



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 331

DRAFT**1.0 Introduction**

This Record of Decision has been prepared to document a decision that no action is necessary at several sites in Operable Unit 3 of the Defense Depot Memphis Tennessee (DDMT) Facility. It is organized into three sections. This section, the introduction, contains Subsection 1.1 (Facility Description and History), Subsection 1.2 (History of CERCLA Activities at DDMT) and Subsection 1.3 (Operable Unit 3 Description). Section 2.0 describes each site that has been designated for no further action, along with supporting information. Section 3.0 contains a declaration statement signed by DDMT, TDEC, and EPA representatives.

1.1 Facility Description and History

This subsection describes the location and characteristics of the DDMT facility and the history of CERCLA activities at DDMT.

1.1.1 Defense Depot Memphis Tennessee (DDMT) Facility Description and Location

DDMT covers 642 acres of land in Memphis, Shelby County, Tennessee, in the extreme southwestern portion of the state. The installation contains approximately 110 buildings, 26 miles of railroad track, and 28 miles of paved streets. Approximately 5.5 million square feet is covered storage space and approximately 6.0 million square feet is open storage space. The DLA, an agency of the DOD, provides logistics support to military services. As a major field installation of the DLA, DDMT receives, warehouses, and distributes supplies common to all U.S. military services and some civil agencies located primarily in the southeastern United States, Puerto Rico, and Panama. Stored items include food, clothing, electronic equipment, petroleum products, construction materials, and industrial, medical, and general supplies.

DDMT is located approximately 5 miles east of the Mississippi River and just northeast of the Interstate 240-Interstate 55 junction. DDMT is in the south-central section of Memphis, approximately 4 miles southeast of the Central Business District and 1 mile northwest of Memphis International Airport. Airways Boulevard borders DDMT on the east and provides primary access to the installation. Dunn Avenue, Ball Road, and Perry Road serve as the northern, southern, and western boundaries, respectively.

DDMT is divided into four OUs for evaluation purposes. Dunn Field is designated OU-1. The Main Installation is divided into three areas: the southwestern quadrant, OU-2; the southeastern lakes and golf course area, OU-3; and the north-central area, OU-4. Substances found in OU-1 probably resulted from use of the area for landfill operations, mineral stockpiles, pistol range use, and pesticides storage. Potential contamination of OU-2 may have resulted from spills or releases from the hazardous material storage and repouring area, sandblasting and painting activities, or both. Storage of polychlorinated biphenyls (PCBs) and the use of pesticides and herbicides are potential sources of contamination for OU-3. Principal contamination in OU-4 probably resulted from a wood treatment operation and hazardous material storage.

1.1.2 Facility Characteristics

The two main surface water features at DDMT are currently off-limits for recreational purposes and serve primarily as drainage reservoirs. Drainage channels on the facility drain either to Cane Creek or Nonconnah Creek. Cane Creek drains into Nonconnah Creek several miles southwest of DDMT; Nonconnah Creek, in turn, drains into Lake McKellar. Because DDMT lies well above the average Mississippi River alluvial valley flood levels and is generally higher than its adjacent properties, it is unlikely that flooding will occur at the installation.

Five distinct surface soil units have been mapped in the study area: Falaya Silt Loam, Filled Land-Silty, Graded Land, Memphis Silt Loam, and Memphis Silt Loam 2. The primary surface soil type is filled land for the developed portion of the depot.

The following geological units have been identified at DDMT: loess, which can contain "perched" water-bearing zones for short periods of time after a rainfall event; fluvial (terrace) deposits, which contain the site's shallow aquifer; the Jackson Formation/Upper Claiborne Group, which is a confining unit between aquifers; and the Memphis Sand, which represents the region's most important source of water.

1.2 History of CERCLA Activities at DDMT

As established in the NCP (40 *Code of Federal Regulations* [CFR] Part 300.120), the Department of Defense (DOD) is the lead agency at NPL sites involving federal facilities. Accordingly, EPA and TDEC have been identified as support agencies in this process. This section describes the designation of DDMT as an NPL site, the FFA, and the site classification process.

