STATEMENT OF BASIS

HUNTINGTON INGALLS, INC.
NEWPORT NEWS, VIRGINIA

VAD001307495

November 2018

TABLE OF CONTENTS

List of Figures

List of Tables

I. INTRODUCTION

The Virginia Department of Environmental Quality (DEQ) has prepared this Statement of Basis (SB) to solicit public comment on its proposed decision for the Huntington Ingalls, Inc. (HHI), Newport News Shipbuilding (NNS) facility located at 4101 Washington Ave., Newport News, Virginia (the Facility). DEQ's proposed decision generally consists of the following components: 1) continue to implement the post-closure care program including groundwater corrective action and monitoring at Solid Waste Management Unit (SWMU) 12a, former surface impoundment, in accordance with the Facility's Hazardous Waste Management Permit for Post Closure Care and Site Wide Corrective Action until objectives have been met; 2) conduct monitored natural attenuation (MNA) of contaminants in groundwater in accordance with an approved Corrective Measures Implementation Work Plan; and 3) implement and maintain compliance with land use controls in the form of institutional and engineering controls. This SB highlights key information relied upon by DEQ in making its proposed decision.

The Facility is subject to the United States Environmental Protection Agency's (EPA) Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. § 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and remediated any releases of hazardous waste and hazardous constituents that have occurred at their property.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which DEQ's proposed decision is based. See Section VIII, Public Participation, for information on how you may review the AR.

II. FACILITY BACKGROUND

Since 1888, NNS has been constructing and repairing commercial and military ships. The Facility is located along the James River in the City of Newport News, Virginia (Figure 1). The Facility is bounded on the north and west by the James River; on the east by Washington, Huntington, and West Avenues; and on the south by 31st Street. The shipyard includes seven dry docks and six piers. A variety of activities that support shipbuilding and repair occur at the shipyard, which include machine shop work, grit blasting, painting, metal works, hazardous material use and storage, scrap metal storage and recycling, fire protection services, and other shipyard related services.

Since the 1880s, the land area of the facility has been expanded generally from south to north using fill material dredged from the river or imported from on-site and off-site sources. Site elevations range from 10 to 30 feet above mean sea level. The fill materials generally consist of silty sand, but are locally heterogeneous and range from highly plastic clays to coarse sand, blasting grit, and general building debris. The fill materials overly the former bottom of the James River, which consists of a firm clay confining layer at depths ranging from 10 to 25 feet below grade. The depth to the clay layer, and the thickness of the fill material, generally increase from east to west.

Hydrogeologic conditions consist of a shallow unconfined water table aquifer approximately 5 to 10 feet below ground surface in the granular fill material overlying the natural silty clay confining unit. Groundwater generally flows west or northwest towards the

James River at approximate velocities that range from 10 to 30 feet per year. Drinking water for the shipyard and the surrounding area is supplied by the City of Newport News municipal system.

III. SUMMARY OF ENVIRONMENTAL INVESTIGATIONS AND CLEANUP ACITIVIES

A Facility assessment conducted in support of planning a RCRA Facility Investigation (RFI) identified fifty five (55) SWMUs at the Facility. A Facility layout map is included as Figure 2 showing the location of each SWMU and monitoring well location maps are included as Figures 3-6. The following table lists each SWMU.

SWMU Identification No.	SWMU Description
1	Chemical Waste Treatment Plant
2	Oily Waste Treatment Plant
3	Consumat Incinerator
4	Neutralization Tank
5	Boiler House Neutralization Tank – AST 103
7a	Barge 25 Oil Barge
7b	Nancy Bean Oil Barge
8	Plastic Shredder
9	Freon Recovery Still
10	Scrap Yard
11	Wood Pile
12a	Surface Impoundment 1975-1985
12b	Surface Impoundment 1966-1975
13	Open-top Wood Incinerator
14	Trash Incinerator
15	Trash Steam Incinerator
16	Solvent Still
17	Waste Accumulation Tank – UST 508
18	Waste Accumulation Tank – UST 509
19	Tank 510 – Motor Shop
20	Waste Accumulation Tank – UST 511
21	Waste Accumulation Tank – UST 512
22	Waste Accumulation Tank – UST 513
23	Waste Accumulation Tank – UST 514
24	Tank 515, Paint Spray Booth
25	Waste Accumulation Tank – UST 517
26	Waste Accumulation Tank – UST 705
27	Waste Accumulation Tank – UST 707
28	Waste Accumulation Tank – Water Curtain
29	Waste Accumulation Tank – Water Curtain

SWMU Identification No.	SWMU Description
30	Waste Accumulation Tank – Water Curtain
31	Waste Accumulation Tank – Pb Laundry
32	Waste Accumulation Tank – AST (KOH)
33	Waste Accumulation Tank – UST 713 – Photographic Laboratory
34	Waste Accumulation Tank – UST 603
35	Waste Boiler Condensate Reaction Tank
36	Electroplating Plant Trenches
37	Waste Accumulation Tank – Water Curtain – Bonderizing Shop
38	Pipe Shop Trenches
39	Pipe Shop Trenches
40	Chem Lab Waste Collection Area and AST
41	Machine Shop TCE Degreasing Tanks
42	Shielding/Panel Shop (Baghouses)
43	Steel and Brass Foundry (Baghouses)
44	Stop 550 – Waste Consolidation Yard
45	Grinder
46	Oxygen Plant, Cylinder Cleaning with TCE
47	Building 276, Bays 3 and 5
48	Proposed Substation 3 – BTEX PAH
49	Grit Separator Excavation
50	North 20
ORF1	Oil Reclamation Facility 1
ORF2	Oil Reclamation Facility 2
Waste Collection Boxes	Waste Collection Boxes – Oily Waste/Dinosaur/Waste Collection
SMOF	Submarine Modular Outfitting Facility

Based on operating history, records, and inspections, EPA and DEQ determined that no further investigation or action was necessary at 39 of the 55 SWMUs in order to meet Corrective Action program goals. RCRA closure activities have been completed for SWMU 12a and groundwater monitoring and corrective measures at that SWMU continue to be addressed as part of post-closure care via the Hazardous Waste Management Permit. As a result, the remaining SWMUs were identified by EPA and DEQ for further evaluation during the RFI.

Based on results of the RFI investigations, limited interim measures and risk assessments, EPA and DEQ determined that no further action was necessary to meet program goals if institutional controls were implemented and maintained at the following SWMUs:

- SWMU 14 – Trash Incinerator

- SWMU 16 – Solvent Spill
- SWMU 19 – Tank 510-Motor Shop
- SWMU 40 – Chem Lab Waste Collection Area and AST
- SWMU 41 – Machine Shop TCE Degreasing Tanks
- SWMU 42 – Shield/Panel Shop (Baghouses)
- SWMU 44 – Stop 550-Waste Consolidation Yard
- SWMU 47 – Building 276-Bays 3 and 5
- SWMU 48 – Proposed Substation 3-BTEX PAH
- SWMU 49 – Grit Separator Excavation
- ORF1 – Oil Reclamation Facility 1

Finally, EPA and DEQ determined that in addition to institutional controls, further actions including engineering controls, surface soil removal, continued post-closure care, MNA groundwater monitoring, and monitoring and recovery of mineral oil were necessary at the following SWMUs;

- SWMU 10 – Scrap Yard (surface soil removal)
- SWMU 12a – Surface Impoundments 1975-85 (MNA, post-closure care)
- SWMU 25 – Waste Accumulation Tank – UST 517 (MNA)
- SWMU 38 – Pipe Shop Trenches (Monitoring and recovery of mineral oil)
- ORF2 – Oil Reclamation Facility 2 (MNA)

A summary of the Facility's environmental history at regulated unit SWMU 12a including SWMUs 10, 25, 38, and ORF2 follows. Additional details for these activities are provided in the documents contained in the AR. In addition, Table 1 is provided, which identifies specific documents included in the AR that are associated with each SWMU.

A. RCRA Closure and Post-Closure Activities – SWMU 12a

The former surface impoundments (SWMU 12a) are located in the north central portion of the Facility. They were designed to neutralize basic and acidic wastes, precipitate metal hydroxides, and provide retention time for gravity separation of oily wastes. Listed wastes handled by the impoundments included D002, D006, D007, and D008 hazardous wastes. Management of hazardous wastes in the impoundments was discontinued in 1982. However, the units were still used to manage oily wastes until 1985. Oily wastes originated from bilges, machine shops, hydraulic systems, etc.

In 1985, the Facility completed regulated unit closure of the surface impoundments in accordance with a DEQ approve closure plan, which included excavation of wastes, sludge, and impacted soil. Following excavation activities, the impoundments were backfilled with clean fill material. Subsequently, the 117,658 square foot Blast and Coat building (building 4730) was constructed over them. The impoundments were certified closed on November 8, 1985, but the Facility was unable to demonstrate "clean" closure for soil. Based on this, the Blast and Coat building serves as protective cover over the area and the Facility began implementing a 30 year post-closure care program in accordance with a Hazardous Waste Management Permit for Post-Closure Care (Permit) issued by DEQ.

