

# Desk-Top Audit Decision Document

Indian Head Division  
Naval Surface Warfare Center  
Indian Head, Maryland



Engineering Field Activity Chesapeake  
Naval Facilities Engineering Command



United States Environmental Protection Agency  
Region III



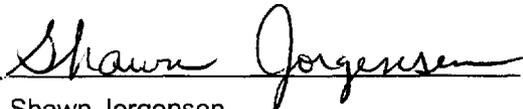
**MDE**

Maryland Department of the Environment

January 2002

## DESK-TOP AUDIT DECISION DOCUMENT

As required under the Federal Facilities Agreement (FFA), a Desktop-Audit (DTA) of the sites described herein was performed by the Indian Head Installation Restoration Team (IHIRT) for the Indian Head Division, Naval Surface Warfare Center, Indian Head, Maryland. The IHIRT consists of representatives from the Indian Head Division, Naval Surface Warfare Center (IHDIV-NSWC), the U.S. Navy Engineering Field Activity Chesapeake (EFACHES), the U.S. Environmental Protection Agency Region 3 (EPA Region 3), and the Maryland Department of the Environment (MDE). Using all readily available information and professional judgement, it is the consensus of the IHIRT that the decisions contained in this document for each site be accepted. In accordance with the FFA, the decision document is signed by the Navy and EPA Representatives.

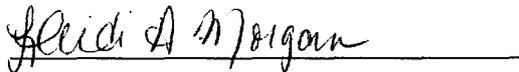


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INDIV-NSWC Remedial Project Manager

4/23/02

Date

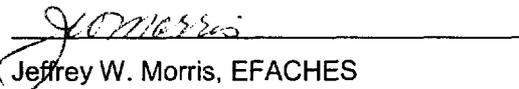


Heidi Morgan

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April 23, 2002

Date

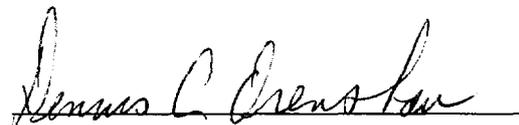


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Dennis C. Orenshaw, EPA Region 3

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April 23, 2002

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# TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
EXECUTIVE SUMMARY .....	ES-1
1.0 INTRODUCTION.....	1-1
2.0 MAIN AREA SWMU 4 AND 5 - UNDERGROUND STORAGE TANKS (BUILDINGS 290 AND 525) .....	2-1
2.1 SITE DESCRIPTION.....	2-1
2.2 EVALUATION.....	2-1
2.3 DECISION .....	2-1
3.0 MAIN AREA SWMU 6 - USED BATTERY ACCUMULATION AREA (BUILDING 290) .....	3-1
3.1 SITE DESCRIPTION.....	3-1
3.2 EVALUATION.....	3-1
3.3 DECISION .....	3-1
4.0 MAIN AREA SWMU 27 - WASTE OIL STORAGE AREA (GODDARD POWER) .....	4-1
4.1 SITE DESCRIPTION.....	4-1
4.2 EVALUATION.....	4-1
4.3 DECISION .....	4-1
5.0 MAIN AREA SWMU 38 - CAFFEE ROAD WASTE OIL STORAGE AREA.....	5-1
5.1 SITE DESCRIPTION.....	5-1
5.2 EVALUATION.....	5-1
5.3 DECISION .....	5-1
6.0 MAIN AREA SWMUS 40 - 46 - WASTEWATER COLLECTION/TREATMENT TANKS .....	6-1
6.1 SITE DESCRIPTION.....	6-1
6.2 EVALUATION.....	6-1
6.3 DECISION .....	6-1
7.0 MAIN AREA SWMUS 47 - 51 - SPENT ACID STORAGE/TREATMENT TANKS.....	7-1
7.1 SITE DESCRIPTION.....	7-1
7.2 EVALUATION.....	7-1
7.3 DECISION .....	7-1
8.0 MAIN AREA SWMUS 64 - 66 - WASTEWATER STORAGE TANKS (BUILDING 1596).....	8-1
8.1 SITE DESCRIPTION.....	8-1
8.2 EVALUATION.....	8-1
8.3 DECISION .....	8-1
9.0 MAIN AREA SWMU 69 - TEMPORARY DUMPSTER FOR EXPLOSIVE SCRAP.....	9-1
9.1 SITE DESCRIPTION.....	9-1
9.2 EVALUATION.....	9-1
9.3 DECISION .....	9-1

## TABLE OF CONTENTS (Continued)

<u>SECTION</u>	<u>PAGE NO.</u>
<b>10.0 MAIN AREA SWMU 70 - TEMPORARY AREAS FOR DRUMMED EXPLOSIVE SCRAP.....</b>	<b>10-1</b>
10.1 SITE DESCRIPTION.....	10-1
10.2 EVALUATION.....	10-1
10.3 DECISION.....	10-1
<b>11.0 MAIN AREA SWMU 72 - OIL/WATER SEPARATORS.....</b>	<b>11-1</b>
11.1 SITE DESCRIPTION.....	11-1
11.2 EVALUATION.....	11-1
11.3 DECISION.....	11-2
<b>12.0 MAIN AREA SWMU 74 - UNLINED OVERLAND DRAINAGE DITCHES.....</b>	<b>12-1</b>
12.1 SITE DESCRIPTION.....	12-1
12.2 EVALUATION.....	12-1
12.3 DECISION.....	12-1
<b>13.0 MAIN AREA AOC G - SAND-BLASTING SAND STORAGE AREA.....</b>	<b>13-1</b>
13.1 SITE DESCRIPTION.....	13-1
13.2 EVALUATION.....	13-1
13.3 DECISION.....	13-1
<b>14.0 MAIN AREA AOC H - DRUM AT FUEL STORAGE AREA.....</b>	<b>14-1</b>
14.1 SITE DESCRIPTION.....	14-1
14.2 EVALUATION.....	14-1
14.3 DECISION.....	14-1
<b>15.0 MAIN AREA SWMU 20 - SAFETY BURN POINT.....</b>	<b>15-1</b>
15.1 SITE DESCRIPTION.....	15-1
15.2 EVALUATION.....	15-1
15.3 decision.....	15-1
<b>16.0 MAIN AREA SWMU 21 - CAFFEE ROAD DECONTAMINATION BURN POINT.....</b>	<b>16-1</b>
16.1 SITE DESCRIPTION.....	16-1
16.2 EVALUATION.....	16-1
16.3 DECISION.....	16-1
<b>17.0 STUMP NECK SWMU 12 - WASTE OIL STORAGE SITE.....</b>	<b>17-1</b>
17.1 SITE DESCRIPTION.....	17-1
17.2 EVALUATION.....	17-1
17.3 DECISION.....	17-1
<b>18.0 STUMP NECK SWMU 13 - PINK WATER TREATMENT TANK.....</b>	<b>18-1</b>
18.1 SITE DESCRIPTION.....	18-1
18.2 EVALUATION.....	18-1
18.2 DECISION.....	18-1

