

**Comprehensive Long-Term
Environmental Action Navy
Naval Air Station
Memphis, Tennessee
CTO-0076**

**Final Report
Environmental Baseline Survey**

Volume I



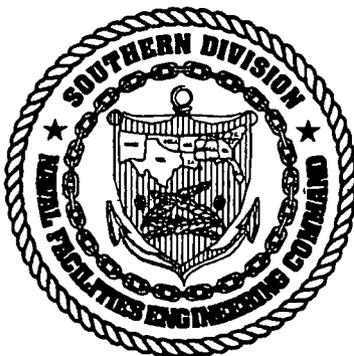
Prepared for:

**Department of the Navy
Southern Division
Naval Facilities
Engineering Command
Charleston, South Carolina**

**SouthDiv Contract No.:
N62467-89-D-0318**

Prepared by:

**EnSafe/Allen & Hoshall
5724 Summer Trees Drive
Memphis, Tennessee 38134
(901) 372-7962**



November 17, 1994



Environmental and Safety D signs, Inc.

Memphis, TN • Nashville, TN • Raleigh, NC • Pensacola, FL

311 Plus Park Blvd., Suite 130 • Nashville, TN 37217

November 16, 1994

Mr. David L. Porter
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, SC 29419-9010

Re: Transmittal of Final Environmental Baseline Survey, NAS Memphis, Contract Number N62467-89-D-0318

Dear Mr. Porter:

Enclosed please find your copies of the above document. Please feel free to call me if you have any questions.

Sincerely,

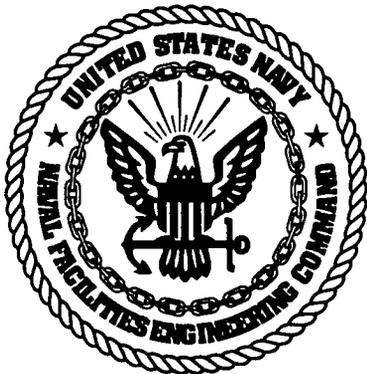
EnSafe/Allen & Hoshall

By: William R. Davis, Jr.
Compliance Specialist

Enclosures

cc: Mr. David G. Williams - EPA
Mr. Clinton Willer - TDEC, Superfund Division
Ms. Tonya Barker - NAS Memphis
Mr. Jack Carmichael - USGS
Mr. Jordan English - TDEC, Superfund Division
Ms. Sue Hosmer - NAS Memphis
CDR. R. Mason - NAS Memphis
Mr. Scott Gray - Coffman Associates

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1.0 PURPOSE OF THE ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction

The Environmental Baseline Survey (EBS) documents the physical condition of Navy real property at Naval Air Station (NAS) Memphis including the storage, use and disposal of hazardous substances and petroleum products over the base's history. The EBS collects readily available information into a single document to establish a baseline the Navy can use in making decisions concerning real property transactions.

U.S. Department of Defense (DOD) policy requires preparing an EBS before any property can be sold, leased, transferred or acquired. It will also be used by the Navy to meet its obligations under the environmental legislation CERCLA as amended by CERFA (the Comprehensive Environmental Response, Compensation and Liability Act and the Community Environmental Response Facilitation Act).

The EBS helps the Navy:

- Develop sufficient information to assess the health and safety risks on the property surveyed, and determine what actions, if any, are necessary to protect human health and the environment prior to a real property transaction.
- Support decisions for Finding of Suitability to Lease/Finding of Suitability to Transfer and aid in determining lease or deed restrictions.
- Document and obtain regulatory concurrence as required and defined under CERCLA Section 120(h)(4).
- Support notice, when required under Section 120(h)(1) of CERCLA, of the type, quantity, and time frame of any storage, release, or disposal of hazardous substances or petroleum products on the property.
- Identify data gaps concerning environmental issues.
- Define potential environmental liabilities associated with real property transactions.

- Aid in determining the possible effects on property valuation from any contamination/ concerns identified.

1.2 Content of the Environmental Baseline Survey Report

The information for the EBS was obtained through a records search, visual surveys and interviews. The records search included a review of the following: real estate records obtained at the Southern Division Naval Facilities Engineering Command (SOUTHDIV) — Real Estate Records Department, aerial photographs, and all readily available Navy and other agency records. Navy and agency records include environmental restoration and compliance reports, records, audits, surveys and permits. The base property and facilities were visually inspected. Adjacent properties were also visually inspected and related Federal and State records were reviewed. Current Navy and civilian employees were interviewed as well as others with knowledge of NAS Memphis. The interviews were conducted at the same time as the visual surveys.

The EBS assesses environmental conditions both on base and on properties immediately adjacent to or relatively near the base that could pose environmental concern and/or affect the subject property. Based on an analysis of available data, the EBS classifies installation property into seven categories:

Property Eligible for Deed Transfer:

- **White (1)** — Areas where no hazardous substances or petroleum products have been stored, released or disposed of, or migrated from adjacent areas.
- **Blue (2)** — Areas where hazardous substances or petroleum products have been stored, but not released, disposed of, or migrated from adjacent areas.

- **Light Green (3)** — Areas where hazardous substances or petroleum products have been stored, released, disposed of, and/or migrated from adjacent areas, but at concentrations that do not require a removal or a remedial action.
- **Dark Green (4)** — Areas where hazardous substances or petroleum products have been stored, released, disposed, and/or migrated from adjacent areas, except all remedial actions necessary to protect human health and the environment have been taken.

Property that Must be Reclassified Before Transfer:

- **Yellow (5)** — Areas where hazardous substances or petroleum products have been stored, released, disposed, and/or migrated from adjacent areas, removal and/or remedial actions are under way, but not all required actions have been taken.
- **Red (6)** — Areas where hazardous substances or petroleum products have been stored, released, disposed, and/or migrated from adjacent areas, but required response actions have not yet been implemented.
- **Gray (7)** — Areas that have not been evaluated or require additional evaluation.

Property in the first four categories are eligible for deed transfer. Property in the other three categories will not be considered for deeded transfer until actions have been taken that would allow reclassification into one of the first four categories.

Updates and Data Gaps

The EBS collects available information on the environmental condition of the Base property into a single document. In doing so, the EBS will identify existing data gaps and suggest efforts to fill them. If possible, the Navy will take action to fill the data gaps as soon as they are identified so the EBS will be as complete and accurate as possible. Where this is not possible, the Navy may refer to one of several environmental programs currently underway to fill data gaps. Filling data gaps will be accelerated wherever possible to support the installation property

disposal schedule. As efforts to characterize or remediate property at closing Navy installations are completed, the EBS will be updated on a facility-specific basis to reflect changes in the status of the environmental program.

Relationship to Other Documents

The comprehensive plan for the environmental restoration of closing Navy installations is presented for each installation in a BRAC Cleanup Plan (BCP). The same plan for filling data gaps identified in the EBS was used for the BCP. The BCP and EBS are viable planning documents and will be updated on a facility-specific basis to reflect changes in the status of the environmental program.

The Navy is also preparing environmental impact statements (EIS) regarding the disposal and reuse of property at closing installations. Although these documents may contain some of the same information, they serve a different purpose. Disposal and reuse environmental impact statements analyze the impacts of closure and reuse on the environment while the environmental baseline survey documents the environmental condition of the property at a particular point in time.

1.3 Boundaries of the Property and Scope of Survey Area

The EBS conducted at NAS Memphis is based on a review of information readily available for the visual and/or physical survey of: property on NAS Memphis and property immediately adjacent to the base boundary (i.e., having a contiguous border with the base). The results of the survey for on-base and off-base properties are discussed in Chapters 3 and 4, respectively.

2.0 SURVEY METHODOLOGY

This section describes how the information needed to document the environmental condition of property at NAS Memphis was obtained by EnSafe/Allen and Hoshall (E/A&H) and Advan Sciences, Inc. (ASI), a subcontractor which assisted E/A&H in the surveys. The following efforts were included in the development of the environmental database used to identify potentially contaminated installation property and evaluate any need for remediation.

Records Review:

- **Navy:** Detailed collection and search of readily available Navy records. An advance team of surveyors reviewed documents at the NAS Memphis Public Works Department (PWD) and copied appropriate papers. These papers were arranged and filed according to the BRAC Index System (Figure 2-1). The majority of these documents became the Basewide Reference File (BWRF), previously assembled and referenced in the BCP. The BWRF is referred to on the individual survey forms (Appendix A) used during the EBS. The documents found in the BWRF are listed in Appendix B.
- **Property:** Review of real property records. Information on past private or commercial ownership and current NAS Memphis property was gathered to ascertain any potential environmental hazards prior to Navy ownership. Real estate records were gathered from SOUTHDIV. An outline of property obtained to create NAS Memphis is in Table 2-1.
- **State and local:** Review of reasonably obtainable State and local government records.
- **Aerial photos:** Review of reasonably available aerial photographs. Twelve aerial photographs of varying quality with dates ranging from 1937 to 1993 were examined by E/A&H personnel, and Atlantic Aerial Surveys, Inc. (an independent aerial photo interpreter). The Atlantic Aerial Surveys, Inc. report is in Appendix C, and overlay maps have been scanned into the BWRF compact disk (CD) file system.

**Figure 2-1
BRAC Index System**

- 1.0 Historical Information**
 - 1.1 Historical site information
 - 1.2 Real Estate Records
 - 1.3 Chain of Occupancy
 - 1.4 Aerial Photographs
 - 1.5 Historical Maps, Topographical maps, Utility maps

- 2.0 Base Master Plan**

- 3.0 Environmental Documents**
 - 3.1 Correspondence
 - 3.2 Preliminary Assessment Documents
 - 3.3 Site Investigation Documents
 - 3.4 Copies of Environmental Permits
 - 3.5 Removal Response Reports
 - 3.6 CERCLA Removal Site Records
 - 3.7 Sampling and Analysis Data
 - 3.8 Work Plans (including FSAP and QAPP)
 - 3.9 Interagency or Federal Facility Agreements
 - 3:10 ARARs
 - 3.11 Remedial Investigation (RI) Report
 - 3.12 Health Assessments
 - 3.13 Endangerment/Risk Assessments
 - 3.14 Treatability Studies/Site Characterizations, if applicable
 - 3.15 Feasibility Study (FS) Reports
 - 3.16 Plans for Remedial Action
 - 3.17 Record of Decision (ROD)
 - 3.18 SPCC Plan
 - 3.19 Contingency Plan

- 4.0 Legislative Documents**
 - 4.1 Correspondence — documentation of state involvement
 - 4.2 State Enforcement Records/Violations
 - 4.3 Environmental compliance evaluation
 - 4.4 Pollution prevention plan
 - 4.5 SARA Reports
 - 4.6 Biennial Hazardous Waste inventory reports
 - 4.7 Storm Water Pollution Prevention Plan
 - 4.8 Environmental Impact Statement

- 5.0 Resource Conservation and Recovery Act (RCRA) Records**
 - 5.1 Correspondence
 - 5.2 Notification/Part A
 - 5.3 RCRA Part B
 - 5.4 RCRA Closure documentation

- 5.5 RCRA Facility Assessment (RFA) Report
- 5.6 Corrective Measures Study/ Implementation
- 5.7 RCRA Facility Investigation (RFI) Report
- 5.8 RCRA Enforcement Action

- 6.0 Underground and Above-ground Storage Tanks**
 - 6.1 Storage Tank and Pipeline Inventory (Above-ground and USTs, assessment and closure reports)
 - 6.2 Tank Notification
 - 6.3 Leak test results
 - 6.4 Corrective action plan/report
 - 6.5 Tank abandonment/removal

- 7.0 Media Addressed**
 - 7.1 MSDS
 - 7.2 Hazardous materials use and storage areas
 - 7.3 Solid and hazardous waste disposal
 - 7.4 PCB-containing electrical equipment
 - 7.5 Soil contamination
 - 7.6 Groundwater
 - 7.7 Asbestos-containing buildings
 - 7.8 Surface water and wetlands
 - 7.9 Wastewater treatment and discharge
 - 7.10 Lead (Lead-based paint, lead in drinking water)
 - 7.11 Air Emissions (Quantities, emission allowances)
 - 7.12 Other issues (e.g., Radon)

- 8.0 Building Checklist**
 - 8.1 Interview Notes
 - 8.2 Adjoining Building/Land-use Information
 - 8.3 Photographs
 - 8.4 EDI Report
 - 8.5 Summary and final checklist

- 9.0 Building Drawings**
 - 9.1 Site plans
 - 9.2 Location Plans
 - 9.3 Utility plans

- 10.0 Process Closure Requirements**
 - 10.1 Pollution Control Equipment to be closed
 - 10.2 Process equipment
 - 10.3 Decontamination procedures

Table 2-1 Property Acquisition Summary Table							
Location	Tract Number	Parcel Number	Previous Landowner	Acreeage	Method of Acquisition	Date	Remarks
Northside	1	1	Claire Lucadio	282.65	Civil Action 420	April 17, 1942	This parcel was acquired on date noted, declared surplus on 10/15/45 and sold.
Northside	1	1A	Fairway Homes, Inc.	75.64	Fee	June 15, 1951	Eight-parcel total
Northside	1	2	G.D. and Eddie Ray	418	Civil Action 420	April 17, 1942	
Northside	1	3	James and M.J. Chambers	112	Civil Action 420	April 17, 1942	
Northside	1	4	J.R. Cody and Marietta Cody	100	Civil Action 420	April 17, 1942	
Northside	1	5	Marvin and Clara Crenshaw	100	Civil Action 420	April 17, 1942	
Northside	1	6	C.A. Davis and Martha Sue Davis	175	Civil Action 420	April 17, 1942	
Northside	1	7	J.H. Aycock	250	Civil Action 420	April 17, 1942	
Northside	1	8	Velma Pitts	50.68	Civil Action 420	April 17, 1942	
Northside	1	9	Ellie Stovall	113	Civil Action 420	April 17, 1942	
Northside	1	10	J.R. and Rugh A. Aycock	113.13	Civil Action 420	April 17, 1942	
Northside	1	11	Lelia Nelson	99.75	Civil Action 420	April 17, 1942	
Northside	1	12	D. Crenshaw	1	Civil Action 420	April 17, 1942	
Northside	1	13	W.K. and Blanche Rogers	4	Civil Action 420	April 17, 1942	
Northside	1	14	Marvin Williams	128.5	Civil Action 420	April 17, 1942	
Northside	1	15	C.S. McGana	61.61	Civil Action 420	April 17, 1942	

Table 2-1 Property Acquisition Summary Table							
Location	Tract Number	Parcel Number	Previous Landowner	Acreage	Method of Acquisition	Date	Remarks
Northside	1	16	Emma S. Williams	59.15	Civil Action 420	April 17, 1942	
Northside	1	17	Emma S. Williams	51	Civil Action 420	April 17, 1942	
Northside	1	18	Gladys Bolton	50	Civil Action 420	April 17, 1942	
Northside	1	19A	St. Stephens Lodge #93	1	Civil Action 420	April 17, 1942	Incorrectly labeled Parcel 19 on some maps
Northside	1	19	Ed and Naomi Calhoun	see Rmks	Civil Action 420	April 17, 1942	Exact acreage not found, but < 1 acre
Northside	1	20	W.A. Sigler	see Rmks	Civil Action 420	April 17, 1942	Exact acreage not found, but < 1 acre
Northside	1	21	Fred Poindexter	see Rmks	Civil Action 420	April 17, 1942	Exact acreage not found, but < 1 acre
Northside	1	22	Ella P. Brown	see Rmks	Civil Action 420	April 17, 1942	Exact acreage not found, but < 1 acre
Northside	1	23	Wm. Ed and Naomi Calhoun	0.08	Civil Action 420	April 17, 1942	Exact acreage not found, but < 1 acre
Northside	1	24	F.M. Pennington	0.11	Civil Action 420	April 17, 1942	Exact acreage not found, but < 1 acre
Northside	1	25	Mrs. Mattie McCaughan	0.11	Civil Action 420	April 17, 1942	Lot 37
Northside	1	26	F.F. Corbitt	0.11	Civil Action 420	April 17, 1942	Lot 38
Northside	1	27	W.A. Sigler	see Rmks	Civil Action 420	April 17, 1942	Lot 39, exact acreage not found, but < 1 acre

Table 2-1 Property Acquisition Summary Table							
Location	Tract Number	Parcel Number	Previous Landowner	Acreage	Method of Acquisition	Date	Remarks
Northside	1	28	Sam E. Weakley	0.11	Civil Action 420	April 17, 1942	Lot 40
Northside	1	29	D.C. Jennings Est. Prop.	0.11	Civil Action 420	April 17, 1942	Lot 41
Northside	1	30	D.C. Jennings Est. Prop.	0.29	Civil Action 420	April 17, 1942	
Northside	1	31	Susan A. Hiler	0.43	Civil Action 420	April 17, 1942	Lots 42-45
Northside	1	32	Mattie and Ed Williams	see Rmks	Civil Action 420	April 17, 1942	Property line indefinite
Northside	1	33	E.H. Nelson	0.5	Civil Action 420	April 17, 1942	
Southside	2	1	Juanita M. Davidson	48.564	Civil Action 486	October 28, 1942	
Southside	2	2	Annie C. Jennings	47.516	Civil Action 486	October 28, 1942	
Southside	2	3	L.R. and Verlie Polk	44.72	Civil Action 486	October 28, 1942	
Southside	2	N/A	L.D. Horne	19.63	Fee	June 14, 1944	
Southside	4	N/A	L.R. Polk	24.79	Fee	June 14, 1944	
Northside	5	1	W. Noland and Lula Mae Hall	199.66	Civil Action 1992	September 6, 1951	Runway Extension
Northside	5	2	Mrs. J.E. Winger and Annie Hale	24.77	Civil Action 1992	September 6, 1951	Runway Extension
Northside	5	3	D.H. Wilson and wife	40	Civil Action 1992	September 6, 1951	Runway Extension
Northside	5	4A	C.B. Lucado	10.48	Civil Action 1992	September 6, 1951	Runway Extension
Southside	6	N/A	U.S. Department of Agriculture	170.4	Transfer Letter	June 1, 1949	Consisted of four parcels

**Table 2-1
 Property Acquisition Summary Table**

Location	Tract Number	Parcel Number	Previous Landowner	Acreage	Method of Acquisition	Date	Remarks
Southside	6A	N/A	U.S. Department of Agriculture	688.68	Transfer Letter	January 18, 1949	
Northside	7	N/A	Annie Hall	64.78	Fee	November 10, 1953	Runway Extension
Northside	14	N/A	James P. Reynolds and Harmon S. Mitchell	16.4	Civil Action 489	October 30, 1942	Hospital Area
Northside	15	N/A	James P. Reynolds and Harmon S. Mitchell	20.67	Civil Action 489	October 30, 1942	Hospital Area
Northside	17	N/A	James P. Reynolds and Harmon S. Mitchell	130.76	Civil Action 489	October 30, 1942	Hospital Area
Southside	19	1	L.W. and J.E. Jones	3.12	Fee	October 28, 1986	
Southside	19	3	L.W. and J.E. Jones	0.67	Fee	October 28, 1986	

Surveys:

- Visual and physical walk-through surveys of the real property to include any buildings, structures, equipment, etc.
- Drive-by survey of the property adjacent to the real property including an environmental records (i.e., public databases) review conducted by Environmental Database, Inc. (EDI). This report is in Appendix D. For the purposes of the EBS, adjacent properties are defined as those that share contiguous boundaries with the property being surveyed.
- Interviews with current Navy and civilian employees at the installation. Contacts were established within each facility. Interviews were conducted with these individuals in addition to other installation personnel. In addition, advertisements were placed in local (Millington and Memphis) newspapers asking for interviews or information from people knowledgeable of the Base.

In addition to the information obtained from the physical surveys of the real property, existing data from prior studies conducted at NAS Memphis were used, if appropriate, to evaluate and subsequently classify problem areas on the installation. Basewide documents (excluding the BWRP) reviewed or referenced in developing the NAS Memphis EBS are listed in Section 8.

2.1 Approach and Rationale

The three main sources used in obtaining the necessary information included the following: readily available existing documentation, information compiled from visual walk-through surveys, and details from personal interviews and information supplied by NAS Memphis personnel.

The documents reviewed for developing information for the EBS originated from the NAS Memphis Public Works Department files. The advance survey team which gathered the information examined all files at the PWD, but copied and retained only documents with environmentally related information (Appendix B).

Many mission-related facilities utilize hazardous materials during their routine operations. A description of these materials was available in the form of Material Safety Data Sheets (MSDS) retained on file at the facility. A complete list was maintained at the PWD. A copy of this document, *Basewide MSDS Survey NAS Memphis*, 5 May 1989, is in the BWRP (EA-23). MSDS reflect the type of hazardous materials used at different locations on base.

The visual and physical walk-through surveys of NAS Memphis were conducted in a manner intended to compile as much relevant information as possible about the real property and any structures or other facilities. A survey form was completed by survey team members for each individual survey to document site the environmental conditions. The site surveys addressed many key issues important to environmental evaluation of property. Due to the diverse property use common to a military installation, the survey forms that complemented the site surveys adopted a single universal format which could be used to evaluate any base property.

A blank survey form that was completed with the walk-through surveys is presented in Appendix A. When completed, the survey form included the following information:

- **Facility Information:** Base, building number, site location, building contacts, name of command, building names and numbers, street names, facility type, telephone and fax numbers, number of employees, length of current operations, ownership details, description of facility, previous operators, previous uses of property and a sketch of the property.
- **Site Reconnaissance:** Confirmed past and present uses of the property in question, or adjacent properties, that involve the use, treatment, storage, disposal, or generation of hazardous substances or petroleum products. Record and description of the following if applicable: roads, air pollution sources, potable water supply, sewage disposal system, storm water, storage tanks, odors, pools of liquid, unidentified containers, polychlorinated biphenyls (PCBs), heating/cooling systems, stains within buildings, drain

and sumps, pits, ponds and lagoons, stained soil, stressed vegetation, solid waste, waste water, drywells, wetlands, septic tanks, asbestos-containing material (ACM), lead-based paint, radon, radioactive materials, storage tank list and bulk chemical storage areas, process closure requirements, and "mothball" operations. Process closure requirements include: *tanks, oil-water separators, spray paint booths, etc.* Mothball operations include: *compressed gas systems, compressors, liquified gas systems, fire suppression systems, etc.*

- **Conclusions/Classification:** Executive summary, site checklist, and supplemental information.

In addition to the document review and site surveys, information was obtained directly from NAS Memphis personnel. Prior to or during the site surveys, personal contacts were established at each EBS site that was to be inspected. As the survey team conducted the site surveys, the building contacts provided supplemental information. In addition to this information, interviews were conducted with selected NAS Memphis personnel independent of the site survey process. Those selected for the personal interviews were considered to be good sources of information due to their longevity and/or particular position at the base (past or present).

2.1.1. List and Description of Documents Reviewed

Most of the documents reviewed for the EBS are included in the BWRF, a master file of all documents used in the EBS, except for specific building/site drawings. Some building-specific documents that are not included in the BWRF were referenced as supporting records within the survey forms for some EBS sites. Documents included in the BWRF are listed in Appendix B and those not in the BWRF are referenced in Section 8.

2.1.2 Surveys of Properties Conducted

Part of the standardized procedures used to collect data for the EBS included visual and physical walk-through site surveys of all sites on NAS Memphis. Walk-through surveys included investigation of every building or facility on the base and interviews with personnel working in the buildings to determine past and present uses of the buildings. This information was used to identify potential environmental hazards associated with each building or structure.

2.1.3 Personnel Interviews

Appendix E contains Page 1 from each survey form completed at NAS Memphis. Page 1 lists the installation personnel who provided information regarding the facility for the forms. The information was provided to the survey team before or during the visual and physical walk-through surveys and/or a personal interview conducted by E/A&H and ASI.

Essentially, the interviews document the following information:

- Past and present uses of buildings and facilities.
- Past and present activities that involved the use, treatment, storage, disposal, or generation of hazardous substances or petroleum products.
- Past and present activities on adjacent properties that involved the use, treatment, storage, disposal, or generation of hazardous substances or petroleum products.

3.0 SUMMARY OF DATA (ON-BASE PROPERTIES)

This section summarizes the records search and visual and physical walk-through site surveys of the NAS Memphis properties. Based on the environmental classification of properties discussed in Section 3.5, the sites were identified as either transferable or nontransferable by deed. The transferable/nontransferable properties are shown in Figure 3-1, Appendix F.

3.1 History and Current Usage

Naval Memphis Complex (Naval Air Station Memphis and Naval Hospital Millington) is located on more than 3,450 acres approximately 16 miles north of Memphis in Millington, Tennessee, in Shelby County, which is bordered on the west by the Mississippi River. Casper Creek Park lies east of Millington, Kerrville is to the north, and the Big Creek Drainage Canal is to the south. Naval Complex Memphis (NAS Memphis) is encircled mostly by undeveloped or farm land.

Before NAS Memphis was commissioned as a Naval Air Reserve Base in September 1942, the Millington site operated as an Army Aviation Field known as Park Field from 1917 to 1939. In 1942, the first Naval Hospital was constructed and today this building and land are leased to the Federal Prison System. The current Naval Hospital was opened in 1972. In 1943 the base was reassigned as a Naval Air Station. From the 1950s on, NAS Memphis' emphasis in the U.S. Navy's training activities has increased. The present complement (with NAS Memphis as the landlord) includes 35 DOD activities and seven non-DOD resident military activities. NAS Memphis' primary activity is the Naval Air Technical Training Center (NATTC). The history and related missions of NAS Memphis are outlined in Table 3-1.

Table 3-1 History of Installation	
Date	Description
1917	A bill was passed by Congress to accept a plot of land (907 acres) 1/2-mile east of Millington, Tennessee. This created the Army Aviation Field (Park Field).
1939	Park Field was chosen as a permanent Naval Air Reserve Base (NARB).
1942	The base complex was commissioned as an NARB. The complex is also home of the Naval Air Technical Training Center that served as the primary aviation training base and technical training facility for the Navy.
1942-1950	256 buildings and structures are constructed on the Base.
1943	The Base was reassigned as a Naval Air Station and the Naval Hospital was commissioned.
1946	The Base becomes a permanent installation and plans for a reserve program were under way.
1948	The Base begins serving as headquarters for all Naval Air Technical Training.
1949	All support logistics requirements of the activities aboard the Base (except the hospital) are assigned as part of NAS Memphis.
1972	New Navy hospital is opened.
present	Operating as Naval Air Station Memphis.

3.2 Environmental Setting

The electrical, storm water, potable water, sanitary sewer, steam and natural gas systems, and floodplain/wetlands are presented in Figures 3-2 through 3-8. The environmental condition of the base is summarized according to the following events that have occurred during the history of base operations. The environmental condition of property and current environmental concerns at each NAS Memphis facility are summarized in the Conclusion/Executive Summary page of each facility survey form (Appendix G).



SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993



Environmental Baseline Survey

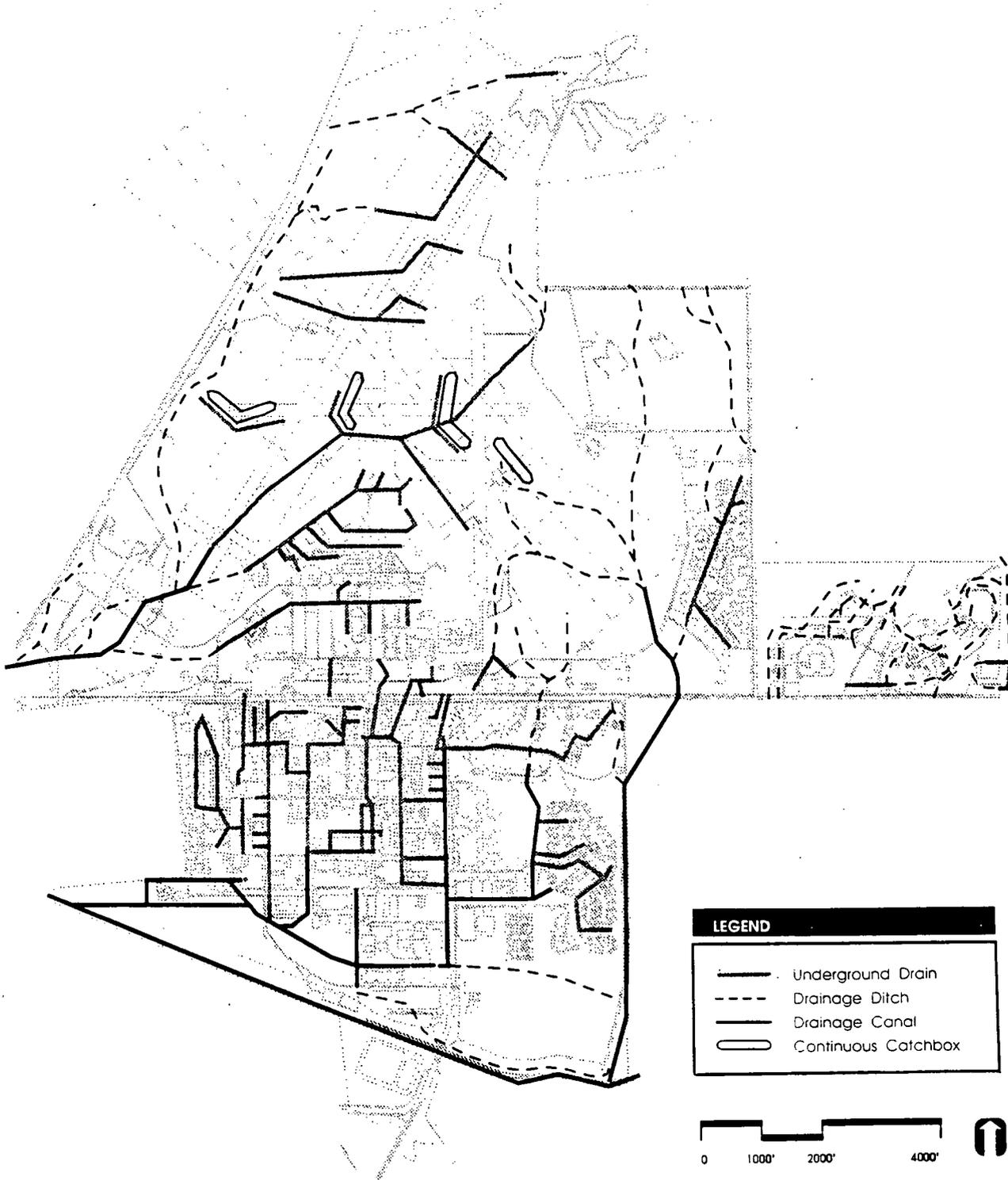
NAS Memphis
Millington, TN

FIGURE 3-2

EXISTING
ELECTRICAL SYSTEM
NAS Memphis

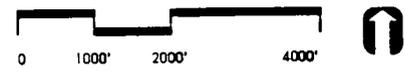
DATE: 05/09/94

DWG NAME: NASMEMTB.DWG



LEGEND

- Underground Drain
- - - Drainage Ditch
- Drainage Canal
- Continuous Catchbox

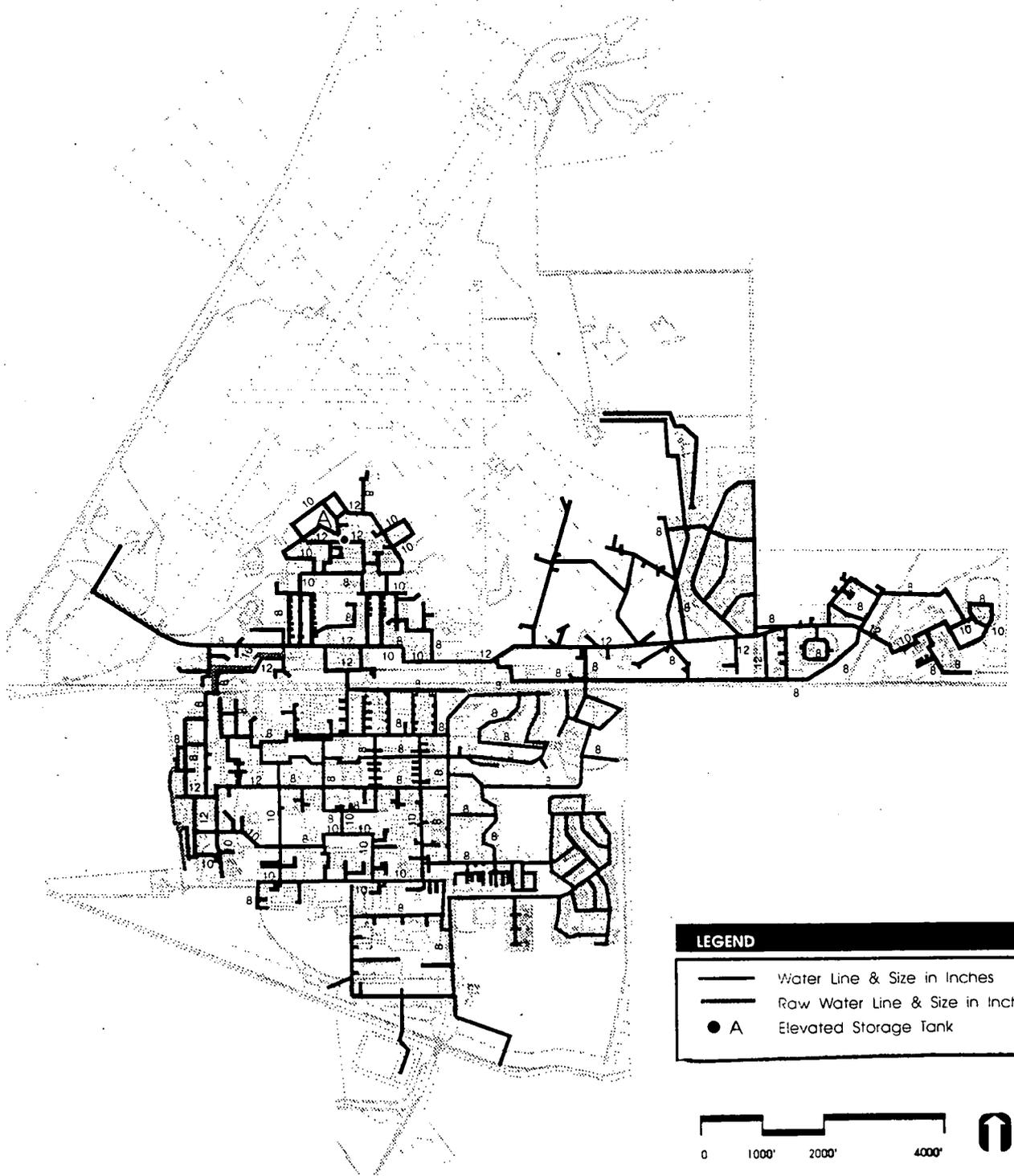


SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993



Environmental Baseline Survey
 NAS Memphis
 Millington, TN

FIGURE 3-3
 EXISTING STORM
 DRAINAGE SYSTEM
 NAS Memphis



SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993



Environmental Baseline Survey

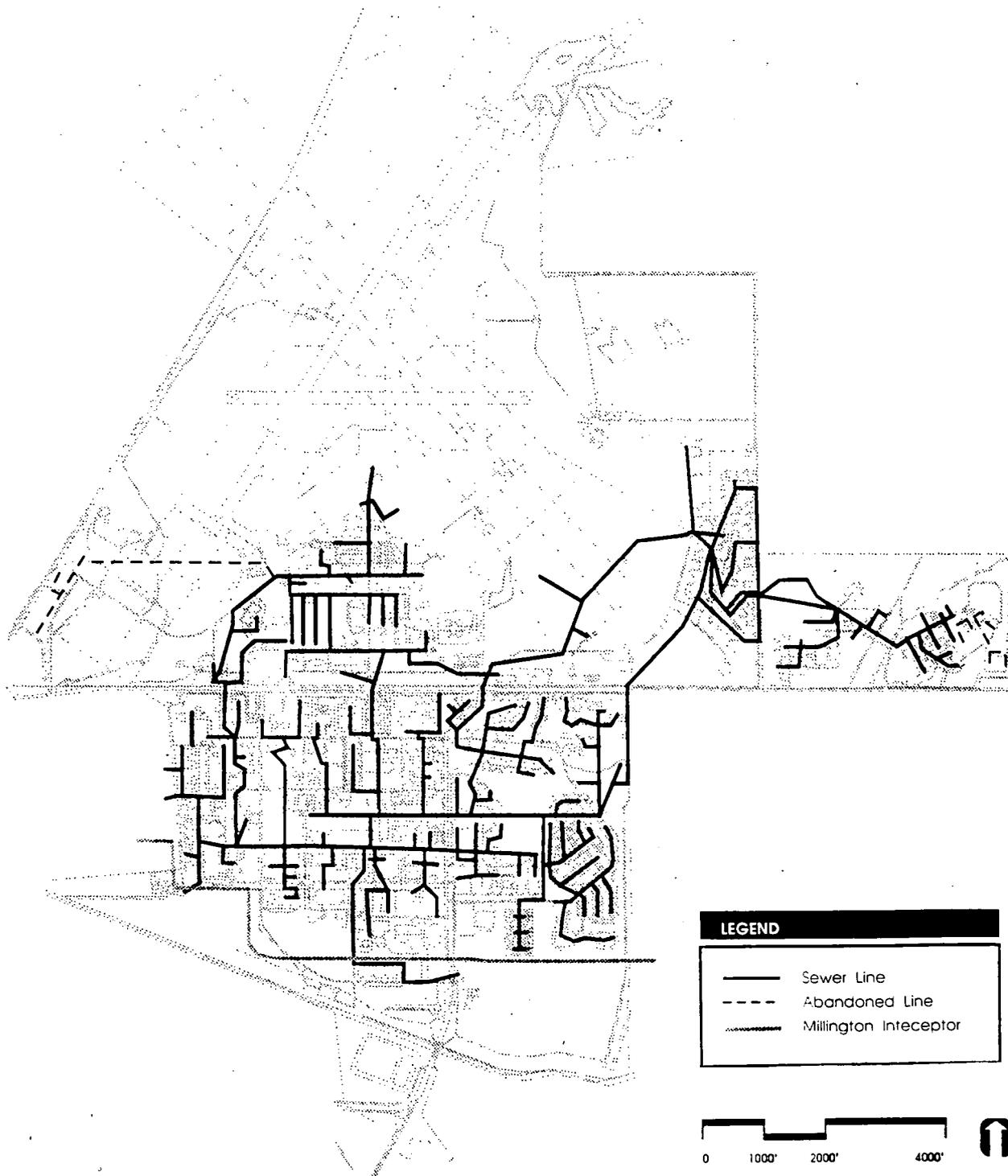
NAS Memphis
Millington, TN

FIGURE 3-4

EXISTING
WATER SYSTEM
NAS Memphis

DATE: 05/09/94

DWG NAME: NASMEMTB.DWG



SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993



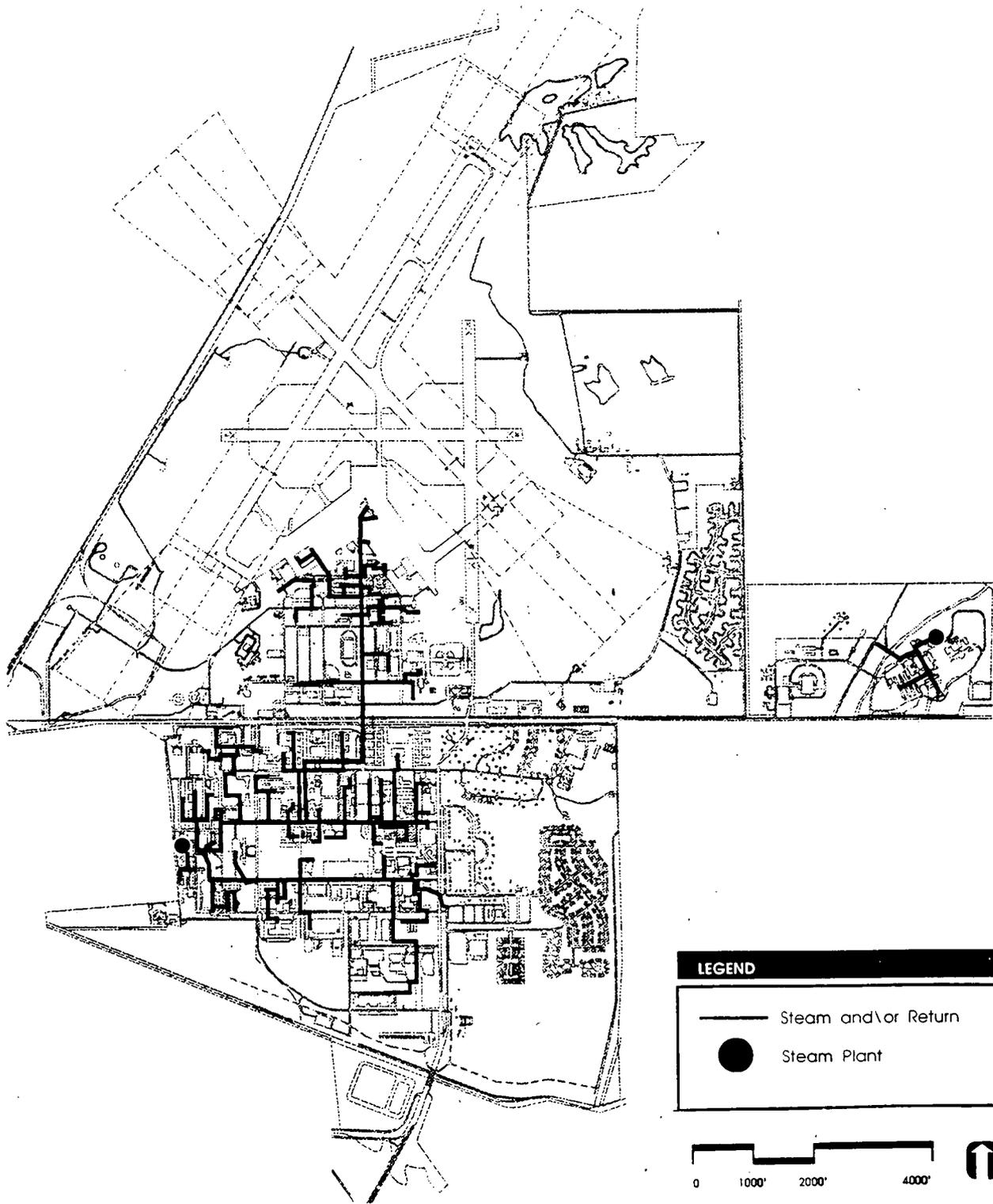
Environmental Baseline Survey

NAS Memphis
Millington, TN

FIGURE 3-5
EXISTING
SEWERAGE SYSTEM
NAS Memphis

DATE: 05/09/94

DWG NAME: NASMEMTB.DWG



SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993

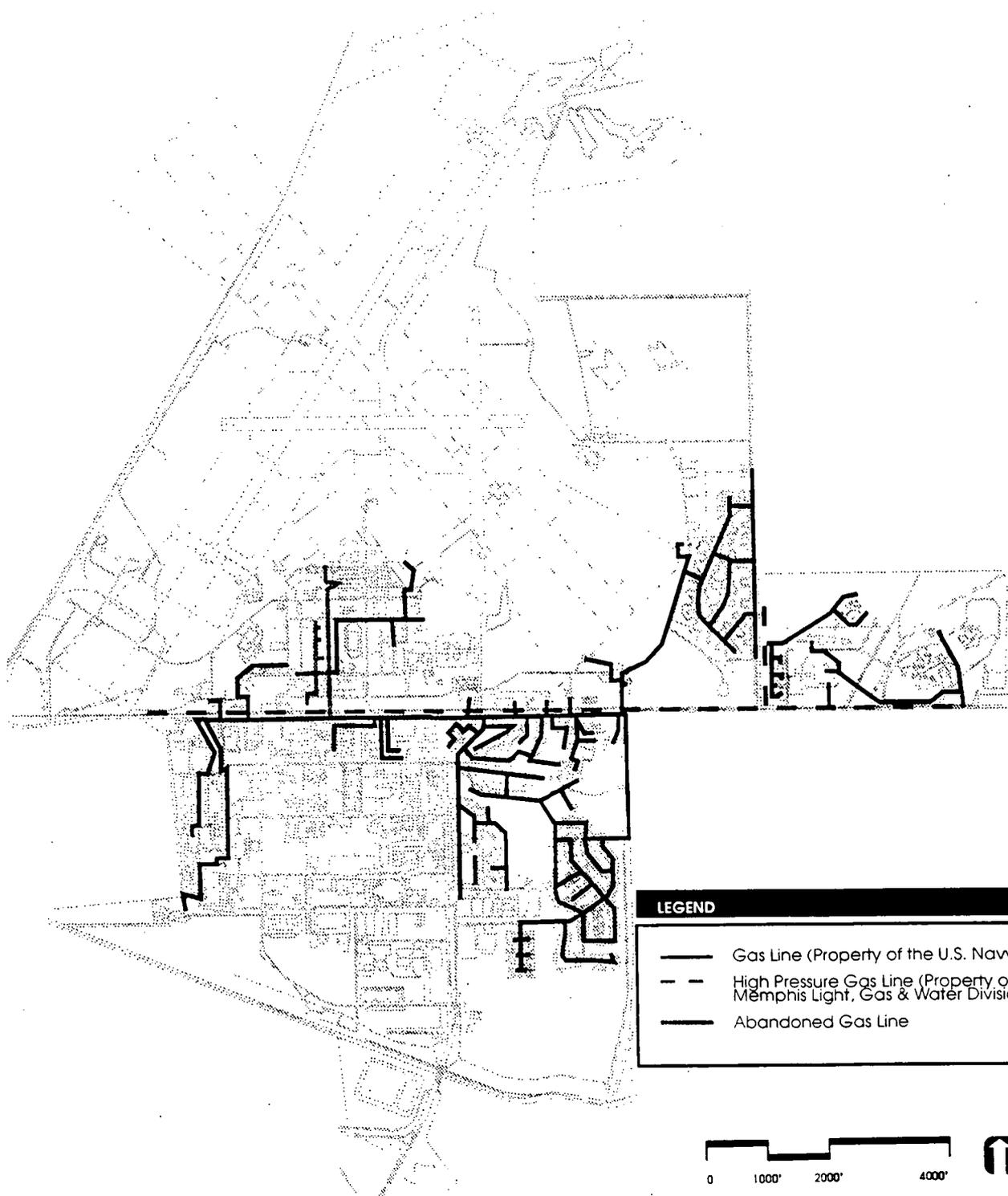


Environmental Baseline Survey
 NAS Memphis
 Millington, TN

FIGURE 3-6
 EXISTING
 STEAM SYSTEM
 NAS Memphis

DATE: 05/09/94

DWG NAME: NASMEMTB.DWG



SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993



Environmental Baseline Survey

NAS Memphis
Millington, TN

FIGURE 3-7

EXISTING NATURAL
GAS SYSTEM
NAS Memphis

DATE: 05/09/94

DWG NAME: NASMEMTB.DWG



SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993



Environmental Baseline Survey

NAS Memphis
Millington, TN

FIGURE 3-8

FLOODPLAIN
and WETLANDS
NAS Memphis

DATE: 05/09/94

DWG NAME: NASMEMTB.DWG

3.2.1 Sewer Lines and Wastewater Treatment

Except for one package sewage treatment plant at Navy Lake and nine septic tanks/ drain fields (see Table 3-2), NAS Memphis does not treat wastewater onsite. Instead, it discharges 1.795 million gallons per day (mgd) to the City of Millington Sewage Treatment Plant approximately 1.5 miles west of Millington. The Millington Sewage Treatment Plant has a 5.8 mgd capacity.

Table 3-2 Septic Tank/Drain Field					
Facility Number	Property Record Number	Map Location	Size (gallon)	Date	Remarks
380	201678	70-3J	500	1965	
385	201683	54-3T	500	1965	
1281	201125	70-Z	300	1945	
1282	201126	24-2P	940	1957	
1283	201127	34-2T	300	1955	
1285	201129	22-3J	300	1935	not on base map
1286	201130	24-2P	300	1910	not on base map
1414	201292	74-2Z	500	1956 or 1958	
1462	201351	32-3L	500	1952 or 1962	
1576	201880	34-4N	N/A	1970	5,000 gpd package sewage treatment plant

In addition to the existing septic tank systems listed in Table 3-2, the remains of a former 36,000-gallon Park Field era system are on the south side near Building 420. This site is identified as SWMU 30 — Park Field Waste Treatment Tank. Also, the system at Navy Lake is identified as SWMU 29 — Lakehouse Sewage Treatment Plant. The effluent from this

OXIGEST package sewage treatment plant discharges to a drain field. These are the only two sites where septic tanks or drain fields are associated with SWMUs. See Section 3.2.4.3 and Table 3-4 for additional information. The sanitary sewer system for NAS Memphis is laid out in Figure 3-5.

The City of Millington classifies NAS Memphis as a non-industrial discharger per written correspondence, although the installation does have some industrial operations associated with aircraft maintenance and repair. No requirement has been placed on NAS Memphis to analyze effluent discharge to the community, although the quantity of effluent is measured for billing purposes (yearly sewage fees are approximately \$225,000). Per written correspondence from the city, NAS Memphis is required to notify the city of any new non-domestic discharge exceeding 25,000 gallons per day, or any discharge of wastewater containing hazardous waste.

NAS Memphis has two discharge points covered by NPDES Permit TN0000698. These discharges are from two oil-water separators at the fuel farm. The permit requires quarterly grab samples for oil and grease, pH, and total suspended solids. The annual cost to sample and analyze these discharge points is estimated at approximately \$2,000. A new NPDES permit was recently issued and will expire in July 1998. In response to Tennessee Department of Environment and Conservation (TDEC) requirements, a storm water pollution prevention plan is being developed for the two separators through a contract with the U.S. Geological Survey (USGS).

3.2.2 Storm Water Drainage

NAS Memphis is included as part of the Navy group NPDES permit application which is expected to be issued the summer of 1994. As part of the NPDES storm water permit, NAS Memphis will be required within two years (summer 1996) to have a storm water pollution prevention plan in place and a certification that all outfalls have been evaluated for the presence of any past non-storm water discharges. It is anticipated that SOUTHDIIV will award studies

to accomplish this work. The studies will be conducted before any sampling, which may be required as part of the NPDES storm water permit, takes place.

Storm drainage at NAS Memphis discharges into Big Creek via storm drains, ditches and canals (Figure 3-3). Surface drainage problems are associated with the topography and soil found at the base, and water may stand after moderate rainfall.

3.2.3 Hazardous Materials and Petroleum Products

Hazardous materials are handled in accordance with a Hazardous Materials Control (HMC) and Management Plan. Hazardous materials and petroleum products used and stored at NAS Memphis are characterized in the Activity HMC's *Report of Hazardous Materials Inventory*. This document lists the product name, NSN number, manufacturer, general use, area used, six-month usage, current amount stored, building stored in, HMIS code, and whether an MSDS is on file. This document is included in the BRAC Basewide Reference File (*EA 37 NAS Memphis Hazardous Material Inventory*, October 1993.)

3.2.3.1 Solid Waste

Solid waste generated at NAS Memphis is collected in solid waste "dumpster" containers and transported to the BFI Millington Landfill at 7111 Old Millington Road. The current waste contractors are Maclin Sanitation for family housing and wet garbage waste and Military Waste Management, Inc., for mixed refuse collected from on base dumpsters. These wastes are non hazardous.

3.2.3.2 Hazardous Waste

NAS Memphis has a RCRA Part B Permit (Permit Number TN2-002-2600, issued in September 1986) for a conforming storage facility. Hazardous wastes are disposed of offsite at permitted facilities through the Defense Reutilization and Marketing Office contract. Prior to offsite disposal, most wastes were disposed of onsite in landfills (see Table 3-3). Fees and disposal

costs for hazardous wastes are estimated at approximately \$75,000 per year. Analytical testing is approximately \$20,000 yearly. A Pollution Prevention Survey has been completed and data from the survey will be used to update the Hazardous Waste Minimization Pollution Prevention Plan, which will meet all regulations of the Tennessee Hazardous Waste Reduction Act.

Various past operations and activities have resulted in the release and disposal of wastes. Table 3-3 sketches a brief history of base operations and disposal activities. Figure 3-9 (Appendix F) shows the general locations where these activities have occurred.

3.2.4 CERCLA-Related Contamination (Installation Restoration Program)

3.2.4.1 Restoration Program Status

Forty-five SWMUs have been identified as needing further investigation under the Hazardous and Solid Waste Amendments portion of the RCRA permit. These SWMUs are managed under a Corrective Action Management Plan approved by EPA Region IV on 29 June 1993. The CAMP outlines the strategy for achieving the objectives of the RCRA corrective action program.

3.2.4.2 Installation-Wide Source Discovery and Assessment Status

From 1980 to 1987, the Navy met the requirements of CERCLA with the NACIP (Navy Assessment and Control of Installation Pollutants) program which consisted of three phases. The first phase was the Initial Assessment Study (IAS) which used record searches and personal interviews to assess sites posing a potential threat to human health or the environment due to contamination from past hazardous material operations. The second phase, the Confirmation Study, consisted of verification and characterization. During verification, the presence or absence of potential contaminants in groundwater at each site recommended for study in the IAS was assessed. Based on the findings, the characterization phase was initiated to determine nature and extent of contamination at sites requiring additional study. The third and final phases were implementation of corrective actions and remedial measures to control or mitigate contamination.

Table 3-3 History of Base Operations/Wastes Generated				
Period	Type of Operation	Type of Wastes Generated	Map Reference (see Figure 3-9, Appendix F)	Comments
Pre-1917	Farmland	Farming, pesticides/herbicides, fuels		
1942-1950	256 buildings and structures are constructed	Construction/demolition		
1942-1960	Oiled dirt roads	Waste oils	A	Oils were spread on roads for dust control. Not limited to any specific area. Limited sampling shows no PCBs.
1942-1970	Southside landfill operational	Residential and industrial solid and liquid waste disposal	B	During its period of operation was primary disposal area for the facility. Trench-and-fill method of disposal with all combustible material burned prior to covering.
1949-1977	Firefighting training area	JP-4 prior to oil-water separator installation	C	Prior to installation of oil-water separator unburned fuel occasionally overflowed into drainage ditch.
1950-1969	Northside landfill	Primarily demolition rubble	D	Probably received Northside solid wastes until 1969.

Table 3-3 History of Base Operations/Wastes Generated				
Period	Type of Operation	Type of Wastes Generated	Map Reference (see Figure 3-9, Appendix F)	Comments
1953-1965	Plating Shop N-121 operational	Concentrated plating solutions (Cd, Cr, Cu, Ni) and chlorinated solvents are disposed of in a drywell. Also migration to nearby storm ditch.	E	Cadmium, chromium, copper, and nickel plating conducted.
1953-1965	Plating Shop N-121 storm sewer and ditch	Plating solution spills (including chlorinated solvents) wash down water	F	Sediment samples collected from the drainage ditch contained nickel, cadmium, and chromium and chlorinated solvents.
Mid-1950s	Plating Shop N-126 operational	Concentrated plating solutions (Cd, Cr, Cu, Ni) and chlorinated solvents are disposed of in a drywell. Also migration to nearby storm ditch.	G	
Mid-1950s	Plating Shop N-126 Drywell	Waste from plating operation including chlorinated solvents.	G	Included cadmium, chromium, and nickel plating. Sample from drywell contained metals listed above and chlorinated solvents.
1955-1981	Battery Shop N-126 Storm Sewer and Ditch	Liquid waste from battery shop; spills and washdown water	H	Erosion is evident in the ditch where the storm sewer discharges.

Table 3-3 History of Base Operations/Wastes Generated				
Period	Type of Operation	Type of Wastes Generated	Map Reference (see Figure 3-9, Appendix F)	Comments
1960-1981	Fire department drill area	JP-4 and waste fuels	I	Conducted firefighter training, fuel discharged to surface and ignited.
1965-1980	Cemetery disposal area	Ethylene oxide and other wastes from Public Works shops	J	Exact location of ethylene oxide burial not known; hazardous waste burial sign located in the general area.
1969-1978	Sewage lagoons	Wastewater generated by NAS activities	K	Primarily sanitary in nature.
1972	Naval hospital is opened	Small amounts of medical wastes	L	
Unknown	Galley disposal	Food cans	M	No evidence of other materials being discarded in the area; apparently not a supervised disposal area.