In 1981, the Facility implemented an interim status groundwater monitoring program, which consisted of six monitoring wells installed in the uppermost water table aquifer. The wells were abandoned in 1985 during the closure project prior to constructing the Blast and Coat

building. Subsequently, in 1991 a groundwater detection monitoring program was implemented. Results indicated contaminants from the former units including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and free product (lighter non-aqueous phase liquid or LNAPL) from oily wastes had impacted groundwater. Based on this, the Facility was required to complete a groundwater quality assessment in support of developing a compliance groundwater monitoring program specific to the former units. The assessment was completed from 1994-1997. Results indicated the presence of LNAPL and that contaminants in groundwater beneath and down gradient of the former units beyond the point of compliance exceeded Groundwater Protection Standards (GPS).

In 1997, the Facility implemented a groundwater corrective action monitoring program and in 1998 corrective measures were developed and implemented. Corrective measures began with passive recovery of observed LNAPL and implementation of a pilot test study utilizing air sparging and vapor extraction. Results of the five year pilot test (2000-2005) indicated a lack of effectiveness only recovering approximately 40 lbs of VOCs. Subsequently, an alternative corrective measures evaluation was conducted. Based on the results, the Facility designed and implemented a sparging system utilizing ozone, hydrogen peroxide, and air including vapor recovery. The Facility began operation of the system in 2008. Results indicated that passive LNAPL recovery and the newly modified sparging system were effective at reducing LNAPL in the subsurface and dissolved phase VOCs and SVOCs in groundwater. Based on the initial results, the system was modified to use air sparge only and to discontinue use of ozone and hydrogen peroxide since these components were no longer beneficial to the process. Based on continued success, the system was discontinued completely in 2015 since measureable LNAPL was no longer observed and to allow contaminants to continue attenuating naturally.

Currently, results indicate that natural attenuation is still occurring. Most recent groundwater results from 2017 indicate that only naphthalene, trichloroethylene (TCE), and vinyl chloride exceed their respective GPS at 3 monitoring well locations. The Facility continues to implement MNA groundwater monitoring and continues to implement post-closure care, which will continue until groundwater meets GPS at the point of compliance for 3 consecutive years.

B. Corrective Action Activities – SWMUs 10, 25, 38, and ORF2

Pursuant to the RCRA Corrective Action program, HHI performed multiple RCRA Corrective Action activities at the Facility. Investigations occurred from 2003-2018 in accordance with an EPA approved RFI Work Plan (O'Brien & Gere, 2003) and additional work plans specific to each SWMU as needed.

1. RFI and SWMU Summaries

SWMU 10

SWMU 10 is a 175ft by 20ft sorting area located within the Scrap Yard. It's surrounded by concrete and metal barriers and segregated into subareas for sorting and staging various types of metal. Ground cover in the area is a mix of gravel and soil. On September 19, 2007, the Facility conducted a soil sampling event. Results indicated that PCBs, SVOCs, and metals were detected, some of which exceeded industrial Regional Screening Levels (RSLs) for direct contact. Based on this, 2 follow on sampling events occurred in March 2008 and July 2009. Results of the assessments indicated contaminants of concern (COCs) were limited to PCB-Aroclor 1260 in surface soil at 1 sampling location and lead in surface soil at 6 sampling

locations. No COCs were detected above industrial RSLs or background concentrations in subsurface soil, indicating that unacceptable impacts to groundwater are not likely.

Based on the results of the soil assessment, the Facility proposes to excavate surface soil to mitigate unacceptable risks to human health and the environment under current and future property use as industrial. However, SWMU 10 is currently used as part of the Facility's daily operation, which makes excavation of the surface soil not possible. Due to the nature of how the area is used for metal sorting and staging, no unacceptable risk to onsite workers has been identified. Therefore, the Facility proposes to complete the excavation of surface soil when the metal sorting area is no longer used or when it's not used temporarily for a period of time long enough to support the removal.

SWMU 25

SWMU 25 was an underground storage tank (UST or Tank 517) used to containerize solvent-based wastewater. The tank failed a tightness test in 2000 and taken out of service and subsequently removed in 2004. Soil samples collected from the bottom and side walls of the excavation indicated tetrachloroethylene (PCE) and trichloroethylene (TCE) were present and exceeded RSLs. Results also indicated that Total Petroleum Hydrocarbons-Diesel Range Organics (TPH DRO) were present above DEQ's action level of 100 milligram per kilogram (mg/kg). The contaminated soil was removed and the excavation was backfilled.

In 2007, the Facility conducted a release assessment by advancing three soil borings near the former UST and collecting soil and groundwater samples. Results indicated TPH DRO was not detected in soil and groundwater. In addition, VOCs were not detected in soil, but were detected in groundwater. Specifically, TCE exceeded its Maximum Contaminant Level (MCL) of 5 micrograms per liter (ug/L) and chloroform and naphthalene both exceeded their respective tap water RSL.

In 2010, four monitoring wells were installed to further define the nature and extent of VOCs in groundwater. Based on sample results, an additional four monitoring wells were installed including a well in the background location to complete the assessment. In 2013, the Facility began a semi-annual groundwater monitoring program, during which time an evaluation of MNA in accordance with EPA's "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater" was performed. Results of the evaluation generally indicated inadequate or limited evidence that anaerobic biodegradation of chlorinated organics was occurring. However, groundwater monitoring results from 2010 to 2017 clearly demonstrate decreasing contaminant concentrations, which indicates that natural attenuation is occurring via physical processes such as dilution, volatilization, and/or adsorption onto the aquifer matrix. Based on that, the Facility continues to monitor groundwater for natural attenuation with DEQ concurrence.

From 2014-2016 a Vapor Intrusion (VI) study was conducted within Buildings 102, 105, and 134, which are adjacent to the tank location and TCE impacted groundwater. A total of six sub-slab vapor samples, eight indoor air samples, and two ambient air samples were collected. Target compounds included in the sample analysis were limited to VOCs related to solvents and naphthalene. Results indicated that target compounds were not detected above screening criteria in samples collected at Buildings 102 and 134. At building 105, TCE was detected in indoor air and sub-slab vapor at a concentration that exceeded screening criteria including the RSL for indoor air for industrial use based on the most conservative hazard quotient (HQ) of 0.1, but

below the industrial RSL when considering an HQ of 1, which is appropriate when evaluating 1 chemical. Naphthalene was detected above EPA's and DEQ's screening criteria in one indoor air sample in 2015. However, naphthalene was not detected above laboratory method detection limits (MDL) in the follow on sampling that occurred in 2016. Based on the results, it was concluded that no unacceptable risk due to vapor intrusion was identified and no further action for indoor air was necessary in order to meet program goals.

SWMU 38

SWMU 38 consists of a pipe shop located in Building 29 and 21, at which pipe cleaning operations were conducted in six dip tanks using trisodium phosphate (TSP) and sulfuric acid. TSP was stored in a tank located near the dip tanks and was removed in 2000. The area was investigated during the RFI for potential releases from the tank and the pipe operations. In 2008, soil samples were collected beneath the building's concrete slab and groundwater was collected from an existing piezometer (PZ-22) located down gradient of the area. Results indicated metals concentrations within site background levels in soil and groundwater. However, groundwater results indicated 0.08 feet of LNAPL in PZ-22. 2009 water level measurements for PZ-22 indicated 0.6 feet LNAPL. Subsequently, the Facility conducted a chemical analysis of the LNAPL. Results of that analysis indicated high concentrations of metals and chemical characteristics of mineral oil. In response, the Facility continued to monitor LNAPL thickness and installed a hydrophobic sorbent sock to remove recoverable product.

From 2010 to 2018, the Facility performed monthly gauging of PZ-22 and product recovery utilizing the sorbent socks. As of July 2018, product thickness was measured at 0.01 feet. The Facility will continue to monitor LNAPL thickness quarterly and re-implement product recovery using sorbent socks if product thickness increases to 0.1 feet. Based on the Facility's existing controls that restrict the location and nature construction projects and the forthcoming groundwater use restriction, no additional actions are necessary to protect human health and the environment.

ORF2

ORF2 was an oil reclamation facility that consisted of three open top, rectangular tanks constructed of steel where oily waste waters including bilge water, oily ballast waters, and used oils were processed from 1956 to 1978. In 2011 a release assessment was conducted using direct push technology followed by installing five monitoring wells in 2012. Results indicated that benzene, chlorobenzene, and naphthalene were present and exceeded drinking water standards. In addition TPH DRO exceeded DEQ's action level of 100 mg/L. Based on this, the Facility implemented annual groundwater monitoring and began collecting geochemical data to evaluate potential for natural attenuation. Results from 2013 to 2017 indicated that 1) naphthalene concentrations are decreasing; 2) there was no significant presence of SVOCs, therefore monitoring of TPH DRO was discontinued; and 3) a slight increasing trend for benzene concentrations was observed in one monitoring well.