1.2.1 RCRA Part B Permit and Designation as an NPL Site

In 1989-90, as a part of the DOD Installation Restoration Program, DDMT initiated an RI/FS investigation of several known and suspected sources of contamination. This study was performed by Law Environmental through a contract with the CEHND. The final work plan for this effort was provided to EPA in April 1989. The study was performed in two phases, referred to as Phase I (primarily activities in 1989) and Phase II (primarily activities in 1990). The final *Remedial Investigation Report* was provided to EPA in August 1990, and the final *Feasibility Study Report* was submitted in September 1990. DDMT was issued a RCRA Part B permit (No. TN4 210 020 570) by the EPA, Region IV, and the TDEC on September 28, 1990. Subsequently, EPA added DDMT to the NPL by publication in the *Federal Register*, 199 FR 47180, on October 14, 1992.

1.2.2 Federal Facilities Agreement

DDMT has entered into a Federal Facilities Agreement (FFA) between the Defense Logistics Agency (DLA), EPA, and TDEC, which was signed on March 6, 1995. The agreement establishes a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions at DDMT in accordance with existing regulations and with achieving RCRA/CERCLA integration. Because of DDMT's status as an NPL site, it was agreed that the investigation of all applicable sites (those requiring remedial investigation) would proceed under the CERCLA process for remediation (remedial

investigation, feasibility study, proposed plan, record of decision, remedial design, and remedial action) and that this process will meet RCRA requirements.

1.2.3 Base Realignment and Closure

The decision to close DDMT was made as part of the Base Realignment and Closure Act of 1995 (BRAC95 subsequently referred to as BRAC). The facility was closed as of October 30, 1997. As part of the BRAC process, the equipment and supplies, including the material stockpiles have been removed from DDMT. The facility must complete the investigations and cleanup under CERCLA and other environmental programs before the facilities can be transferred to new owners.

1.2.4 Site Classification

Individual sites are classified as no further action, remedial investigation, or screening sites. Sites posing no threat to human health and the environment were identified and recommended as no further action sites. Individual sites having known releases were identified as RI sites. Finally, those sites where hazardous materials may have been managed and a release had been suspected, but not confirmed, were classified as screening sites. Investigations at screening sites result in either the site being elevated to RI status or reduced to NFA status.

Fieldwork for RI and Screening Sites was performed in 1995-1997. Letter reports were prepared to summarize the data and present the rationale for further RI/FS activities. A Preliminary Risk Evaluation was also performed using the data from the field investigations as well as data from the Law Environmental Investigation to evaluate potential risks posed by various contaminants that have been found in soil, surface water, and sediment. Results of the field investigations, and the PRE provide the basis for the No Further Action sites listed below:

Site 30-Paint Spray Booths	Site 49-Expired Medical Supplies Storage Area
Site 35-DRMO	Site 53-X-25 Flammable Solvents Storage Area
Site 40-Safety-Kleen Locations	Site 68-POL Building 263
Site 41-Satellite Drum Accumulation Areas	Site 69-Flamethrower Liquid Fuel
Site 43-Former Underground PCP Tank Area	Site 73-All Grassed Areas
Site 44-Former WWTU Area	Site 74-Flammables and Toxics Storage
Site 45-Former Contaminated Soil Staging Area	Site 81-Fuel Oil Building -765
Site 47-Former Contaminated Soil Drum Area	

These sites are shown on Figure 1-1.

1.3 Description of Operable Unit 3

OU-3 consists of approximately 320 acres and is located in the southeast quadrant of the Main Installation at DDMT. It is bounded by C Street on the north, 5th and 6th Streets on

the west, Ball Road on the south (installation boundary), and Airways Boulevard on the east (installation boundary).

Sites in OU-3 that have been classified as NFA sites (30,40,41, 49, 68,69,and 73) are included in this Record of Decision.

2.0 Site Descriptions

Section 2 describes each one of the sites in OU-3 that have been designated for No Further Action and supporting information.

2.1 Decision Summary for Site 30

2.1.1 Site Name, Location and Description

Site 30 consists of three Paint Spray Booths located in Buildings 1086 (OU-2), 770 (OU-2), and 260 (OU-3).

2.1.2 Site History and Enforcement Activities

A variety of paints has been used in the Paint Spray Booths that have been used for an unknown period of time. Discarded filters are placed in dumpsters and disposed as nonhazardous waste. No history or evidence of release has been identified at the sites of the paint booths.

The site was evaluated during the RFA conducted in 1990, with the results indicating that the potential for release from all release pathways was low. During the RFA there was no evidence of leaks or spills noted, and the site was designated for no further action. Additionally, the site has been designated for no further action in the FFA.