N t : This table is intended to provide only general base history of operations at NAS Memphis and does not list all SWMUs. Details may be reviewed in Section 3.1, Table 3-1, Figure 3-1.

An IAS in November 1983 resulted in five sites on the base being recommended for confirmation. Based on results of the Confirmation Study (verification phase) in November 1985, four sites were recommended for a characterization study.

No other work was performed under NACIP as a result of the passage of SARA in 1986. EPA/Superfund terminology and procedures were adopted by the Navy and those of NACIP were dropped. Consequently, with the passage of the Hazardous and Solid Waste Amendments in 1984, NAS Memphis was issued Permit Number HSWA-TN002 in September 1986 by EPA Region IV. The permit required them to identify and characterize all existing active and inactive SWMUs located on the facility (i.e., a RCRA Facility Assessment).

In December 1986, an RFA was performed to identify units, sites, activities, or locations which meet the definition of a SWMU. Following identification, investigation plans were prepared to evaluate SWMUs in which known, suspected or presumed releases of hazardous constituents may have occurred. The RFA and RFI were accomplished concurrently; the original draft reports were both submitted to EPA Region IV in April 1987. The RFA/RFI identified 58 potential SWMUs and recommended 34 for further study. Since 1987, seven sites were added and a formerly identified site was divided in two resulting in a total of 65 SWMUs.

The RFA/RFI documents were declared inadequate based on a EPA Region IV letter of 15 July 1988. Subsequently, EPA visually inspected the site 18 January 1989, and EPA Region IV requested a revised RFA, which was submitted to EPA Region IV on 24 July 1989. Also, EnSafe submitted a separate RFI work plan to the same office 2 January 1990 for SWMU 3, the Plating Shop Dry Well and SWMU 59, the Old Pesticide Shop, which were scheduled for demolition to support the Military Construction Program. These two sites are still scheduled for demolition pending site remediation.

Table 3-4 SWMU Summary Table									
Funding (BRAC/ DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
BRAC	1		Fire Department Drill Area	solvents, fuel, metals, PCBs	1960-1984	RFI		RCRA	
DERA	2		Southside Landfill	household, office, and industrial solid waste; wastewater treatment sludges; solvents	1942-1970	RFI		RCRA	
BRAC	3		Building N-121 Plating Shop Dry Well	metals, cyanide	1951-1976	RFI		RCRA	
BRAC	4		Building N-121 Plating Shop Storm Sewer and Drainage Ditch	metals, cyanide	1951-1976	RFI		RCRA	
BRAC	5		Firefighting Training Area	JP-4, solvents, oils	1949- present	RFI		RCRA	
BRAC	6		Building N-126 Battery Shop Storm Sewer and Ditch	waste electrolyte and neutralized waste acid solution	1955-1981	RFI		RCRA	
BRAC	7		Building N-126 Plating Shop Dry Well	metals, cyanide	1955-1978	RFI		RCRA	

Table 3-4 SWMU Summary Table									
Funding (BRAC/DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
BRAC	8		Cemetery Disposal Area	ethylene oxide, metals, waste oil, transformers, capacitors	1965-1980	RFI		RCRA	
DERA	9		Sewage Lagoons	domestic sewage	1969-1978	RFI		RCRA	
DERA	10		Demolition/Construction Debris Landfill (Eastern Portion)	construction debris	1951-1986			RCRA	X
DERA	11		Oiled Dirt Roads	waste oil, PCBs	1942-1970s			RCRA	X
DERA	12		Galley Disposal	foodstuff and containers	unknown			RCRA	X
DERA	13		Grease Pit at Building 499	grease from kitchen	unknown			RCRA	X
DERA	14		Former Site of Building S-140 and 7th Avenue Ditch	waste paint, metals, petroleum products, solvents	1943-1985	RFI		RCRA	
BRAC	15		N-94 Underground Tank Farm	waste paint, solvents	unknown	CSI		RCRA	
DERA	16		N-94 Aboveground Waste Storage Tanks	waste lubricating oil and waste jet fuel (JP-4 and JP-5)	unknown			RCRA	X

Table 3-4 SWMU Summary Table									
Funding (BRAC/ DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
DERA	17		Building S-9 Underground Waste Tanks	waste oil, including waste hydraulic fluid	?-present	CSI		RCRA	
BRAC	18		Building N-112 Underground Waste Tank	waste oil and hydraulic fluid	?-present	CSI		RCRA	
DERA	19		Building 341 Underground Waste Tank and Tank 1648	waste oil and hydraulic fluid	1979- present	CSI		RCRA	
DERA	20		Building 1594 Underground Waste Tank	waste oil and hydraulic fluid	unknown	CSI		RCRA	
BRAC	21		Building N-10 Underground Storage Tank	waste oil and hydraulic fluid	1943- present	CSI		RCRA	
DERA	22		Building S-75 Underground Fuel Tanks	No. 2 fuel oil, diesel	1942-?	CSI			
DERA	23		Building S-8 Underground Fuel Tank	No. 2 fuel oil, diesel	1944-?	CSI		RCRA	

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 NAS Memphis
 Section 3: Summary of Data (On-Base Properties)
 November 17, 1994

Table 3-4 SWMU Summary Table									
Funding (BRAC/DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
DERA	24		Building N-114 Auto Hobby Shop Waste Oil Tanks	automotive non-lubricating oils, lubricating oils, grease, and hydraulic fluids	unknown	CSI		RCRA	
DERA	25		Big Creek Landfill	construction/demolition debris such as concrete, steel, and asphalt	1960s-1970s			RCRA	X
BRAC	26		Building N-102 Battery Acid Treatment (UST only)	sulfuric acid and sodium carbonate	unknown	CSI		RCRA	
BRAC	27		Northside Sewage Treatment Plant	domestic sewage, oils, solvents, and paints	1943-1984	CSI		RCRA	
DERA	28		Southside Sewage Treatment Plant	domestic sewage, oils, solvents, and paints	1943-1984			RCRA	X
DERA	29		Lakehouse Sewage Treatment Plant	domestic sewage	1969-present			RCRA	X
DERA	30		Park Field Waste Treatment Plant	domestic sewage, oils, solvents, and paints	1917-1942	CSI		RCRA	
DERA	31		Aircraft Wash Rack at 4th Street	chromic acid, detergent	1956-present			RCRA	X

Table 3-4 SWMU Summary Table									
Funding (BRAC/DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
DERA	32		Building N-7 Aircraft Wash Rack	chromic acid, detergent	1979-present			RCRA	X
DERA	33		Building H-10 Incinerator	pathological wastes incinerated to ash	unknown			RCRA	X
DERA	34		Building H-109 Incinerator	pathological wastes incinerated to ash	early 1980s-present			RCRA	X
DERA	35		Building 1579 Incinerator	ash from incineration of paper and plastic	1970s-present			RCRA	X
DERA	36		Northside Sewage Treatment Plant Incinerator	ash from incineration of paper and plastic	1943-1984			RCRA	X
DERA	37		Southside Sewage Treatment Plant Incinerator	unknown (probably ash from incineration of paper and plastic)	1943-1984			RCRA	X
BRAC	38		Miscellaneous Drainage Ditches	solvents, degreasers, soils, and paints	1943-1980	RFI		RCRA	
DERA	39		Building S-74 PCB Storage Area	PCBs	1980-present	CSI		RCRA	

Table 3-4 SWMU Summary Table									
Funding (BRAC/ DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
BRAC	40		Salvage Yard #1	scrap cars and batteries, gasoline, oil, and battery acid	1945-1988	RFI		RCRA	
DERA	41		Salvage Yard #2	scrap metal, tires, batteries, and used furniture	1944-present	CSI		RCRA	
BRAC	42		Building N-12 Interim Hazardous Waste Storage Area	paint waste	unknown	RCRA Closure		RCRA	
DERA	43		Building S-176 Hazardous Waste Accumulation Point	solvents, waste paint, paint strippers	unknown	CSI		RCRA	
BRAC	44		Building N-102 Hazardous Waste Accumulation Point	scrap batteries, sulfuric acid, and heavy metals	unknown	CSI		RCRA	
DERA	45		Building S-142 Hazardous Waste Accumulation Point	waste paint, solvents, and paint strippers	unknown	CSI		RCRA	

Table 3-4 SWMU Summary Table									
Funding (BRAC/DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
DERA	46		Building S-140 Hazardous Waste Accumulation Point	waste paint	unknown	CSI		RCRA	
DERA	47		Building 344 Hazardous Waste Accumulation Point	mineral spirits	unknown	CSI		RCRA	
DERA	48		Building S-9 Hazardous Waste Accumulation Point	paint thinners and degreasers	unknown	CSI		RCRA	
DERA	49		Building N-757 Hazardous Waste Accumulation Point	mineral spirits, waste paints, and used batteries	unknown	CSI		RCRA	
BRAC	50		Building N-126 (MAG-42) Hazardous Waste Accumulation Point	mineral spirits and paint thinners	unknown	CSI		RCRA	

Table 3-4 SWMU Summary Table									
Funding (BRAC/ DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
BRAC	51		Building N-126 (VR-60) Hazardous Waste Accumulation Point	mineral spirits and paint thinners	unknown	CSI		RCRA	
BRAC	52		Building N-126 (VP-67) Hazardous Waste Accumulation Point	mineral spirits and paint thinners	1985- present	CSI		RCRA	
BRAC	53		Building N-126 (AIMD) Hazardous Waste Accumulation Point	TCE, mineral spirits, and paint thinners	1988- present	RCRA Closure		RCRA	
DERA	54		Dental Clinic Hazardous Waste Accumulation Point	X-ray film fixer and dental amalgam (mercury/silver)	?-present			X	

Table 3-4 SWMU Summary Table									
Funding (BRAC/DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
DERA	55		Medical Clinic Hazardous Waste Accumulation Point	X-ray film developer and fixer	?-present			RCRA	X
DERA	56		Building 352 Hazardous Waste Accumulation Point	used automotive batteries from golf course vehicles	unknown			RCRA	X
DERA	57		Building S-183 Hazardous Waste Accumulation Point	waste paint and thinners	unknown			RCRA	X
DERA	58		Building S-360 Hazardous Waste Accumulation Point	mineral spirits and paint wastes	unknown			RCRA	X
DERA	59		Pesticide Storage Facility (Old Pesticide Shop)	DDT, dieldrin, chlordane, and arsenic-based pesticides	unknown	RFI		RCRA	

Table 3-4 SWMU Summary Table									
Funding (BRAC/ DERA)	SWMU No.	Assembly	Description	Material Disposed	Date of Operation	Status	Risk to Human Health & the Environment	Regulatory Mechanism	NFA
BRAC	60		Northside Landfill (Western Portion)	construction debris	1951-1986	RFI		RCRA	
DERA	61		Building N-26 Former Printing Shop	printers inks and solvents (may contain lead, chromium, and cadmium)	early 1980s	CSI		RCRA	
BRAC	62		M-21 Arresting Gear Drainage Area	hydraulic fluid, lubricating oil, and diesel fuel	1985-1990	CSI		RCRA	
DERA	63		Building S-75N Underground Storage Tank	MEK, acetone, ethyl benzene, toluene, and xylene	unknown	CSI		RCRA	
BRAC	64		N-16 Materials Storage Area	used oil and fire extinguishing agents	unknown	CSI		RCRA	
DERA	65		Building S-362 (Training Mock- Up)	jet fuel, hydraulic fluid, and lubricating oil	early 1950s- present	RFI		RCRA	

3.2.4.3 Restoration Sites

In a 22 February 1990 letter, EPA established an official SWMU list and instructed SOUTHDIV to proceed with an RFI work plan. SOUTHDIV prepared and submitted a draft-final RFI work plan in July 1990 and received comments on the plan from EPA and TDEC in November 1991. EnSafe/Allen and Hoshall has responded to these comments with a draft RFI work plan for CAMP Group II (currently proposed as Assembly A under BRAC modification to the CAMP) SWMUs dated 15 September 1993. Upon approval of the work plan, the USGS will implement the field work.

EPA concluded the following regarding the 65 SWMUs:

- Fifteen will require full RFI characterization (refer to Table 3-4).
- Twenty-eight will require a Confirmatory Sampling Investigation (CSI), including:
 - SWMU 62 (M-21 Arresting Gear Drainage Area), which was added to the list in a 5 August 1992 letter from EPA commenting on the draft CAMP.
 - SWMU 63 (Building S-75 N UST) and SWMU 64 (N-16 Materials Storage Area) which were recommended for addition to the list by NAS Memphis in a letter to EPA dated 11 December 1992.
- SWMU 42 (Building N-12 Interim Hazardous Waste Storage Area) and SWMU 53 (Building N-126 Hazardous Waste Accumulation Point) have been covered by approved and implemented closure plans.
- Twenty will require no further work (refer to Table 3-4).

Dividing the SWMUs into groups to be addressed under separate schedules required a Corrective Action Management Plan describing the strategy for implementing the RCRA Corrective Action Program at NAS Memphis. In addition to expediting the RFIs, developing a CAMP allows the investigation to be divided into smaller, more manageable groups that can be ranked and addressed in a phased approach.

In 1992, a new Firemat Training Mock-up Facility was planned to be constructed at the locations of SWMU 4 (Building N-121 Plating Shop Storm Sewer and Drainage Ditch) and SWMU 5 (Firefighting Training Area). Due to possible exposure of construction workers to unnecessary health risks, SOUTHDIV requested proceeding as quickly as possible. In response, EPA suggested that "the most rapid means of investigating and remediating these areas would be to perform an Interim Measure on the contaminant source and soil for these areas." This approach was adopted and required an Interim Measures Work Plan (IMWP) for SWMUs 4 and 5 only. The P-170 Shore Aircraft Fire and Rescue Training Facility was also planned for construction immediately east of SWMU 5. Construction of this project would have required rerouting a portion of SWMU 4. Therefore, investigation of the affected portion of SWMU 4 was included in the Interim Measures Work Plan. Construction plans for these projects have been cancelled due to BRAC.

The purpose of the interim measures field investigation was to identify areas of the SWMUs to be affected by construction and expedite corrective measures for these areas so that construction of the new training facilities could proceed. The investigation, conducted during October, November, and December 1992, concluded that immediate corrective action would not be required at these SWMUs. The findings of the investigation were reported in a Technical Memorandum dated 23 February 1993. Data generated during the investigation are included in the background information for each respective SWMU and will be used to supplement the full characterization of these SWMUs during the RFI.

During interim measures field work at SWMUs 4 and 5, it was proposed to lease NAS Memphis property to the City of Millington for development of a municipal light-aircraft landing strip. Because this property includes a portion of SWMU 1, the Fire Department Drill Area, an interim measures investigation was conducted at this SWMU to determine if past firefighting training activities had resulted in soil contamination requiring corrective measures before leasing the land. Based on results of field work at this site in October and November 1992, it was also

concluded that immediate corrective action would not be required. The findings of the investigation (including the decision for no immediate corrective action as stated above) were reported by E/A&H on 1 March 1993. In a May 13, 1993 letter, EPA Region IV concurred that immediate corrective action was unnecessary and requested additional investigation during the RFI. A copy of this letter is in the appendices of the *RCRA Investigation Facility Work Plan — NAS Memphis*, dated 15 September 1993 (EA11 in BWRP).

On 29 June 1993, EPA, Region IV, approved the Corrective Action Management Plan (CAMP) for NAS Memphis. Forty-five SWMUs are listed in the CAMP as requiring investigation. The CAMP is being revised by the BCT.

3.2.5 Storage Tanks

Of the 48 USTs at NAS Memphis, 34 are active, five have been closed; six are temporarily out of service, and three are abandoned. Table 3-5 provides data on each.

The station has a Tank Management Plan, and compliance activities are continuing. A military construction (MILCON) project (P-308) has been submitted to upgrade 30 USTs by replacement in lieu of retrofitting the existing USTs to requirements for leak detection corrosion protection and spill/overflow prevention. This project may need to be modified due to BRAC.

Thirty-four USTs were removed in 1992. According to tank closure assessments, four sites had clean closure, six required remedial investigation, three required additional action per Tennessee UST regulators, and 21 were transferred to the IR program as SWMUs.

The six USTs requiring remedial investigations are on three sites. Remedial investigation on one site did not find petroleum contamination above the Tennessee action level, and a request was submitted to the state regulators for a clean closure. Remedial investigation on the remaining two sites showed that the sites were petroleum contaminated. One site will require

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Table 3-5 Underground Storage Tanks								
Tank ID	Permit #	Status	Regulated	Capacity (gal)	Contents	Construction	Location	Year Installation
106	0-791707	active	no-exempt	12,000	heat/fuel	steel	Hospital	1972
107	0-791707	active	no-exempt	12,000	heat/fuel	painted	Hospital	1972
114	0-791707	active	no-exempt	3,000	heat/fuel	steel	Hosp BEQ	Unknown
301	0-791709	active	yes	7,500	diesel	N/A	N/A	1944
304	0-791709	temp out	no-field	100,000	N/A	concrete	E of N-94	1942
336	0-791708	active	no-field	420,000	JP-5	N/A	N/A	1958
337	0-791708	active	no-field	420,000	JP-5	N/A	N/A	1958
341B	0-791718	closed	N/A	6,000	other	N/A	N/A	1946
341A	0-791718	closed	N/A	10,000	other	N/A	N/A	1946
341D	?	closed	N/A	300	waste oil	N/A	N/A	1957
341C	0-791718	closed	N/A	6,000	other	N/A	N/A	1946
378	0-791701	active	no-eg UST	500	diesel	N/A	N/A	1977
383	0-791702	active	no-eg UST	500	diesel	N/A	N/A	1965
550	?	closed	no-exempt	500	other	steel	550	1955
599	0-791703	active	no-exempt	2,000	heat/fuel	steel	S CEN 599	Unknown
771	0-791704	active	no-exempt	1,000	heat/fuel	steel	S of 771	1976
890	0-791705	active	no-eg UST	300	diesel	N/A	N/A	1954
1211	?	abandon	no-exempt	200	heat/fuel	steel	N of 1211	Unknown
1239	0-791709	active	no-field	100,000	heat/fuel	heat/fuel	N/A	1942

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Table 3-5 Underground Storage Tanks								
Tank ID	Permit #	Status	Regulated	Capacity (gal)	Contents	Construction	Location	Year Installation
1240	0-791698	temp out	no-field	100,000	N/A	concrete	SW S-75	1942
1242	0-791709	active	yes	15,000	mogas	N/A	N/A	1944
1243	0-791709	active	yes	15,000	unlead	N/A	N/A	1944
1249	0-791673	active	yes	4,250	unlead	N/A	N/A	1949
1299A	0-791698	active	no-exempt	7,500	JP-5	painted	W of S-75	Unknown
1299B	0-791698	active	no-exempt	7,500	JP-5	painted	W of S-75	Unknown
1490	0-791683	active	yes	1,800	JP-5	N/A	N/A	1967
1491	0-791683	active	yes	1,800	JP-5	N/A	N/A	1967
1546	0-791718	active	yes	20,000	unlead	N/A	N/A	1971
1547	0-791718	active	yes	20,000	unlead	N/A	N/A	1971
1556	0-791698	temp out	no-field	100,000	N/A	concrete	SW of S-75	1945
1557	0-791698	temp out	no-field	100,000	N/A	concrete	SW of S-75	1945
1593	0-791694	active	no-exempt	18,000	heat/fuel	steel	NE of S-88	Unknown
1617	0-791718	active	yes	10,000	unlead	N/A	N/A	1974
1637	0-791693	active	yes	2,000	waste oil	N/A	N/A	1979
1676	0-791716	active	no-exempt	500	heat/fuel	steel	N of 773	1987
1677	0-791716	active	no-exempt	500	heat/fuel	steel	N of 773	1987
N-1	0-791706	temp out	no-eg	55	N/A	steel	W side N-1	1944
N-1A	?	abandon	no-eg	N/A	water	N/A	N/A	1944

Table 3-5 Underground Storage Tanks								
Tank ID	Permit #	Status	Regulated	Capacity (gal)	Contents	Construction	Location	Year Installation
1648	0-791718	active	yes	550	waste oil	N/A	N/A	1982
N-2	0-791695	active	no-eg	500	diesel	N/A	N/A	1945
N-12	0-791696	temp out	no-eg	55	steel	N/A	E of N-12	1945
N-112	0-791711	active	yes	550	waste oil	N/A	N/A	1981
S-9	0-791713	active	yes	550	waste oil	N/A	N/A	1979
S-89	0-791684	active	no-exempt	2,000	heat/fuel	steel	E of S-89	1945
S-212	?	abandon	no-exempt	550	diesel	steel	S of S-212	Unknown
S-240A	0-791686	active	no-eg	110	diesel	N/A	N/A	1955
S-240B	0-791686	active	no-eg	110	diesel	N/A	N/A	1953
S-240C	0-791686	active	no-eg	110	diesel	N/A	N/A	1955

Notes:

N/A = not available

no-eg = non-regulated emergency underground storage tank

remedial action, and a site-specific standard request was submitted to the state regulators for the second site. If the site-specific standard is approved, then no remedial action will be necessary.

UST 1482 was removed December 1993. The site is contaminated with gasoline and will require a remedial investigation and remedial action.

In addition to the underground tanks, there are 41 aboveground tanks; 36 are active, and five are abandoned. The aboveground tanks are managed under the Spill Prevention Control and Countermeasure (SPCC) Plan. The SPCC and Oil and Hazardous Substance plans will need to be revised to include changes due to closure and realignment. Table 3-6 provides data on the aboveground tanks.

3.2.6 Wastewater

With the exception of two oil-water separators, wastewater from NAS Memphis is discharged to the City of Millington Municipal Wastewater Treatment Plant for disposal. Information on oil-water separators is provided in Section 3.2.8 and Table 3-7.

3.2.7 Lead in Drinking Water

Drinking water is routinely tested for lead content at NAS Memphis. The public water system met the lead and copper action levels during two consecutive six-month periods, as documented in an April 14, 1993, letter from NAS Memphis PWD to the Tennessee Department of Environment and Conservation — Division of Water Supply. PWD, therefore, requested to reduce the number of sampling sites from 60 to 30, and sampling frequency from twice per year to annually. The PWD request was in accordance with provisions of the Tennessee Lead and Copper Drinking Water Regulations 1200-5-1-.33. This letter and supporting lab results are in the BWRP (EA 30).

Table 3-6 Aboveground Storage Tanks							
Tank ID	Status	Capacity (gal)	Contents	Construction	Containment	Location	Year Installed
3-N	abandon	25,000	heat/fuel	steel	no	W of N-12	1949
109	active	350	diesel	painted	yes	Hospital	1972
233	active	300	mogas	steel	yes	Go Cart Track	1992
340	active	125	diesel	steel	no	340	1977
349A	active	950	waste oil	steel	no	N of 349	1980
349B	active	950	waste oil	steel	no	N of 349	1980
369	active	8,000	waste oil	painted	no	E of N-9	1961
370	active	8,000	AVGAS	painted	no	E of N-94	1961
374	abandoned	300	diesel	steel	no	374	1977
773A	active	950	mogas	steel	yes	N of 773	1990
773B	active	950	diesel	steel	yes	N of 773	1990
798A	active	1,800	other	painted	no	Mec Rm 789	1990
798B	active	1,800	other	painted	no	Mec Rm 789	1990
1211A	active	300	mogas	steel	yes	S of 1211	1990
1211B	active	300	diesel	steel	yes	1211	1990
1211C	active	300	waste oil	painted	yes	1211	1990
1550	active	300	mogas	painted	yes	S of N-26A	1987

Table 3-6 Aboveground Storage Tanks							
Tank ID	Status	Capacity (gal)	Contents	Construction	Containment	Location	Year Installed
1632A	active	300	diesel	steel	no	E of 1632	1977
1632B	abandoned	300	mogas	steel	no	E of 1632	1977
1680	active	250	diesel	steel	yes	Well #2	1986
1682	active	250	diesel	steel	yes	Well #5	1986
1683A	active	550	diesel	painted	yes	W of 1683	1985
1638B	active	550	diesel	painted	yes	W of 1683	1985
1695	active	250	diesel	painted	yes	1695	1988
1696	active	300	diesel	painted	yes	ROF Radar	1988
1717	active	10,000	JP-5	painted	yes	W of N-932	1990
1718	active	10,000	other	stainless	yes	W of N-932	1990
1719	active	50,000	JP-other	stainless	no	W of N-932	1990
1720	active	2,000	JP-5	painted	yes	W of N-932	1990
1722	active	20,000	water	concrete	no	W of N-932	1990
1726	active	2,000	mogas	painted	yes	Fly Club	1989
1736	active	1,000	diesel	steel	yes	E of S-237	1989
1751	active	850	diesel	painted	yes	N of 799	1989
1752	active	850	diesel	painted	yes	N of 799	1989

Table 3-6 Aboveground Storage Tanks							
Tank ID	Status	Capacity (gal)	Contents	Construction	Containment	Location	Year Installed
1753	active	850	diesel	painted	yes	AFFR	1989
1754	active	2,000	diesel	painted	yes	AFFR	1992
E-83	abandoned	10,000	none	steel	no	Fed Prison	1954
E-84	abandoned	10,000	none	steel	no	Fed Prison	1954
S-231A	active	250	MOGAS	painted	yes	N of S-787	1992
S-231B	active	250	MOGAS	painted	yes	N of S-787	1992
S-231C	active	250	diesel	painted	yes	N of S-787	1992

3.2.8 Oil-Water Separators

Of the 20 oil-water separators on the installation (see Table 3-7); 18 are operational, 16 discharge to the wastewater collection system for treatment by the City of Millington Municipal Wastewater Treatment Plant, and two (Tanks 1622 and 1623) are point source discharges covered under National Pollutant Discharge Elimination System (NPDES) Permit No. TN0000698. No decision has been made regarding which separators will be retained by NAS Memphis, removed, or conveyed to the city.

Table 3-7 Oil/Water Separators							
Tank ID	Permit #	Status	Capacity	Construct	Location	Year Installed	Discharge
1620	0-791687	active	10,000	fiberglass	Fuel Farm	1977	san. sewer
1621	0-791688	active	10,000	fiberglass	Fuel Farm	1977	san. sewer
1622	0-791689	active	5,000	fiberglass	JP-5 Farm	1977	NPDES
1623	0-791689	active	5,000	fiberglass	JP-5 Farm	1977	NPDES
1624	0-791690	active	3,000	fiberglass	NX Gas Sta	1977	san. sewer
1625	0-791691	active	8,000	fiberglass	West of S-75	1977	san. sewer
1626		temp out	3,000	fiberglass	Fed Prison	1977	N/A
1627	0-791692	temp out	3,000	fiberglass	Minimart	1977	N/A
1639	0-791676	active	700	steel	btw 1638 & 775	1979	san. sewer
1647	0-791677	active	2,000	concrete	NEX Gas Sta	1980	san. sewer
1655	0-791682	active	1,000	concrete	778	1955	san. sewer
1657	0-791679	active	1,500	concrete	S-9	1977	san. sewer
1662	0-791680	active	20,000	concrete	305	1977	san. sewer
1744	0-791681	active	500	concrete	344	1955	san. sewer
1637	0-791693	active	2,000	steel	near 1636	1979	san. sewer
1661	N/A	active	300	steel	N-114	unknown	san. sewer
1722	N/A	active	10,000	concrete	Carrier Deck	unknown	san. sewer
1742	N/A	active	75	concrete	798	1990	san. sewer

Table 3-7 Oil/Water Separators							
Tank ID	Permit #	Status	Capacity	Construct	Location	Year Installed	Discharge
N-4A	N/A	active	300	steel	N-4	1993	san. sewer
1743	N/A	active	50	concrete	791	unknown	san. sewer

3.2.9 Asbestos

NAS Memphis has conducted an asbestos survey on selected facilities throughout the installation. A comprehensive survey of all facilities for friable asbestos-containing materials has been completed, a written Operations and Maintenance plan developed, and personnel who regularly handle and oversee operations involving asbestos have been trained and certified in asbestos procedures. A Basewide Asbestos Assessment/Inventory conducted June 1992 is in the BWRF (EA27).

3.2.10 Air Pollution

Table 3-8 provides information on current air permits.