## TABLE OF CONTENTS (Continued)

<u>SECTION</u>	<u>PAGE NO.</u>
<b>19.0 STUMP NECK SWMU 14 - PHOTOGRAPHIC LAB SEPTIC SYSTEM.....</b>	<b>19-1</b>
19.1 SITE DESCRIPTION.....	19-1
19.2 EVALUATION.....	19-1
19.3 DECISION.....	19-1
<b>20.0 STUMP NECK SWMU 15 - SPENT PHOTOGRAPHIC SOLUTION STORAGE.....</b>	<b>20-1</b>
20.1 SITE DESCRIPTION.....	20-1
20.2 EVALUATION.....	20-1
20.3 DECISION.....	20-1
<b>21.0 STUMP NECK SWMU 16 - THERMAL TREATMENT TANK.....</b>	<b>21-1</b>
21.1 SITE DESCRIPTION.....	21-1
21.2 EVALUATION.....	21-1
21.3 DECISION.....	21-1
<b>22.0 STUMP NECK SWMU 17 - BUILDING 2015 - CHEMISTRY LAB ACCUMULATION AREA ..</b>	<b>22-1</b>
22.1 SITE DESCRIPTION.....	22-1
22.2 EVALUATION.....	22-1
22.3 DECISION.....	22-1
<b>23.0 STUMP NECK SWMU 18 - WASTE PILE.....</b>	<b>23-1</b>
23.1 SITE DESCRIPTION.....	23-1
23.2 EVALUATION.....	23-1
23.3 DECISION.....	23-1
<b>24.0 STUMP NECK SWMU 19 - DISPOSAL AREA NO. 1.....</b>	<b>24-1</b>
24.1 SITE DESCRIPTION.....	24-1
24.2 EVALUATION.....	24-1
24.3 DECISION.....	24-1
<b>25.0 STUMP NECK SWMU 20 - DISPOSAL AREA NO. 2.....</b>	<b>25-1</b>
25.1 SITE DESCRIPTION.....	25-1
25.2 EVALUATION.....	25-1
25.3 DECISION.....	25-1
<b>26.0 STUMP NECK SWMU 21 - DRUM STORAGE AREA.....</b>	<b>26-1</b>
26.1 SITE DESCRIPTION.....	26-1
26.2 EVALUATION.....	26-1
26.3 DECISION.....	26-1
<b>27.0 STUMP NECK SWMU 28 - OLD SKEET AND TRAP RANGE .....</b>	<b>27-1</b>
27.1 SITE DESCRIPTION.....	27-1
27.2 EVALUATION.....	27-1
27.3 DECISION.....	27-1

## TABLE OF CONTENTS (Continued)

<u>SECTION</u>		<u>PAGE NO.</u>
<b>28.0</b>	<b>STUMP NECK SWMU 29 - PISTOL RANGE.....</b>	<b>28-1</b>
28.1	SITE DESCRIPTION.....	28-1
28.2	EVALUATION.....	28-1
28.3	DECISION.....	28-1
<b>29.0</b>	<b>STUMP NECK SWMU 30 - BUILDING 2015 DRY WELL.....</b>	<b>29-1</b>
29.1	SITE DESCRIPTION.....	29-1
29.2	EVALUATION.....	29-1
29.3	DECISION.....	29-1

## EXECUTIVE SUMMARY

This desk-top audit (DTA) decision document presents the results of a desk-top audit for 28 sites conducted by the Indian Head Installation Restoration Team (IHIRT) for the Indian Head Division, Naval Surface Warfare Center (IHDIV-NSWC), Indian Head, Maryland. The IHIRT conducted the DTA on November 28, 2001 in the offices of the Maryland Department of the Environment in Baltimore, Maryland.

Table ES-1 provides a summary of the results of the desk-top audit.

<b>TABLE ES-1 - SUMMARY OF DESK-TOP AUDIT</b>		
<b>IHDIV-NSWC</b>		
<b>INDIAN HEAD, MARYLAND</b>		
<b>SITE</b>	<b>NAME</b>	<b>DECISION</b>
Main Area SWMUs 4 and 5	Underground Storage Tanks (Buildings 290/525)	No action required
Main Area SWMU 6	Used Battery Accumulation Area (Building 290)	No action required
Main Area SWMU 27	Waste Oil Storage Area (Goddard Power)	No action required
Main Area SWMU 38	Coffee Road Waste Oil Storage Area	Investigate with Site 11 remedial investigation
Main Area SWMUs 40 – 46	Wastewater Collection/Treatment Tanks	No action required
Main Area SWMUs 47 –51	Spent Acid Storage/Treatment Tanks	No action required
Main Area SWMUs 64 – 66	Wastewater Storage Tanks (Building 1596)	No action required
Main Area SWMU 69	Temporary Dumpster for Explosive Scrap	No action required
Main Area SWMU 70	Temporary Areas for Drummed Explosive Scrap	No action required
Main Area SWMU 72	Oil/Water Separators	No action required
Main Area SWMU 74	Unlined Overland Drainage Ditches	Retain as an AOC pending further investigation
Main Area AOC G	Sand-Blasting Sand Storage Area	No action required
Main Area AOC H	Drum at Fuel Storage Area	No action required
Main Area SWMU 20	Safety Burn Point	Conduct a remedial investigation
Main Area SWMU 21	Coffee Road Decontamination Burn Point	Investigate with Site 11 remedial investigation
Stump Neck SWMU 12	Waste Oil Storage Site	No action required