2.1.3 Scope and Role of Site 30

Site 30 consists of three Paint Spray Booths located in Buildings 1086 (OU-2), 770 (OU-2), and 260 (OU-3). Emissions from the areas are controlled by filters located on the back or side walls of the booths, which range in size from 8 ft x 10 ft to 24 ft x 10 ft. Paint from spraying operations passes through the filters as a fan, located on the opposite side of the filter, and forces air into a vent system. Figure 2-4 shows the site location.

2.1.4 Summary of Site 30 Risks

Because of the pollution control equipment in use at the site (filters) and the lack of hazardous or toxic materials released at the site, there appears to be no significant risk to human health or the environment from the site.

2.1.5 Description of NA Alternatives

From an analysis of all available and pertinent information for Site 30, the Paint Spray Booths, it is concluded that no remedial actions are necessary for the protection of human health or the environment. Therefore, the selected remedial alternative for the site is No Action under CERCLA. (Worker protection will continue to be regulated by OSHA.) This alternative will consist of leaving the site as is. No additional sampling or monitoring will be necessary, because the conditions at the site are protective of human health and the environment. This remedial alternative will have no costs associated with it.

2.2 Decision Summary for Site 40

2.2.1 Site Name, Location and Description

Site 40 is comprised of nine locations where Safety-Kleen solvent parts cleaning stations are located. The units consist of steel holding tanks supported by steel legs, ranging in size from 20 to 40 gallons. The units are located in buildings and are self-contained. Five units are located in Building 770, and one unit is located in each of Buildings 689, 490, 253, and 469.

2.2.2 Site History and Enforcement Activities

The spent solvent is recirculated before periodic replacement by the Safety-Kleen Corporation, which leases and maintains the units. The units have been used since 1985 in various locations.

The site was evaluated during the RFA conducted in 1990, with the results indicating that the potential for release from all pathways was low. There was no history or evidence of uncontrolled leaks or spills, the units appeared to be in good condition, and the site was designated for no further action. Additionally, the FFA designates this site as a No Further Action Site.

2.2.3 Scope and Role of Site 40

The Safety-Kleen units are used for carburetor and cold parts cleaning. New cleaning material contains 11.9 percent cresylic acids, 31.7 percent methylene chloride, and 81.3 percent ortho-di-chlorobenzene. Used material generally is contaminated with various oils and greases from the parts themselves. Safety-Kleen supplies the units, brings in the cleaning solutions, periodically returns to remove the used material, and provides new solution. Safety-Kleen handles the manifesting, transporting, and recycling of the material. Unusual material, by loss or gain of volume, color or odor change, or other physical change, is noted and investigated by Safety-Kleen.

2.2.4 Summary of Site 40 Risks

A minimal level of risk exists because hazardous materials are handled in these units. These risks are controlled through the design and handling criteria regulated under RCRA. Because of the equipment design and procedural controls, there is no significant risk to human health or the environment.

2.2.5 Description of NA Alternatives

From an analysis of all available and pertinent information for Site 40, the Safety-Kleen Locations, it is concluded that no remedial actions are necessary for the protection of human health or the environment. Therefore, the selected remedial alternative for the site is No Action under CERCLA. This alternative will consist of leaving the site as is. No additional sampling or monitoring will be necessary, because the conditions at the site are protective of human health and the environment. This remedial alternative will have no costs associated with it.

2.3 Decision Summary for Site 41

2.3.1 Site Name, Location and Description

Five satellite drum storage areas make up Site 41, the Satellite Drum Accumulation Areas. The areas have been used since 1985 to store drums of waste materials. The units vary in the number and size of drums they contain, but all units are located on concrete floors within buildings.

2.3.2 Site History and Enforcement Activities

The areas have been used since 1985 to store drums of waste materials.

The site was evaluated during the RFA conducted in 1990, with the results indicating that the potential for release from all pathways was low. There was no history or evidence of uncontrolled leaks or spills, the units appeared to be in good condition, and the site was designated for no further action in the RFA. No analytical data are available for this site.

2.3.3 Scope and Role of Site 41

The drums and areas are maintained in good condition and are regulated. All wastes collected in these areas are transported to the DRMO before offsite disposal.

2.3.4 Summary of Site 41 Risks

A minimal level of risk exists because hazardous materials are handled in these units. These risks are controlled through the design and handling criteria regulated under RCRA. Because of the design and procedural controls, there is no significant risk to human health or the environment.