Table 3-8 Currently Permitted Air Sources				
Permit No./ Exp. Date	Source Description	Pollutant Type	Emission Limitations	Comments
0485-021(R) exp. 7-8-95	Incinerator at Building 1579, 600 lb/hr	TSP Opacity	1.2 lb/hr & 0.37 tpy 20 percent	Type 0 wastes 624 hr/yr max
0485-031 exp. 7-8-95	Two fire training pads, #305 and #392	TSP	0.0098 lb/gal fuel 0.607 tpy	JP-5 fuel only, 7,500-gal/wk max
0485-041 exp. 7-8-95	Fire training at Carrier Deck	TSP	0.95 lb/hr 0.95 tpy	7,500-gal/wk max
0485-04T exp. 7-8-95	Three tank vents Building 1705	VOC	0.09 tpy	JP-5, AFFF, Halon

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Table 3-8 Currently Permitted Air Sources				
P rmit No./ Exp. Date	Source Description	Pollutant Type	Emission Limitations	Comments
0485-01B exp. 7-8-95	Three boilers at Building 100 12.13 MMBtu/hr each	TSP SO ₂ Opacity	0.429 lb/MMBtu, 15.6 lb/hr, & 34.1 tpy 0.5 lb/MMBtu, 18.2 lb/hr, & 39.7 tpy 20 percent	4,369 hr/yr/boiler, Natural Gas/No.2, record fuel usage, record hours of op
0485-02B(R) exp. 7-8-95	Two boilers at Building S-75, 60.67 MMBtu/hr each No. 5 and 6	TSP SO ₂ Opacity	0.22 lb/MMBtu, 26.7 lb/hr (24 hr avg), & 100.9 tpy 0.5 lb/MMBtu, 60.7 lb/hr (24 hr avg), & 229.3 tpy 20 percent	7,560 hr/yr each, Natural Gas/JP-5, record fuel usage, record hours of op
0485-03B(R) exp. 7-8-95	Three boilers at Building S-75 56 MMBtu/hr each No. 1, 2 and 4	TSP SO ₂ Opacity	0.384 lb/MMBtu, 64.5 lb/hr (24 hr avg), & 101.1 tpy 0.5 lb/MMBtu, 84.0 lb/hr (24 hr avg), & 131.7 tpy 20 percent	3,136 hr/yr each, Natural Gas/JP-5, record fuel usage, record hours of op
0485-04B exp. 7-8-95	One boiler at Building S- 893 MMBtu/hr	TSP SO ₂ Opacity	0.6 lb/MMBtu, 1.8 lb/hr, & 7.86 tpy 0.5 lb/MMBtu, 1.5 lb/hr, & 6.55 tpy 20 percent	8,736 hr/hr Natural Gas/No.2, record fuel usage, record hours of op
0485-05B exp. 7-8-95	One boiler at Building 599 3 MMBtu/hr	TSP SO ₂ Opacity	0.6 lb/MMBtu, 1.8 lb/hr, & 4.23 tpy 0.5 lb/MMBtu, 1.5 lb/hr, & 3.53 tpy 20 percent	4,704 hr/hr Natural Gas/No.2 record fuel usage, record hours of op
0485-06B exp. 7-8-95	Two boilers at Building 773 8 MMBtu/hr each	TSP SO ₂ Opacity	0.531 lb/MMBtu, 8.5 lb/hr, & 14.3 tpy 0.5 lb/MMBtu, 8.0 lb/hr, & 13.4 tpy 20 percent	3,360 hr/yr Natural Gas/No. 2 record fuel usage, record hours of op
0485-07B exp. 7-8-95	One boiler at Building 114 1.8 MMBtu/hr	TSP SO ₂ Opacity	0.6 lb/MMBtu, 1.08 lb/hr, & 1.81 tpy 0.5 lb/MMBtu, 0.9 lb/hr, & 1.51 tpy 20 percent	3,360 hr/yr Natural Gas/No. 2, record fuel usage, record hours of op
0485-08B exp. 7-8-95	One boiler at Building S- 88 2 MMBtu/hr each	TSP SO ₂ Opacity	0.6 lb/MMBtu, 1.2 lb/hr, & 3.12 tpy 0.5 lb/MMBtu, 1.0 lb/hr, & 2.60 tpy 20 percent	5,208 hr/yr Natural Gas/No. 2, record fuel usage, record hours of op

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Table 3-8 Currently Permitted Air Sources				
Permit No./ Exp. Date	Source Description	Pollutant Type	Emission Limitations	Comments
0485-09B exp. 7-8-95	One boiler at Building N-79 3.35 MMBtu/hr	TSP SO ₂ Opacity	0.6 lb/MMBtu, 2.0 lb/hr, & 1.46 tpy 0.5 lb/MMBtu, 1.7 lb/hr, & 1.22 tpy 20 percent	1,456 hr/yr, Natural Gas only, record fuel usage, record hours of op
0485-02P exp. 7-8-95	One spraybooth at Building S183	VOC Opacity	1.52 lb/hr & 1.58 tpy 20 percent	2,080 hr/yr, record paint usage, record hours of op
0485-03P exp. 7-8-95	One spraybooth at Building 360	VOC Opacity	2.79 lb/hr & 0.725 tpy 20 percent	520 hr/yr, record paint usage, record hours of op
0485-04P exp. 7-8-95	One spraybooth at Building 784	VOC Opacity	34.5 lb/hr & 10.34 tpy 20 percent	600 hr/yr, record paint usage, record hours of op
0485-05P exp. 7-8-95	One spraybooth at Building 349	VOC Opacity	1.82 lb/hr & 2.27 tpy 20 percent	2,496 hr/yr, record paint usage, record hours of op
0485-07P exp. 7-8-95	One 3-bay spraybooth at Building N-12	VOC Opacity	3.05 lb/hr & 1.03 tpy 20 percent	936 hr/yr, record paint usage, record hours of op
0485-09P exp. 7-8-95	One cyclone at carpenter shop (S-77)	TSP Opacity	1.52 lb/hr & 0.38 tpy 20 percent	520 hr/yr, fugitive dust control, record hours of op
0485-10P exp. 7-8-95	One cyclone at carpenter shop (S-225)	TSP Opacity	0.56 lb/hr & 0.211 tpy 20 percent	753 hr/yr, fugitive dust control, record hours of op
0485-12P exp. 7-8-95	One cyclone at carpenter shop (765)	TSP Opacity	1.06 lb/hr & 0.83 tpy 20 percent	1,560 hr/yr, fugitive dust control, record hours of op
0485-13P(R) exp. 7-8-95	Two sterilizers, 10.5 lb/hr ETO usage	VOC	1.05 lb/hr & 0.86 tpy 20 percent	1,248 hr/yr, record EO usage & hr of op, nuisance control
0485-14P exp. 7-8-95	Three spraybooths at Building S-787, Rm. 118	VOC Opacity	1.38 lb/hr & 0.86 tpy 20 percent	As school, 6 hr/day, 1,248 hr/yr, record paint usage
0485-15P exp. 7-8-95	Spray painting at Building N-12	VOC Opacity	1.93 lb/hr & 0.80 tpy 20 percent	832 hr/yr, record paint usage & hours

Table 3-8 Currently Permitted Air Sources				
Permit No./ Exp. Date	Source Description	Pollutant Type	Emission Limitations	Comments
0485-16P exp. 7-8-95	Spray painting, latex outside Building S-183	VOC Opacity	1.4 lb/hr & 0.29 tpy 20 percent	415 hr/yr, record paint usage & hours
0485-17P exp. 7-8-95	One cyclone at Woodcraft Carpentry, Building 797, 120 lb/hr	TSP Opacity	0.63 lb/hr (24-hr avg), 20 percent	1,872 hr/yr, record throughout and hours, no painting, staining, etc.

Notes:

AFFF = aqueous, film-forming foam
 lb/hr = pounds per hour
 MMBtu = million British thermal units
 SO₂ = sulfur dioxide
 tpy = tons per year

TSP = total suspended particulate
 VOC = volatile organic compound
 op = operation

Source: Shelby County/NAS Memphis, 1992.

Vapor controls are inadequate on the gasoline storage vessels at the Navy Exchange and southside gas stations. A Pollution Control Report has been submitted to install submerged fill pipes and Phase I vapor recovery systems to correct the deficiencies at the Navy Exchange (northside) and Public Works (southside) gas stations. Vapor-control systems have been designed and construction should be completed within one year.

3.2.11 Lead-Based Paint/Lead

As of November 1993, there had been no comprehensive lead-based paint study at NAS Memphis. Due to the age of most buildings, lead-based paint is suspected. It is probable that buildings built after 1978 do not contain lead-based paint; however, no tests have been performed to confirm the presence or absence of lead-based paint in any buildings. Two additional areas possibly containing lead should be noted. The Open Lands 3 (OL3) survey mentions an area that was once used as a small arms firing range from 1945 to 1970. A bermed area of this land (used as a backstop for the firing range) was removed in the 1970s and used for construction at the new hospital. The second area is described on the Airfield Lands survey.

An area behind a Mapco Gas Station (located on the northside of the base, facing Navy Road) was historically used as a "turkey shoot." It is assumed that lead shot was used at these events and subsequently fell to the ground.

3.2.12 Polychlorinated Biphenyls (PCBs)

According to the PWD and as noted during the baseline survey, there are no PCB-containing transformers currently on the base. All ballasts for fluorescent lighting are treated as PCB-containing and shipped offsite for proper disposal. A 1982 PCB Audit and Survey is in BWRP (EA36).

3.2.13 Pesticides

Historically, NAS Memphis received various pesticide and/or herbicide applications. It is assumed that residual amounts of these materials are present in soils and bodies of water throughout the base. According to a statement by Mr. Bill Bennett (SOUTHDIV), the following information is relevant to NAS Memphis:

- Except for northside family housing and several other areas, all of the NAS has been treated with dieldrin and one area northwest of runway 3/12 has been treated with DDT, dieldrin and chlordane. Treatments were required in 1956, 1963 and 1969 by the United States Department of Agriculture because a quarantined pest was found on the NAS. If the base had not been treated, USDA would not have allowed aircraft to operate, in effect closing the base. Information on rates of application may be available from USDA.

It is expected that residues from these treatments still exist because of information gathered on soil residuals of these same materials when they were used for termite control. These types of treatments were standard for airfields, civilian and military, where quarantine pests were found. Also, these same pesticides were used at similar rates to protect corn, cotton, soybeans and other crops. Therefore, it is expected that

similar residues exist in soils on properties used for agriculture in the 1940s, 50s and 60s.

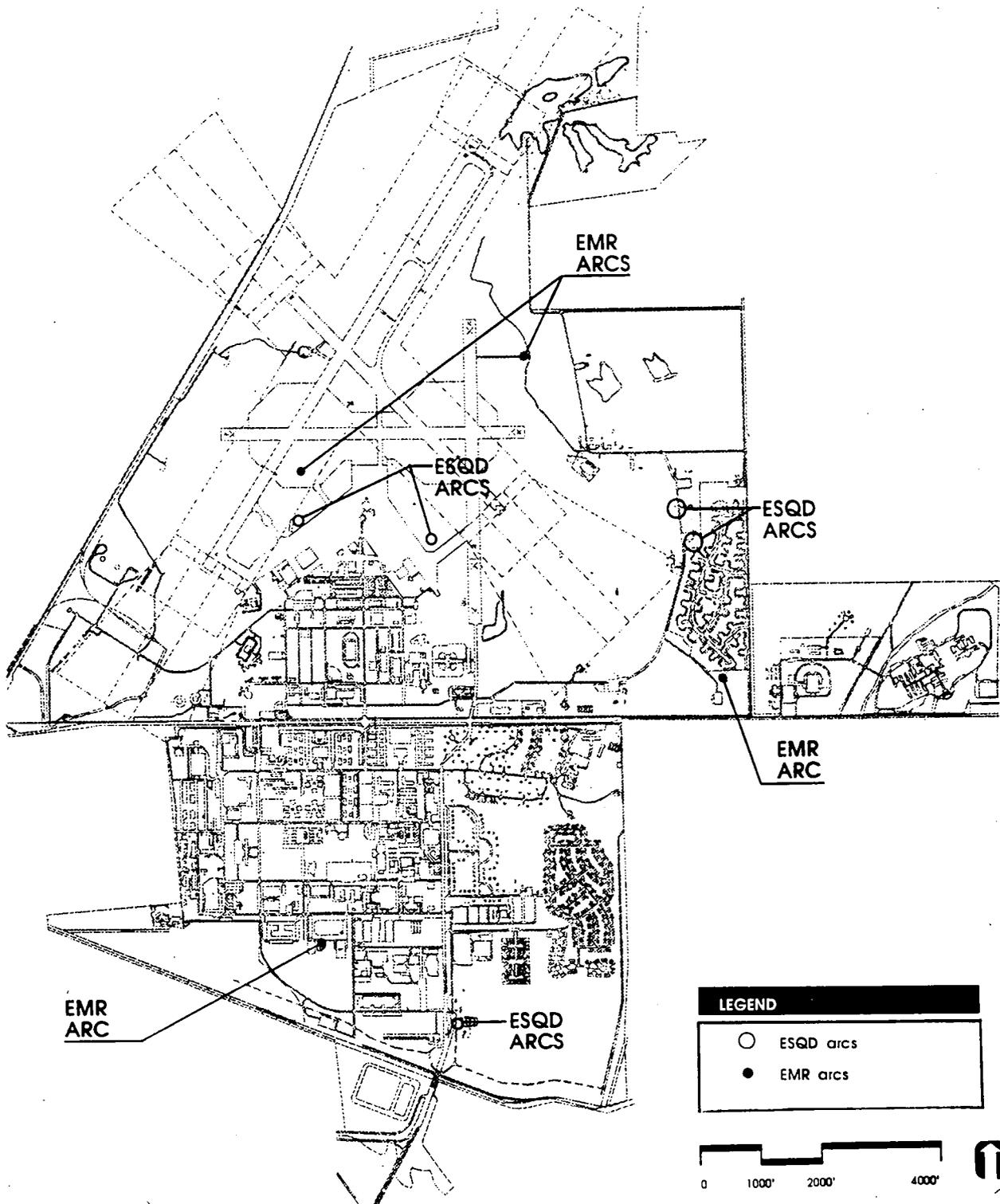
- The pest control industry, including the Navy, used chlordane in and around the foundations of buildings for subterranean termite control up until the late 1980s. Concentrations between 500 and 1,000 parts per million (ppm) are expected around and under most buildings at NAS Memphis. These materials are not known to move in soil, even when subject to high rainfall. They only move when the soil itself is moved.
- If left alone, soil residues of all of these materials will gradually decline, naturally, as they are metabolized by microorganisms and soil chemicals.

3.2.14 Medical/Biohazardous Waste

The only medical or biohazardous waste generated at NAS Memphis originates in the medical/dental clinic (Building 771) and the Navy Memphis Hospital (Building 100).

3.2.15 Ordnance

Approved magazine storage capacities are listed in Table 3-9. Explosive Safety Quantity Distance Arcs (ESQDs) and Electromagnetic Radiation Hazard Arcs (EMRs) are shown in Figure 3-10. A 5-meter EMR arc is located south of Building 769 (Air Traffic Control School).



SOURCE: NAS MEMPHIS MASTER PLAN, Preliminary Draft, March 15, 1993



Environmental Baseline Survey
 NAS Memphis
 Millington, TN

FIGURE 3-10

ESQD and
 EMR Arcs
 NAS Memphis

DATE: 05/09/94

DWG NAME: NASMEMTB.DWG

Table 3-9 Approved Magazine Storage Capacities		
Facility	Capacity (ft ³)	Contents
N-125	2,477	Small arms and pyrotechnics
N-81	3,240	Small arms and pyrotechnics
441	512	Cartridge activated devices for aircraft seat ejections
442	512	Same as 441
S-159	1570 ft ²	Small arms weapons and arms storage
S-160	3,973	Same as S-159
1715	1,078	Small arms ammunition storage

Note:

Bunker N-119 (2,477 ft³) has been turned over to the horse stables (MWR) for storage.

3.2.16 Radioactive Materials and Mixed Wastes

No major radioactive materials were identified at NAS Memphis during the EBS. Minute amounts of technetium and radioactive isotopes, including nucleides for diagnostics, are located in Room 1053 in the hospital.

3.2.17 Radon

NAS Memphis has conducted radon testing in some base housing. Alpha track radon detectors placed in Wherry Housing for a year are currently being analyzed by a laboratory. It is not anticipated that concentrations of radon are present above regulatory action limits. Should the testing results indicate that radon is a concern, however, confirmatory sampling and mitigation projects will need to be initiated.

3.2.18 Potable Water

Potable water quality at NAS Memphis complies with National Primary and Secondary Drinking Water Regulations. There have been isolated incidents of lead in drinking water exceeding the

15 part per billion (ppb) limitation established under 40 Code of Federal Regulations (CFR) 141.80; however, less than 10 percent of the samples taken during the fourth monitoring sequence exceeded lead or copper limitations. Lead in basewide drinking water coolers has been analyzed for NAS Memphis and the Naval Hospital. Drinking fountains that tested higher than limits were replaced. Subsequent retests at these locations indicated the water was within the limits for lead and copper. Reduced pressure backflow prevention devices have not been installed in all high priority areas. A cross-connection control program has been initiated.

3.3 Natural and Cultural Resources

The activity has many structures identified as potentially eligible for the National Register, and has been active in ensuring compliance with the National Historic Preservation Act through the development of a Historical and Archeological Resources Protection Plan (HARP) and conducting an intensive survey.

Table 3-10 lists individual properties and historic districts for inclusion in a Multiple Property National Register Nomination. The survey was conducted by Thomasson and Associates in October 1993. The survey was entitled *Intensive Historic and Architectural Survey of Buildings/Structures at Naval Complex Memphis*.

Table 3-10	
Sites Eligible for Multiple Property National Register Nomination	
Site Name	Site Building Number
Officers Quarters	553
North Side Administration Building	N-1
Training Hangars	S-86, S-133
Senior Officers Quarters	550, 551, 552, 554, 591, 592, 593
Naval Hospital Complex	E-1, E-2, E-3, E-4, E-5, E-6, E-31, E-32, E-33, E-34, E-35, E-46, E-51, E-52, E-85
Warehouse Historic District	S-66, S-67, S-69, S-70, S-71, S-72, S-73

Procedures have been initiated to identify, evaluate, and afford the State Historic Preservation Officers and the Advisory Council on Historic Preservation with the opportunity to comment on the Navy's BRAC undertakings, in accordance with Sections 106 and 110 of the National Historic Preservations Act of 1966, as amended. These actions are being conducted in accordance with the National Environmental Policy Act.

Endangered species have not been surveyed; however, state and federal fish and wildlife agencies feel there is little chance of species of concern being resident on the base. There has been no formal designations of wetlands. A 1992 survey identified potential wetlands; however, a final report is not expected until summer 1994. Approximately 360 acres adjacent to the airfield is leased to a local farmer for row crop and hay production.

3.4 Uncontaminated Properties

"Uncontaminated" (category 1/white) is defined by CERLCA 120(h) as "real property on which no hazardous substances and no petroleum products or their derivatives were stored for one year or more, known to have been released, or disposed of." Only two facilities at NAS Memphis were determined to meet this category: outdoor tennis courts (Buildings 246 and 891) and covered tennis courts (Buildings 1619 and 1739). These facilities are described in Appendices E and G. Figure 5-1 in Appendix F shows the location of these facilities.

The following criteria were used to determine the environmental condition of property:

- Review of past and current records, including all readily available base-specific documents relevant to past or present activities which may have had an environmental impact on NAS Memphis.
- Interviews with current military and civilian personnel knowledgeable of NAS Memphis.
- Review of historical and present aerial photographs.
- Public Defense Search.

3.5 All Other Properties

This section documents properties that do not meet the CERCLA 120(h) definition of "uncontaminated" including categories 2/blue through 7/gray. As with the determination of uncontaminated property as described in Section 3.4, these determinations were based on the review of all available past and current records and photographs, interviews, and visual surveys. The first three categories will be considered suitable for transfer by deed: 2/blue, 3/light green, and 4/dark green. The other categories (5/yellow, 6/red, and 7/gray) are not considered suitable for transfer by deed until additional investigation or remediation has been conducted.

These facilities are described in Appendices E and G. Figure 5-1 in Appendix F shows the location of these facilities.

3.5.1 Blue

Areas where only storage of hazardous substances or petroleum products has occurred (but no release or disposal or migration from adjacent areas has occurred).

For example:

- UST areas, with leak detection, showing no evidence of leaks.
- USTs removed or closed in place, showing no evidence of contamination.
- Any SWMU investigated and showing no evidence of contamination from a suspected release.
- Presence of household hazardous materials (such as general cleaners) providing the chemical is used (released) in a controlled manner.

3.5.2 Light Green

Areas where storage, release, disposal and/or migration of hazardous substances or petroleum products has occurred, but at concentrations that do not require a removal or remedial action.

For example:

- USTs removed or closed in place, showing evidence of contamination below regulatory action levels.
- Any SWMU currently under investigation, showing evidence of contamination from a known or suspected release below remedial action levels.
- Any oil-water separator that discharges to a public sanitary sewer, showing no evidence of contamination.
- Any septic tank (not listed as a SWMU), showing no evidence of contamination.
- Any road, street or open land area not otherwise designated due to historic application of pesticides and herbicides.

3.5.3 Dark Green

Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, and all remedial actions necessary to protect human health and the environment have been taken.

For example:

- Any SWMU currently under investigation, showing evidence of contamination from a known or suspected release at which all remedial action has been completed. Any residual contamination is below regulatory limits and no further action is required by the regulatory bodies.

3.5.4 Yellow

Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, removal and/or remedial actions are underway, but all required remedial actions have not yet been taken.

For example:

- Any SWMU currently under investigation, showing evidence of contamination from a known or suspected release and all remedial action has not yet been completed.

3.5.5 Red

Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, but required response actions have not yet been implemented.

For example:

- Any SWMU currently under investigation, showing evidence of contamination from a known or suspected release further remedial action is required.

3.5.6 Gray

Areas that are unevaluated or require additional evaluation.

- UST areas without leak detection. Classification could be changed if more data become available.
- Suspected SWMU classification could be changed if more data become available.
- Presence of a stain or distressed area in or about a hazardous material storage area containing household cleaners.

4.0 SUMMARY OF DATA FOR ADJACENT PROPERTIES

The two sources used to collect the necessary data for determining the environmental status of adjacent properties were the Environmental Database, Inc. (EDI) report and the adjoining property survey. The EDI report reviewed public databases (local, state, federal) for base and surrounding property. A 1993 report by EDI contains the latest information gathered from governmental sources at compilation time. Information from the EDI report was used as the reference source for the environmental setting. Table 4-1 summarizes the findings of the EDI report.

Table 4-1 Environmental Database Summary for Adjacent Properties					
Database Searched	In Search Area	Location Unknown	Advisory	Search Radius	Totals
NPL/Superfund Sites	0	0	0	1 mile	0
EPA CERCLIS Sites	0	0	0	1 Mile	0
SARA III Facilities	0	0	0	.5 Mile	0
ERNS Spills	1	0	0	.25 Mile	1
RCRA Corrective Action	0	0	0	1 Mile	0
RCRA D Landfills	0	0	0	1 Mile	0
RCRA LRG QTY/TSDs	1	0	0	1 Mile	1
RCRA SML QTY/Others	2	0	0	.25 Mile	2
FINDS Facilities	1	0	0	.5 Mile	1
Clean Air Facilities	1	0	0	1 Mile	1
NPDES Plants (PCS)	1	0	0	.5 Miles	1
State Superfund	0	0	0	1 Mile	0
State Landfills	0	0	0	1 Mile	0
Leaking USTs	5	0	0	1 Mile	5
Registered USTs	11	0	0	.25 Mile	11
NPL/PRP Database	—			NPLs/Site only	0

Table 4-1 Environmental Database Summary for Adjacent Properties					
Database Searched	In Search Area	Location Unknown	Advisory	Search Radius	Totals
Civil Enforcement Docket	—			NPLs/Site only	0
CERCLIS/RODs	—			All CERCLAs	0
RCRA Enforcement & Compliance	0	0	0	All RCRA violators	0
RCRA HAZ Waste Violators	—			All RCRA violators	0

- A spill of 1,000 gallons of premium gasoline was reported on 23 July 1987 at Rowland's Navy Road Amoco Food Shop, within 1/4-mile of the facility.
- B&F Auto Service, at 7950 C Street, is listed as a large quantity generator. This location has had one RCRA violation in the past concerning generator land-ban requirements.
- Two small quantity generators are within 1/4-mile of the base: Navy Road Cleaners, 5049 Navy Road, and Rowland's Navy Road Amoco Food Shop, at 4990 Navy Road.
- Standard Construction Co., Inc. at 7666 Raleigh Millington Road is listed as a Federal Index System (FINDS) location for air and radiation. This site is within 1/2-mile of the base.
- A Clean Air site, Standard Construction Co., was shown in the EDI report.

Leaking USTs:

- Ragsdell's Auto/Cycle Center, 5036 Navy Road
- Hodges' BP Gulf, 4629 Navy Road
- MAPCO Express #3247, 6379 Navy Road

- Shelby County Board of Education, 4660 Biloxi
- Chief Auto Parts, Navy Road and Easley Street

All leaking UST locations are within 1 mile of the base.

Eleven sites within 0.25 miles of the base are reported to have registered USTs. There are a total of 38 USTs at these locations.

Additional details may be found in the EDI report in Appendix D.

While every reasonable effort was made to assure the accuracy of the information, the EDI report cannot be guaranteed to be accurate and complete. The purpose of the EDI report (Appendix D) is to approximate the positions of reported site locations and should not be used for purposes served by professional surveyors. The EDI information includes the location of the following:

- EPA CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) sites.
- SARA III (Superfund Amendments and Reauthorization Act of 1986) Facilities (also known as Toxic Release Inventory) sites.
- ERNS (Emergency Response Notification System) Spills (also known as Hazardous Material Spill Report) sites.
- RCRA (Resource Conservation Recovery Act of 1976) Subtitle D Landfill sites.
- RCRA Notifier Facility Report sites.
- FINDS (Federal Index System) Facilities Report sites.
- Permitted Clean Air Act Facilities.
- NPDES (National Pollutant Discharge Elimination System) Facilities.
- State Superfund Sites.

- State Landfill Sites.
- Leaking UST Sites.
- State Registered UST Sites.

4.1 History and Current Usage

The majority of the land surrounding NAS Memphis is currently farmland. Historically, all surrounding land was farmland and woodland. Figure 4-1, Appendix F, shows the existing offbase land use.

Except for residential and some commercial use property on the western boundary just south of Navy Road, almost all of the base property south of Navy Road (Southside) is bordered by farmland.

Commercial property borders the base on its far western boundary just north of Navy Road (MAPCO gas station/convenience market). North of the commercial area, the Illinois Central Railroad forms the western border of the base. West of the railroad, the land is used for both residential and agricultural purposes.

Located north of and adjacent to NAS Memphis is the small, rural community of Kerrville. This area is characterized by sparse residences surrounded by dense wooded areas, opening up to agricultural land to the northwest.

Along the northeast base boundary, low density residential and agricultural use prevails. A golf course-country club is situated in this area as well as a public cemetery. Located at the intersection of Bethuel Road and Kerr-Rosemark Road is a restaurant (Knight BBQ).

Farmland lies east of Bethuel Road, which forms the eastern border of the base property north of the hospital. Farmland also borders the north boundary of the hospital and prison areas. Just east of the prison, on the north side of Navy Road, is a church and its associated cemetery.

The area south of Navy Road and the hospital/prison area is occupied by medium density residential housing, Shelby County Fire Station #4, and the Millington East School. A small commercial strip along the south side of Navy Road includes a discount gas station, Economy Inn, Rainey's Supermarket, MAPCO Express, a barber shop, and various other commercial entities. Farmland borders the base property just west of this commercial strip and south of Navy Road.

Big Creek Drainage Canal forms the southern base boundary, with farmland lying south of Big Creek.

4.2 Adjacent Properties With No Known or Suspected Releases

Based on the past history of property usage, the EDI report, and the adjacent property survey, there are, to the best of E/A&H's knowledge, no adjacent properties without known or suspected releases within the meaning of CERFA.

4.3 Adjacent Properties With Known or Suspected Releases

Given the usage history of the adjacent property as farmland, and the assumed exposure of the land by the use of pesticides and herbicides (see Section 3), all the adjacent properties are assumed to be associated with suspected releases of hazardous materials, petroleum, or petroleum derivatives within the meaning of CERFA. The spill of 1,000 gallons of gasoline (mentioned in Section 4) was the only known release of hazardous materials, petroleum products, or petroleum derivatives.