Based on the results of the release assessment and groundwater monitoring, the Facility continues to monitor groundwater and natural attenuation of contaminants. Since groundwater is not used for any purpose at the Facility, no unacceptable risks to human health and the environment were identified other than to construction workers. However, based on the Facility's existing controls that restrict the location and nature of construction projects and the

forthcoming groundwater use restriction, no additional actions are necessary to protect human health and the environment.

2. Corrective Measures Study and Remedy Selection Process

Based on the results of numerous investigations that occurred from 2003 to 2018, a Corrective Measures Study (CMS) is not necessary considering site conditions including institutional and engineering controls that are already in place and the forthcoming institutional controls that will be implemented by the Facility's permit. In lieu of a CMS, EPA's RCRA Facility Investigation Remedy Selection Track (RCRA FIRST) initiatives were utilized to streamline the remedy selection process. More about the RCRA FIRST process can be found at the following location: https://www.epa.gov/hw/toolbox-corrective-action-resource-conservation-and-recovery-act-facilities-investigation-remedy

A Remedy Selection Process (RSP) meeting was conducted in October 2018 to gain concurrence on corrective action objectives, facets of the proposed remedy, and establish timelines. As a result of the RSP meeting, the Facility used EPA's balancing and threshold criteria to evaluate the proposed remedy to demonstrate its protectiveness, effectiveness, and feasibility. Based on this, the Facility's Permit will be modified to incorporate all facets of the proposed remedy including ongoing post-closure care requirements, groundwater monitoring, and institutional and engineering controls.

C. Current Conditions

Currently, the Facility continues to implement post-closure care activities at SWMU 12a, conduct MNA groundwater monitoring at SWMUs 25 and ORF2, and monitor and passively recover mineral oil as needed at SWMU 38. The metal sorting area located in SWMU 10, the scrap yard, is still used as part of the Facility's daily operations. The Facility is secured with perimeter fencing with controlled access and has an onsite excavation permitting process to regulate and control construction projects to ensure proper health and safety for workers and to manage soil and groundwater appropriately. In addition, groundwater beneath the Facility is not used for any purpose. Contaminants in groundwater are generally decreasing and it's anticipated that they will continue to decrease. Based on this, exposure to contaminants left in soil and groundwater is mitigated due to existing onsite policies and procedures, implementation of institutional controls and maintenance of engineering controls.

IV. CORRECTIVE ACTION OBJECTIVES

A. Soils

DEQ has determined that industrial risk based levels are protective of human health and the environment for individual contaminants at this Facility provided that the Facility is not used for residential purposes. Therefore, DEQ's Corrective Action Objective for Facility soils is to control exposure to the hazardous constituents remaining in soils by requiring compliance with and maintenance of land use restrictions at the Facility. The requirement for land use restrictions and site specific controls will be imposed by the Facility's Hazardous Waste Management Permit for Post-Closure Care and Site Wide Corrective Action.

B. Groundwater

DEQ has determined that drinking water standards, namely MCLs or tap water RSLs for constituents that do not have an MCL, are protective of human health and the environment for

individual contaminants at this Facility. In addition, DEQ has determined that groundwater protection standards listed in the Facility's Permit for Post-Closure Care specific to SWMU 12a, some of which are based on site specific background, are also protective of human health and the environment. DEQ's Corrective Action Objectives for Facility groundwater are the following:

1. To control exposure to the hazardous constituents in the groundwater by requiring the compliance with and maintenance of a groundwater use restriction at the Facility as long as drinking water standards and/or groundwater protection standards are exceeded. This restriction will be imposed by the Facility's Permit.

2. To monitor groundwater at the designated monitoring well(s) to demonstrate attenuation of concentrations of the following hazardous constituents in groundwater until standards are met.

Constituents and Standards - SWMU 12a

Constituent	Standard (µg/l)	Source
Trichloroethylene	5	MCL
Vinyl Chloride	2	MCL
Naphthalene	8.8	GPS/Background

Constituents and Standards – SWMUs 25 and ORF2

Constituent	Standard (µg/l)	Source
1,1-Dichloroethane	2.8	RSL
Benzene	5	MCL
Chlorobenzene	100	MCL
Naphthalene	8.8	GPS/Background

V. SUMMARY OF PROPOSED REMEDY

A. Summary

Under this proposed remedy, DEQ is requiring the following actions:

1. Continue post-closure care and the groundwater monitoring program at SWMU 12a to monitor natural attenuation of hazardous constituents.

2. Continue the groundwater monitoring programs at SWMUs 25 and ORF2 to monitor natural attenuation of hazardous constituents.

3. Continue to monitor and measure mineral oil thickness at SWMU 38 and conduct passive recovery as needed.

4. Since the metal sorting area serves as an engineering control currently mitigating exposure to contaminants in soil at SWMU 10, complete the proposed surface soil removal when the area is no longer used or install an alternative engineering control that achieves the same purpose in the event the sorting area is removed.

5. Impose and maintain compliance with land use restrictions including institutional and engineering controls. These will be imposed by the Facility's Permit. Institutional controls include:

    a. The property shall not be used for residential purposes or for children's (under the

age of 16) daycare facilities, schools, or playground purposes and senior care facilities.

b. Groundwater beneath the property shall not be used for any purposes except for environmental monitoring and testing, or for non-contact industrial use as may be approved by the agency. Any new groundwater wells installed on the Property must be approved by the agency.

c. Maintain and prohibit disturbance of the engineered cover over SWMU 12a.

d. Excavation and disturbance within areas known to have contaminants left in place on the property shall be conducted in accordance with the Facility's excavation permitting process.

e. Maintain the existing security fencing along the perimeter of the property.

f. Future modifications at the property that could be reasonably understood to adversely affect or interfere with the integrity or protectiveness of the final remedy will be evaluated to identify and address those potential impacts or interferences.

B. Implementation

DEQ proposes to implement the remedy through the Facility's Hazardous Waste Permit. Therefore, DEQ does not anticipate any regulatory constraints in implementing its remedy. In addition, groundwater monitoring including the excavation permitting process is already in place and the Facility will continue remedy implementation in accordance with the forthcoming CMI Plan.

C. Reporting Requirements

Compliance with and effectiveness of the proposed remedy at the Facility shall be evaluated and included in groundwater monitoring and corrective measures implementation reports. These reports will be submitted to DEQ in accordance with the schedule included in the CMI Plan.

VI. ENVIRONMENTAL INDICATORS

Under the Government Performance and Results Act, EPA set national objectives to measure progress toward meeting the nation's major environmental goals. For Corrective Action, EPA evaluates two key environmental indicators for each facility: 1) current human exposures under control and 2) migration of contaminated groundwater under control. The Facility met these indicators on September 30, 2005 and April 16, 2012, respectively.

VII. FINANCIAL ASSURANCE

The Facility is already providing financial assurance for post-closure care of SWMU 12a and the other facets of the proposed remedy for Corrective Action. Updated cost estimates for DEQ's final decision are periodically required and will be the basis for financial responsibility of the implementation and operation and maintenance of the final remedy.

VIII. PUBLIC PARTICIPATION

Before DEQ makes a final decision on its proposed remedy for the Facility, the public