2.3.5 Description of NA Alternatives

From an analysis of all available and pertinent information for Site 41, Satellite Drum Accumulation Areas, it is concluded that no remedial actions are necessary for the protection of human health or the environment. Therefore, the selected remedial alternative for the site is No Action under CERCLA. This alternative will consist of leaving the site as is. No additional sampling or monitoring will be necessary, because the conditions at the site are protective of human health and the environment. This remedial alternative will have no costs associated with it.

2.4 Decision Summary for Site 49

2.4.1 Site Name, Location and Description

The Expired Medical Supplies Storage Area is a warehouse storage area. The unit is located near the center of Building 359 and consists of a concrete floored storage bay (approximately 50 feet by 30 feet).

2.4.2 Site History and Enforcement Activities

The Expired Medical Supplies Storage Area is a warehouse storage area that has been used from an unknown date until the present for medical supplies with an expired shelf life.

The site was evaluated during the RFA conducted in 1990, with the results indicating that the potential for release from all pathways was low. There was no history or evidence of uncontrolled leaks or spills, the units appeared to be in good condition, and the site was designated for no further action. In addition, this site has been listed for No Further Action under the FFA.

2.4.3 Scope and Role of Site 49

Materials are stored in the manufacturer's containers, on pallets or shelves throughout the unit, until transported or disposed.

2.4.4 Summary of Site 49 Risks

Because of the lack of hazardous or toxic materials disposed or released at the site, there is no source area of contamination at the site. Based on the lack of a potential source or contaminants in a media, there is no risk to human health and the environment from this site.

2.4.5 Description of NA Alternatives

From an analysis of all available and pertinent information for Site 49, the Medical Waste Storage Area, it is concluded that no remedial actions are necessary for the protection of human health or the environment. Therefore, the selected remedial alternative for the site is No Action under CERCLA. This alternative will consist of leaving the site as is. No additional sampling or monitoring will be necessary, because the conditions at the site are protective of human health and the environment. This remedial alternative will have no costs associated with it.

2.5 Decision Summary for Site 68

2.5.1 Site Name, Location and Description

Screening Site 68-POL Building 263 is located within Parcel 4 in the southeastern/eastern corner of the Main Installation in Operable Unit (OU)-3 at the Defense Distribution Depot Memphis, Tennessee (DDMT). Specifically, Building 263 is located 500 feet southwest of Gate 1 and 900 feet north of the southern installation boundary. Building 263 measures approximately 20 feet by 40 feet and is surrounded on all sides by a large expanse of asphalt pavement.

2.5.2 Site History and Enforcement Activities

The site historically has been used to store small containers of POLs. Because materials were stored inside, the building is surrounded by asphalt pavement, and no releases are known to have occurred, there is little potential for contamination resulting from past practices at this site.

Site 68 was previously investigated as a screening site and according to the March 1998 *Screening Site Letters Report* was recommended for No Further Action.

2.5.3 Scope and Role of Site 68

Building 263 has been used as an attendant's room for the dispensing of POL to vehicles since the 1940s. These materials are dispensed to the POL staff and are not used in the Building 263 area.

2.5.4 Summary of Site 68 Risks

There were no chemicals detected at Screening Site 68 above the background levels. Because the site is free of any measurable contamination, No Further Action is recommended for this site.

2.5.5 Description of NA Alternative

This alternative will consist of leaving the site as is. No additional sampling or monitoring will be necessary, because the conditions at the site are protective of human health and the environment. This remedial alternative will have no costs associated with it.

2.6 Decision Summary for Site 69

2.6.1 Site Name, Location and Description

Screening Site 69—Flamethrower Liquid Fuel Application is located within Parcel 3 on the eastern side of the installation, approximately 100 feet east of Lake Danielson.

2.6.2 Site History and Enforcement Activities

Screening Site 69 primarily was used to test flamethrower fuels. Flamethrowers were tested using diesel fuel. Fire fighting techniques also were practiced at this site after surface ignition of the fuel. The site currently is used as a golf course.

Site 69 was previously investigated as a screening site and according to the March 1998 *Screening Site Letters Report*, dieldrin and benzo(a)pyrene were found in surface soil and risks are being addressed on a facility-wide basis.

2.6.3 Scope and Role of Site 69

The site currently is used as a golf course.

2.6.4 Summary of Site 69 Risks

There do not appear to be risks associated with Screening Site 69 and No Further Action is proposed. However, dieldrin and benzo(a)pyrene were found in surface site soil and risks are being addressed on a facilitywide basis. Because of the absence of any other contaminant levels above background, no risks or systemic toxicity ratios were estimated (USAESC, 1998). Therefore, No Further Action is recommended at this site.