5.0 CONCLUSIONS AND RECOMMENDED COURSES OF ACTION

5.1 Facility Matrix

Individual properties at NAS Memphis were scheduled for survey according to function and location. Frequently, facilities related by function and/or location, were grouped and surveyed together, for example SWMUs, tanks, and oil-water separators. The most representative facility in the grouping was designated as the survey's name (first facility shown in the survey title). SWMUs not associated with surrounding properties were surveyed individually. Land with no numbered facility onsite was surveyed as "open land," and designated as OL-1, OL-2, etc.

Table 5-1, Facility Matrix—NAS Memphis, indicates characteristics associated with each property. Properties are entered in the matrix by computer filename, which is the name used in the base CD ROM EBS system. Next are columns for facility number/description, year constructed, persons contacted, and interview date. Any SWMU numbers associated with the facility are noted. The census of USTs, aboveground storage tanks (ASTs), oil-water separators, and septic tanks associated with the facility are noted. If asbestos-containing material or suspected ACM was noted in the survey of the facility, "Yes" or "Susp" appears in the ACM column. The presence or suspected presence of lead based paint is indicated by "Yes" or "Susp" in the lead-based paint column. The "Other" column was used to show other environmental concerns noted in the individual survey. Finally, the transfer status of the property (transferrable or nontransferable), and the EBS environmental condition of property classification are shown in separate columns.

Included in Appendix G are the executive summary pages of each EBS survey. Additional information concerning facilities and property may be found in the NAS Memphis EBS CD ROM database system, where individual EBS surveys are listed by the computer filename shown in column one of the facility matrix.

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Table B-1
 Facility Matrix—NAS Memphis

Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
N-1	N-1, Naval Air Maint. Training Group Building	1942	David Cleek	12/02/93		2				Yes		- Batteries inside building west wing	NTF	7(Grey)
N-2	N-2, 1697, NAS Memphis Air Operations Building	1943	Commander Miller	11/15/93		1				Yes	Yes		NTF	6(Red)
N-4	N-4, Transient aircraft operations facility	1943	ABH1 Minor	11/15/93						Yes		- Sump in the mechanical room - steam valve well - Hazardous material storage area east of building	NTF	7(Grey)
N-7	N-7, Converted hangar-classrooms, offices, open bay area	1943	PO3 Perkins	11/18/93						Yes			NTF	7(Grey)
N-9	N-9, Flight equipment maintenance building	1942	Fioel Medina	12/02/93	21	1				Yes		- Silver possibly in plumbing from prior photo lab	NTF	7(Grey)
N-11	N-11, Storage warehouse, MAG-41, NATTC	1943	Jorge Valez Joseph Brown Art Pollard	12/06/93						Yes			TF	2(Blue)
N-12	N-12, Ground Support Equipment Building	1943	PO3 Garnett	11/15/93	42	1						- Paint spray booth in two areas in building	NTF	6(Red)
N-13	N-13, Warehouse	1942	Jorge Hardin	12/06/93						Yes	Yes		TF	2(Blue)
N-14	N-14, IMRL - Warehouse	1943	Darrell Mullen	12/03/93						Yes		- Hazardous material storage area located inside building against west wall	TF	2(Blue)

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Table 5-1 Facility Matrix—NAS Memphis														
Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
N-16&SWMU.64	N-16, Training/Fire Station	1942	Felix Williams James Yarbrow	12/03/93	64					Yes	Yes	- Approx. 200 5-gal. cont. of AFFF stored on concrete pad north of building - Adj. hazardous materials shed	NTF	7(Grey)
N-26	N-26, Graphics/Electrical/Wood Shop	1942	A.R. Hamilton L. Doane S.W. Kidd	12/14/93	61					Yes	Yes	- Possible Nickel in plumbing - 200 cubic feet flammable material container - Wood frame hazardous materials storage shed - Hazardous materials storage area in metal cabinet in TV shop	NTF	6(Red)
Golfcomp	N-26A, 352, 1649, 1550, 1481, 1466, Golf Clubhouse Complex and assoc. buildings	1955 1943 1981 1969 1963 1961	Mike Laird	01/04/94	56		1			Yes			TF	3(Lt Green)
N-27	N-27, MWR Offices	1942	A.R. Hamilton L. Doane	12/10/93						Yes	Yes		TF	2(Blue)
N-48	N-48, 1603, 1577, Water Tower	1944 1975 1970	Mike McConnon Russell Harris	01/06/94			1					- Evidence of recent diesel spill located around outside generator	NTF	7(Grey)
N-79-364	N-79, 364 Indoor swimming pool/ fitness center; handball courts	1943	Donald Mitchell	12/16/93						Yes	Yes	- Chlorine-based pool chemicals in pool pump room - Boiler adjacent to N-79	TF	2(Blue)

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Table 5-1 Facility Matrix—NAS Memphis														
Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
STORBUNK	N-81 N-125 N-119 Storage bunkers	1942 1947 1952	Rafe Davis	11/22/93							Yes	- Stored ordnance	TF	2(Blue)
N82&1209	N-82, 1209, multiple basketball and physical fitness facility	1943 1942	R.R. Vickers	12/20/93						Yes	Yes	- Hazardous materials storage area in Bldg. 1209	TF	3(Lt. Green)
N-88	N-88, 1600, 1651, 1652, 1672, 1646, utility shed and assoc. buildings	1942 1976 1981 1981 1985 unknown	Alfred Heim Rafe Davis	1/13/94								- Hazardous waste accumulation area in bldg. 1646	NTF	7(Grey)
N-94	N-94, 1658, 1596, 1268, 1267, 1266, 1265, tank farm office	1943 1982 1974 1942 1942 1944 1945	Richard Ashford	1/13/94	15 16	5	3	2				- No containment for 2 ASTs and 2 oil/water separators	NTF	5(Yellow)
N-100251	N-100/251, hobby shop, amateur radio station	1946 1946	Chief Terry Rhoades	1/6/94						Yes		- Age and corrosion protection unknown for UST and AST	NTF	5(Yellow)
N102-112	N-102, N-112, admin. purposes and storage	1949 1949	David Blitzler	1/14/94	26 18 44	1							NTF	7(Grey)
N-104	N-104, storage of aircraft equipment	1949	Rita Lopez	12/8/93						Yes	SUSP	- Non-regulated tank in NW wing of mechanical room	TF	2(Blue)
N-105	N-105, storage of misc. non-chemicals	1949	Patrick Emerson	12/7/93						Yes	SUSP		NTF	7(Grey)

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Table 5-1 Facility Matrix—NAS Memphis														
Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead- Based Paint	Other	TF/NTF	EBS Classification
N-106	N-106, maintenance of radio and radar equipment	1949	Patrick Emerson	12/8/93						SUSP	SUSP	- Flammable material cabinet in bldg.	TF	2(Blue)
N-108	N-108, office space and maintenance shop	1949	Tim Bowen	12/6/93								- Compressed gas material in building - Air compressor outside building - Flammable material cabinet in building - Hazardous materials storage in building	NTF	7(Grey)
N-109	N-109, office space and maintenance shop	1949	M.E. Crumby	12/6/93						SUSP		- Portable air compressor in maint. area - Fixed compressor outside bldg. - Flammable materials cabinet in bldg. - Hazardous materials and waste storage areas in bldg.	NTF	7(Grey)
N-110	N-110, motor transport, maintenance and office space	1949	Dottan Nesselrotte	12/6/93								- Flammable materials cabinet, hazardous materials storage area and CO exhaust system in garage area	TF	2(Blue)
HOBBYCOM	N-114, 778, 764, 397, 349, 1655, auto hobby shop complex	1949 1981 1973 1968 1961 1981	Henry McCurdy	12/21/93	24		3	1				- 1 Oil/water separator adjacent to N-114 and 1 oil/water separator to rear of 778 - Paint spray booth at 349 - Dip tank at N-114 - 2 ASTs - Boiler and paint locker at 394	NTF	7(Grey)

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Table 5-1 Facility Matrix—NAS Memphis														
Computer FName	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead- Based Paint	Other	TF/NTF	EBS Classification
N-121	N-121, storage building	1951	Jim Forbress Gerald Stiles	1/10/94	3							- 3 large locked refrigeration units of unknown contents	NTF	6(Red)
N-122	N-122, storage and office facility	1950	Paul Euhchner	12/14/93						SUSP			NTF	7(Grey)
N-123	N-123, hazardous waste storage ¹	1990	Jorge Velez	12/16/93								- Hazardous waste storage area	NTF	6(Red)
N-126	N-126, aircraft hangar	1955	John Garnett Gene Thomas	1/11/94								- Compressed gas cylinders in welding shop - Flammable materials cabinets - PD-680 parts cleaner in AMID shop area	NTF	6(Red)
N-208	N-208, residential housing unit	1947	Diannia F. Baum	1/25/94						SUSP	SUSP		TF	2(Blue)

¹ This hazardous waste storage area is located on the former site of facility N-123. Currently the area has not facility number or property record number.

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Table 5-1 Facility Matrix—NAS Memphis														
Computer Filename	Facility Number. Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
S-1&255	S-1, 255, NAS headquarters	1943 1942	Walter L. Hodges	12/6/93						Yes			TF	2(Blue)
S-2	S-2, admin. of base security operation	1943	Eric Kemp	11/18/93						SUSP	SUSP	- Unknown AST, no containment, on south side of building - Flammable materials cabinet and hazardous materials cabinet on south of metal storage	TF	2(Blue)
S-4	S-4, 1679, postal facility	1943 1985	Wanda Spencer	11/2/93						Yes	SUSP		TF	2(Blue)
S-6	S-6, office space	1943	Joe Fraser	12/3/93							SUSP		TF	2(Blue)
S-7	S-7, 735, supply purchasing and admin. and assoc. buildings	1943 1957	Rick Masters	12/3/93						Yes			NTF	6(Red)
S-8-268	S-8, 268, main fire station/training center and assoc. building	1943 1953	Richard Olson	12/14/93	23					Yes		- 250-gal S/N 58196 near washrack - 100-gal AFFF in Pierce Fire Pumper - Unknown 500-gal tank located adjacent and south of Building S-8	NTF	7(Grey)

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Table 6-1 Facility Matrix—NAS Memphis														
Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
S-9	S-9, 1292, 1633, public works/transportation maint. shop and assoc. bay areas	1943 1949 1977	James Schofield A.H. Mashburn	12/17/93	17 48	1		1		SUSP	SUSP	- Flammable materials cabinet in west bay area - 2 Hazardous materials storage cabinets inside and 2 outside - Hazardous materials storage areas near battery pad and adjacent to hazardous waste pickup point - 3 sludge drums at oil/water separator - Oil/water separator adjacent to S-9	NTF	7(Grey)
S-50	S-50, admin., sales, Navy band and storage	1943	Chuck Reigle Mr. McCoy	11/16/93		1				Yes	SUSP		TF	3(Lt. Green)
S-51	S-51, vacant	1943	No Contact	1/21/94						Yes		- Fire suppression system in attic space	TF	3(Lt. Green)
S-52	S-52, various retail sales, services and storage	1943	Chuck Reigle Chris O'Connor Mr. Armstrong	11/16/93						SUSP		- Pool chemicals may be stored in health club/fitness center currently under construction	TF	2(Blue)
S-54	S-54, various	1943	Cynthia Leach Art Weekly Danny Cernyy Barry Volkmann	12/8/93						SUSP		- Lubricants and other petroleum products from lawn mower maintenance shop	TF	3(Lt. Green)
S-55	S-55, vacant	1943	Gordon Welch	1/19/94						Yes			TF	2(Blue)
S-56	S-56, various retail sales, services, storage		Chuck Reigle	11/10/93		1	1			Yes		- Refrigeration units (coolers) in Kwik-Stop and Baskin-Robbins	NTF	7(Grey)

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Table 5-1 Facility Matrix—NAS Memphis														
Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
S-61	S-61, admin. offices, photo lab.	1943	Ben Foard	11/2/93								- Recovery of silver in lab areas - Silver and photo chemicals contamination in plumbing, flooring and soil	NTF	6(Red)
S-65	S-65, dry goods warehouse	1943	Chuck Reigle	11/16/93						Yes		- Storage and repairs on refrigerated vending machines in building	TF	2(Blue)
S-66	S-66, dry goods warehouse	1943	Chuck Reigle	11/16/93									TF	2(Blue)
S-67	S-67, small office area and open area for cabinetry and gen. woodworking		Paul S. Carter	12/8/93						Yes	Yes	- Hazardous materials storage area in unmarked portable building	TF	2(Blue)
S-69	S-69, storage and small office space	1943	Wiley Dean	12/8/93						Yes	SUSP		TF	2(Blue)
S-70	S-70, storage	1943	Walter Rease	12/16/93						Yes	SUSP		TF	2(Blue)
S-71	S-71, storage of construction materials	1943	Ronald Serviss	12/9/93						Yes		- Flammable material cabinet inside building - Unidentified substance container to south of building	TF	2(Blue)
S-72	S-72, 1610, small office and open storage	1942 1976	Joe Gatechair	12/8/93						Yes	SUSP		TF	2(Blue)
S-73	S-73, storage warehouse	1943	Peter W. Murray	12/7/93						SUSP	SUSP		TF	2(Blue)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
SWMU39	S-74, abandoned	1943	Jim Heide Walt McIntosh	12/6/93	39	1				Yes		- UST to receive proper closure - Transformers SW of building need to be removed - RCRA facility assessment recommended prior to closure	NTF	6(Red)
S-75	S-75, S-108, 286, Central Heating Plant	1943 1943 1947	William Cariker George Burns	11/22/93	22 63	5		1		Yes	Yes	- Hazardous materials storage area in conc. containment area west of building - Hazardous materials storage area in a shed to the west of the Building	NTF	6(Red)
S-78	S-78, Bowling Center/Library	1943	Early L. Cody JoAnn Rosas	12/17/93						Yes	Yes	- Kitchen grease trap near service entrance - Hazardous materials storage area at rear of bowling lanes - Storage room at northeast corner of bowling center	NTF	7(Grey)
S-79	S-79, Toyland Store, a video store, and a laundromat	1943	Chuck Reigle	11/11/93									TF	2(Blue)
S-86	S-86, Storage	1943	Jim Heide	11/13/93						Yes	Yes		NTF	6(Red)
S-88	S-88, Bachelor Officer's Quarters	1943	Roy Warmen Mr. Valasquez Scott Early	11/11/93		1				Yes	Yes		NTF	6(Red)
S-133	S-133, S-186, Storage	1943 1943	Jack C. Stephens	11/12/93						Yes	Yes		NTF	6(Red)

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S-136	S-136, NAMTRAGRU Offices	1943	Claude M. Warden Al Pruett	12/10/93						Yes	Yes		TF	2(Blue)
S-137	S-137, S-137 ROICC and Veterinary Clinic	1943	Chuck Lewis	12/09/93						Yes	Yes		TF	2(Blue)
S-143	S-143, Youth Services	1943	Kenneth Mason Col. Dawson Phil Coop	12/15/93						Yes	Yes		TF	2(Blue)
S-159	S-159, S-160, administration offices, weapon storage	1943 1943	Rafe Davis	11/22/93						Yes			NTF	6(Red)
S-163	S-163, classrooms	1943	Rafe Davis	11/22/93						Yes	Yes		TF	2(Blue)
S-172	S-172, Storage	1943	Clarence Thomas	12/16/93						Yes		- Abandoned AST in the area	NTF	7(Grey)
S-89-282	S-89, 1293, 1484, 282	1943 1949 1964 1948	Jim Best Thurmond Treadwell	12/15/93		1				Yes	Yes	- Liquefied gas cylinder north of Building	NTF	6(Red)
S-191	S-191, Youth Center	1944	Angela McGaley Johnson	12/16/93						Yes	Yes	- Propane storage tank near the NE corner of Building	NTF	6(Red)
OCPOOL	S-198, 906, 905, 904, 898, OC Swimming pool and bathhouse	1944 1964 1969 1950 1950	Donald Mitchell	12/14/93							Yes		NTF	7(Grey)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
STORAGE	S-203, S-219, 1470, Storage	1947 1949 1963	Murray McKee (S-203) SK2 Murray (S-219) Jake Humphrey (S-203 & 1470)	12/02/93						Yes		- Flammable materials cabinet in S-219 - Two cycle oil in one and 5-gal. containers is stored in S-219 - Compressed gas cylinders (oxygen and acetylene) both full and empty - Flammable mat'l on pallets in S-203	NTF	7(Grey)
S-221	S-221, Trainer Maint. Div. - Admin. offices	1949	Lee York	11/10/93						Yes	Yes		TF	2(Blue)
S-222	S-222, Trainer Maint. Div. - Admin.	1949	Lee York	11/10/93						Yes	Yes		TF	2(Blue)
S-223	S-232, Trainer Maint. Div. - Engine/Machine Shop	1949	Lee York	11/10/93						Yes	Yes		TF	2(Blue)
S-224	S-244, Metal Welding Shop	1949	Lee York	11/10/93						Yes	Yes		TF	2(Blue)
S-225	S-225, Carpenter Shop	1949	Lee York	11/10/93						Yes	Yes	- A cyclone separator used to remove particulates	TF	2(Blue)
S-231-S23	S-231, S-232, S-233, Self-help warehouse, storage facility, and Recycling and Go-Kart equip. storage	1951 1951 1951	Bill Lindsay (231) Wiley Dean (231) Chuck Reigle (232) ADC Reno (233)	11/04/93			1					- Hazardous waste storage area south of Building - 90-day Hazardous Waste Accumulation Site	TF	2(Blue)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
PWA	S-77, S-235, S-220, S-202, S-195, S-184, S-183, 1645, 1644, 1643, 1642, 1507, 1238, 1229, Public Works area and assoc. bldgs.	1942 1952 1949 1947 1944 1943 1943 1980 1980 1980 1944 1949 1947	Ronald Serviss Gene Stewart Larry Jones	11/22/93	57					Yes		- Hazardous materials storage area in 1238 - Compressed gas cylinders located north of S-202 and west of S-183 - Approx. 36 non-PCB transformers stored north of S-202 - Hazardous waste storage area located at facility 1238	NTF	6(Red)
S-236	S-236, Public Works Bldg.	1953	Jim Heide	12/17/93						Yes	Yes		TF	2(Blue)
S-237	S-237, Computer Center	1953	Kathy Pemberton Bob Sowell	10/28/93			1			Yes	Yes	- Fire suppression system w/ halon 1301 cylinders in computer room	NTF	6(Red)
S-238	S-238, Marine HQ / Restricted Barracks / NIS	1953	Warrant Officer Undy G.Sgt. Parker SSgt. Davis Lt. Hall	10/26/93						Yes	Yes		TF	2(Blue)
S-239	S-239, Administrative Offices	1953	Cliff Oliver	10/26/93						Yes	Yes		TF	2(Blue)
S-240	S-240, AE/AW School	1953	Richard Peterson	11/10/93		3				Yes	Yes	- Three 5-gal containers of centrifugal refrigeration oil in the mechanical room	NTF	6(Red)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead- Based Paint	Other	TF/NTF	EBS Classification
S-241	S-241, AVSI/AVA 5&6/JOBS	1953	AT1 Rodriguez AT1 McSherry	11/03/93						Yes	Yes	- Flammable materials cabi- net in room 168A	TF	2(Blue)
S-242	S-242, Supply Warehouse	1984	Jake Humphrey	12/06/93						Yes			TF	2(Blue)

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Table 5-1 Facility Matrix—NAS Memphis															
Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification	
100&SWMU.3 4	100, Naval Hospital	1970	Dent Williams Mr. Elshamy HM3 Pankey	10/27/93	34	2	1			Yes	SUSP	- Hazardous waste storage area east of building - Boiler(s) in boiler room - Monitoring wells in-place for leaking #2 fuel UST - Minute amount of radioactive isotopes and technisium in Room 1053 of Building 100	NTF	6(Red)	
H-103-5	103, 104, 105, hospital pool complex	1970 1970 1970	Donald Mitchell	12/16/93								- Swimming pool filtration and pumping system in 105, east of 104	TF	2(Blue)	
114	114, 116, 98, 2-story bachelor enlisted quarters	1974 1983 1968	Petty Officer Travis Rodger Aitken	1/20/94		2				Yes	SUSP	- Boiler(s) in 114	TF	2(Blue)	
GCASUPP	243, supply storage facility	1945	D. Peters Chief Simonson	1/5/94							SUSP	- Removal and disposal of Nitrix de-icer and rock salt	TF	3(Lt. Green)	
246&891	246, 891, lighted asphalt, two-court tennis complex	1943 1943	L. Doane Clyde (Corny) Cornelison	11/11/93									TF	1(White)	
252	252, one-story bldg. and carport structure	1950	A.H. Mashburn	12/14/93				1			SUSP	SUSP	- Hazardous waste storage north of 252	NTF	7(Grey)
296	296, vintage concrete tank for storage of empty compressed gas cylinders and plastic hoses	1942	No Contact	1/21/94		1							- Compressed empty gas cylinders on concrete pad - Abandoned lift/pumping station east of 196 - Abandoned AST on property	NTF	7(Grey)

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Table 5-1 Facility Matrix—NAS Memphis														
Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead- Based Paint	Other	TF/NTF	EBS Classification
GOLF	306, 1493, 1473, 1379, golf course	1942 1964 1963 1949	Mike Laird	1/4/94						SUSP		- Possible contamination of lakes with pesticides, herbicides, and other chemicals	NTF	7(Grey)
SWMU59	335, abandoned and awaiting demolition	1949	Al Chambers Jim Heide	12/8/93	59					SUSP	SUSP	- Contaminated pesticide building (1949-1984)	NTF	6(Red)
339	339, 342, 338, fuel tank farm and assoc. bldgs.	1958 1958 1958	No Contact	12/7/93		2		2	1	Yes		- UST 1414 west of 339 - Petroleum-impacted soil or groundwater detected	NTF	7(Grey)
NEXGASTA	757, 341, 758, 1567, Navy Exchange gas station	1959 1959 1969 1969	Chuck Reigle Ron Dahl	11/11/93	19 49	8		2				- 1000-gal propane AST (unknown #), installed in 1985, west of 1567 - Parts washer (20-gal Safety Kleen) in 341 - Hydraulic equipment/reservoir tank in 757 and 341 (PCB-free)	NTF	6(Red)
343	343, lighted football field	1958	L. Doane Clyde (Corny) Cornelison	11/10/93								- Transformer of unknown contents at 343 west trackside	TF	3(Lt. Green)
CBU	344, 766, 765, 779, 1703, 1702, 1654, 1615, 1598, 1597, Sea Bee Compound and assoc. bldgs.	1961 1974 1973 1981 1985 1985 1981 1976 1975 1975	Richard Pierce George Richardson Chief Shadwell Phil Coop	12/13/93	47			1	1			- Hazardous materials storage located in 1702 - Hazardous waste storage in 1703 - Hazardous materials storage at 1654 under the canopy (waste oil) - Hazardous materials storage in 1598 - Further sampling and analysis of SWMU47	NTF	6(Red)

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346	346, 362, 1503, classroom and training space and assoc. bldgs.	1961 1961 1967	James R. Malone Larry Jones	11/19/93	65							- Compressors in 1503 - Sample and analyze SWMU65 prior to closure - TPH contamination of soil and groundwater	NTF	5(Yellow)
RDA-348	348, utility tower	1993	George Bailey Larry Tennison	12/22/93			2						TF	2(Blue)
359	359, open grassy area, paved parking lot and water well	1961	Russell Harris	1/6/94								- Electric pump serves well	TF	3(Lt. Green)
360	360, paint shop/spray booth	1963	Lee York	11/10/93	58					No	SUSP	- Permitted air pollution control process - Lack of diked containment around sides of concrete pad	TF	2(Blue)
374&173	374, 173 ² , hangar and assoc. building	1961 1964	Recks Mettler Rocky Kranz			1						- Probable petroleum contamination - Non-regulated Tank (374) outside Building 374 - Flammable materials cabinet outside Building 374 - Hazardous materials storage area outside Building 374	NTF	7(Grey)
376	376, gasoline station	1964	Glen Hayes	12/14/93		2					SUSP	- Documented leak of UST adjacent to 376 - Recommended removal of tank 1249 due to its age - 376 located within 100 feet of 2 SWMU sites	NTF	5(Yellow)

² Facility 173 is a mobile trailer. It was moved to its present location in 1964. No property record number was found during the records search.