**TABLE ES-1 - SUMMARY OF DESK-TOP AUDIT  
IHDIV-NSWC  
INDIAN HEAD, MARYLAND**

<b>SITE</b>	<b>NAME</b>	<b>DECISION</b>
Stump Neck SWMU 13	Pink Water Treatment Tank	Manage under the RCRA program
Stump Neck SWMU 14	Photographic Lab Septic System	Retain as an AOC pending further investigation
Stump Neck SWMU 15	Spent Photographic Solution Storage	No action required
Stump Neck SWMU 16	Thermal Treatment Tank	Investigate with Site 58 remedial investigation
Stump Neck SWMU 17	Building 2015 – Chemical Lab Accumulation Area	No action required
Stump Neck SWMU 18	Waste Pile	No action required
Stump Neck SWMU 19	Disposal Area No. 1	Investigate with Site 64 remedial investigation
Stump Neck SWMU 20	Disposal Area No. 2	Investigate with Stump Neck SWMU 28
Stump Neck SWMU 21	Drum Storage Area	No action required
Stump Neck SWMU 28	Old Skeet and Trap Range	Investigate with the site screening process
Stump Neck SWMU 29	Pistol Range	Retain as an AOC pending further investigation
Stump Neck SWMU 30	Building 2015 Dry Well	Retain as an AOC pending further investigation

## 1.0 INTRODUCTION

This desk-top audit (DTA) decision document presents the results of a DTA of 28 sites at the Indian Head Division, Naval Surface Warfare Center (IHDIV-NSWC), Indian Head, Maryland. The Indian Head Installation Restoration Team (IHIRT) conducted the DTA on November 28, 2001.

The objective of the DTA was to

- Compile the available information on the sites under consideration, including Installation Restoration (IR) Program sites, solid waste management units (SWMUs), and areas of concern (AOC).
  - Evaluate the available information regarding the potential for each site to present a human health or environmental risk,
  - Determine if further investigation is necessary in connection with any of the sites,

The objective of the DTA Decision Document is to document the decisions and regulator concurrence for the Administrative Record.

The following sites are addressed in this document.

Main Area SWMUs 4 and 5	Underground Storage Tanks (Buildings 290/525)
Main Area SWMU 6	Used Battery Accumulation Area (Building 290)
Main Area SWMU 27	Waste Oil Storage Area (Goddard Power)
Main Area SWMU 38	Coffee Road Waste Oil Storage Area
Main Area SWMUs 40 – 46	Wastewater Collection/Treatment Tanks
Main Area SWMUs 47 –51	Spent Acid Storage/Treatment Tanks
Main Area SWMUs 64 – 66	Waste Water Storage Tanks (Building 1596)
Main Area SWMU 69	Temporary Dumpster for Explosive Scrap
Main Area SWMU 70	Temporary Areas for Drummed Explosive Scrap
Main Area SWMU 72	Oil/Water Separators
Main Area SWMU 74	Unlined Overland Drainage Ditches
Main Area AOC G	Sand-Blasting Sand Storage Area
Main Area AOC H	Drum at Fuel Storage Area
Main Area SWMU 20	Safety Burn Point
Main Area SWMU 21	Coffee Road Decontamination Burn Point
Stump Neck SWMU 12	Waste Oil Storage Site

Stump Neck SWMU 13	Pink Water Treatment Tank
Stump Neck SWMU 14	Photographic Lab Septic System
Stump Neck SWMU 15	Spent Photographic Solution Storage
Stump Neck SWMU 16	Thermal Treatment Tank
Stump Neck SWMU 17	Building 2015 – Chemical Lab Accumulation Area
Stump Neck SWMU 18	Waste Pile
Stump Neck SWMU 19	Disposal Area No. 1
Stump Neck SWMU 20	Disposal Area No. 2
Stump Neck SWMU 21	Drum Storage Area
Stump Neck SWMU 28	Old Skeet and Trap Range
Stump Neck SWMU 29	Pistol Range
Stump Neck SWMU 30	Building 2015 Dry Well

Past investigations of the above sites evaluated and documented the presence or absence of a potential that former operations at the sites may have resulted in a release of hazardous substances, pollutants, contaminants, hazardous wastes, or hazardous constituents to the environment. The process for conducting those investigations involved obtaining and evaluating all accessible documentation pertaining to the identified sites, including environmental reports, facility drawings, personnel interviews, aerial photographs, and IHDIV-NSWC Natural Resources and Environmental Affairs (NREA) records. During the DTA, the IHIRT reconsidered the information and conclusions presented in the reports documenting the past investigations and reached a consensus agreement regarding the disposition of each site.

This document includes this brief introduction and a separate section for each of the sites. Each of the site-specific sections provides a site description, an evaluation of the site, and a decision indicating the IHIRT determination regarding the disposition of the site.

