1992), the *RCRA Facility Assessment* (RFA; ERC/EDGE, 1990), and the *Confirmatory Sampling Investigation* (CSI; EnSafe, 2000). The analytical results from the CSI resulted in a "No Further Action" remedy. 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**

SWMU 23 was initially investigated as part of the RFA at NSA Mid-South, from which a report was produced in 1990. No visual evidence of a release was identified in 1990 (ERC/EDGE, 1990) and in 1992, an attempt to locate and remove the UST was completed, though unsuccessful. The 1992 closure report (National Salvage, July 2, 1992) discussed the attempt to locate the UST near Building S-8, as contractors excavated 11 feet of apparently disturbed soil but found no evidence of contamination. A subsequent geophysical



## STATEMENT OF BASIS

### *SWMU 23 — UST S-8, Fire Station No.1 Naval Support Activity Mid-South Millington, Tennessee*



survey was completed but no anomalies suggestive of an in-place metal UST were identified.

As described in the CSI, an investigation was conducted at SWMU 23 to determine if a release had occurred. Figure 2 (Attachment 1) shows the SWMU 23 sample locations; results of the CSI are outlined below per media and accompany a discussion of any potentially associated risks.

#### ***Soil***

During the CSI, five soil samples were collected in the suspected area of the UST. Surface soil (0-1 foot deep) was collected from locations 023X0004 and 023X0006; subsurface soil (12-15 feet deep) was collected from locations 023X0003, 023X0005, and 023X0007. Since the depth of the UST was unknown, the sampling interval was estimated based on the 500-gallon UST described in the 1990 RFA report. For risk assessment purposes, surface soil samples were submitted for volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), chlorinated pesticides/polychlorinated biphenyls (PCBs), organophosphorus pesticides, chlorinated herbicides, metals, cyanide, Total Petroleum Hydrocarbons (TPH) – Diesel Range Organics (DRO), TPH – Gasoline Range Organics (GRO), and TPH. Subsurface soil was analyzed for VOCs, TPH-GRO, and TPH-DRO.

Among the SWMU 23 soil samples collected, none exceeded the respective residential or industrial risk-based concentrations established by USEPA for screening soil (USEPA, 1999).

#### ***Groundwater***

During the CSI, two groundwater samples (locations 023X0001 and 023X0002) were collected from the fluvial deposits (i.e., sand and gravel) aquifer from a depth of approximately 50 feet below ground surface and analyzed for VOCs – the most mobile and suspected contaminants. Sample locations are shown on Figure 2 (Attachment 1). VOCs were not detected at either location.

#### ***Summary of Site Risk***

As part of the CSI, risks to human health and the environment from the contaminants identified at SWMU 23 were evaluated using human health and ecological risk assessments, which were developed in accordance with existing USEPA and TDEC methods.

#### ***Human Health Risk***

Analytical data from surface soil samples collected during the CSI were evaluated and compared to risk-based screening values. No chemicals of concern were identified.

#### ***Ecological Risk***

During the CSI, potential ecological exposure pathways were evaluated at SWMU 23. The area including SWMU 23, and its immediate vicinity, is both concrete- and grass-covered. Results of the exposure assessment showed that no ecological receptors exist at SWMU 23; therefore, no complete exposure pathways exist. Consequently, without an exposure pathway, there is no ecological risk.

#### ***Selected Remedy***

Results of the CSI investigation were forwarded to the USEPA and TDEC on April 28, 2000. Included in the report was a recommendation for No Further Action. Based on this report,



## STATEMENT OF BASIS

### *SWMU 23 — UST S-8, Fire Station No.1 Naval Support Activity Mid-South Millington, Tennessee*



regulatory approval of the No Further Action request was received from TDEC (on May 19, 2000) and USEPA (on June 8, 2000).

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
- 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 – SWMUs 23, 24, 41, 43, 47, 48, 49, and 61, NSA Memphis, Millington, Tennessee. Revision: 2.* Memphis, Tennessee.

EnSafe/Allen & Hoshall. (1997, July 28). *Technical Memorandum. Geophysical Investigation for USTs, Buildings N-5*

*and N-6 and SWMU 23, NSA Memphis. Memphis, Tennessee.*

ERC/EDGE. (1990, September). *RCRA Facility Assessment (RFA), NAS Memphis.* Nashville, Tennessee.