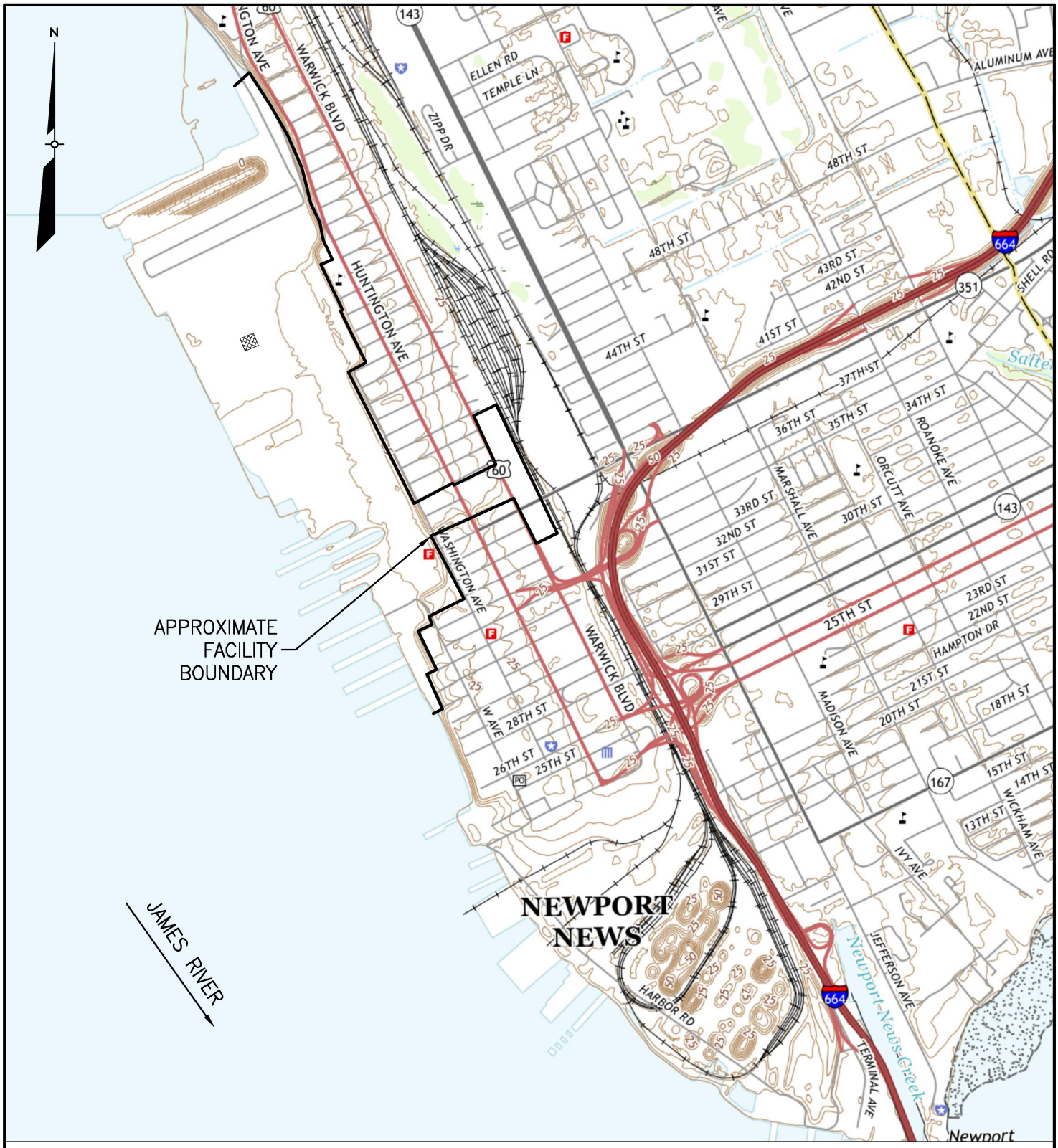
may participate in the decision process by reviewing this SB and documents contained in the Administrative Record for the Facility. The Administrative Record contains all information considered by DEQ in reaching this proposed decision. Interested parties are encouraged to review the Administrative Record and comment on DEQ's proposed decision. For additional information regarding the proposed remedy, please contact Mr. Brett Fisher at (804) 698-4219 or brett.fisher@deq.virginia.gov.

The public comment period will last forty five (45) calendar days from the date the notice is published in a local newspaper. Comments may be submitted by mail, fax, e-mail, or phone to Mr. Brett Fisher at the address listed below.

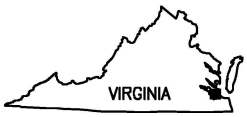
Virginia Department of Environmental Quality
1111 East Main St., Suite 1400
P.O. Box 1105
Richmond, VA 23219
Contact: Brett Fisher
Phone: (804) 698-4219
Fax: (804) 698-4234
Email: brett.fisher@deq.virginia.gov

DEQ will make a final decision after considering all comments, consistent with the applicable RCRA requirements and regulations. If the decision is substantially unchanged from the one in this Statement of Basis, DEQ will issue a final decision and inform all persons who submitted written comments or requested notice of DEQ's final determination. If the final decision is significantly different from the one proposed, DEQ will issue a public notice explaining the new decision and will reopen the comment period.

FIGURES



SOURCE:
USGS 7.5 MINUTE TOPOGRAPHIC MAP
NEWPORT NEWS SOUTH, VA
QUADRANGLE, 2016



QUADRANGLE LOCATION

0 1000' 2000'

APPROX. SCALE: 1" = 2000'

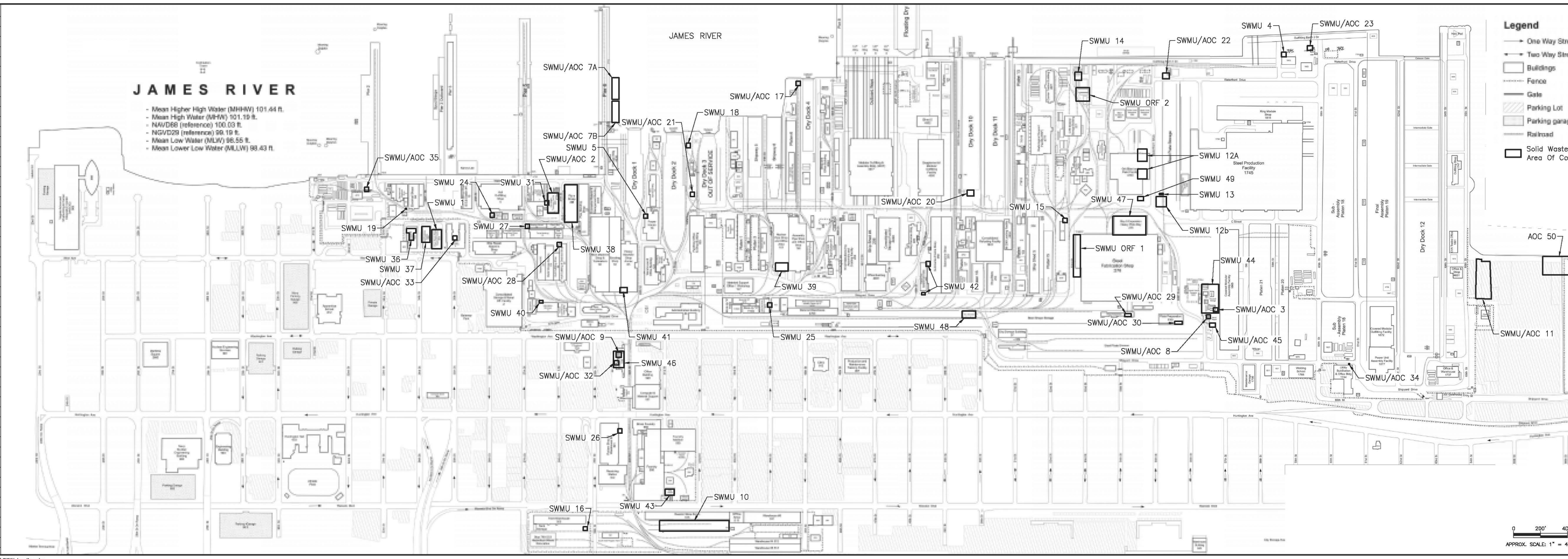
SITE LOCATION MAP
HUNTINGTON INGALLS INCORPORATED
NEWPORT NEWS SHIPBUILDING

NEWPORT NEWS, VIRGINIA

DATE Aug 2018	AECOM	FIGURE
PROJECT NO. 60319930		1

FILE NAME: Fac Wide Site Location_2018.Dwg

SWMU/ AOC #	NAME	LOCATION
1	CHEMICAL WASTE TREATMENT PLANT	BLDG. 4619
2	OILY WASTE TREATMENT PLANT	BLDG. 4680
3	CONSUMAT INCINERATOR	STOP 550
4	NEUTRALIZATION TANK	BLDG. 1812
5	BOILER HOUSE NEUTRALIZATION TANK – AST 103	BLDG. 1812
7A	BARGE 25 OIL BARGE	VARIOUS ALONG JAMES RIVER
7B	NANCY BEAN OIL BARGE	VARIOUS ALONG JAMES RIVER
8	PLASTIC SHREDDER	STOP 550
9	FREON RECOVERY STILL	BLDG. 518
10	SCRAP YARD	WARWICK BLVD.
11	WOOD PILE	VARIOUS LOCATIONS IN NORTH YARD
12A	SURFACE IMPOUNDMENT 1975–85	BLDG. 4730
12B	SURFACE IMPOUNDMENT 1966–75	BLDG. 4730
13	OPEN-TOP WOOD INCINERATOR	SCRAP YARD
14	TRASH INCINERATOR	OUTFITTING BERTH 1
15	TRASH STEAM INCINERATOR	BLDG. 218
16	SOLVENT STILL	BLDG. 505 STORAGE
17	WASTE ACCUMULATION TANK UST 508	DRY DOCK 4
18	WASTE ACCUMULATION TANK UST 509	DRY DOCK 2
19	TANK 510 – MOTOR STOP	BLDG. 8
20	WASTE ACCUMULATION TANK UST 511	DRY DOCK 10
21	WASTE ACCUMULATION TANK UST 512	DRY DOCK 3
22	WASTE ACCUMULATION TANK UST 513	OUTFITTING BERTH 1
23	WASTE ACCUMULATION TANK UST 514	OUTFITTING BERTH 2
24	TANK 515, PAINT SPRAY BOOTH	BLDG. 147
25	WASTE ACCUMULATION TANK UST 517	BLDG. 102
26	WASTE ACCUMULATION TANK UST 705	BLDG. 501
27	WASTE ACCUMULATION TANK UST 707	BLDG. 59
28	WASTE ACCUMULATION TANK WATER CURTAIN	BLDG. 23
29	WASTE ACCUMULATION TANK WATER CURTAIN	BLDG. 275
30	WASTE ACCUMULATION TANK WATER CURTAIN	BLDG. 274
31	WASTE ACCUMULATION TANK Pb LAUNDRY	BLDG. 28
32	WASTE ACCUMULATION TANK AST (KOH)	BLDG. 518
33	WASTE ACCUMULATION TANK UST 713 – PHOTOGRAPHIC LAB	BLDG. 8
34	WASTE ACCUMULATION TANK UST 603	BLDG. 1744
35	WASTE BOILER CONDENSATE REACTION TANK	BLDG. 4602
35	WASTE BOILER CONDENSATE REACTION TANK	BLDG. 4602
36	ELECTROPLATING PLANT TRENCHES	BLDG. 4620
37	WASTE ACCUMULATION TANK WATER CURTAIN – BONDERIZING SHOP	BLDG. 4681
38	PIPE SHOP TRENCHES	BLDG. 29
39	PIPE SHOP TRENCHES	BLDG. 161
40	CHEM LAB WASTE COLLECTION AREA + AST	BLDG. 11
41	MACHINE SHOP TCE DEGREASING TANKS	BLDG. 65
42	SHIELDING/PANEL SHOP (BAGHOUSES)	BLDG. 4582
43	STEEL AND BRASS FOUNDRY (BAGHOUSES)	BLDG. 550
44	STOP 550 WASTE CONSOLIDATION YARD	STOP 550
45	GRINDER	STOP 550
46	OXYGEN PLANT, CYLINDER CLEANING W/ TCE	BLDG. 518
47	BUILDING 276 BAYS 3 AND 5	BLDG. 276
48	PROPOSED SUBSTATION 3 BTEX PAH	SUBSTATION 3
49	GRIT SEPARATOR EXCAVATION	BLDG. 4720
50	NORTH 20	NORTH 20 AREA N OF DRY DOCK 12
ORF 1	OIL RECLAMATION FACILITY 1	S. BLDG. 276
ORF 2	OIL RECLAMATION FACILITY 2	S. BLDG. 1761