## **2.0 MAIN AREA SWMU 4 AND 5 - UNDERGROUND STORAGE TANKS (BUILDINGS 290 AND 525)**

### **2.1 SITE DESCRIPTION**

As described in the RCRA Facility Assessment (RFA) (Kearney, 1988), SWMUs 4 and 5 consisted of one 550-gallon steel underground storage tank (SWMU 4) behind the automotive shop (Building 290) and a second 1,000-gallon steel underground storage tank (SWMU 5) behind the heavy equipment shop (Building 525). Waste oil from the transport equipment maintenance branch was placed in a basin, approximately 36 inches by 18 inches by 12 inches deep, inside the shops. The waste oil drained through a pipe to the underground storage tanks. A contractor pumped the waste oil from the tanks to a truck for off-site disposal. Facility personnel indicated that the units began operation in 1978.

### **2.2 EVALUATION**

The Navy has removed the tanks and any contaminated soils from both SWMUs. The Maryland Department of the Environment, Hazardous and Solid Waste Management Administration, Oil Control Division issued a close-out letter for SWMU 4 on June 29, 1992 and for SWMU 5 on March 6, 1996.

### **2.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at either SWMU 4 or SWMU 5.

### **3.0 MAIN AREA SWMU 6 - USED BATTERY ACCUMULATION AREA (BUILDING 290)**

#### **3.1 SITE DESCRIPTION**

The RFA (Kearney, 1988) described SWMU 6 as a battery accumulation area located outside the Transportation Department automotive shop (Building 290). The batteries were stored on wooden pallets over a concrete driveway. The uncovered area measured approximately 6 feet wide by 10 feet long. According to facility representatives, the date the area was first used for storage of batteries is uncertain. However, the area was used for several years.

The building currently has new occupants and is no longer used as an automotive shop.

#### **3.2 EVALUATION**

There are no visible signs of releases to area soils. Historical records contain no record of any releases. According to facility personnel, only small quantities of batteries were accumulated prior to disposal or recycling.

#### **3.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 6.

## **4.0 MAIN AREA SWMU 27 - WASTE OIL STORAGE AREA (GODDARD POWER)**

### **4.1 SITE DESCRIPTION**

According to the RFA (Kearney, 1988), SWMU 27 was located at the fuel oil storage area at Goddard Power Plant. The unit was an outside area, approximately 150 feet long by 50 feet wide. Metal drums of waste oil sat on the soil surface in the area. Power plant representatives stated that the area had been used for storage of this type since the start-up of the power plant in 1957. The unit contained waste oil and absorbent collected from spills inside the power plant. Previous remediation activities included removal of the drums and of the pile of waste oil and absorbent. The power plant supervisor stated that the stained soil was drummed for off-site disposal.

Today, drums are no longer stored outside in SWMU 27. Drums are now stored inside prior to disposal.

### **4.2 EVALUATION**

There are no visual indications of contaminated soil. Past testing of monitoring wells in the area did not indicate contamination in the groundwater.

### **4.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 27.

## **5.0 MAIN AREA SWMU 38 - CAFFEE ROAD WASTE OIL STORAGE AREA**

### **5.1 SITE DESCRIPTION**

As described in the RFA (Kearney, 1988), SWMU 38 was first used as a storage area in 1986 for drums of waste oil located adjacent to the Decontamination Burn Point (SWMU 21). At the time of the interviews for the RFA, the facility representative indicated that waste oil and spill residue were at that time being stored at the unit. Standard procedure called for the use of kerosene or No. 2 fuel oil to start and maintain the fire at the adjacent burn point. The representative also indicated, however, that waste oil had occasionally been used at the burn point for that purpose. The fire at the burn point was initiated to flash explosive residue from discarded metal parts generated on the facility. No release controls were identified at the unit. The drums were stored on pallets over bare ground.

### **5.2 EVALUATION**

The IHIRT determined that, because SWMU 38 is located within the boundary of Installation Restoration (IR) Site 11 (Caffee Road Landfill), further investigation of SWMU 38 should be conducted as part of the ongoing IR Site 11 remedial investigation (RI). Even though no releases were apparent at the time of the RFA interviews, the location of SWMU 38 relative to IR Site 11, and the fact that waste oil from SWMU 38 had been used at the burn point to ignite fires, warrants including SWMU 38 in the Site 11 remedial investigation.

### **5.3 DECISION**

Because SWMU 38 is located within the area of IR Site 11, the IHIRT determined that SWMU 38 will be investigated as part of the remedial investigation for Site 11.

## **6.0 MAIN AREA SWMUS 40 - 46 - WASTEWATER COLLECTION/TREATMENT TANKS**

### **6.1 SITE DESCRIPTION**

The RFA (Kearney, 1988) described SWMUs 40 to 46 as seven units used for the collection and treatment of wastewater generated from the production of liquid nitrate esters, including MTN, TEGDN, BTTN, and DEGDN, at the Moser plant. The wastewater contained concentrations of explosive residue from the production process and may have been slightly acidic. The tanks were used to collect the wastewater, settle the explosive residue, and neutralize the acidity, if necessary. The explosive residue from the wastewater was adsorbed onto wood chips and burned at the Cast Plant Burn Point (SWMU 19). The water was discharged to an NPDES outfall after settling. The tanks were all constructed of steel, were located indoors on concrete floors, and were covered. According to the facility representative, the units were installed and began operation in the mid-1970s.

### **6.2 EVALUATION**

There has been no known history of releases. All the SWMUs are located inside buildings at the Moser plant.

### **6.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMUs 40 to 46.

## **7.0 MAIN AREA SWMUS 47 - 51 - SPENT ACID STORAGE/TREATMENT TANKS**

### **7.1 SITE DESCRIPTION**

SWMUs 47 to 51 are described in the RFA (Kearney, 1988) as five units used for the collection and treatment of spent acid generated during production of nitrated esters at the Moser Plant. The tanks include three spent acid tanks, including one 150-gallon and two 250-gallon tanks, one 200-gallon slum recovery tank, and a 3,200-gallon neutralization unit (consisting of two 1,600-gallon tanks). The wastewater from neutralization was discharged to an NPDES outfall. The facility representative stated that no sludge was generated by the neutralization process. The tanks are constructed of steel, are located indoors, and are covered. The level in the tanks is controlled by batch flow to the units. According to the facility representative, the tanks were installed and began operation in the mid-1970s.