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377	377, 378, transmitter facility and assoc. bldg.	1965 1965	Kevin Chapman	1/7/94		2			1	Yes			TF	2(Blue)
382	382, airfield communications system equipment and assoc. bldgs.	1965	Kevin Chapman	1/7/94		2			1	Yes		- Flammable materials cabinet east of 382 - Hazardous materials storage east of 382	TF	2(Blue)
388	388, vehicle weighing scales	1964	Joe Fraser	12/6/93							SUSP		NTF	7(Grey)
391	391, 1612, electric transmission/distribution switching station	1966 1976	Diannia Baum	1/14/94						SUSP	SUSP	- Unregulated UST west of 391 and 1612 - Storage and disposal of hazardous substances or petroleum products from SWMUs 54 and 55	TF	2(Blue)
393	393, tools and misc. parts storage area and assoc. structure	1967	Chip May	12/16/93			3						NTF	7(Grey)
394	394, S-197, 1213, mechanical maintenance shop and assoc. bldgs.	1967 1944 1943	Jack C. Stephens	11/15/93								- Compressed gas (material) outside of 394 - Acid and batteries in grey shed west of S-197 - Sewage lift/pumping station in 1213 - Hazardous materials storage under canopy of 394 (waste oil in drums)	NTF	7(Grey)
400-408	400, 408, barrack housing	1968 1968	Roy Warman Mr. Valasquez Dewaynes Pullen Mark A. Randalson							Yes	SUSP	- Paint locker on north side of 407	TF	2(Blue)

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409-417	409, 417, barrack housing and assoc. bldgs.	1968 1970	Roy Warman Mr. Valasquez SSGT Amaral	10/28/93						Yes	SUSP	- Flammable material cabinets north of 416 and west of 416 - Abandoned 55-gal drum (poor condition) north of 416 next to flammable material storage cabinet.	TF	2(Blue)
418-428	418, 428, barrack housing and assoc. bldgs.	1968 1969	Roy Warman Mr. Valasquez Phil Coop	11/5/93	30					Yes	SUSP	- 36,000-gal underground waste treatment tank - Sampling and analysis of SWMU 30 - Flammable materials cabi- net south of 422	NTF	6(Red)
429-446	429, 446, housing units and assoc. bldgs.	1971 1973	Roy Warman Mr. Valasquez Scott Mills Leo H. Brewer David Brain Larry Jones	10/28/93						Yes	SUSP		TF	2(Blue)
447-452	447, 452, barrack housing	1975 1975	Roy Warman Mr. Valasquez Larry Jones	11/5/93						SUSP	SUSP		TF	2(Blue)
453	453, Marine barracks	1984	SSgt Cagle	10/28/93						No			TF	2(Blue)
454	454, barrack housing	1984	Roy Warman Mr. Valasquez Dewaynes Pullen Mar. A. Randalson Larry Jones	10/26/93						SUSP			TF	2(Blue)
455	455, semi-open bay barracks	1989	BPO Smith	11/1/93									TF	2(Blue)
456	456, semi-open bay barracks	1989	BPO Roberts	11/1/93									TF	2(Blue)
457	457, semi-open bay barracks	1991	BPO Perry	11/1/93								- Wet sprinkler system installed in building	TF	2(Blue)

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458	458, BEQ	1991	BPO Brock	11/1/93									TF	2(Blue)
499	499, 1606, dining hall	1976 1976	SKC Hopper MSC Baker MR1 Rumzek MSI Emerson	10/29/93	13					Yes	SUSP	- Grease pit with grease interceptor by loading dock	TF	2(Blue)
CONWAY	548, 540, 537, 534, 504, 1352, housing units	1947 1947 1947 1947 1947 1951	Diannia Baum	1/8/94						SUSP	SUSP		TF	2(Blue)
559	559, housing unit	1947	Diannia Baum	1/8/94						SUSP	SUSP		TF	2(Blue)
570	570, housing unit	1962	Diannia Baum	1/12/94						SUSP	SUSP		TF	2(Blue)
591	591, 592, 593, 556, 554, 553, 552, 551, 550, 1393, 1392, Officer Public Quarters unit	1943 1943 1943 1939 1943 1910 1943 1943 1943 1943 1943	Diannia Baum	1/10/94		1				SUSP	SUSP		TF	2(Blue)
597	597, housing unit	1947	Diannia Baum	1/8/94						SUSP	SUSP		TF	2(Blue)
599	599, bachelor officers temporary housing	1975	Scott Ealy Mr. Velsquez Larry Jones	11/13/93		1				Yes		- Boiler in Building 599 - Hazardous materials storage building to south of Building 599	NTF	6(Red)

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TURNKEY	603, 606, housing units	1974 1974	Diannia Baum	1/11/94						SUSP	SUSP		TF	2(Blue)
750	750, classrooms	1968	MM-2 Merideth	11/9/93						Yes	SUSP		TF	2(Blue)
751	751, classrooms and "dry" laboratory facility	1968	ADCS Carsillo	11/12/93						Yes	SUSP	- Flammable storage locker	TF	2(Blue)
752	752, Navy Exchange	1970	Chuck Reigle	11/11/93						No		- Grease trap at east end of loading dock - Photo processing shop (self-contained silver recovery machine)	TF	2(Blue)
MINIMART	759, 1564, minimart and garden shop	1969 1969	Chuck Reigle	11/11/93				1					NTF	7(Grey)
760	760, Enlisted Men's Club	1971	Hollis E. Forbus Michael A. Brown	1/6/94						Yes	SUSP	- Grease trap in mechanical room next to loading dock	TF	2(Blue)

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LAKES	761, 1584, 1573, 1572, 1571, 1570, 1569, 1568, 1562, 1561, 1543, 1542, 1532, 1531, 1530, 1529, 1505, central recreational facility and assoc. structures	1970 1973 1968 1968 1968 1968 1968 1968 1968 1968 1968 1968 1968 1968 1968 1968	Clarence Thomas	12/16/93						SUSP SUSP			NTF	7(Grey)
762	762, "motel"	1971	Lawrence Jerry Chuck Reigle	11/17/93						No		- Central electric heaters/ boilers in mechanical area	TF	2(Blue)
763	763, office space	1972	Don Keith	12/14/93							SUSP		TF	2(Blue)
767	767, recreational facility	1975	Peter Stultz	12/17/93						Yes	SUSP		TF	2(Blue)
768	768, AVA First Term Electronic School	1975	David A. Beeman	11/8/93						SUSP	SUSP	- Flammable materials cabinet in Room 138 of Building 768 - Floor stripper stored in Room 137	TF	2(Blue)
769	769, classroom and laboratory instruction	1975	ETCS Silas ET3 Harris	11/4/93						SUSP		- Hazardous materials storage areas in various areas of building	TF	2(Blue)

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770	770, 366, 1614, Naval Housing Office and assoc. bldgs.	1975 1962 1976	Diannia Baum	12/20/93						Yes			TF	2(Blue)
771	771, medical and dental clinic	1976	Lt. Combs Robert Brock Woody Thomas	10/26/93	54 55	1				SUSP	SUSP	- Silver recovery process for photo developing chemistry in Building 771 - Hazardous materials storage area in storage shed approx. 100 feet southeast of Building 771	TF	2(Blue)
772COM	772, 1634, 1635, All-Hands Pool Complex	1979 1979 1979	Donald Mitchell	12/16/93						SUSP		- Chlorine-based pool chemicals in pool pump room	TF	2(Blue)
773	773, mechanical room,	1978	David Newsome	1/21/94		2	4	1		SUSP			NTF	6(Red)
774&SWMU.3 2	774, support building	1979	AMS1 Klinedist	11/19/93	32			1					NTF	7(Grey)
775	775, Wash Rack 1638, storage for wash rack	1979 1979	Jack C. Stephens	11/12/93				1		SUSP	SUSP		TF	3(Lt. Green)
776	776, contract administration, technical library, and classrooms	1982	Terry Newton Larry Jones	11/10/93						SUSP	SUSP		TF	2(Blue)
777	777, chapel and religious ministries buildings	1983	PO1 Clifford	11/10/93						SUSP			TF	2(Blue)

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DAYCARE	780, 1724, 1723, 1675, 1674, Child Development Center	1985, 1991, 1991, 1985, 1985	Mickey Gibson Stanley Russell	11/18/93						SUSP			TF	2(Blue)
781	781, instruction room for air traffic control tower procedures	1983	ETSC Silas ET3 Harris	11/4/93						SUSP			TF	2(Blue)
782	782, base commissary	1985	Sarah C. Roberts	12/16/93			1						TF	2(Blue)
783	783, cold storage building	1985	Jim Jacks Jake Humphrey	12/6/93						No			TF	2(Blue)
784	784, aviation mechanic training school	1984	Norman E. Combin	11/15/93						SUSP		- Paint spray booth in Building 784	NTF	7(Grey)
785	785, hangar and training school	1986	Terry Stephens Larry Jones	11/12/93						SUSP		- Hazardous materials (incl. hydraulic fluid) storage area in northwest corner of hangar	NTF	6(Red)
786	786, aircraft-life-support systems training school	1988	AME A.N. Turner	11/12/93									TF	2(Blue)
SWMU-28	787, aviation support equipment training	1991	Sgt. Terry Horne Phil Coop	11/18/93	28		3					- 3 paint spray booths in east wing of Building 787	TF	4(Dk. Green)
789	789, training/classrooms	1990	Richard Peterson Larry Jones	11/10/93									TF	2(Blue)
791	791, basic aircraft ordinance training	1989	A01 Ray AOC Grammolini	11/10/93								- Flammable materials cabinet on southeast side of building	TF	3(Lt. Green)
794	794, legal services bldg.	1987	Robert Savard	10/26/93						SUSP			TF	2(Blue)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
795	795, office spaces and instrument room	1987	Harold Loeblein Larry Jones	12/21/93								- Hydraulic equipment and/or reservoir tank inside shed - Evidence of recent hydraulic fluid spill	TF	3(Lt. Green)
796	796, 1663, correctional custody facility and carpentry shop	1987 1983	Master Chief Roy Rodgers	1/5/04								- Emergency standby generator with integral tank outside northeast corner - Boiler is located inside building	TF	2(Blue)
797	797, hobby center	1990	Mary C. Gilliland	12/10/93								- Photo lab in building - Silver recovery process in photo lab - Wet sprinkler system in building - Flammable materials cabinet in photo lab - Hazardous materials in storage cabinets	TF	2(Blue)
798	798, hangar	1990	William E. Stevenson Jorge Valez	12/16/93			3					- Air compressor inside building - Fire suppression system - Emergency/standby generator assoc. with AST 1753 - Sump pump located outside west corner of building - Flammable materials storage cabinet inside building - Hazardous materials storage area inside building	NTF	7(Grey)
799	799, part of fire extinguishing system	1990	No Contact	12/16/93			3					- Two emergency/standby generators assoc. with 2 ASTs outside bldg. 799	TF	2(Blue)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
SWMU-41	885, 262, 1487, DRMO salvage yard	1945 1944 1985	John Evans	11/17/93	41					SUSP		- RCRA Facility Assessment recommended sampling and analysis for SWMU 41	NTF	6(Red)
892&893	892, 893, recreational complex	1943 1943	L. Doane Clyde (Corny) Cornelison	11/10/93									NTF	6(Red)
896&897	896, 897, tennis courts	1943 1943	L. Doane Clyde (Corny) Cornelison Larry Jones	11/10/93								- Transformers stored in undesignated area	TF	7(Grey)
930	930, Naval Air training facilities	1989	Reggie Stevenson	12/15/93									NTF	7(Grey)
931	931, "commercial motel"	1990	Lawrence Jerry Chuck Reigle	11/17/93									TF	2(Blue)
932	932, 1721, 1716, mock-up facility	1990 1990 1990	Recks Mettler D. Sullivan	12/10/93			4	1				- Fire suppression system - Sewage/lift pumping station inside Building 1721 - Sewage lift/pumping station outside pad 1716 - Flammable materials cabinet and hazardous materials storage area outside facility	NTF	7(Grey)
964	964, 933, hangar and assoc. bldg.	1990 1990	Rocky Kranz Master Chief Roy Rodgers Jim Banker	12/21/93			1		1			- Flammable materials cabinet inside hangar - Hazardous waste storage outside hangar - Parts washer inside hangar	TF	2(Blue)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
JOHNSON	1057, 1044, 1037, 1034, 1025, 1014, 1008, 1003, residential housing	1947 1947 1947 1947 1947 1947 1947	Dianna F. Baum	1/5/94						SUSP			TF	2(Blue)
12111282	1211, 1282, vehicle and equipment maintenance shop	1958 1957	Rusty Trimble Darryl Bass	12/20/93		1	3		1	SUSP	SUSP	- 2,000-gal UST, no containment, west of building	NTF	7(Grey)
RANGES	1278, S-162, 329, 278, 277, 1416, 1384, 1382, 1370, 1279, pistol and skeet ranges and assoc. bldgs.	1952 unknown 1953 1943 1943 1949 1956 1943 1943 1943	Rafe Davis	11/22/93						Yes		- Soil testing for lead content	NTF	7(Grey)
1385	1385, unlighted softball field	1950 1959 1950	Clyde (Corny) Cornelison	11/10/93									TF	3(Lt. Green)
SOFTBALL	1399, 1398, 1387, grass softball field	1950	Clyde (Corny) Cornelison	11/10/93									TF	2(Blue)
1420&292	1420, 292, pistol range and materials storage	1946 1956	Danny Chumney	1/11/93							Yes	- Env. closure of indoor pistol range	NTF	6(Red)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
1511	1511, 1514, 1513, 1512, 396, camping gear issue facility and assoc. buildings	1966 1968 1968 1968 1966	Ray Snyder	12/21/93								- 2 bottles of compressed helium gas in Building 396 - Mobile cylinder holder (1 bottle each acetylene and oxygen), and air compressor for pressurized air cleaning activities in Building 1514 - Compound 1511 contains arc-welding machine - 300-gal AST for Mogas (never used) south of Building 1512.	NTF	6(Red)
15779SWMU.35	1579, incinerator	1971	William Cariker George Burns	12/1/93	35							- Ash left inside incinerator requires proper disposal for closure	TF	3(Lt. Green)
1581	1581, military dog kennel	1972	George McPherson	12/8/93						SUSP		- Unknown proximity of Tank S-212	NTF	7(Grey)
1585	1585, eating establishment for about 60 patrons	1973	James R. Morgan	1/6/94						SUSP		- In-ground sewer line grease trap NE of back door	TF	2(Blue)
1594	1594, Marine communications training supplies	1976	ETCS Silas ET 3 Harris	11/4/93	20					SUSP		- Flammable materials cabinet inside building	TF	4(Dk. Green)
TRAILERS	1595, mobile home park	1974	Janice McConnel	1/17/94									TF	2(Blue)
SWMU29	1576, Lakehouse Sewage Treatment Plant	1970	Clarence Thomas	12/15/93	29				1			- Possible extensive pesticide use	NFT	7(Grey)
16191739	1619, 1739, outdoor lighted asphalt and indoor tennis courts	1976 1991	Chris Christian Clyde (Corny) Cornelisan	11/11/93									TF	1(White)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
1625	1625, containment area	1977	William Cariker George Burns	12/2/93				1				- Drums and transformers must be disposed of properly prior to closure	NTF	6(Red)
16401583	1640, 1583, lighted, 4-field softball complex	1979	Clyde (Corny) Cornelison	11/10/93 11/23/93								- Flammable materials cabinet locker	TF	2(Blue)
1664	1664, 2 metal vans containing electrical equipment to run airport radar surveillance	1982	Chris Hardy Mike Leatherman ET3 Harris	11/4/93									TF	2(Blue)
1667	1667, semi-portable radar structure	1982	ETCS Silas ET3 Harris	11/4/93									TF	2(Blue)
1668	1668, 1666, 1665, electronic communication training bldg. and assoc. areas	1982	Mark Mason Paul Salas	1/14/94	40							- Includes former site of salvage yard	NTF	6(Red)
1669	1669, pesticide shop	1984	Alan Chambers	12/10/93						SUSP		- Mobile tanks of 500 gal, 300 gal, 50 gal and 5 gal inside Building 1669 (contain pesticides and herbicides)	NTF	6(Red)
1671	1671, cement pad used for testing of engines	1985	Danny A. Parker	1/11/94								- 2,500-gal mobile fuel tank on wheels - 1,000-gal mobile fuel tank on skids - Tire stack for noise reduction	TF	3(Lt. Green)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
WTP	1686, 1685, 1684, 1683, 1681, water treatment plant and assoc. potable water well and pumps	1986/87 1986 1986 1986 1986	Russell E. Harris Gerald Kessler	12/13/93			2					- Chlorine/fluorine chemicals in unknown areas - Water softening treatment system in unknown areas	TF	2(Blue)
1687	1687, fire truck garage	1988	Sgt. Rushton N.E. Crumby	12/14/93								- Hazardous materials storage outside north of building - Fire suppression system - Flammable materials cabinet inside building	TF	2(Blue)
1691	1691, electrical transformer switching station	1986	Glen Hayes	12/15/93									NFT	7(Grey)
1694	1694, hazardous waste storage facility	1988	Ray Morgan Larry Jones	11/3/93								- Removal of containers from six storage areas - Disposal of light bulbs in storage shed	TF	4(Dk. Green)
1713	1713, 1714, guard houses for south gate	1989 1989	Eric Kemp	11/18/93									TF	2(Blue)
1715	1715, fortified cartridges storage	1989	Rafe Davis	11/22/93								- Storage of fortified cartridges	TF	2(Blue)
1734	1734, office and maintenance space	1993	Master MGYSGT Thomas Brewer	1/5/94								- Portable air compressors inside building - Flammable materials cabinet outside building	NTF	6(Red)
1740PEST	1740, storage of pesticides, herbicides and other chemicals	1992	Darryl Bass	12/17/93					1				TF	2(Blue)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
2006	2006, Type H Wherry residential housing	1952	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
2009	2009, Type F Wherry residential housing	1952	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
2012	2012, Type G Wherry residential housing	1952	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
2019	2019, Type G Wherry residential housing	1952	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
2028	2028, Type G Wherry residential housing and assoc. bldgs.	1952	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
2037	2037, 2076, Type A and Type D Wherry residential housing	1952 1952	Diannia F. Baum	1/13/94						SUSP	SUSP		TF	2(Blue)
2042	2042, Type B Wherry residential housing	1952	Diannia F. Baum	12/21/94						SUSP	SUSP		TF	2(Blue)
2057	2057, Type G Wherry residential housing	1952	Diannia F. Baum	12/21/94						SUSP	SUSP		TF	2(Blue)
2060	2060, Type E Wherry residential housing	1952	Diannia F. Baum	12/21/94						SUSP	SUSP		TF	2(Blue)
2095	2095, Type B Wherry residential housing	1952	Diannia F. Baum	12/21/94						SUSP	SUSP		TF	2(Blue)
3126	3126, Type 3C Capehart residential housing	1962	Diannia F. Baum	12/21/94						SUSP	SUSP		TF	2(Blue)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead-Based Paint	Other	TF/NTF	EBS Classification
CAPEHART	3210, 3199, 3170, 3155, 3152, 3146, 3144, 3128, 3121, 3113, 3072, 3056, 3055, 3045, 3033, 3031, 3027, 3024, 3022, 3020, Capehart residential housing	1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962 1962	Diannia F. Baum	1/13/94						SUSP	SUSP		TF	2(Blue)
3159	3159, Type 3C Capehart residential housing	1962	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
3197	3197, Type 3B Capehart residential housing	1962	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
3207	3207, Type 3C Capehart residential housing	1962	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
3317	3317, 6-unit Turnkey housing complex	1975	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)
3320	3320, 4-unit Turnkey housing complex	1975	Diannia F. Baum	12/21/93						SUSP	SUSP		TF	2(Blue)

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SWMU2	Southside Landfill	1942	No contact. Info obtained through reports	12/20/93	2								NTF	6(Red)
SWMU4	3,300 foot conc. storm sewer	early 1950s	Eric Henry Mr. Mettler	01/13/94	4								NTF	6(Red)
SWMU6	N-126 Battery Shop Storm Sewer Ditch	1955	Phil Coop	01/10/94	6								NTF	6(Red)
SWMU7	N-126 Plating Shop Dry Well	1955	Phil Coop	01/10/94	7								NTF	6(Red)
SWMU-8	Landfill area	1965	John McDowell Richard Olson Alex Mora Mark Taylor Phil Coop	02/23/94	8								NTF	6(Red)
SWMU9	754(lagoons) 756(pump house)	1969 1969	No contact info obtained through reports	12/20/93	9								NTF	6(Red)
SWMU10	Northside Landfill - East Portion	1951	Phil Coop	01/04/94	10								NTF	7(Grey)
SWMU11	Oiled dirt roads	1942	No contact info obtained through reports	12/20/93	11								TF	3(Lt Green)
SWMU12	Landfill for galley	unknown	Phil Coop	11/16/93	12								TF	2(Blue)
SWMU14&.46	SWMU14 is Former site of underground piping and a paint separator. SWMU46 was the former site of hazardous waste accum. area	1943 unknown	Phil Coop	11/18/93	14 46							- Paint separator tank associated with SWMU14	NTF	6(Red)
SWMU25	Big Creek Landfill	1960s	Phil Coop	12/20/93	25								TF	3(Lt Green)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead- Based Paint	Other	TF/NTF	EBS Classification
SWMU27	Northside Sewage treatment Plant	1943	No contact; info obtained through docu- ment searches	12/22/93	27								NTF	6(Red)
SWMU31	Aircraft Wash Rack at 4th Street	1956	No contact; info obtained through docu- ment searches	01/14/94	31								TF	3(Lt Green)
SWMU33	H-10 Incinerator	1943	No contact; info obtained through reports	12/21/93	33								TF	4(Dk Green)
SWMU36	Northside Sewage Treatment Plant Incinerator	1943	No contact; info obtained through reports	12/21/93	36								TF	3(Lt Green)
SWMU37	Southside Sewage Treatment Plant Incinerator	1943	No contact; info obtained through reports	12/21/93	37								TF	4(Dk Green)
SWMU38	Drainage ditches from industrial areas on North and South sides of base	1943	No contact; info obtained through docu- ment searches	12/14/93	38								NTF	6(Red)
SWMU43	Open, unpaved storage yard west of S-242	unknown	No contact; info obtained through reports	12/20/93	43								NTF	6(Red)
SWMU45	S-142 Hazardous Waste Accum. Points	unknown	No contact; info obtained through reports	12/20/93	45								NTF	6(Red)

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Computer Filename	Facility Number, Description	Year Constructed	Persons Contacted	Interview Date	SWMU#	UST	AST	OWS	Septic	ACM	Lead- Based Paint	Other	TF/NTF	EBS Classification
SWMU50-.53	Hazardous Waste Accum. Points: N-126, MAG-42 (SWMU50); N- 126, VR-60 (SWMU 51); N-126, VP-67 (SWMU52); and N-126 AIMD (SWMU53)	unknown unknown 1985 1988	Phil Coop Gene Thomas	01/10/94	50 51 52 53								NTF	6(Red)
SWMU60	Northside Landfill - West Portion	1951	Phil Coop	01/04/94	60								NTF	6(Red)

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C-1	C-1, administrative office bldg.	1989	Chief J. Cox Larry Jones	1/11/94									TF	2(Blue)
FPCECOMP	E-1, E-2, E-3, E-4, E-5, E-6, E-31, E-46, E-51, E-52, E-75, E-85, minimum security fed. prison	1943 1943 1943 1943 1943 1943 1944 1944 1951 1943	J.D. Hill J. Michael Dooley							Yes	SUSP	- Hazardous materials storage in maint. shops - 16-17 compressed gas cylinders on east side of E-6 - Small, portable tanks of oxygen and acetylene may be inside of E-6 welding shop	NT	2(Blue)
E32-E35	E-32, E-33, E-34, E-35, hospital wards	1943 1943 1943 1943	BV1 Brewster SKC Chief Rickman	1/19/94						Yes	SUSP	- Flammable materials cabinet in E-34	TF	2(Blue)
E-99SEW	E-99, sewage pump station	1971	No Contact	1/18/94						SUSP			TF	3(Lt. Green)
FPC-NEW	FPC-100, FPC-200, FPC-300, FPC-400, federal prison camp complex	1988/89 1988/89 1988/89 1988/89	J.D. Hill J. Michael Dooley	1/14/94								- In-ground grease trap for kitchen waste water - Large metal grease trap for used cooking grease in dumpster area - Biohazard storage cabinet at AST 1676/ 1677 - Paint spray booth in garage building - 3 flammable materials cabinets in garage building	TF	2(Blue)
CREDITUN.ION	Credit Union	1970	Craig Esrael	12/6/93									TF	2(Blue)

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MCDONALD	McDonalds restaurant	1984	Joe E. Schicke	12/13/93								- Metal grease trap in dumpster enclosure at southeast corner of property	TF	2(Blue)
NG-1	NG1, 1665, 1549, training facility and assoc. bldgs.	1988	Sgt. Robert M. Williams	1/6/94		1						- Any 50-gal drums of oil require closure	TF	2(Blue)
AIRFIELD	14-32, 04-22, 4Y1, 389, 340, 328, 1746, 1696, 1695, 1580, 1560, 1559, 1475, 1443, 1442, 890, 4Y2, runways	1942 1942 unknown unknown 1950 1957 1992 1988 1988 1971 1969 1969 1958 1959 1957 unknown	Kevin Chapman John Millard	2/18/94	1 62	1	3					- Hazardous materials locker NSA nearby	NTF	7(Grey)
AIRFIELD	runway apron	1958	Kevin Chapman John Millard	2/14/94									NTF	6(Red)
OL-001	OL001, open space	N/A	Phil Coop	1/14/94									TF	3(Lt. Green)
OL-002	OL002, open space	N/A	No Contact	1/14/94									NTF	7(Grey)
OL-003	OL-003, open space	N/A	No Contact	1/7/94									NTF	7(Grey)
OL-004	OL-004, open space	N/A	No Contact	1/7/94									NTF	6(Red)
OL-005	OL-005, open space	N/A	Roy Rodgers	1/10/94									TF	2(Blue)

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OL-006	OL-006, airfield supp.	N/A	John McDowell Richard Olson Alex Mora Cmdr. Russell Noble Bob Tilley	2/23/94									TF	3(Lt. Green)
OL-007	OL-007, open space	N/A	M.C. Thames	1/10/94									TF	3(Lt. Green)
OL-008	OL-008, open space	N/A	No Contact	1/17/94									TF	3(Lt. Green)
OL-009	OL-009, 308, 1274, open space	N/A	No Contact	1/19/94									NTF	6(Red)
OL-010	OL-010, open space with bldg. foundation	N/A	No Contact	1/1/494									TF	2(Blue)
OL-011	OL-011, open-air, paved storage lot		Janice McConnell	1/18/94									TF	3(Lt. Green)
OL-012	OL-012, open space	N/A	Rocky Kranz	1/5/94		2							NTF	6(Red)
OL-013	OL-013, mock carrier landing deck	1993	Master MGYSGT Thomas Brewer	12/21/93								- 2 arresting gear diesel engines with associated integral tanks on both ends of simulated landing area	TF	3(Lt. Green)
OL-014	OL-014, open space	N/A	No Contact	1/25/94								- Drainage ditches should be sampled and analyzed prior to closure	NTF	7(Grey)
OL-015	OL-015, open space	N/A	Rodger Aitken	1/27/94									TF	2(Blue)

Notes:

UST = underground storage tank
 AST = aboveground storage tank
 OWS = oil/water separator

ACM = asbestos containing material
 TF = transferrable
 NTF = non-transferrable
 SUSP = suspected

Environmental issues relating to the lead content of the potable water supply, PCBs and radon were addressed during the inspection and noted in the checklist for each site. Due to the frequent recurrence of similar or unremarkable conditions of facilities with regard to these issues, they have not been detailed in Table 5-1. However, these issues have been addressed in detail in Section 3 of this report.

The sites listed below were identified during the "fence-to-fence" environmental baseline survey as requiring further investigation. These sites were classified as 7/Gray during the survey due to activities or potential contamination sources at the site. Sites that were 7/Gray because of problems or potential problems at surrounding properties were not considered additional sites because their status will be resolved by the investigation of the surrounding property that caused them to be classified 7/Gray.

The proposed action for each site is based on a review of the EBS survey checklist, a followup visit to the site, and in some cases, additional personnel interviews, and decision of the BCT. A "Gray Area Work Plan" is being developed to address these sites.

- N-122** **Status:** Former welding shop. No reported releases and no prior sampling data.
Action: Conduct verification soil sampling.
- N-4** **Status:** Transient aircraft operations facility. Reported spills of fuels and oils onto apron from aircraft servicing. Prior to 1988, spills were washed into storm drains. No prior sampling data.
Action: Conduct verification sampling at edge of apron and at storm sewer outfall.
- S-198** **Status:** Includes 904, 905, 906, and 898. Former swimming pool and associated buildings. 904 housed chlorine and other chemicals.

According to EBS survey, the pool (898) was filled with dirt of unknown origin and covered with concrete.

Action: Original concern was whether anything other than dirt was used to fill pool. Additional personnel interviews indicate that pool was filled (by SeaBees) with dirt only. No further action is recommended.

N-105

Status: Storage building constructed in 1949. One of its past uses was corrosion control training. No known releases or prior sampling data.

Action: Conduct verification soil sampling.

N-108

Status: Maintenance shop. Past and present storage (and possible release) of hazardous materials associated with maintenance activities.

Action: Conduct verification soil sampling in area where vans were spot-sanded and spray-painted.

N-109

Status: Former welding shop, currently a maintenance shop housing a parts washer. Past and present storage of hazardous materials associated with welding and maintenance.

Action: Conduct verification soil sampling.

759/1564

Status: Former Navy Exchange Gas Station and covered fueling area. Two abandoned USTs associated with 759 may exist according to the 1989 Tank Survey. No information or sampling data on tanks.

Action: Investigate under UST program.

N-1

Status: Office of Naval Air Maintenance Training Group. Part of building is used by the base telephone company offices for equipment storage. Stains were observed on the floor of the battery storage area from leaking batteries. There are two USTs (one abandoned and one out of service) associated with this building.

Action: Decontaminate battery storage area. Investigate USTs under UST program.

- 784** **Status:** Aviation mechanic training school. Past use and storage of fuel and oil during engine testing. No prior sampling data.
Action: Conduct verification soil sampling.
- 394** **Status:** Also buildings S-197 and 1213. 394 is a mechanical maintenance shop. S-197 was a battery storage area and is still used to drain batteries. 1213 is a sewage pump house. Engines were tested in the general area of these buildings. Fuels and oils were used and could have been spilled in these areas. A spill of muriatic acid and solvent occurred recently behind 394. The spill was cleaned up to the satisfaction of the TDEC.
Action: Conduct verification soil sampling in spill area and near former battery storage area.
- 1211** **Status:** Also, 1282 is a 940-gallon septic/drain field (abandoned). 1211 is a MWR maintenance shop. Three fuel USTs and one waste oil UST are associated with the property. The Tank Management Plan describes an abandoned 2,000-gallon UST containing 1,000 gallons of fuel oil.
Action: Investigate under UST program.
- 339** **Status:** Tank farm (UST 336 and 337) containing JP-5. Evidence of possible petroleum-impacted soil and groundwater contamination was detected during installation of wells according to the Tank Management Plan.
Action: Investigate under UST program.
- 388** **Status:** Scale house. Peeling and flaking exterior paint was reported.
Action: An onsite visit to inspect the building identified peeling paint, but few chips on the ground. No further action is recommended.
- 374** **Status:** Former Flying Club hangar and current Aircraft Salvage Training School with abandoned AST (heating oil). Petroleum products associated with hangar and AST.
Action: Conduct verification soil sampling.