National Salvage. (1992, July 2). *UST Closure Report (SWMU 23).*

U.S. Environmental Protection Agency. (1996). *Drinking Water Regulations and Health Advisories*, October 1996. USEPA Office of Water: Washington, D.C.

**Attachment 1**  
**Figure**

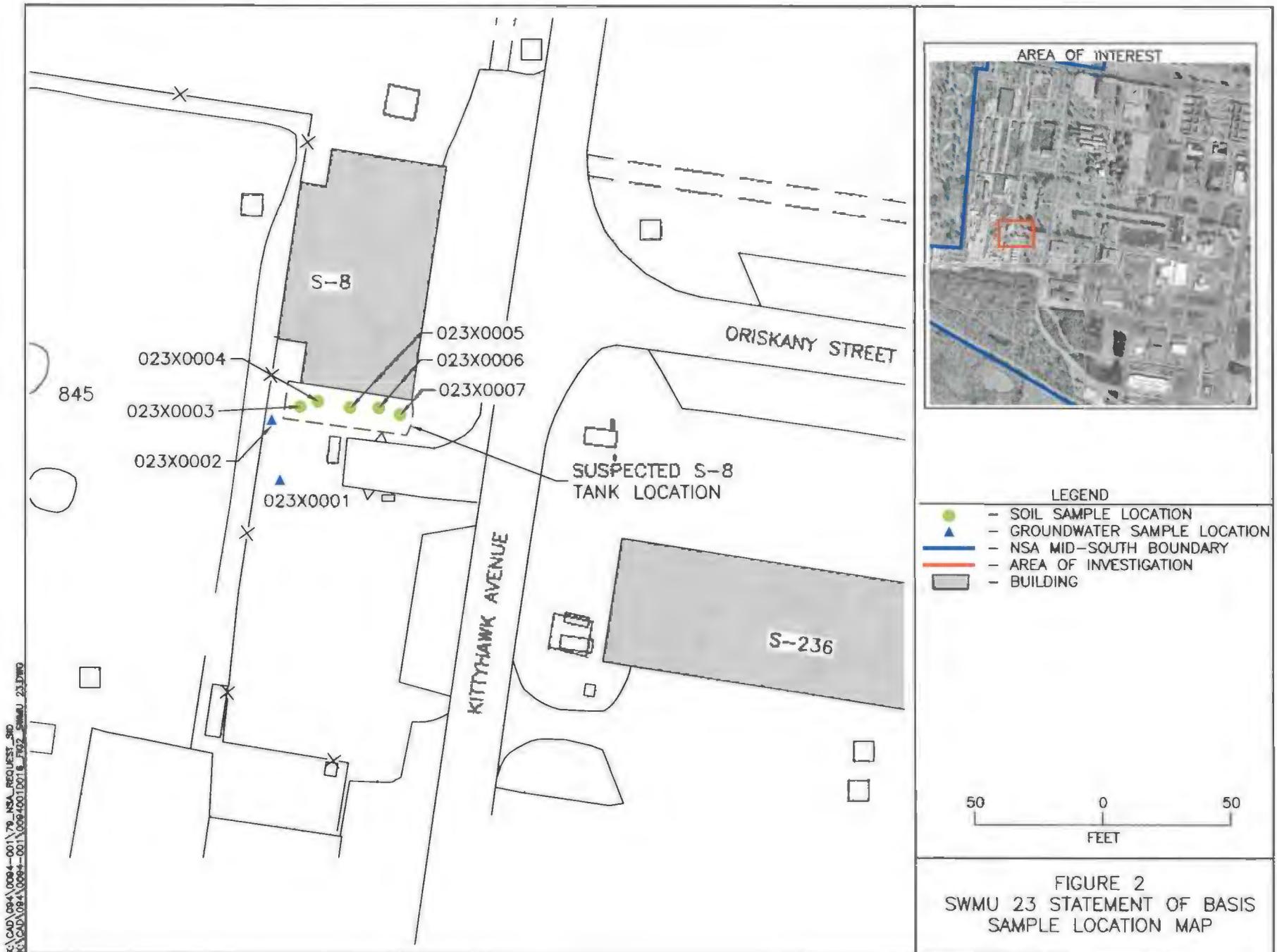


FIGURE 2  
SWMU 23 STATEMENT OF BASIS  
SAMPLE LOCATION MAP