### **7.2 EVALUATION**

There has been no known history of releases. All the SWMUs are located inside a building at the Moser plant.

### **7.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMUs 47 to 51.

## **8.0 MAIN AREA SWMUS 64 - 66 - WASTEWATER STORAGE TANKS (BUILDING 1596)**

### **8.1 SITE DESCRIPTION**

SWMUs 64 to 66 were described in the RFA (Kearney, 1988) as tanks located in Building 1596 that were used for storage of water contaminated with hydrazine fuel. The contaminated water was incinerated in Thermal Destructor 2 (SWMU 63). The tanks are located indoors over concrete flooring, constructed of polyurethane and are approximately 10,000-gallons in capacity each. The exact date of installation of the tanks is not certain; however, it is assumed the tanks were installed circa 1976 [i.e., the same time as construction of Thermal Destructor 2 (SWMU 63)].

### **8.2 EVALUATION**

There has been no known history of releases and the units are inside a building.

### **8.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMUs 64 to 66.

## **9.0 MAIN AREA SWMU 69 - TEMPORARY DUMPSTER FOR EXPLOSIVE SCRAP**

### **9.1 SITE DESCRIPTION**

SWMU 69 is described in RFA (Kearney, 1988) as a storage area that utilized dumpsters to store waste. The facility used metal dumpsters for collection of explosive scrap from manufacturing and associated operations throughout the station until about 1991. According to the facility representative who was interviewed, there were approximately 50 to 60 dumpsters. Each dumpster measured approximately 6 feet long by 4 feet wide by 4 feet deep. The dumpsters were typically positioned over concrete or asphalt when in use. When filled, the dumpsters were transported to the burn point (SWMU 19). The practice of storing explosive scrap in dumpsters was at the facility from the late 1950s until 1991.

### **9.2 EVALUATION**

There has been no history of releases on the facility involving the metal dumpsters.

### **9.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 69.

## **10.0 MAIN AREA SWMU 70 - TEMPORARY AREAS FOR DRUMMED EXPLOSIVE SCRAP**

### **10.1 SITE DESCRIPTION**

As described in the RFA (Kearney, 1988), SWMU 70 consisted of 51 storage buildings used to temporarily accumulate explosive scrap in metal cans. The storage locations were constructed at various times during the facility operation and consisted of covered wooden sheds, all of similar design, constructed over concrete pads. The buildings typically measured approximately 6 feet by 6 feet. The metal cans were about 30 gallons in size and were color coded blue or yellow for use only as storage for explosive scrap. Explosive scrap was typically adsorbed (i.e., liquid) onto wood chips and collected in conductive plastic bags, placed in the metal cans, and stored in the accumulation area. During the RFA, the facility representative stated that the cans were removed to the burn point (SWMU 19) daily for safety reasons.

### **10.2 EVALUATION**

With SWMU 70 being a temporary accumulation area with release controls, there have been no history of releases. Waste was not allowed to accumulate for a period greater than 90 days.

### **10.3 DECISION**

Based on all known information, the IHIRT determined that no action is needed at SWMU 70.

## 11.0 MAIN AREA SWMU 72 - OIL/WATER SEPARATORS

### 11.1 SITE DESCRIPTION

As described in the RFA (Kearney, 1988), SWMU 72 consists of several oil/water separators. Several wastewater discharge lines formerly included an oil/water separator to remove floating oil from the wastewater prior to discharge through an NPDES outfall. The total number of oil/water separators is not certain; however, the Industrial Wastewater Treatment Study lists at least 15 separators associated with various buildings and process lines. Table 1 lists the buildings referenced as incorporating oil/water separators, the date of building construction, and known constituents in the wastewater. The units were typically constructed of concrete and were generally covered with a metal lid. The waste oil was either used on site [e.g., such as the waste oil used to start fires at the Decontamination Burn Point (SWMU 21)] or disposed off site. It is assumed that the separators were typically constructed at the time of building construction.

TABLE 11-1

BUILDING/PROCESSES WITH OIL/WATER SEPARATORS

BUILDING	DATE OF CONSTRUCTION	CONSTITUENTS
560	1943	Oil and grease
561	1943	Oil and grease
562	1943	Oil and grease
563	1943	Oil and grease
564	1943	Oil and grease
565	1943	Oil and grease
566	1943	Oil and grease
1024/1025	1960	Petroleum distillate
1026/1027	1960	Petroleum distillate
1028	1960	Petroleum distillate
1029	1960	Petroleum distillate
1030	1960	Petroleum distillate
1031	1960	Petroleum distillate
1033	1960	Petroleum distillate

### 11.2 EVALUATION

All the listed oil/water separators have been closed. No oil/water separators had a history of releases. Active oil/water separators on the facility operate under the Oil Operations Permit. Those units will be

closed in accordance with all Federal, State, Navy and local Storage Tank regulations when taken out of service.

### **11.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 72.

## **12.0 MAIN AREA SWMU 74 - UNLINED OVERLAND DRAINAGE DITCHES**

### **12.1 SITE DESCRIPTION**

SWMU 74, as described in the RFA (Kearney, 1988), consists of the unlined overland drainage ditches used throughout the facility. Many of the wastewaters from process areas are carried in unlined ditches to the point of discharge (NPDES outfall) into either Mattawoman Creek or the Potomac River. During the RFA interviews, facility representatives stated that the ditches were used for both treated (e.g., neutralized or settled) and untreated wastewaters from manufacturing and process area operations (e.g., equipment/building washdowns). Prior to the installation of any wastewater treatment systems, the standard procedure for wastewater disposal was to discharge directly into the unlined ditch system.

The date of start-up varies with each ditch; however, the practice of discharge in unlined ditches has been used since the beginning of production at the station.