- 306** **Status:** Golf course and associated Buildings 1493, 1473, and 1379. This land contains six lakes. It is possible that sprayed pesticides and herbicides have accumulated in the lakes.
Action: Sample lake sediment.
- N-114** **Status:** Auto hobby shop, Buildings 349, 397, 764, 778, and SWMU 24 (two waste oil ASTs). The 3,000-gallon heating oil UST referred to in the EBS survey checklist for this complex is actually associated with Building 114, not N-114. A followup onsite visit identified a backed-up sump that collects effluent from two sources — an engine dip tank containing a caustic solution and another sump that antifreeze is drained into. Piping from the sump leads to a settling chamber connected to the sanitary sewer system. On the day of the visit, the backed-up sump was overflowing onto the ground.
Action: Conduct verification soil sampling in area of overflowing sump.
- 761** **Status:** Navy lake complex with associated sites 1505, 1529, 1530, 1531, 1532, 1542, 1543, 1561, 1562, 1568, 1569, 1570, 1571, 1572, 1573, and 1584. It is possible that sprayed pesticides and herbicides have accumulated in the lakes.
Action: Sample lake sediment.
- OL-006** **Status:** Airfield lands, currently light green. This survey contains the "turkey shoot" area. Further evaluation is needed on the shoot site due to possible contamination from lead pellets and lead dust.
Action: Conduct verification soil sampling in turkey shoot area. Develop investigative approach for land adjacent to runways.
- 1278** **Status:** Pistol range (1278) and skeet range (1279) and associated buildings 329, S-162, 277, 278, 1370, 1382, 1384, and 1416. Further evaluation is needed due to possible contamination from lead pellets and lead dust.

- S-203** **Action:** Conduct verification soil sampling when facilities close.
- S-203** **Status:** Storage facility and associated Buildings S-219 and 1470. Hazardous materials are stored at S-203 prior to distribution across the base. Oil is stored at S-219. In use since late 1940s. No known releases or prior sampling data.
- Action:** Conduct verification soil sampling at storm sewer outfall and in ditch in front of building.
- S-9** **Status:** Public Works transportation maintenance facility and associated Buildings 1292 and 1633. Documented release of a solvent mixture (poured down the drain) and discrepancies in number of USTs.
- Action:** Conduct verification sampling and resolve UST issue.
- S-78** **Status:** Former swimming pool housing chlorine and other chemicals. According to followup personnel interviews, the concrete walls of the pool were knocked into the pool which was then filled with dirt.
- Action:** No further action is recommended.
- N-7** **Status:** Former hangar site. Unknown impact from past activities involving petroleum products and hazardous materials. No known releases or prior sampling data.
- Action:** Conduct verification soil sampling.
- OL-003** **Status:** Open land associated with the riding academy containing pond areas. A portion of the land is also a former shooting range from which dirt was taken for fill around the basement of the Naval Hospital.
- Action:** Sample pond sediment and soil in area of former shooting range.
- Runway Apron** **Status:** A drawing from the 1940s shows numerous gasoline pits and hydraulic oil tanks around the runway apron which were used to service planes. The locations of the pits and tanks were paved over during expansion of the apron area. Construction plans for the apron expansion

indicate that some of the pits were to be removed. Several pits were located during a followup site visit, including one containing oil.

Action: Develop investigative approach.

5.2 Property Categorization

Figure 5-1, Appendix F, shows the on-base properties categorized as discussed in Section 1.1. These property zones reflect the findings of the EBS for NAS Memphis as discussed in Section 3, including identification of areas considered uncontaminated based on the requirements of CERCLA Section 120(h). Categorization of these properties was based on the criteria listed in Section 1.1.

5.3 Resource Map

A Resource Map (Figure 5-2, Appendix F) was developed to identify certain items on NAS Memphis. The information used to create this map was generated during the EBS, including visual site inspections and data review.

Items identified on the map:

AST	SWMU
UST	Liquified Petroleum Tank
Septic Tank	Hazardous Material Storage Cabinet
Process Tank	Satellite Accumulation Area
Hazardous Material Storage Areas	90-Day Hazardous Waste Storage Area
Generator Belly Tanks	

5.4 Data Gaps

The EBS identifies data gaps that need to be resolved. The plan for resolving these data gaps will be incorporated into the BCP.

Data gaps to be identified are listed below:

- The basewide radon survey is incomplete
- Lead-based paint surveys should be conducted as required.
- Information on all Gray sites for additional areas of concern (as listed in Section 5.1) should be identified.
- Gray Area Work Plan

6.0 CERTIFICATION

This report describes the pertinent information obtained during the EBS assessment. It is important to note that, while significant problems may have been found, it is possible that undiscovered information may or may not indicate significant environmental compliance liabilities. These liabilities could include: (1) being a potentially responsible party (PRP) to a CERCLA (Superfund) cleanup (holding facility owners and/or operators liable), (2) being in jeopardy of losing a permit or license which allows the facility to remain in operation, or (3) the allocation of significant sums of money to bring the facility into compliance with environmental regulations.

The accuracy of information obtained from regulatory and private outside sources cannot be confirmed by EnSafe/Allen & Hoshall. The report represents a prudent and reasonable evaluation of the base's current environmental condition. Future investigations, such as soil and water sampling, may modify recommendations in this report. EnSafe/Allen & Hoshall assumes no responsibility for conditions that are not currently recognized by regulatory authorities as environmental unacceptable.

I certify that the property conditions stated in this report are based on a review of available records, visual inspections, and interviews as noted and are true and correct, to the best of my knowledge and belief.

Submitted for EnSafe/Allen & Hoshall



By: Lawson M. Anderson
Task Order Manager

I have reviewed the preparer's methodology and report, and concur with the methodology and findings to the best of my knowledge and belief.

For: SOUTHNAVFACENGCOM

 11/14/94

David Porter

BRAC Environmental Coordinator

7.0 ACRONYM LIST

ACM	Asbestos-containing material
AFFF	Aqueous Film Forming Foam
AHERA	Asbestos Hazardous Emergency Response Act
AIMD	Aircraft Intermediate Maintenance Department
AST	Aboveground storage tank
AVGAS	Aviation gasoline
BCP	BRAC Cleanup Plan
BEQ	Bachelor Enlisted Quarters
BOQ	Bachelor Officers Quarters
BRAC	Base Realignment and Closure
BWRF	Basewide Reference File
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information Systems
CERFA	Community Environmental Response Facilitation Act
COMNAVRESFOR	Commander Naval Reserve Forces
D	Documentation
Dept.	Department
Div.	Division
DOD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
Dwg.	drawing
E/A&H	EnSafe/Allen & Hoshall
EBS	Environmental Baseline Survey
EDI	Environmental Database Incorporated
EIS	Environmental Impact Statement
ERNS	Emergency Response Notification System
FINDS	Federal Index System
FS	Feasibility Study
FSAP	Final Sampling and Analysis Plan
gal	gallon

HQ	Headquarters
HM	Hazardous Materials
HW	Hazardous Wastes
IRP	Installation Restoration Program
JP	Jet Propulsion Fuel
LBP	lead-based paint
LOX/NIT	Liquid Oxygen/Nitrogen
Lt.	Lieutenant
LUST	Leaking Underground Storage Tank
MARCOR	Marine Corps
MILCON	Military Construction
mogas	motor gasoline
MSDS	Material Safety Data Sheet
MWR	Morale, Welfare and Recreation
N/A	Not applicable
NAMTRAGRU	Naval Air Maintenance Training Group
NAS	Naval Air Station
NAVFAC	Naval Facility
NAVFACENGCOM	Naval Facilities Engineering Command
NAVRAMP	Navy Radon Assessment and Mitigation Program
NCP	National Contingency Plan
NEESA	Naval Energy and Environmental Support Activity
NFA	No Further Action
NFESC	Navy Facilities Engineering Service Center
NMCB	Naval Mobile Construction Battalion
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OSHA	Occupational Safety & Health Administration
PA	Preliminary Assessment
PCB	polychlorinated biphenyl
pCi/L	Picocuries per Liter
PO	Petty Officer
POI	Point of Interest
POL	Petroleum, oils and lubricants

ppm	parts per million
PW	Public Works
PWC	Public Works Center
PWD	Public Works Department
PWO	Public Works Office
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
ROD	Record of Decision
ROICC	Resident Officer in Charge of Construction
SAA	Satellite Accumulation Area
SARA	Superfund Amendment Reauthorization Act
SOUTHDIV	Southern Division
SI	Site Investigation
SPCC	Spill Prevention Control and Countermeasures Plan
SVOC	Semi Volatile Organic Compound
SWMP	Solid Waste Management Plan
SW	Surface Water
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene
TDEC	Tennessee Department of Environment and Conservation
TSCA	Toxic Substances Control Act
US	United States
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VAT	vinyl-asbestos tile
VOC	Volatile Organic Compound

8.0 REFERENCES

The majority of the documents reviewed for the Environmental Baseline Survey are listed in the BWRF. Table 8-1 lists additional reference documents which were reviewed or included in the survey, but are not in the BWRF.

Table 8-1		
Additional Reference Documents Reviewed and Not Included in Basewide References		
Title	DWG./Contract No.	Date
Asbestos Survey of Selected Buildings at NAS Memphis-Cape Environmental Management, Inc.	N 62467-90-D-0044	5/92
Tennessee Wildlife Resources Wetlands Maps	GIS-1993-Millington, Drummonds, Brunswick, and Munford	10/93
Intensive Historic Architectural Survey of Buildings/Structures at Naval Complex Memphis—Memphis, TN—Thomasson and Associates, Nashville, TN	N 62467-91-C-4586	10/93
Shelby County Tax Assessor's Office Maps	Block #6 Block #15B Block #15F Block #15L Block #15 Block #16 Block #26 Block #27	1/21/92
Location Map of Family Housing	PWO 8054	5/13/80
Wherry Housing—Married Enlisted Men's Quarters—Plot Plan	PWO 8545	9/20/89
Conway Housing—Married Officers Quarters—Plot Plan	PWO 8546	2/13/81
Johnson Housing—Married Enlisted Men's Quarters—Plot Plan	PWO 8547	2/13/81
Capehart Housing—MEMQ and MOQ—Plot Plan	PWO 8548	2/13/81

Table 8-1 Additional Reference Documents Reviewed and Not Included in Basewide References		
Title	DWG./Contract No.	Date
Electrical Distribution Map		
Northside	80091	Unknown
Northside (JP-5 Fuel Farm)	80091	Unknown
Northside (Airfield/Riding Academy)	80091	Unknown
Southside	80091	Unknown
Northside (Hospital/Wherry Housing)	80091	Unknown
Southside (Main)	80091	Unknown
Airfield	PWO 9396	12/7/92
Sanitary Sewer System	Unknown	7/16/68
Water Distribution System	Unknown	7/16/68
Map of Navy Memphis Complex	Unknown	12/4/92
Map of Navy Memphis Complex	Unknown	12/2/93
United States Geologic Survey Topographic Maps	Brunswick - 408SE Millington - 408SW	Rev. 1983 Rev. 1983
General Development Map—Key Map—Existing and Planned Conditions	5042068A(SouthDiv)	9/10/76
General Development Map—Existing and Planned Conditions		9/10/76 10/4/83
Northside	5042070(SouthDiv)	
Southside	5042072(SouthDiv)	
General Development Map—NAVREGMEDCEN—		10/4/83
Existing and Planned Conditions	5042074(SouthDiv)	10/4/83
Existing and Planned Conditions	5042076(SouthDiv)	2/20/87
Existing Conditions	5042077(SouthDiv)	10/4/83
Existing Conditions	5042079(SouthDiv)	
Real Estate Summary Map	FEC 1079587	6/12/92
Real Estate Summary Map	FEC 1079587	7/22/86
Plat of US Naval Air Station—Memphis, TN— Showing Conditions On 30 June, 1948	None	6/30/48
Real Estate Summary Map of Naval Hospital— Memphis, TN	NAVFAC 5 071143(SouthDiv)	12/23/88
Real Estate Summary Map of Naval Hospital— Memphis, TN	NAVFAC 5 071143(SouthDiv)	12/1/86

Table 8-1		
Additional Reference Documents Reviewed and Not Included in Basewide References		
Title	DWG./Contract No.	Date
Naval Reserve Aviation Base—Memphis (Millington, TN)	Marked as "Exhibit 1"	Undated (c. 1942)
Map of US Naval Air Station—Memphis, TN—Showing Conditions on 30 June 1948	None	6/30/48
Map of US Naval Air Station—Memphis, TN—Showing Conditions on 30 June 1950	None	6/30/50
Map of US Naval Air Station—Memphis, TN—Showing Parcels of Land Leased for Agricultural and Grazing Purposes—30 June 1951	None	6/30/51
Storm Drainage System	None	8/24/68
NAS Memphis	None	Unknown (c. 1970)
Map of US Naval Air Station—Memphis, TN—Showing Conditions on 30 June 1953	None	6/30/53
US Naval Air Station—Memphis, TN—General Development Map—Markup of Chlordane and Dieldrin Usage Areas By Bill Bennett (SouthDiv)	585614(Y&D)	Map Date Unknown
U.S. Agriculture Service—Aerial Photographs	ADI 12-735 ADI 12-732	8/9/37 8/9/37

APPENDIX A
SAMPLE SURVEY FORM

Note which documents you review
in all sections of this form

Base NAS Memphis
Building Number _____
Site Location _____

FACILITY INFORMATION		Site Classification Number/Color		
Surveyor's Name(s)				
Date				
Building Contacts: <u>Contact personnel should be persons knowledgeable of the uses and physical characteristics of the property and facility.</u>	Name	Title	Telephone Number	Years Associated with Building
Name of Command	NAS Memphis			
Name of Operating Command				
Building Name				
Building Number				
Other Building Identification				
Street Name				
Facility Type	<input type="checkbox"/> Utilities <input type="checkbox"/> Light Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Undeveloped <input type="checkbox"/> Recreation <input type="checkbox"/> Heavy Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Housing <input type="checkbox"/> Miscellaneous			
Telephone			Number of Employees	
Fax Numbers			Length of time of current operations	
Ownership details (Lease ?)	Owned by NAS Memphis since			
Description of Facility (Construction and use)				

Note which documents you review
in all sections of this form

Base _____ NAS Memphis
Building Number _____
Site Location _____

General Comments (Permitted Operations if applicable)

No permitted operations occur in this facility based on document reviews and interviews.

List all previous operators of the facility	Previous Facility Operators	Date
	There are no previous facility operators.	

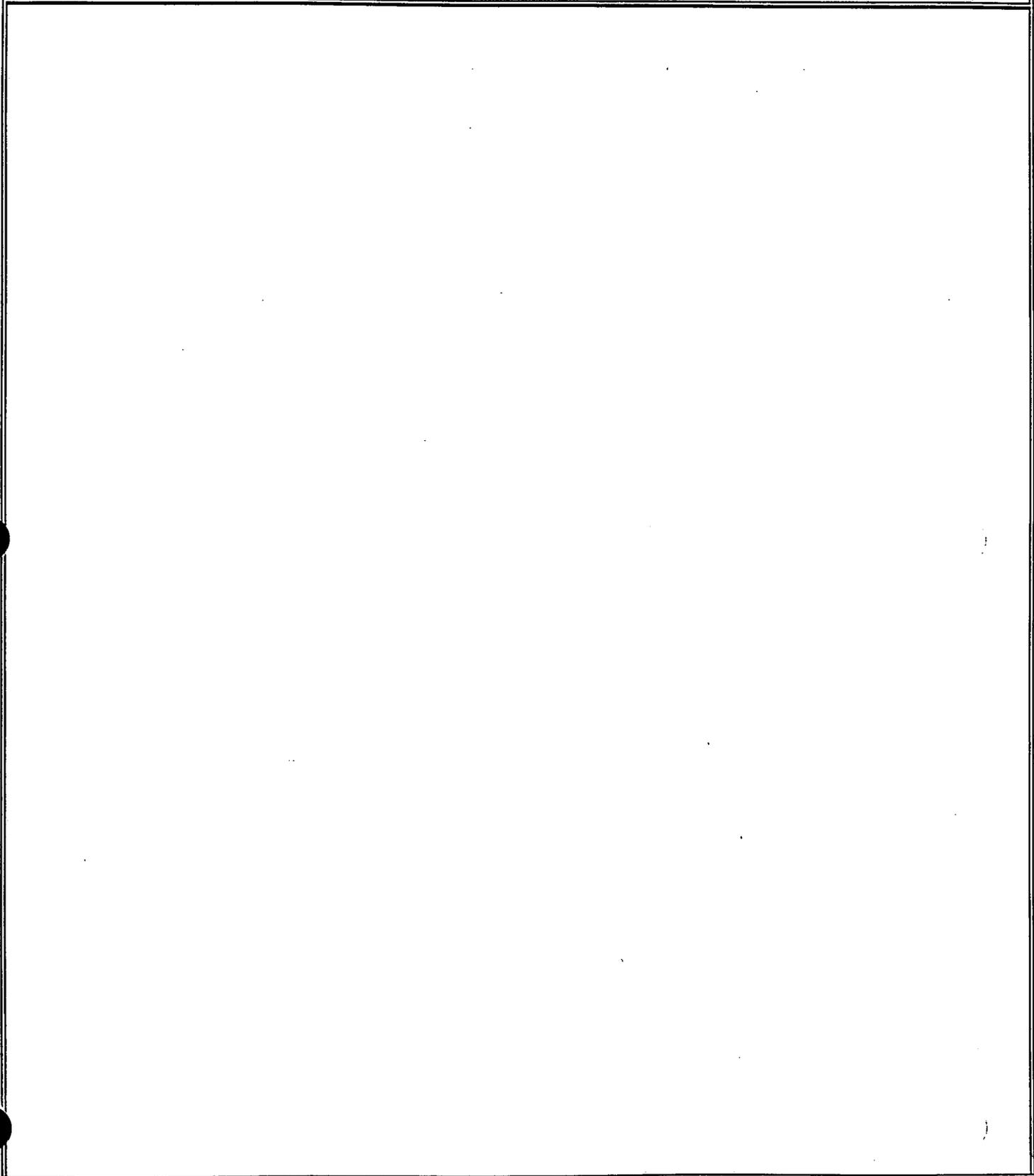
Describe all current and previous uses of the property by the current and former land owners and operators.

Historically, NAS Memphis and associated properties received various pesticide and/or herbicide applications. It is assumed that residual amounts of these materials are present in soils and bodies of water throughout the Base.

Note which documents you review
in all sections of this form

Base _____ NAS Memphis
Building Number _____
Site Location _____

Sketch a plot plan of the property and a location plan showing surrounding buildings or attach copy of map/blue-line drawing. Provide reference numbers and titles of pertinent building drawings.



Note which documents you review
in all sections of this form

Base NAS Memphis
Building Number _____
Site Location _____

PHASE I ENVIRONMENTAL SITE ASSESSMENT

✓

SITE RECONNAISSANCE

The environmental professional conducting the site reconnaissance should visually and physically observe the property and any structures located upon it. The following items should be described based upon the site inspection and interviews with the owner/occupant of the property.

Take photos of facility from all angles outside and of key areas inside.

General Site Setting

Current Uses of the Property

Are any current uses likely to involve the use, treatment, storage, disposal, or generation of hazardous substances or petroleum products? YES NO

Past Uses of the Property

Were any past uses likely to involve the use, treatment, storage, disposal, or generation of hazardous substances or petroleum products? YES NO

Report all past uses which can be determined based upon observations and interview/record review below.

Current and Past Uses of Adjoining Properties

Report all past and present uses of adjoining properties which can be determined based upon observations and interview/record review below. Only information concerning activities likely to cause a recognized environmental impact on the subject need be reported.

Adjoining properties contain no activities likely to cause any recognizable environmental impact.

General Description of Structure

Describe all structures or other improvements on the property.

Note which documents you review
in all sections of this form

Base NAS Memphis
Building Number _____
Site Location _____

PHASE I ENVIRONMENTAL SITE ASSESSMENT		<input checked="" type="checkbox"/>
Stains		
Describe all significant stains on floors, walls, and ceilings.		
No significant stains were discovered during physical observations or identified during interviews on any floors, walls or ceilings.		
Drains and Sumps		
Describe all floor drains and sumps.		
Floor drains were noted in the mechanical rooms and heads. According to interviews, all lead to the sanitary sewer system. No sumps were discovered.		
Pits, Ponds, and Lagoons		
Describe all pits, ponds, and lagoons on the property, especially if they are or were used in conjunction with waste disposal or waste treatment. Also describe pits, ponds, or lagoons on adjoining properties.		
No pits, ponds, or lagoons were discovered on or adjoining the property during physical observations or identified during interviews.		
Stained Soil		
Describe any significant areas of stained soil found on the property. Note on plot plan.		
No significant areas of stained soil were found on the property during physical observations or identified during interviews.		

Note which documents you review
in all sections of this form

Base _____ NAS Memphis
Building Number _____
Site Location _____

PHASE I ENVIRONMENTAL SITE ASSESSMENT	
Stressed Vegetation	
Describe any areas of stressed vegetation (from a cause other than insufficient water) found on the property.	
No areas of stressed vegetation were noted on the property during physical observations or identified during interviews.	
Solid Waste	
Describe any areas that are apparently filled or graded by non-natural causes, areas filled by fill of unknown origin, or mounds or depressions which suggest that trash or other solid waste disposal may have occurred.	
Solid waste dumpsters at NAS Memphis are designated by Base personnel for disposal of non-hazardous materials only. The dumpsters are marked "No wood or metal", and are transported to the BFI Millington Landfill located at 7111 Old Millington Road for disposal. The current waste contractors are Maclin Sanitation for family housing and wet garbage wastes, and Military Waste Management, Inc., for the mixed refuse collected from on-base dumpsters. No areas that had been apparently filled or graded by non-natural causes, or filled by fill of unknown origin or mounds or depressions were noted on the property during physical observations or identified during interviews.	
Wastewater	
Describe any wastewater or other liquids other than storm water which discharge into a ditch or stream on or adjacent to the property.	
No evidence was discovered during physical observations or interviews of any wastewater or liquids other than storm water discharging into ditches or streams.	
Dry Wells	
Describe all wells that are not sources of water or of known mineral extraction and are used or suspected to be used for disposal of liquid wastes.	
No wells were discovered on the property during physical observations or identified during interviews.	
Wetlands	
Describe location and approximate area.	
No wetlands exist on or adjacent to the property based on document searches, interviews, or physical observations.	

Note which documents you review
in all sections of this form

Base _____ NAS Memphis
Building Number _____
Site Location _____

PHASE I ENVIRONMENTAL SITE ASSESSMENT	
Septic Tanks	
Describe all onsite septic systems or cesspools which exist on the property. If none are known to exist, describe any indications that such devices may be on the property.	
No onsite septic systems or cesspools or indications of the existence of previous systems were discovered on the property during document searches, interviews, or physical observations.	
Asbestos-Containing Materials	
Note any suspect asbestos containing materials. (Survey conducted, When, Results??)	
Lead-Based Paint	
Note any suspect lead-based paint. (Survey conducted, When, Results??)	
As of November 1993, there has not been a comprehensive lead-based paint study conducted at the NAS Memphis complex. However, pre-1978 buildings and structures are likely to have been painted with paints containing lead (Ref EA-31).	
Radon	
Note any affected areas. (Survey conducted, When, Results??)	
No evidence of a radon survey was found during interviews or document searches.	
Radioactive Materials	
Note locations, quantities, types, uses.	
No known radioactive materials were discovered during physical observations, document searches, or interviews.	

Note which documents you review
in all sections of this form

Base _____ NAS Memphis
Building Number _____
Site Location _____

PROCESS FLOW DIAGRAM

(Describe any processes or pollution control that is conducted/fitted within the building and indicate any possible process closure/decontamination requirements or waste disposal problems)

The following items on this site require proper closure:

- Small quantities of general household cleaning chemicals

Note which documents you review
in all sections of this form

Base _____ NAS Memphis
Building Number _____
Site Location _____

PROCESS FLOW DIAGRAM (As appropriate)

See previous page.

Note which documents you review
in all sections of this form

Base _____ NAS Memphis
Building Number _____
Site Location _____

STORAGE TANK LIST EXISTING AND PREVIOUS						
MATERIAL	CAPACITY	MATERIAL OF CONSTRUCTION	CONTAINMENT	ABOVEGROUND OR UNDERGROUND	AGE	CORROSION PROTECTION
No USTs or ASTs were discovered on the property during document searches, interviews, or physical observations.						

APPENDIX B

BASEWIDE REFERENCE FILE

Basewide Reference File

- EA01. Master Plan, Naval Complex, Memphis, Tennessee (April 1985)
- EA02. History of NAS Memphis Environmental Program
- EA03. RCRA Facility Assessment NAS Memphis (April 1990)
- EA04. RFS Work Plan NAS Memphis (16 November 1989)
- EA05. Final Remedial Action Plan NAS Memphis (11 August 1988)
- EA06. Visual Site Inspection Report NAS Memphis (April 1990)
- EA07. Inventory of Used or Stored Hazardous Waste Material by Activity (3 June 1992)
- EA08. Tank Management Plan NAS Memphis (27 September 1993)
- EA09. Hazardous Waste Storage Permit NAS Memphis from TN Dept. of Health and Environment (15 September 1986)
- EA10.
- EA11. Air Pollution Control Operating Permits listing NAS Memphis (14 July 1992)
- EA12. RCRA Facility Workplan NAS Memphis (15 September 1993)
- EA13. Hazardous Waste Management Plan NAS Memphis (17 June 1993)
- EA14. Oil and Hazardous Substances Pollution Contingency Plan, CNTECHTRA NAS Memphis (13 May 1991)
- EA15. Oil Spill Prevention Control and Countermeasure Plan NAS Memphis (January 1990)
- EA16. Initial Assessment Study of NAS Memphis (November 1983)
- EA17. Environmental Engineering Survey NAS Memphis (November 1977)
- EA18. NAS Memphis Instruction 5090.1A (Hazardous Waste Management Plan) (2 October 1989)
- EA19. 1992 Hazardous Waste Stream Report NAS Memphis (25 February 1993)
- EA20. Phase II Final Report UST Evaluation NAS Memphis (20 March 1987)
- EA21. Letter from CO, NAS Memphis, Survey of Shore Facilities Refueling Facilities/Equipment (14 July 1989)
- EA22. Letter from PWO, NAS Memphis, Lists of Regulated and Unregulated Facilities (6 October 1992)
- EA23. Tennessee Tank Survey NAS Memphis (1 March 1989)
- EA24. Basewide MSDS Survey NAS Memphis (5 May 1989)
- EA25. CY 1990 Hazardous Waste Annual Report NAS Memphis
- EA26. Solid Waste Annual Report FY92 NAS Memphis (26 January 1993)
Navy Assessment and Control of Installation Pollutants Program Confirmation Study, Verification Phase NAS Memphis 1985
- EA27.
- EA28. Basewide Asbestos Assessment/Inventory NAS Memphis (June 1992)
Engineering Service Request 2084-052 NAS Memphis "Study of Sewage Treatment Plant and Oil/Water Separators" (17 November 1982)
- EA29.
- EA30. Air Emissions Compliance Audit Report, NAS Memphis (May 1993)
- EA31. NAS Memphis Public Water System Lead and Copper Testing Letter to State of Tennessee (29 April 1993)
- EA32. Notification of Lead-Based Paint in Government Housing
- EA33. NAS Memphis 1993 Preliminary Draft—NAS Memphis Master Plan (15 March 1993)
- EA34. Master Plan Memphis Complex (1978)
- EA35. Master Plan Naval Complex, Memphis, Tennessee (1971)
- EA36. Detailed Inventory of Naval Shore Facilities. Air Station, Millington, Tennessee (30 September 1992)
PCB Audit and Survey. 1982 NAS Memphis, Millington, TN. Prepared for SOUTHDIVNAVFACENCOM, Charleston, SC (December) Contract #N62467-82-C-0013
- EA37.
- EA38. NAS Memphis Hazardous Material Inventory (October 1993)
- EA39. Interview with Phil Coop—NAS Memphis (2 December 1993)
- EA40. Aerial Photographs of NAS Memphis
- EA41. NAS Memphis—Photography Summary Report (13 December 1993) by Atlantic Aerial Surveys
- EA42. Property Line Map—Prior Owners (31 January 1994)
- EA43. Real Estate Summary Map—NAS Memphis (DWG 1079587)
- EA44. Real Estate Ownership Records—NAS Memphis
- EA45. EDI Survey—outside fence (23 December 1993)
- EA46. EDI Survey—inside fence (29 December 1993)
- EA47. Map of Navy Memphis Complex (updated 2 December 1983)
- EA48. Hazard Ranking System (PWO DWG 10649) updated 8 April 1993 (SWMU map)
1994. Memo from Bill Bennett regarding historic pesticide/herbicide applications at NAS Memphis

APPENDIX C

ATLANTIC AERIAL SURVEY REPORT

NAS MEMPHIS
Photography Summary Report
December 13, 1993

I arrived at the Memphis Naval Air Station on Monday morning, December 13, 1993 for the purpose of identifying hazardous waste sites by photographic interpretation. Atlantic Aerial Surveys is performing this service as a contractor to EnSafe/Allen & Hoshell. The following photographs were provided by Mr. Bill Davis of EnSafe. Mr. Davis provided the best copies of the available photographs in lieu of the originals.