FACILITY WIDE CURRENT AND FORMER SWMU/AOC LOCATIONS
HUNTINGTON INGALLS INCORPORATED
NEWPORT NEWS SHIPBUILDING

NEWPORT NEWS, VIRGINIA

DATE AUG–18	AECOM	FIGURE
PROJECT NO. 60319930		2

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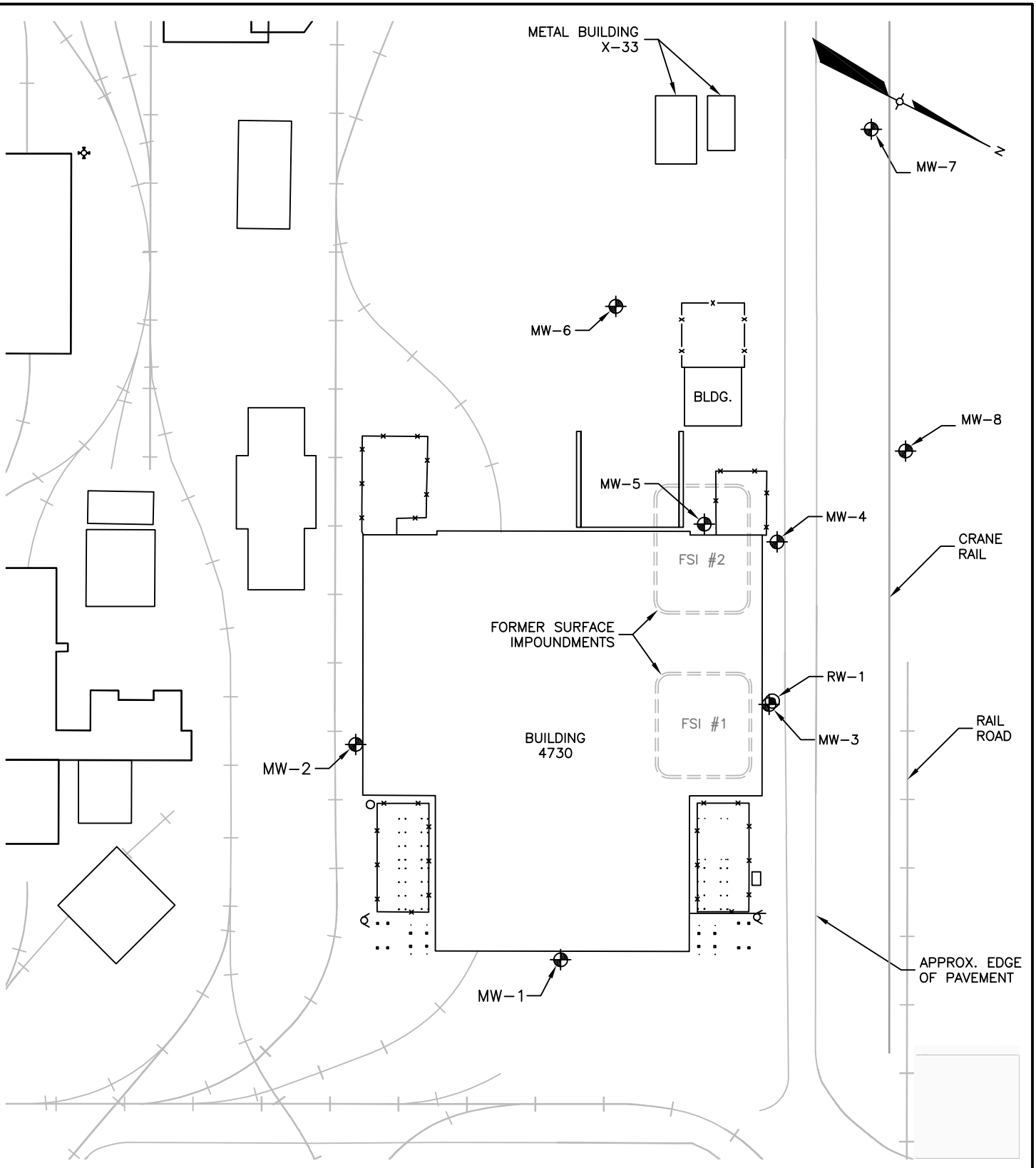


LEGEND:

MONITORING WELLS

MW-1 WELL ID

0 50' 100'

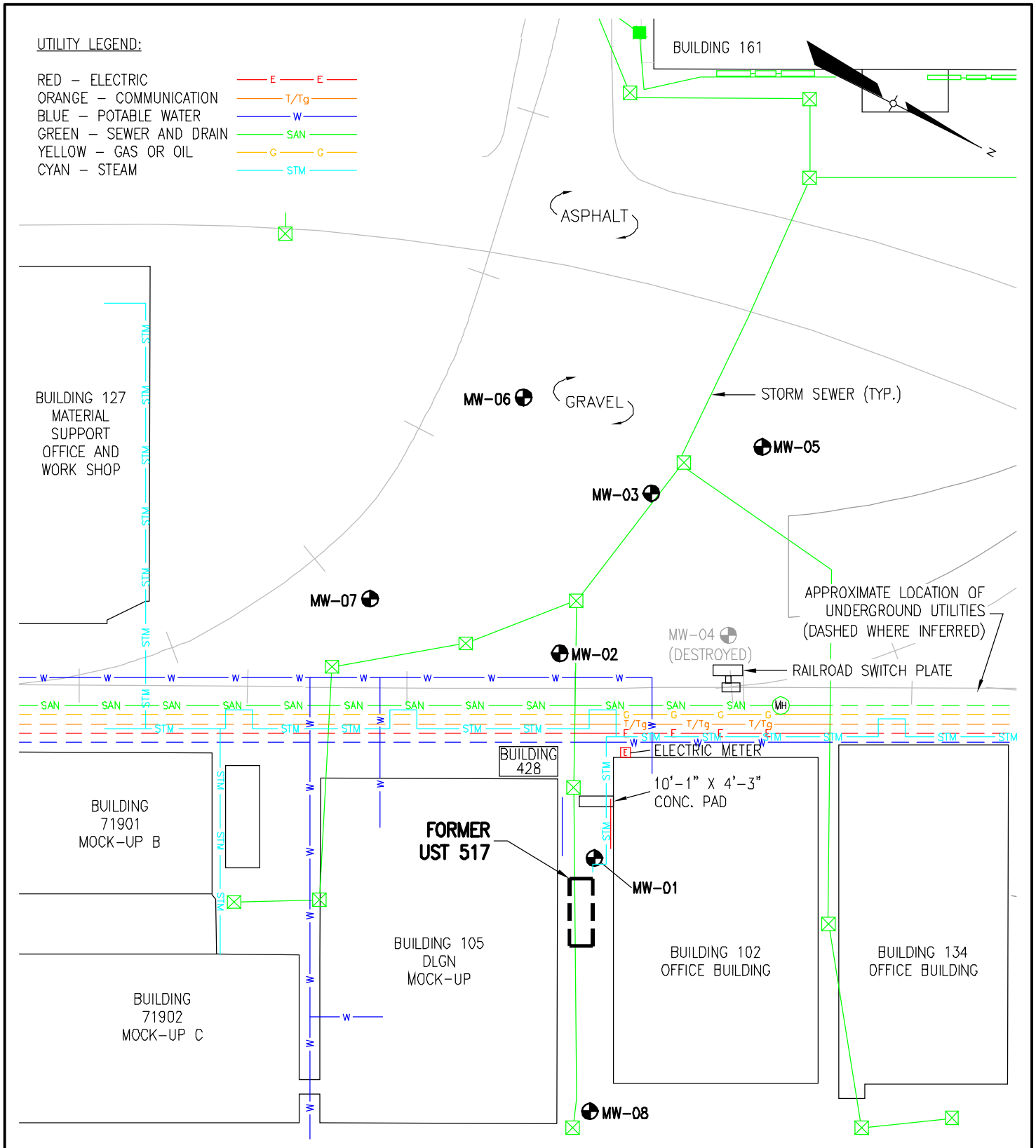
APPROX. SCALE: 1" = 100'