### **12.2 EVALUATION**

Many ditches on the facility are still active. Only limited information is available regarding any single ditch.

### **12.3 DECISION**

The IHIRT determined that the SWMU will remain on AOC and additional work is needed to identify and verify ditches with potential contamination. It is expected that limited sampling will be conducted in the identified ditches. The IHIRT will develop an approach to address the types of ditches.

## **13.0 MAIN AREA AOC G - SAND-BLASTING SAND STORAGE AREA**

### **13.1 SITE DESCRIPTION**

The discussion of AOC G in the RFA (Kearney, 1988) includes a description of the sand-blasting operation used to remove paint from rocket motor casings in Building 1134. During the RFA interviews, the facility representative indicated that no analysis has been performed on the sand; however, sand-blasting sand commonly contains heavy metals. According to facility representatives, the sand was collected in an indoor concrete and steel containment area and continuously recycled to the sand-blast equipment, resulting in no or very little waste sand. The representative further stated that any material that was disposed was collected in drums and disposed through the container storage area, Building 455 (SWMU 2). The amount disposed was reported to be two drums or less per year.

During the early 1990s, the process was converted to the use of plastic medium in the place of sand to remove paint. Currently, the indoor plastic-medium-blasting area is an enclosed room (approximately 10 feet by 10 feet). All blasting is performed in the closed room. Plastic medium and paint chips fall through a grate in the room's concrete floor. The plastic medium is recycled, and the waste (expended plastic medium and paint chips) is collected in a drum located outside the building but connected to the blasting equipment. When the drum is full, it is detached from the blasting equipment, closed, and placed in a hazardous waste accumulation site for subsequent shipment to an approved hazardous waste disposal facility.

### **13.2 EVALUATION**

There is no known history of releases connected with AOC G. The sand medium was recycled back into the operation and when not recycled, was handled in a controlled matter.

### **13.3 DECISION**

Based on all known information, the IHIRT determined that no action is needed at AOC G.

## **14.0 MAIN AREA AOC H - DRUM AT FUEL STORAGE AREA**

### **14.1 SITE DESCRIPTION**

As described in the RFA (Kearney, 1988), AOC H consisted of a single drum that was observed during a visual inspection of the vehicle maintenance area (Building 290). The drum was located adjacent to a nearby fuel storage area and contained an unidentified liquid. The drum was not labeled or marked, and facility representatives were unable to define the contents. There was no indication that the drum contained a waste (i.e., no signs that activities in the area would generate a waste). The drum, was located outdoors on an asphalt roadway. There was no apparent leakage from the drum and visual inspection found no signs indicating that the area was routinely used for storage of drums.

### **14.2 EVALUATION**

During the RFA, the drum was removed, there was no visual indication of leakage nor is there a history of leakage.

### **14.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at AOC H.

## **15.0 MAIN AREA SWMU 20 - SAFETY BURN POINT**

### **15.1 SITE DESCRIPTION**

In the RFA (Kearney, 1988), SWMU 20 was described as a RCRA-regulated thermal treatment open burning area. The Safety Burn Point covers 1 acre and is located west of the Cast Plant Burn Point on a small peninsula extending into the Potomac River. The burn point was an area of bare soil on the end of the peninsula where various explosive and flammable materials were treated. The burn point was located within the 100-year flood plain. According to facility representatives during the RFA interviews, the Safety Burn Point was used to burn pyrotechnics including ignitors, detonators, and other explosive devices. The wastes were temporarily stored at storage points throughout the facility and periodically transported to the burn point for treatment.

Materials were treated by burning them in a thermal treatment vessel. The vessel was constructed of one-quarter inch steel and measured 9 feet in diameter and 8 feet, 3 inches in height. The vessel had an open top and was situated on a secondary containment pad of clay-like soil or concrete.

During the RFA interviews, the facility representatives estimated that the unit commenced operation in the early 1940s or 1950s.

### **15.2 EVALUATION**

Past groundwater samples collected at SWMU 20 were found to contain concentrations of lead in excess of maximum concentration levels.

### **15.3 DECISION**

Based on the presence of lead concentrations in groundwater in excess of maximum concentration levels, the IHIRT determined that SWMU 20 should be subjected to a remedial investigation.

## **16.0 MAIN AREA SWMU 21 - CAFFEE ROAD DECONTAMINATION BURN POINT**

### **16.1 SITE DESCRIPTION**

The RFA (Kearney, 1988) describes SWMU 21 was a RCRA-regulated thermal treatment open burn area for decontaminating scrap metal contaminated with explosive compounds. The SWMU is a 1.25-acre area at the end of Caffee Road, approximately 200 yards from Mattawoman Creek. According to the facility representative during the RFA interviews, the unit was located directly over the inactive Caffee Road Landfill (IR Site 11). The contaminated metal was placed into a pile and ignited to remove any explosive contaminants by burning. According to the facility representative, standard procedure was to use kerosene or No. 2 fuel oil to ignite and sustain the fire. In addition, the representative indicated that small amounts of contaminated fuel oil and spill residue may also have been used at the site. Following treatment, the metal was sold to off-site contractors as scrap.

The RFA indicated that the unit had been operating since the Caffee Road Landfill was covered in the early 1980s.

### **16.2 EVALUATION**

SWMU 21 is located within the area of IR Site 11, the Caffee Road Landfill.

### **16.3 DECISION**

Because SWMU 21 is located within the area of IR Site 11, the IHIRT determined that SWMU 21 will be investigated as part of the remedial investigation for Site 11.

## **17.0 STUMP NECK SWMU 12 - WASTE OIL STORAGE SITE**

### **17.1 SITE DESCRIPTION**

As described in the RCRA Facility Assessment (RFA) for Stump Neck (Kearney, 1990), the waste oil generated by vehicle maintenance operations and employee "self-help" oil changes at the facility are stored in SWMU 12. Waste oil is stored in 55-gallon drums on wooden pallets in a designated area of a storage lot near Building 2019. The storage area is asphalt-covered, is surrounded by a chain-link fence, and has been in operation since approximately 1985. The waste is periodically collected from this storage site by Property Disposal (located at the Indian Head Main Area) for offsite recycling or disposal.