The following photographs were used:

<u>Number</u>	<u>Date of Photography</u>	<u>Photo Scale</u>	<u>Description</u>
1	08/09/37	1"=660'	◆
2	03/04/58	1"=1250'	◆
3	08/30/65	1"=2270'	◆◆
4	11/07/71	1"=1000'	◆◆◆
5	01/76	1"=1000'	◆
6	1980	No Scale	BW Obliques of Airfield Only Month and Day Unknown
7	10/85	1"=500'	◆
8	1987	No Scale	Color Obliques - Unable to use because of bad angle Month and Day Unknown
9	03/88	1"=1000'	◆
10	1989	No Scale	Color Obliques - Covers south half of property Unable to use because of bad angle Month and Day Unknown
11	1993	No Scale	Color Oblique - Unable to use because of bad angle Month and Day Unknown

NAS Memphis
Photography Summary Report

- ◆ Photos 1, 2, 4, 7, and 9 -- These photos are copies of mylar enlargements (continuous tone) and are of poor quality. It is impossible to see an object less than twenty feet square and all tones/shades look the same due to the quality of the photography.
- ◆◆ Photo 3 -- This is a xerox copy of 9" x 9" stereo pair. Unable to see detail
- ◆◆◆ Photo 4 -- This photo is a paper enlargement taken 11/07/71 and is of good quality.

January 13, 1994

Jerry Kessler
Executive Vice President

NAS MEMPHIS
Interpretation of Aerial Photography
Base Environmental Closure Study

The following observations were made using the photos available:

Site #1 - Fire Department Drill Area

Date of Operation 1960-1984

1971 Photo - Shows the start of discoloration and cracking

1988 Photo - (latest available) Still shows the effects of fuel spillage

This area is possibly hazardous due to materials spilled in the area (fuels, solvents, metals and PCB's)

Site #2 - South Side Landfill Site

Date of Operation 1942-1970

1958 Photo - Shows Landfill in full use

1970 Photo - Shows Landfill still in use

1976-1988 Photos - Show a reclamation in process (tree growth)

Unable to determine the types of material at the site during operation

Site #3 and #4 - Building N-121 Plating Shop

Date of Operation 1951-1976

Unable to make determination with available photos

Site #5 - Fire Fighting Training Area

Date of Operation 1949-Present

1958 Photo (first available date) - 1988 Photo (latest available date) - Area appears to have heavy traffic with ground discoloration due to liquid spills

Site #6 and #7 - Building N-126 Battery Shop and Plating Shop

Date of Operation 1955-1981

Unable to make determination with available photos

NAS Memphis
Interpretation of Aerial Photographs
Base Environmental Closure Study

Site #8 - Cemetery Disposal Area

Date of Operation 1965-1980

1970 Photo - We can see the waste on the ground that we are unable to see on the other photos

Site #9 - Sewage Lagoon (Domestic Sewage)

Date of Operation 1969-1978

11/07/71 Photo - First appeared on this photo

1988 Photo - No Change in size or shape on this photo

Site #10 - Demolition Construction (Debris Landfill Eastern Portion)

Date of Operation 1951-1986

1958 through 1985 Photos - Shows considerable debris on the ground

1988 Photo - (latest available) Shows clean-up in progress

Site #11 - Oiled Dirt Roads

Date of Operation 1942-1970

1958-1970 Photos - Roads appear to be dirt

Cannot determine if covered with oil

Site #12 - Galley Disposal (Food Stuff and Containers)

Date of Operation Unknown

Cannot make a determination from available photos

Site #13 - Grease Pit at Building 499

Date of Operation Unknown

Cannot make a determination from available photos

Site #14 - Former Site of Building "S"

Date of Operation 1943-1985

1970 and 1976 Photos - Building appears

1985-1988 Photos - Clean up in progress

1989 Photos - Clean up complete

NAS Memphis
Interpretation of Aerial Photographs
Base Environmental Closure Study

Site #15 - Underground Tank Farm

Date of Operation Unknown

1958 Photos - (first available) Farm appears

1988 Photos - (lastest available) Pipelines appear which could be hazardous

Site #16 - Above Ground Waste Storage Tank

Date of Operation Unknown

Cannot identify on available photos due to size

Site #17 - Building S-9 Underground Waste Tanks

Date of Operation Unknown

Cannot identify on any available photos

Site #18 - Building N-112 Underground Waste Tanks

Date of Operation Unknown

Cannot identify on any available photos

Site #19 - Building 341 Underground Tanks

Date of Operation 1979-Present

Cannot identify on available photos

Site #20 - Building 1594 Underground Tanks

Date of Operation Unknown

Cannot identify on available photos

Site #21 - Building 10 Underground Tanks

Date of Operation 1943-Present

Cannot identify on available photos

NAS Memphis
Interpretation of Aerial Photographs
Base Environmental Closure Study

Site #22 - Building S-75 Underground Tanks

Date of Operation 1942-??
Cannot identify on available photos

Site #23 - Building S-8 Underground Fuel Tanks

Date of Operation 1944-??
Cannot identify on available photos

Site #24 - Building N-114 Auto Hobby Shop Waste Oil Tanks

Date of Operation Unknown
Cannot identify on available photos

Site #25 - Big Creek Landfill

Date of Operation 1960-1970
This area is located beside the Big Creek Canal and cannot be verified due to heavy vegetation along the canal

Site #26 - Building N-102 Battery Acid Treatment

Date of Operation Unknown
Cannot identify on available photos

Site #27 - North Side Sewage Treatment Plant

Date of Operation 1943-1984
1958 Photo - Site appears
1984 Photos - Site does not appear
Cannot make any positive determination from available photos

Site #28 - South Side Sewage Treatment Plant

Date of Operation 1943-1984
1958 Photo - (first available) Plant appears on this photo
1985-1988 Photos - Area still appears disturbed
Could be hazardous due to the materials (sewage, oils, solvents, and paints)

NAS Memphis
Interpretation of Aerial Photographs
Base Environmental Closure Study

Site #29 - Lakehouse Sewage Treatment Plant

Date of Operation 1969-Present
1971 Photo - Plant appears on this photo only
Cannot make a determination from available photos

Site #30 - Parkfield Waste Treatment Plant

Date of Operation 1917-1942
August 1937 Photos - Only available photo
Cannot make a determination from photo

Site #31 - Aircraft Wash Rack at 4th Street

Date of Operation 1956-Present
1956-1988 Photos - Wash rack appears
Cannot make a positive evaluation

Site #32 - Building N-7 Aircraft Wash Rack

Date of Operation 1979-Present
1980 Photo - Wash rack did not appear
1988 Photo - (lastest available) Wash rack appears
Cannot make a positive evaluation

Site #33 - Building H-10 Incinerator

Date of Operation Unknown
Cannot identify on available photos

Site #34 - Building 109 Incinerator

Date of Operation Early 1980's-Present
Cannot identify on available photos

Site #35 - Building 1579 Incinerator

Date of Operation 1970's-Present
Cannot identify on available photos

NAS Memphis
Interpretation of Aerial Photographs
Base Environmental Closure Study

Site #36 - North Side Sewage Treatment Plant

Date of Operation 1943-1984
1956 Photos - First appeared
1980 Photos - Last appeared
Cannot make a positive evaluation

Site #37 - Southside Sewage Treatment Plant

Date of Operation 1943-1984
Cannot identify on available photos

Site #38 - Miscellaneous Drainage Ditches

Date of Operation 1943-1980
Cannot make a positive evaluation from available photos

Site #39 - Building S-74 PCB Storage Area

Date of Operation 1980-Present
Cannot make a positive evaluation from available photos

Site #40 - Salvage Yard #1 (Scrap Cars, Batteries, etc.)

Date of Operation 1945-1988
1958 Photo - First appears
1993 Photo - Some clean up effort appears
Some items still appear at the site causing hazardous situations

Site #41 - Salvage Yard #2 (Scrap Metal, Tires, etc.)

Date of Operation 1944-Present
1958 Photo - Site first appears
1988 Photo - (latest available) Materials could be hazardous

Site #42 - Building N-12 Hazardous Waste

Date of Operation Unknown
Cannot determine the contents of the building

NAS Memphis
Int rpr tation of A rial Photographs
Base Environmental Closure Study

Site #43 - Building S-176 Hazardous Waste

Date of Operation Unknown
Cannot determine the contents of the building

Site #43 - A and B

Grounds surrounding Building 43 is covered with scrap metal and lumber. This area could be hazardous.

Site #44 - Building N-102

Date of Operation Unknown
Cannot identify on available photos

Site #45 - Building 142 Hazardous Waste

Date of Operation Unknown
Cannot identify on available photos

Site #46 - Building S-140 Hazardous Waste

Date of Operation Unknown
Cannot identify on available photos

Site #47 - Building 344 Hazardous Waste

Date of Operation Unknown
Cannot identify on available photos

Site #48 - Building S-9 Hazardous Waste

Date of Operation Unknown
Cannot identify on available photos

Site 49 - Building N-757 Hazardous Waste

Date of Operation Unknown
Cannot identify on available photos

NAS Memphis
Interpretation of Aerial Photographs
Base Environmental Closure Study

Site #50, #51, #52, and #53 - Building N-126 Hazardous Materials

Date of Operation 1985-Present
Cannot identify on available photos

Site #54 - Dental Clinic

Date of Operation ?-Present
Cannot identify on available photos

Site #55 - Medical Clinic

Date of Operation ?-Present
Cannot identify on available photos

Site #56 - Building 352 Hazardous Waste

Date of Operation Unknown
Cannot identify on available photos

Site #57 - Building S-183 Hazardous Materials

Date of Operation Unknown
Cannot identify on available photos

Site #58 - Building S-360 Hazardous Waste Site

Date of Operation Unknown
Cannot identify on available photos

Site #59 - Old Pesticide Shop

Date of Operation Unknown
Cannot identify on available photos

NAS Memphis
Interpretation of Aerial Photographs
Base Environmental Closure Study

Site #60 - North Side Landfill (Construction Debris)

Date of Operation 1951-1986
1958 Photo - First stages of debris
1985 Photo - Site appears to have been cleared

Site #61 - Building N-26 Print Shop

Date of Operation Early 1980's
Cannot identify on available photos

Site #62 - M-21 Arresting Gear Drainage

Date of Operation 1985-1990
1985 and 1988 Photos - Appear to have disturbance but cannot verify

Site #63 - Building S-75N Underground Tank

Date of Operation Unknown
Cannot identify on available photos

Site #64 - Building N-16 Material Storage Area

Date of Operation Unknown
Cannot identify on available photos

Site #65 - Building S-362 Training Mock-up

Date of Operation 1950-Present
Parking area for 15 to 16 planes which are used in training mechanics
There is a possible hazard because of jet fuel and oil leaks

January 13, 1994

Jerry Kessler
Executive Vice President

APPENDIX D

ENVIRONMENTAL DATABASE, INC. REPORT



ENVIRONMENTAL DATABASE, INC.

7061 S. University Blvd. • Suite 300
Littleton, Colorado 80122
(303) 794-8389 • 1-800-982-4627 • Fax (303) 794-0049

This report is in no way to be taken as a declaration of the legal status of any property herein mentioned.

The information contained in this report has been gathered from government sources and was the latest available to us at compilation time. While every reasonable attempt has been made to ensure the accuracy of the information contained herein; it is understood that we cannot guarantee the accuracy of the information from the original sources, nor can we guarantee that no transcription or plotting errors have occurred.

For reports that contain maps it is understood that the purpose of these maps is to give the user a "working approximation" of the positions of reported site locations. Due to the level of accuracy for both the base maps themselves and the reported location information, these maps should not be used for purposes more correctly served by professional surveys.

Plotting of environmental information on our maps is dependent in part, on the accuracy of the street grid as represented in our map files. Should the client suspect the existence of, or during the field inspection should the client encounter, streets that are not shown on our maps, this should be brought to our attention to further improve the accuracy of the information contained in this report.

It is to be understood that the publishers of this report are not engaged in rendering legal, accounting or other expert-professional service. The proper use to which this information should be put is best determined by the purchaser.

DATABASE REFERENCE SHEET

EPA INFORMATION SYSTEMS

NPL/Superfund Sites: National Priority Listing Sites - those sites that pose an immediate public health hazard and immediate (cleanup) response is necessary. EPA (Environmental Protection Agency) database. Also found in CERCLA.

NPL/Superfund Potentially Responsible Parties: Potentially Responsible Parties (PRP's) are individuals, businesses, municipalities, and other entities that have been identified by the EPA as being potentially liable to hold fund (or repay) environmental cleanup costs. EPA database.

Civil Enforcement Docket: EPA information system used to track civil judicial cases against PRP's and other entities.

CERCLA Sites: EPA database that tracks the sites found on the CERCLIS data system (Comprehensive Environmental Response, Compensation and Liability Information System). These usually abandoned/inactive hazardous waste sites are under review to determine the extent of the public health hazard.

SARA III TRIS Facilities: Also known as SARA Title 3 Facilities. SARA = Superfund Amendments and Reauthorization Act. Also referenced as Emergency Planning and Community Right-To-Know Act Section 313 Form R reporting. These facilities have at least 10 full-time employees, and either use, manufacture, import, and/or process any one of the toxic chemicals referenced in 40 CFR 372 Subpart D. EPA database.

Hazardous Material Spills: The EPA maintains the Emergency Response Notification System (ERNS) that is the information repository using information on Hazardous Spills nationwide. This information repository is based on reports filed by local agencies such as fire & police; County agencies; State entities; and Federal agencies such as the Coast Guard and the National Response Center and the EPA as well.

RCRA Corrective Action: These facilities permitted under RCRA (Resource Conservation and Recovery Act) to handle hazardous waste have been found to have waste handling problems. The facilities are undergoing Corrective Action Activities to correct the problems and resume normal operations. EPA database.

RCRA D Landfills: These are landfills that have accepted hazardous waste during their operation. These landfills can be currently operating or closed. The majority of sites in this system are inactive. EPA database.

RCRA Notifier Facilities: The source of this data comes from the EPA RCRIS (Resource Conservation and Recovery Information System) computer system. These facilities have been permitted to handle hazardous waste as defined in the Resource Conservation and Recovery Act (RCRA).

The facility types found in RCRIS are -
Large Quantity Generators: generate more than 1000 kg hazardous waste/month, or > 1 kg acutely hazardous waste/calendar month. Or



ENVIRONMENTAL DATABASE, INC.

7061 S. University Blvd. • Suite 300
Littleton, Colorado 80122
(303) 794-8389 • 1-800-982-4627 • Fax (303) 794-0049

November 23, 1993

Mr. Lawson Anderson
ENSAFE
5724 Summer Trees Drive
Memphis, TN 38134

Client Job #: 0076-85350 (BRAC)
Client PO #: None Given

Search Area: NAS Memphis - Memphis, TN

Dear Mr. Anderson:

The **Brac - Customized** data search we performed on the above referenced property encountered the following occurrences. There are **three** maps with this project:

<u>Database Searched</u>	<u>On Site</u>	<u>In Search Area</u>	<u>Location Unknown</u>	<u>Advisory</u>	<u>Search Radius</u>	<u>Totals</u>
NPL/Superfund Sites.	0	0	0	0	1 Mile	0
EPA CERCLIS Sites.	0	0	0	0	1 Mile	0
SARA III Facilities.	0	0	0	0	1/2 Mile	0
ERNS Spills.	0	1	0	0	1/4 Mile	1
RCRA Corrective Actn	0	0	0	0	1 Mile	0
RCRA D Landfills	0	0	0	0	1 Mile	0
RCRA LRG QTY/TSD's	0	1	0	0	1 Mile	1
RCRA SML QTY/Other's	0	2	0	0	1/4 Mile	2
INDS Facilities	0	1	0	0	1/2 Mile	1
Clean Air Facilities	0	1	0	0	1 Mile	1
NPDES Plants (PCS)	0	1	0	0	1/2 Mile	1
State Superfund.	0	0	0	0	1 Mile	0
State CERCLIS Eqvlnt				Does Not Exist For This State		
State Landfills.	0	0	0	0	1 Mile	0
Leaking UST's.	0	5	0	0	1 Mile	5
Registered UST's	0	11	0	0	1/4 Mile	11
NPL/PRP Database	0				NPL's/Site Only	0
Civil Enfrcmnt Dckt.	0				NPL's/Site Only	0
CERCLIS/RODS	0				All CERCLA's	0
RCRA Enfrcmnt & Cmpl	0				All RCRA Violators	0
RCRA Hazaradous Wste	0				All RCRA Violators	0

Additional details about this job search are included with the enclosed reports. If there are any questions, please call us at 1-800-982-4627 or 303-794-8389.

Sincerely,

Jacquie R. Little
Database Administrator

EDI Project #: 5234

DATABASE UPDATE DATES & MAP STATUS EXPLANATIONS

Databases

Date Of Agency Update

NPL/Superfund Sites	04/03/93
EPA CERCLIS Sites	04/03/93
SARA III Facilities	12/31/92
ERNS Hazardous Material Spills.....	08/15/92
RCRA Corrective Action	03/01/93
RCRA D Landfills	03/01/93
RCRA Facilities (All Categories)	09/01/92
FINDS Facilities	10/30/92
Permitted Clean Air Sites	11/93
NPDES Permit Compliance System (PCS)	09/01/92

State Superfund Sites	08/05/93
State Landfills	02/11/93
Leaking UST's	12/14/92
Registered UST's	07/14/93

NPL/PRP Database	04/09/93
Civil Enfrcmnt Dckt	05/05/93
CERCLIS/RODS	11/13/92
RCRA Enfrcmnt & Cmpl	Will Follow
RCRA Hazaradous Wste	Will Follow

Please note - SARA III: This database is the result of the EPA reporting for SARA III facilities at the end of 1991. The update for this database was conducted throughout 1992, and should be available during 1993.

Map Status Explanations

IN SEARCH AREA - SITE MAPPED:

This represents a site which was mapped upon your request.

HAZARDOUS MATERIAL SPILL REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 20057

Report Number: 07237F1200

Date Spill Was Reported: 07/23 1987

Date Of Spill: 07/23 1987

Spill Location:
STAT.NO.2420-4990 NAVY ROAD

City: MILLINGTON

Zip Code:

County: SHELBY

Material And Amount Spilled

PREMIUM GASOLINE 00001000.00 TAL

Environments Possibly Effected By The Spill:

Agencies Notified Of Spill:

ROGER RAY, TAT

Action Taken: CURRENTLY OFFLOADING LEAKING TANK.

Description: LUST

Comments: STATION OWNER OWNS TANKS, WILL DECIDE WHETHER TO REPAIR OR
SWITCH OUT,

Potentially Responsible Party Information=====

PRP: AMOCO OIL COMPANY

Telephone: 704-392-7335

RCRA NOTIFIER FACILITY REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 1721R

EPA ID Number: TND982169096

Facility: NAVY RD CLEANERS

Address: 5049 NAVY RD

City: MILLINGTON

Zip Code: 38052

County: SHELBY

Owner Name: JOE CHAMCUM

Ownership Status: PRIVATE

Facility Contact: CHAMCUM JOE

Telephone: 9017946929

RCRA Facility Designations

Generator Type - SMALL QUANTITY

TSD Notation -

Transporter Type -

RCRA Violation Flags

For the following RCRA Violation categories a YES notation is referencing the fact that the facility has had (1) or more reported violations in that category.

Generator Requirements:

Generator Land-Ban Requirements:

Transporter Requirements:

TSD Groundwater Requirements:

TSD Closure/Post Closure Actions:

TSD Financial Requirements:

TSD Land-Ban Requirements:

TSD Other Violations:

Corrective Action Requirements:

Formal Enforcement Actions:

RCRA NOTIFIER FACILITY REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 3810R

EPA ID Number: TND101806347

Facility: B & E AUTO SERVICE
Address: 7950 C STREET
City: MILLINGTON

Zip Code: 38053

County: SHELBY

Owner Name: BOGENSCHNEIDER, E E
Ownership Status: PRIVATE

Facility Contact: KLEEN SAFETY
Telephone: 5017353119

RCRA Facility Designations

Generator Type - LARGE QUANTITY
TSD Notation -
Transporter Type -

RCRA Violation Flags

For the following RCRA Violation categories a YES notation is referencing the fact that the facility has had (1) or more reported violations in that category.

Generator Requirements:
Generator Land-Ban Requirements: YES

Transporter Requirements:

TSD Groundwater Requirements:
TSD Closure/Post Closure Actions:
TSD Financial Requirements:
TSD Land-Ban Requirements:
TSD Other Violations:

Corrective Action Requirements:

Formal Enforcement Actions:

RCRA NOTIFIER FACILITY REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 4091R

EPA ID Number: TND987780756

Facility: AMOCO OIL SS# 2420

Address: 4990 NAVY ROAD

City: MILLINGTON

Zip Code: 38053

County: SHELBY

Owner Name: AMOCO OIL CO.

Ownership Status: OTHER

Facility Contact: JONATHAN J SORKIN

Telephone: 7043927335

RCRA Facility Designations

Generator Type - SMALL QUANTITY

TSD Notation -

Transporter Type -

RCRA Violation Flags

For the following RCRA Violation categories a YES notation is referencing the fact that the facility has had (1) or more reported violations in that category.

Generator Requirements:

Generator Land-Ban Requirements:

Transporter Requirements:

TSD Groundwater Requirements:

TSD Closure/Post Closure Actions:

TSD Financial Requirements:

TSD Land-Ban Requirements:

TSD Other Violations:

Corrective Action Requirements:

Formal Enforcement Actions:

FINDS FACILITY REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 2808F

EPA ID Number: TND044771590

Facility: STANDARD CONSTRUCTION CO INC

Address: 7666 RLEIGH MILLINGTON RD

City: MILLINGTON

State: TN

Zip Code: 38053

Date Of Last EPA Update: 910916

Standard Industrial Classification For Facility: 3531

EPA PROGRAM OFFICE LISTING FOR FACILITY

ID NUMBER

AIR & RADIATION

4715700339
=====

TENNESSEE LEAKING UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 9790553L

State ID: 9790553

Facility: RAGSDELL'S AUTO/CYCLE CENTER

Address: 5036 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: UNION 76 CORP

Address: HWY 70

ARLINGTON, TN 38002

Contact: UNKNOWN

Phone: (901) 867-2289

Number of Tanks: 5

Leaking Tanks: YES

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 9791380L

State ID: 9791380

Facility: HODGES' BP GULF

Address: 4629 NAVY RD, P.O. BOX 156

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: RICHARD HODGES

Address: 4646 CEDAR ROSE

MILLINGTON, TN 38053

Contact: RICHARD HODGES

Phone: (901) 872-0872

Number of Tanks: 7

Leaking Tanks: YES

TENNESSEE LEAKING UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 9791548L

State ID: 9791548

Facility: MAPCO EXPRESS #3247

Address: 6379 NAVY RD

City: MEMPHIS

Zip: 38053

County: SHELBY

Owner: MAPCO PETROLEUM INC

Address: ATT TAWANA PEPIN

1800 SOUTH BALTIMORE

TULSA, OK 74119

Contact: JEFF MCELVEEN

Phone: (901) 388-1305

Number of Tanks: 3

Leaking Tanks: YES

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 9791819L

State ID: 9791819

Facility: SHELBY CO BOARD OF EDUCATION

Address: 4660 BILOXI

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: SHELBY CO BOARD OF EDUCATION

Address: 160 S HOLLYWOOD

MEMPHIS, TN 38112

Contact: RON MINTON

Phone: (901) 872-7423

Number of Tanks: 2

Leaking Tanks: YES

TENNESSEE LEAKING UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 9792015L

State ID: 9792015

Facility: CHIEF AUTO PARTS

Address: NAVY AND EASLEY ST.

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner:

Address:

Contact:

Phone: 213 921-2696

Number of Tanks:

Leaking Tanks: YES

TENNESSEE REGISTERED UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 790524U

State ID: 9790524

Facility: PRUETT'S MOBIL SERVICE

Address: 5170 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: J J MCCOUGHAN & RUTH M MORRISON

Address: 415 GOODWYN

MEMPHIS, TN 38111

Contact: W P MORRISON

Phone: (901) 999-9999

Number of Tanks: 5

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 790553U

State ID: 9790553

Facility: RAGSDELL'S AUTO/CYCLE CENTER

Address: 5036 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: UNION 76 CORP

Address: HWY 70

ARLINGTON, TN 38002

Contact: UNKNOWN

Phone: (901) 867-2289

Number of Tanks: 5

TENNESSEE REGISTERED UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 790700U

State ID: 9790700

Facility: ROLAND'S NAVY ROAD AMOCO

Address: 4990 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: CLARENCE A ROLAND

Address: 4998 NAVY ROAD

MILLINGTON, TN 38053

Contact: CLARENCE ROLAND

Phone: (901) 872-8473

Number of Tanks: 12

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 791548U

State ID: 9791548

Facility: MAPCO EXPRESS #3247

Address: 6379 NAVY RD

City: MEMPHIS

Zip: 38053

County: SHELBY

Owner: MAPCO PETROLEUM INC

Address: ATT TAWANA PEPIN

1800 SOUTH BALTIMORE
TULSA, OK 74119

Contact: JEFF MCELVEEN

Phone: (901) 388-1305

Number of Tanks: 3

TENNESSEE REGISTERED UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 791550U

State ID: 9791550

Facility: MAPCO EXPRESS #3248

Address: 5190 NAVY RD

City: MEMPHIS

Zip: 38053

County: SHELBY

Owner: MAPCO PETROLEUM INC

Address: ATT TAWANA PEPIN

1800 SOUTH BALTIMORE

TULSA, OK 74119

Contact: JEFF MCELVEEN

Phone: (901) 388-1305

Number of Tanks: 3

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 791921U

State ID: 9791921

Facility: NAVY ROAD TEXACO

Address: 6293 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: SMITH INVESTMENTS, INC.

Address: 7856 HWY 51 NORTH

MILLINGTON, TN 38053

Contact: EDWARD TRAVERS

Phone: (901) 388-4620

Number of Tanks: 3

TENNESSEE REGISTERED UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 792015U

State ID: 9792015

Facility: CHIEF AUTO PARTS
Address: NAVY AND EASLEY ST.
City: MILLINGTON
County: SHELBY

Zip: 38053

Owner:
Address:

Contact:
Phone: 213 921-2696

Number of Tanks:

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 792037U

State ID: 9792037

Facility: CITY OF MILLINGTON
Address: 7942 CHURCH ST
City: MILLINGTON
County: SHELBY

Zip: 38053

Owner: CITY OF MILLINGTON
Address: P O BOX 247
MILLINGTON, TN 38083

Contact: PUBLIC WORKS DIR
Phone: (901) 872-2229

Number of Tanks: 1

TENNESSEE REGISTERED UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 792337U

State ID: 9792337

Facility: ROLAND'S TIRE & AUTOMOTIVE CENTE

Address: 4990 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: AMOCO OIL CORP

Address: 1200 ASHWOOD PKWY SUITE 440

ATLANTA, GA 30338

Contact: BIL ZEEVELD

Phone: (404) 393-2334

Number of Tanks: 3

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 792388U

State ID: 9792388

Facility: FIRE STATION #4

Address: 6457 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: SHELBY COUNTY GOVERNMENT

Address: 584 ADAMS AVE

ATTN: JOEY CAMP

MEMPHIS, TN 38105

Contact: JOE LEE RAPE JR

Phone: (901) 385-5100

Number of Tanks: 2

TENNESSEE REGISTERED UNDERGROUND STORAGE TANK REPORT

Map Status: IN SEARCH AREA - SITE MAPPED (REFER TO MAP #)

Map Number: 9792487U

State ID: 9792487

Facility: MILLINGTON TAXI

Address: 5030 NAVY RD

City: MILLINGTON

Zip: 38053

County: SHELBY

Owner: DORTHY GOFF CARTER

Address: 7326 SHEILA ST

MILLINGTON, TN 38053

Contact:

Phone:

Number of Tanks: 1