SITE MAP
SWMU 12A – BUILDING 4730
NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY

NEWPORT NEWS, VIRGINIA

DATE NOV-09		FIGURE
PROJECT NO. 112272	AECOM	3

FILE NAME: SWMU 12A SITE.Dwg

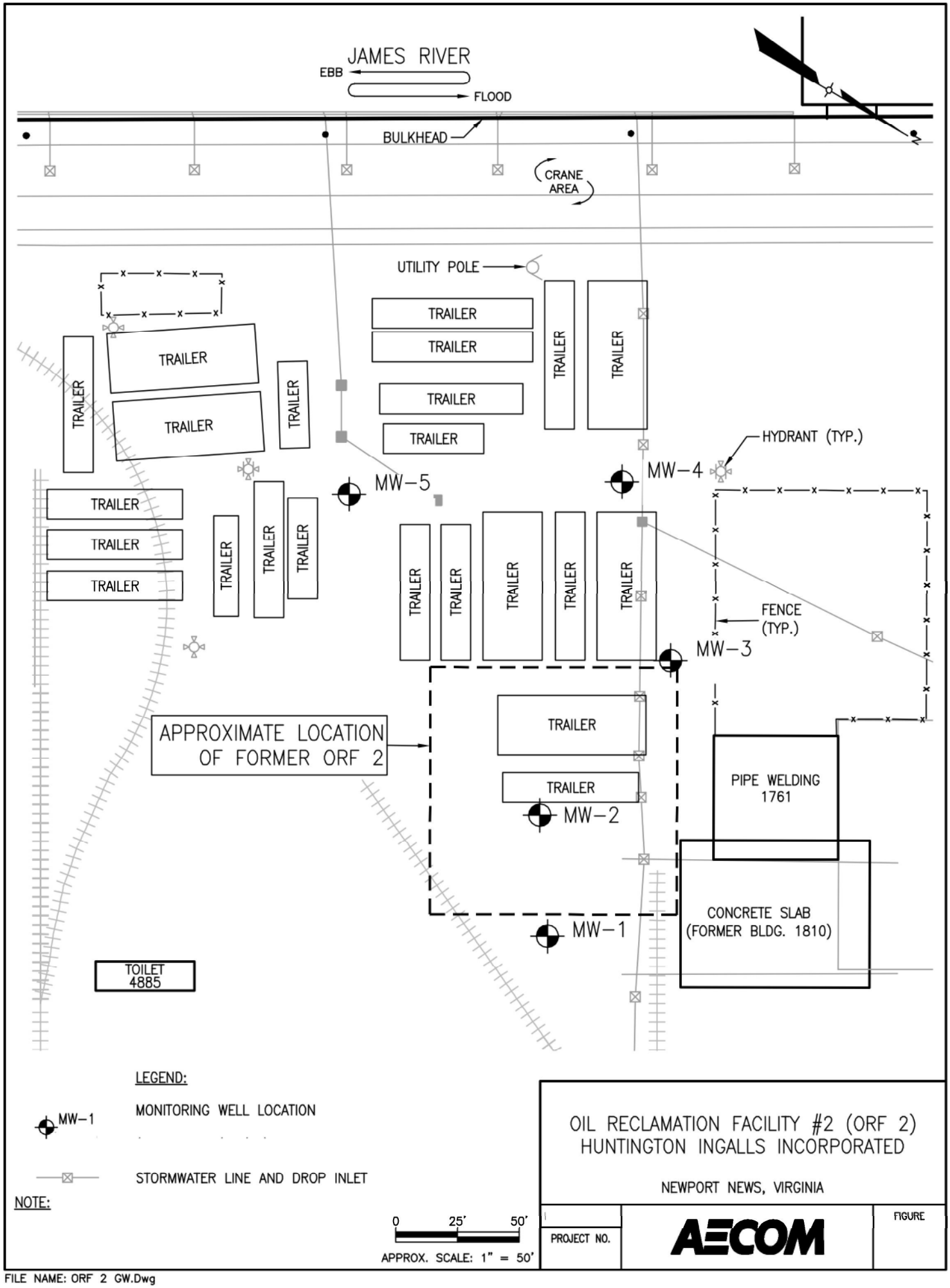


MONITORING WELL LOCATIONS
SWMU 25 – TANK 517 – BUILDING 102
HUNTINGTON INGALLS INCORPORATED
NEWPORT NEWS SHIPBUILDING

NEWPORT NEWS, VIRGINIA

DATE AUG–12	AECOM	FIGURE
PROJECT NO. 60246880.25		4

FILE NAME: SWMU 25.Dwg



OIL RECLAMATION FACILITY #2 (ORF 2)
HUNTINGTON INGALLS INCORPORATED

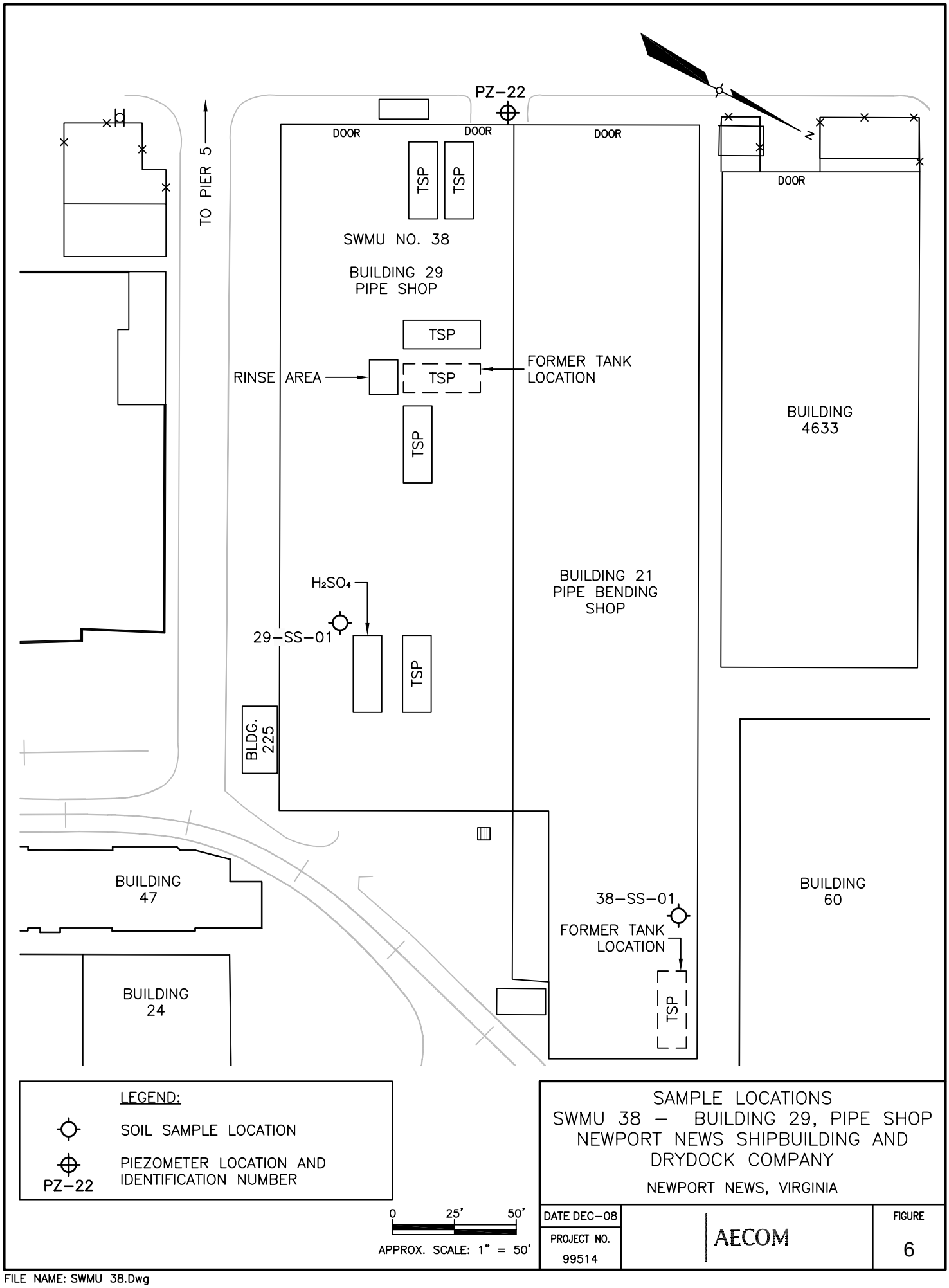
NEWPORT NEWS, VIRGINIA

PROJECT NO.