### **17.2 EVALUATION**

Current operations are in accordance with current standards, including secondary containment for waste oils. There has been no history of releases and no visual indications of any releases.

### **17.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 12.

## **18.0 STUMP NECK SWMU 13 - PINK WATER TREATMENT TANK**

### **18.1 SITE DESCRIPTION**

SWMU 13, as described in the RFA (Kearney, 1990), was a RCRA-regulated treatment unit, is located at Building 2057, northeast of the Range 3 Burn Point (SWMU 2) and was used to remove explosives from various types of ordnance. The explosive was removed from the unit by steaming the interior of the ordnance casing. The resulting wastewater, termed "pink water" (K047), was contaminated with explosive residue. This contaminated water was collected and treated on site at the Pink Water Treatment Tank. As the pink water was generated during steaming, the water was collected in a concrete trench drain that directed the waste to a 1,500-gallon stainless-steel collection tank. The collection tank and additional treatment units were located in below-ground, concrete, secondary containment structures. Treatment consisted of filtering to remove solid explosive particles and activated carbon adsorption for removal of organic constituents. The carbon filters were assembled in two in-line, 55-gallon drums. Following treatment, the water was discharged through a plastic pipe to NPDES outfall IW 49 on Chicamuxen Creek. The filter materials were periodically thermally treated at the Range 3 Burn Point (SWMU 2), and the spent carbon (K045) was shipped off site for disposal.

The facility was authorized to treat pink water from TNT operations under Controlled Hazardous Substances Facility Permit Number A-223a issued by the Maryland Department of the Environment on November 13, 1987. The treatment facility is no longer in operation. Efforts are underway to close the facility under RCRA.

### **18.2 EVALUATION**

SWMU 13 is currently being managed under the RCRA program.

### **18.2 DECISION**

SWMU 13 will continue to be managed under RCRA and will continue toward closure under that program.

## **19.0 STUMP NECK SWMU 14 - PHOTOGRAPHIC LAB SEPTIC SYSTEM**

### **19.1 SITE DESCRIPTION**

The RFA (Kearney, 1990) described SWMU 14 as a system consisting of a below-ground tank and associated collection and discharge lines and drain field. The effluent was chlorinated and discharged to the Potomac River under NPDES Permit MD0020885, which was issued May 1988. In the past, the system handled wastewater from the photographic lab (Building 22SH) and the X-ray facility (Building 2009). Waste fixers containing silver were drummed and transported off site for silver recovery. At the time of the RFA, the unit handled sanitary wastewater only and was inspected weekly, in accordance with NPDES permit conditions. Sampling was conducted monthly. According to information provided by the facility during the RFA interviews, a new septic system had been installed to eliminate surface discharge to the Potomac River.

Currently, silver-contaminated waste fixer from the X-ray facility is treated on site for silver recovery, then released to the septic system with the washwater and developer. In 1999, the photographic lab was converted to a completely digital system and no longer discharges.

### **19.2 EVALUATION**

Too little information is available regarding this SWMU to make a decision at this time.

### **19.3 DECISION**

Due to the lack of information available regarding this SWMU, the IHIRT has determined that SWMU 14 will remain an AOC pending additional investigation to include possible limited sampling of the old drain field connected with this SWMU.

## **20.0 STUMP NECK SWMU 15 - SPENT PHOTOGRAPHIC SOLUTION STORAGE**

### **20.1 SITE DESCRIPTION**

As the RFA (Kearney, 1990) describes SWMU 15, spent photographic solution is collected and stored inside at the Photographic Laboratory, Building 22SN. The spent photographic solution is stored in a 50-gallon polyethylene tank prior to shipment off site for silver recovery. Constituents in the spent photographic solution include silver, sodium thiosulfate, and hydroquinone.

### **20.2 EVALUATION**

No releases have occurred at this SWMU. Storage is confined to the building interior.

### **20.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 15.

## **21.0 STUMP NECK SWMU 16 - THERMAL TREATMENT TANK**

### **21.1 SITE DESCRIPTION**

The RFA (Kearney, 1990) describes SWMU 16 as an open-top, steel tank used to burn explosives and explosive-contaminated items at Range 3 Burn Point (SWMU 2). The tank was approximately 5 feet tall by 3 feet wide and has been removed. The tank was located on bare soil approximately 15 feet from the Chicamuxen Creek's edge. The tank contained partially burned material and charred debris and, during the RFA, ash was observed on bare soil immediately beneath and around the unit.

The Thermal Treatment Tank previously removed was used for burning explosives and explosive-contaminated items. Ash from the Thermal Treatment Tank was disposed one time in the Rum Point Landfill (SWMU 1). When the tank was in use, the ash is tested for EP Toxicity. If hazardous, the ash was manifested as a hazardous waste. Otherwise, it was disposed of in an off-site sanitary landfill.

### **21.2 EVALUATION**

SWMU 16 is located within IR Site 58, Range No. 3 Burn Point

### **21.3 DECISION**

Because SWMU 16 is within Site 58, it will be investigated as part of the Site 58 remedial investigation.

## **22.0 STUMP NECK SWMU 17 - BUILDING 2015 - CHEMISTRY LAB ACCUMULATION AREA**

### **22.1 SITE DESCRIPTION**

According to the RFA (Kearney, 1990), SWMU 17 is inside Building 2015. The unit consisted of a metal-covered workbench where approximately 25 small metal and glass containers of spent chemicals were stored. The containers were labeled and contained in Ziplock® plastic bags. According to facility representatives during the RFA investigation, prior to disposal off site, containers were placed in over-pack drums and transferred to the IHDIV-NSWC main area. The waste had been stored here since the chemistry lab began operations approximately 20 years ago.