2.6.5 Description of NA Alternatives

This alternative will consist of leaving the site as is. No additional sampling or monitoring will be necessary, because the conditions at the site are protective of human health and the environment. This remedial alternative will have no costs associated with it.

2.7 Decision Summary for Site 73

2.7.1 Site Name, Location and Description

Screening Site 73 is a site located in multiple parcels and includes all grassed areas at the facility.

2.7.2 Site History and Enforcement Activities

Screening Site 73 is a site located in multiple parcels and includes all grassed areas at the facility. Pesticides have been detected throughout the DDMT in surface soils in previous studies at the facility. These constituents are the result of the routine direct application of pesticides.

Screening Site 73 was not investigated independently during the Screening Sites Sampling Program because pesticide contamination is known to exist throughout the facility. Therefore, risks are being addressed on a facilitywide basis.

2.7.3 Scope and Role of Site 73

Screening Site 73 is a site located in multiple parcels and includes all grassed areas at the facility.

2.7.4 Summary of Site 73 Risks

There do not appear to be risks associated with Screening Site 73 and No Further Action is proposed. However, dieldrin and DDT were found in surface site soil and risks are being addressed on a facilitywide basis. Because of the absence of any other contaminant levels above background, no risks or systemic toxicity ratios were estimated (USAESC, 1998). Therefore, No Further Action is recommended at this site.

Greg, we are uncertain if we should include all grassed areas in the NFA ROD because they are a large part of the site-wide assessment.

Note this from the Screening Site Letter Report:

A risk estimation was not performed for these samples from the grassed areas. Based on the detected pesticide concentrations, risks from dieldrin and DDT are likely to exceed a 10^{-6} levels, primarily due to dieldrin.

Pesticides have been applied on a routine basis sitewide since the 1950s. Pesticides—including dieldrin, DDE, and DDT—were found in surface soils on a sitewide basis at concentrations exceeding background and screening criteria.

5.2 Recommendations

A risk evaluation is recommended to evaluate pesticides that have been observed in surface soil on a sitewide basis at DDMT. Depending on the outcome of the risk evaluation, this site may require no further action or additional remediation. Critical evaluation of the need for remediation is recommended because the cost benefit aspects may present challenge due to the widespread nature of pesticides in surface soil. Potential remedial alternatives include implementing institutional controls, providing cover for surface soils to eliminate the exposure pathway, removing the surface soils for off-site disposal, and implementing in situ treatment for pesticides.

7.4.5 Description of NA Alternatives

This alternative will consist of leaving the site as is. No additional sampling or monitoring will be necessary, because the conditions at the site are protective of human health and the environment. This remedial alternative will have no costs associated with it.

3.0 Declaration: OU-3 (Sites 30,40,41, 49, 68, 69, and 73)

3.1 Site Name and Location

Defense Depot
Memphis, Tennessee

Site 30—Paint Spray Booths
Site 40—Safety-Kleen Locations
Site 41—Satellite Drum Accumulation Areas
Site 49—Expired Medical Supplies Storage Area

Site 68—POL Building 263
Site 69—Flamethrower Liquid Fuel
Site 73—All Grassed Areas

3.2 Statement of Basis and Purpose (for these sites in OU-3)

This decision document presents the selected remedial actions for the referenced sites at the Defense Depot Memphis, Tennessee, developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, and, to the extent practicable, the National Contingency Plan (NCP). The decision is based on the administrative record for the sites.

3.3 Description of Selected Remedy: No Further Action

From an analysis of all available and pertinent information for the sites, listed in section 1.1 and described in the following sections, it is concluded that future remedial actions are not necessary for the protection of human health or the environment. Therefore, the selected remedial alternative for the sites is No Action. This alternative will consist of leaving the sites as they are. No additional sampling or monitoring will be necessary (under CERCLA), because the conditions at the sites are protective of human health and the environment. This remedial alternative will have no costs associated with it.

3.4 Declaration Statement

The selected remedy is protective of human health and the environment, compliant with federal and state requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. Treatment is not necessary for the protection of human health and the environment. No imminent or substantial threats to human health or the environment were found at the sites. A 5-year review (under CERCLA) will not be necessary for these sites. However, Resource Conservation and Recovery Act (RCRA)-regulated sites may require future actions.