AECOM

FIGURE

FILE NAME: ORF 2 GW.Dwg

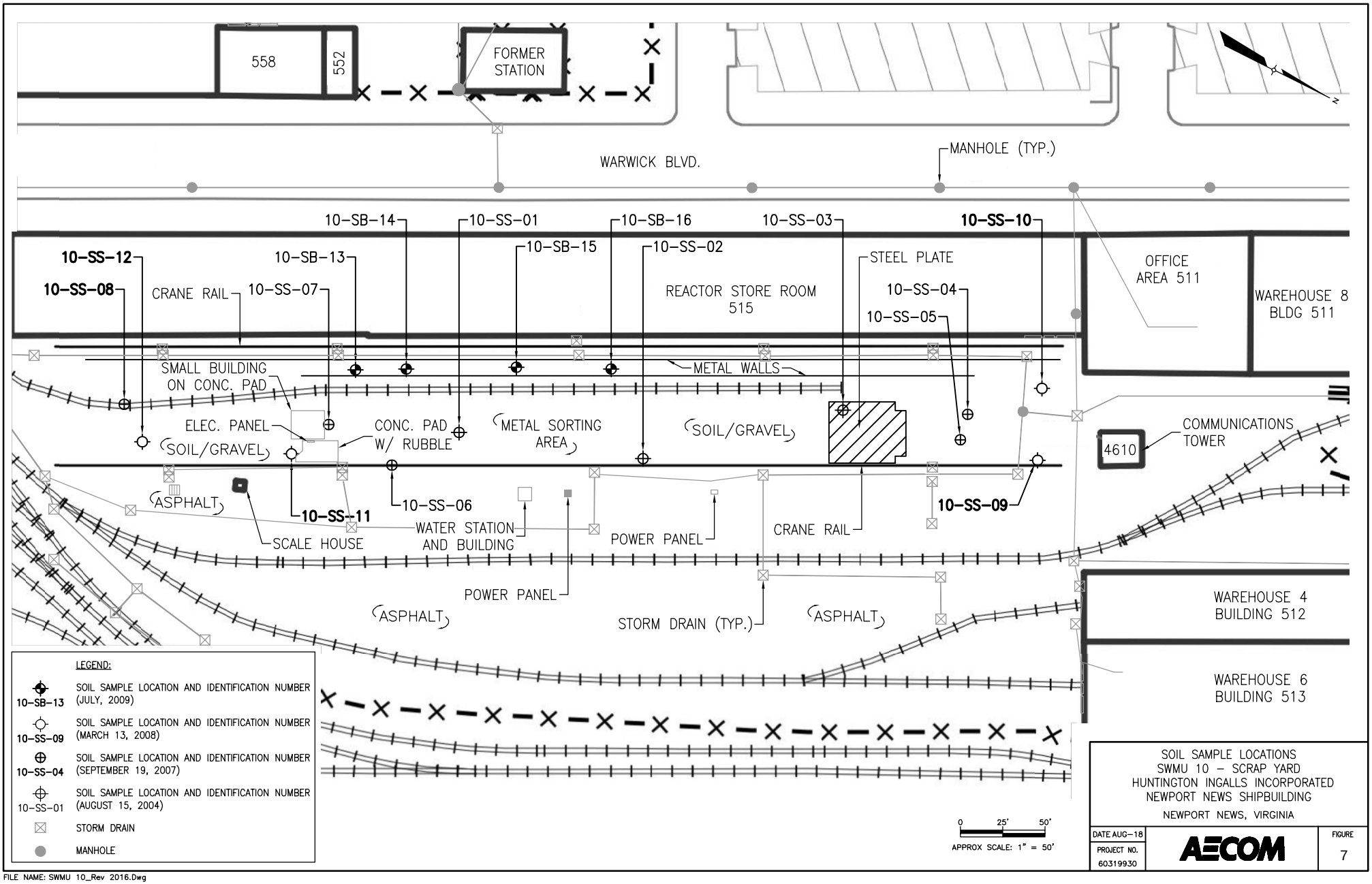


SAMPLE LOCATIONS
SWMU 38 – BUILDING 29, PIPE SHOP
NEWPORT NEWS SHIPBUILDING AND
DRYDOCK COMPANY

NEWPORT NEWS, VIRGINIA

DATE DEC–08	AECOM	FIGURE
PROJECT NO. 99514		6

FILE NAME: SWMU 38.Dwg



SOIL SAMPLE LOCATIONS
SWMU 10 – SCRAP YARD
HUNTINGTON INGALLS INCORPORATED
NEWPORT NEWS SHIPBUILDING
NEWPORT NEWS, VIRGINIA

DATE AUG–18	AECOM	FIGURE
PROJECT NO. 60319930		7

FILE NAME: SWMU 10_Rev 2016.Dwg

TABLES

Table 1
Master List of Solid Waste Management Units and Areas of Concern - Current and Former
EPA ID No. VAD001307495
Huntington Ingalls, Inc., Newport News Shipbuilding
Newport News, Virginia

Updated : 8/30/2018

SWMU/ AOC #	Name	Location	RCRA Status / Proposed Remedy	NFA Date	Notes	Documents in Administrative Record
1	Chemical Waste Treatment Plant	Bldg 4619	NFA	6/9/2010	Metal finishing-generated wastewater pretreatment facility. In email dated 6/9/10, EPA granted NFA based on groundwater monitoring results reported in 2008 Facility Wide Groundwater Monitoring Report submitted 11/12/09 (Report Dated 10/23/2009).	2008 Facility-wide groundwater report 2010 NFA email from EPA
2	Oily Waste Treatment Facility	Bldg 4680	NFA	2007	Oily wastewater pretreatment facility. No current or historical evidence of release. Sludge generated at facility is non-hazardous by analysis. No RFI required. Site noted as NFA in "EPA Comments" column of 7/2007 SWMU Status Table.	2002 NFA request from NNS 2007 SWMU Status Table
3	Consumat Incinerator	Stop 550	NFA	6/25/2004	Facility burned classified correspondence/files and yellow plastic. SWMU received only non-hazardous waste and is no longer in operation. Ash waste generated was contained on concrete and transported to non-hazardous landfill. No evidence of release during 2001 site visit. NNS requested NFA in letter to EPA dated 5/25/04. In letter dated 6/25/04, EPA granted NFA, stated Human Health EI had been met.	2004 NFA request from NNS 2004 NFA letter from EPA
4	Neutralization Tank - AST 104	Bldg 1812	NFA	3/3/2008	30K-gal wastewater tank that used dilute sulfuric acid or sodium hydroxide solutions for pH neutralization. In email dated 3/3/08, EPA granted NFA based on soil results reported in RA submitted in January 2008 (Report Dated 10/5/07).	2007 RA requesting NFA 2008 NFA email from EPA
5	Boiler House Neutralization Tank - AST 103	Bldg 78	NFA	11/28/2006	13.5K-gal wastewater tank that used caustic soda, sodium carbonate, sulfuric acid, and soda ash for pH neutralization. In letter dated 11/28/06, EPA granted NFA based on soil results reported in RA submitted by OBG in 4/2006.	2006 Draft OBG report requesting NFA 2006 NFA letter from EPA
7a	Barge 25 Oil Barge	Various along James River	NFA	2007	Barge formerly used to receive oily wastewater from ships. No current or historical evidence of release. Barge has been scrapped and out of service since 1989. No RFI required. Site noted as NFA in "EPA Comments" column of 7/2007 SWMU Status Table.	2002 NFA request from NNS 2007 SWMU Status Table
7b	Nancy Bean Oil Barge	Various along James River	NFA	2003	Barge formerly used to treat oily water from ships, barges, and tankers. No current or historical evidence of release. No longer used as an oil barge. No RFI required. Site noted as NFA in "EPA Comments" column of 7/2007 SWMU Status Table.	2007 SWMU Status Table
8	Plastic Shredder	Stop 550	NFA	2003	System used to shred yellow plastic materials. No current or historical evidence of release. Shredder taken out of service and scrapped. Shredder only accepted non-hazardous waste. No RFI required. Site noted as NFA in "EPA Comments" column of 7/2007 SWMU Status Table.	2002 NFA request from NNS 2007 SWMU Status Table
9	Freon Recovery Still	Bldg 518	NFA	2003	System used to purify Freon contaminated with oil and grease. No current or historical evidence indicating a release. Facility taken out of operation in 1990. No RFI required. Site noted as NFA in "EPA Comments" column of 7/2007 SWMU Status Table.	2002 NFA request from NNS 2007 SWMU Status Table
10	Scrap Yard	Warwick Blvd	IM/NFA-IC*	--	SWMU 10 is the metal sorting area located within the Scrap Yard on the east side of Building 515. Soil investigations conducted in 2007, 2008, and 2009 are summarized in the 2018 RA Report and indicate elevated concentrations of Aroclor 1260 at one location and elevated lead concentrations at several locations. Interim measures including soil removal and disposal were proposed in the 2018 RA Report.	2007 Proposed RCRA Sampling Activities 2007 EPA email approval for sampling 2018 RA Report
11	Wood Pile	Various locations in North Yard	NFA	6/25/2004	Scrap wood piles formerly located in North Yard. SWMU received only non-hazardous waste and is no longer in operation. No evidence of release during 2001 site visit. NNS requested NFA in a letter to EPA dated 5/25/04, and EPA granted NFA in a letter dated 6/25/04. EPA's letter stated Human Health EI had been met.	2004 NFA request from NNS 2004 NFA letter from EPA
12a	Surface Impoundments 1975-85	Bldg 4730	MNA - GW NFA-IC* - Soil	--	Former surface impoundments that received wastewater from shipyard operations. Groundwater monitoring occurs semi-annually and annual deliverable is submitted to VDEQ and EPA.	2007-2017 Annual GW Monitoring and CA Reports 2009-2017 Quarterly O&M Reports 2006 Remedial Measures Summary 2014 Remedy Evaluation Technical Memorandum 2014 Membrane Interface Probe Report 2015 Scope of Work for MNA
12b	Surface Impoundment 1966-75	Bldg 4730	NFA	12/12/2011	Former surface impoundment that was used to neutralize spent acidic and caustic cleaning solutions. RA submitted in May 2011 requested NFA. In response, EPA issued NFA in email dated 12/12/11.	2011 RA requesting NFA 2011 NFA email from EPA
13	Open-top Wood Incinerator	Scrap Yard	NFA	12/8/2011	Incinerator which burned wooden crates, boxes, pallets, etc. Per email from EPA on 12/8/11 - NFA granted based on file review indicating no hazardous material was burned, removal of incinerator, and analytical results of ash used as fill material, which indicated ash was non-hazardous.	2007 Letter report requesting NFA 2011 NFA email from EPA
14	Trash Incinerator	Outfitting Berth 1	NFA-IC	11/28/2006	Incinerator used to burn general refuse such as paper, cardboard, and plastics. IM implemented IC consisting of low-permeability asphalt cap on soil downwind of former facility and fencing around site perimeter. IM report requesting NFA submitted in April 2006. In letter dated 11/28/06, EPA concurred with recommendation and granted NFA.	2006 Draft IM report requesting NFA 2006 NFA-IC letter from EPA
15	Trash Steam Incinerator	Bldg 218	NFA	12/8/2011	Incinerator used to burn general refuse. Per email from EPA on 12/8/11 - NFA granted based on file review indicating no hazardous material was burned, removal of incinerator, and analytical results of ash used as fill material, which indicated ash was non-hazardous.	2007 Letter report requesting NFA 2011 NFA email from EPA
16	Solvent Still	Bldg 505 Storage	NFA-IC	12/18/2007	System separated re-usable solvents from spent solvents (paint solvents and thinners). An Addendum to RA was submitted in 2007 and requested NFA. Due to metal concentrations above residential screening levels, EPA granted NFA with IC (email dated 12/18/07).	2007 RA Addendum requesting NFA NFA-IC email from EPA
17	Waste Accumulation Tank - UST 508	Dry Dock 4	NFA	8/17/2007	10K-gal fiberglass tank used to store oily wastewater. Initial Abatement Measures and Site Check Report prepared in 1995 in response to a suspected petroleum release. VDEQ granted NFA subsequent to this report. UST passed a tightness test in 7/2005. EPA granted NFA in 2005 based on tightness test.	1995 Initial Abatement Measures and Site Check Report 1995 VDEQ NFA 2005 Passing Tank Test Results 2007 EPA NFA email