Since the RFA the building has been cleaned to make it suitable for use as an office building.

### **22.2 EVALUATION**

There are no indications that any releases occurred. Storage was confined to the building interior. Since the time of the RFA, the building has been cleaned to prepare it for use as an office building.

### **22.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 17.

## **23.0 STUMP NECK SWMU 18 - WASTE PILE**

### **23.1 SITE DESCRIPTION**

This unit is adjacent to the Air Blast Pond (SWMU 6). As described by the RFA (Kearney, 1990), the unit consisted of a flat earthen area, that was covered with grass. A densely wooded area separates the unit from the Air Blast Pond. During the RFA interviews, facility representatives indicated that this area was originally identified in an aerial photo, which showed a mounded area.

Facility representatives indicated that the mounding seen in an aerial photo might have been excavated material from construction of the Air Blast Pond (SWMU 6).

### **23.2 EVALUATION**

Currently, no pile is visible at the suspected location of SWMU 18, and there is no indication of residual waste or contamination.

### **23.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 18.

## **24.0 STUMP NECK SWMU 19 - DISPOSAL AREA NO. 1**

### **24.1 SITE DESCRIPTION**

The RFA (Kearney, 1990) indicates that SWMU 19 is an unlined earthen area, which was used for various types of training. A bunker, which functions as an office, occupies a portion of the area. The remaining portion consists of a leveled grassy area rimmed with sparse woods on the eastern side. The woods separate the unit from the Chicamuxen Creek. The unit's size is estimated to be approximately 1.5 acres, and it contains inert material.

### **24.2 EVALUATION**

SWMU 19 is located within the area of IR Site 64, Improvised Explosive Devices Range.

### **24.3 DECISION**

The IHIRT determined that, because SWMU 19 is within the area of IR Site 64, SWMU 19 will be combined with Site 64 for further study as part of the Site 64 remedial investigation.

## **25.0 STUMP NECK SWMU 20 - DISPOSAL AREA NO. 2**

### **25.1 SITE DESCRIPTION**

The RFA (Kearney, 1990) describes SWMU 20 as a relatively flat earthen area that is bounded on the north by the Potomac River. During RFA interviews, facility representatives could not provide information regarding the composition of the inert material disposed there. At the time of the RFA, the area was covered with grass and was in use as a skeet and trap shooting area.

### **25.2 EVALUATION**

There is no known history of releases from SWMU 20 and the SWMU located within the area covered by SWMU 28, Old Skeet and Trap Range.

### **25.3 DECISION**

Based on the known information, the IHIRT has determined that SWMU 20 should be subjected to additional sampling as part of the investigation of SWMU 28, Old Skeet and Trap Range.

## **26.0 STUMP NECK SWMU 21 - DRUM STORAGE AREA**

### **26.1 SITE DESCRIPTION**

The RFA (Kearney, 1990) describes SWMU 21 as a relatively flat earthen area where several drums of unknown materials and origin were stored on a short-term basis. The drums were noted in an aerial photo, and facility representatives could provide no further information during the RFA interviews. No drums were being stored at SWMU 21 at the time of the RFA.

### **26.2 EVALUATION**

There are no current indications of the locations of the drums, and there is no history of releases or current indications of a release. Facility personnel indicate the drums were stored only for a short time.

### **26.3 DECISION**

Based on the known information, the IHIRT determined that no action is needed at SWMU 21.

## **27.0 STUMP NECK SWMU 28 - OLD SKEET AND TRAP RANGE**

### **27.1 SITE DESCRIPTION**

A letter from Kenneth D. Morin (Morin, 1992) describes SWMU 28 as follows:

This area was originally called SWMU 20, Disposal Area 2, in the RCRA CA permit. The permit states that "During the VSI, the area was covered with grass and is currently used as a skeet and trap shooting area." In addition, the permit states "EPA has determined that no further action is necessary at this time." However, since the draft RFA was written, use of the skeet range has been discontinued. The skeet range was used mainly for recreational purposes. Operations began more than 25 years ago and ended in June 1991. Clay pigeons were used as targets. Therefore, lead shots remain on the ground at the skeet range and in the Potomac River.

### **27.2 EVALUATION**

SWMU 28 is a former recreational skeet range known to have lead shot remaining on the ground.

### **27.3 DECISION**

Based on the known information, the IHIRT determined that SWMU 28 (along with SWMU 20) should be subjected to the site screening process, including sampling.

## **28.0 STUMP NECK SWMU 29 - PISTOL RANGE**

### **28.1 SITE DESCRIPTION**

A letter from Kenneth D. Morin (Morin, 1992) describes SWMU 29 as follows:

The facility's Security Department used this site for training for approximately seven years, ending in August 1991. Rounds were fired into the side of a hill. Therefore, the side of the hill contains lead shots.

### **28.2 EVALUATION**

Too little information is available regarding this SWMU to make a decision at this time.

### **28.3 DECISION**

Due to the lack of information available regarding this SWMU, the IHIRT has determined that SWMU 29 will remain an AOC pending additional investigation.

## **29.0 STUMP NECK SWMU 30 - BUILDING 2015 DRY WELL**

### **29.1 SITE DESCRIPTION**

A letter from Kenneth D. Morin (Morin, 1991) describes SWMU 30 as follows:

This site consists of a dry well that is connected to a laboratory located in Building 2015. For approximately 10 years, spent chemical reagents from the laboratory were discarded by pouring them down the drain. Currently, only wash water from a hand sink is discharged to the dry well. The overflow from the dry well enters our permitted National Pollutant Discharge Elimination System Outfall IW 64.

### **29.2 EVALUATION**

Too little information is available regarding this SWMU to make a decision at this time.

### **29.3 DECISION**

Due to the lack of information available regarding this SWMU, the IHIRT has determined that SWMU 30 will remain an AOC pending additional investigation.

## REFERENCES

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