(Shawn Phillips)
(DDMT Base Environmental Coordinator)

(Date)

(Jordan English)
(TDEC ____)

(Date)

(Name of EPA Representative)
(EPA Remedial Program Manager)

(Date)

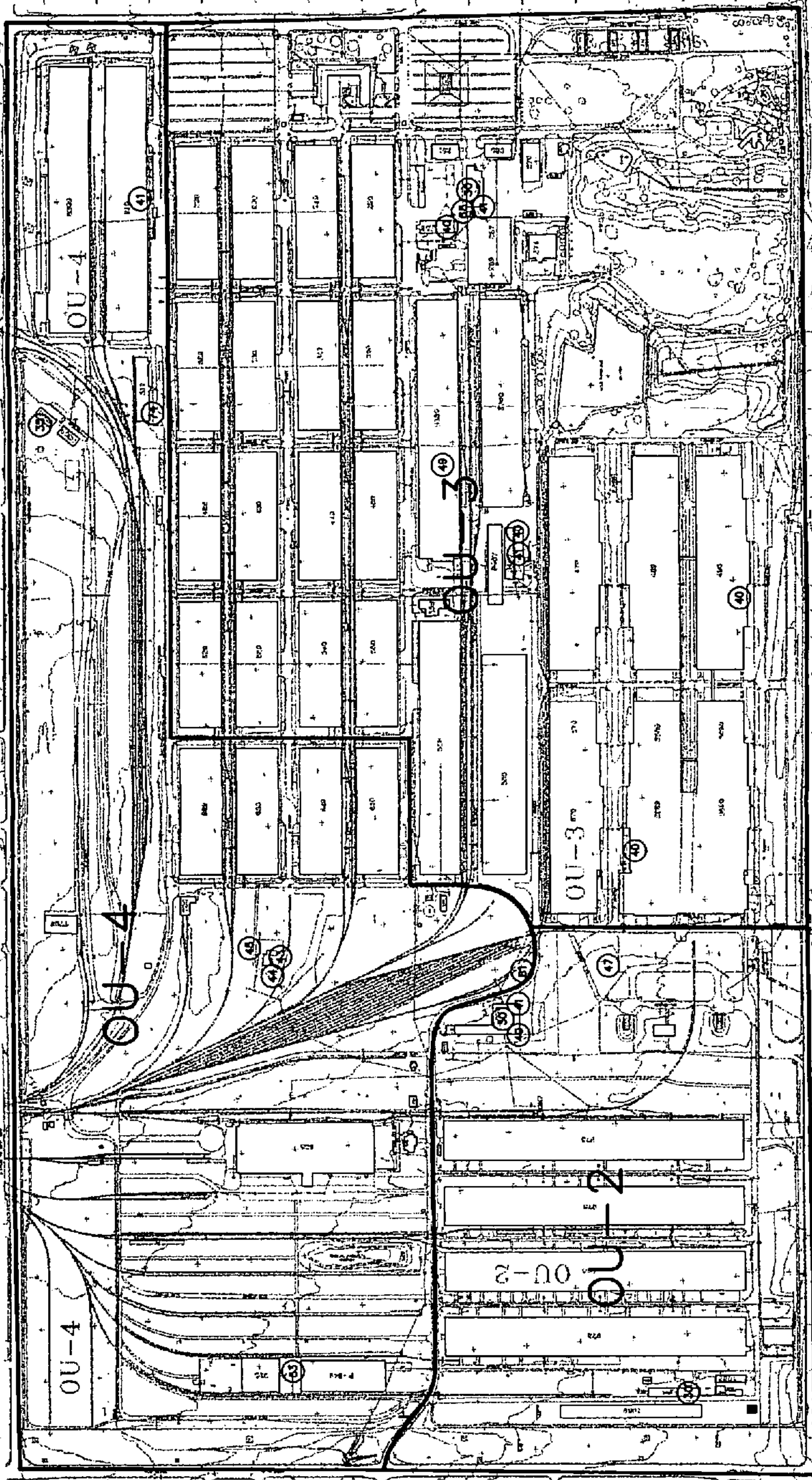
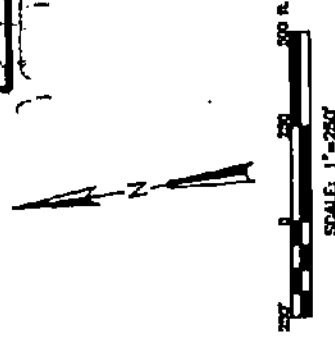
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FIGURE 1-1
NO FURTHER ACTION SITES
Defense Distribution Depot Memphis, TN

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