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EPA ID No. VAD001307495
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Newport News, Virginia

Updated : 8/30/2018

SWMU/ AOC #	Name	Location	RCRA Status / Proposed Remedy	NFA Date	Notes	Documents in Administrative Record
18	Waste Accumulation Tank - UST 509	Dry Dock 2	NFA	11/13/2008	Former 10K-gal fiberglass tank used to store oily wastewater. AECOM requested NFA based on removal of petroleum impacted soils and confirmation sample results in 1993. VDEQ granted NFA in 1994. 1/13/09 SWMU Status Table references 11/13/08 NFA email from EPA. Notes from 6/17/09 meeting with EPA indicated NFA.	1993 SCR submitted to VDEQ 2008 NFA request letter 2009 SWMU Status Table 2009 hand-written meeting notes
19	Tank 510 - Motor Shop	Bldg 8	NFA-IC	3/7/2011	500-gal tank used for parts degreasing. 1/10/2008 RA requested NFA for Pb and Ar in soil based on analytical results. RA requested TPH in soil be handled under VDEQ petroleum program. Per 3/7/11 email, EPA granted NFA with IC based on petroleum impacted soil remaining in-place.	2004 Tank Removal Recommendation 2008 RA report requesting NFA from RCRA 2011 NFA-IC email from EPA
20	Waste Accumulation Tank - UST 511	Dry Dock 10	NFA	9/20/2004	48K-gal fiberglass tank used to store oily wastewater. No current or historical evidence of release. Tank passed 2004 tightness test. Notes from phone conversation with EPA on 9/20/04 indicate EPA's concurrence with NFA based on test results.	2004 Tank tightness test passing results 2004 hand-written phone call log with EPA noting NFA
21	Waste Accumulation Tank - UST 512	Dry Dock 3	NFA	9/20/2004	20K-gal fiberglass UST used to store oily wastewater. No evidence of release. UST passed 2004 tightness test. Notes from phone conversation with EPA on 9/20/04 indicate EPA's concurrence with NFA based on test results.	2004 Tank tightness test passing results 2004 hand-written phone call log with EPA noting NFA
22	Waste Accumulation Tank - UST 513	Outfitting Berth 1	NFA	10/7/2005	20K-gal fiberglass UST used to store oily wastewater. No evidence of release. 9/20/04 EPA phone call log notes site as NFA. UST passed tightness test on 10/27/05.	2004 Tank tightness test passing results 2004 hand-written phone call log with EPA noting NFA 2005 Tank Tightness test passing results
23	Waste Accumulation Tank - UST 514	Outfitting Berth 2	NFA	9/20/2004	30K-gal fiberglass UST use to store oily wastewater. No evidence of release. UST passed 2004 tightness test. Notes from phone conversation with EPA on 9/20/04 indicate EPA's concurrence with NFA based on test results.	2004 Tank tightness test passing results 2004 hand-written phone call log with EPA noting NFA
24	Tank 515, Paint Spray Booth	Bldg 147	NFA	2005	12K-gal concrete tank which received paint solids and water. Trenches and vault (UST 515) decontaminated and decommissioned in 2005. Visual and volumetric testing indicated no release during IM phase. Passed EPA required tightness test, no RFI required. NFA noted in "EPA Comments" column of 7/2007 SWMU Status Table.	2002 NFA Request 2004 Tank Tightness Test Recommendation 2005 OBG IM Report 2007 SWMU Status Table
25	Waste Accumulation Tank - UST 517	Bldg 102	GW - MNA Soil - NFA-IC*	–	Former 550-gallon steel UST which received solvent wastewater. Tank and soil removed in 2004, ongoing semi-annual groundwater sampling.	2008 RA Report 2018 Groundwater Monitoring Report 2018 VDEQ concurrence for Groundwater 2018 Vapor Intrusion Report 2018 VDEQ concurrence/NFA for vapor
26	Waste Accumulation Tank - UST 705	Bldg 501	NFA	11/15/2006	Former 2K-gal steel UST which received NDT rinse water. Tank removed from service in 8/02. Report submitted 9/28/06, soil sampling results showed no evidence of release.	2004 Tank Removal Recommendation Letter 2006 OBG RA Report requesting NFA 2006 EPA NFA letter 2007 SWMU Status Table
27	Waste Accumulation Tank - UST 707	Bldg 59	NFA	9/15/2006	Former 545-gal fiberglass UST received rinse water. Passed tightness test, no RFI. "EPA Comments" column of 7/2007 SWMU Status Table notes as NFA with reference to 9/15/06 EPA letter.	2004 Tank Removal Recommendation Letter 2007 SWMU Status Table
28	Waste Accumulation Tank - Water Curtain	Bldg 23	NFA	11/20/2006	Former 3.3K-gal AST which received paint solids and wastewater. Soil sampling report submitted 8/28/2006. "EPA Comments" column of 7/2007 SWMU Status Table notes as NFA with reference to 11/20/06 EPA letter.	2007 SWMU Status Table
29	Waste Accumulation Tank - Water Curtain	Bldg 275	NFA	10/15/2004	3.3K-gal steel AST which receives non-hazardous paint solids and wastewater. IM completed, no release discovered. "EPA Comments" column of 7/2007 SWMU Status Table notes as NFA with reference to 10/15/04 EPA letter.	2007 SWMU Status Table
30	Waste Accumulation Tank - Water Curtain	Bldg 274	NFA	2003	1.3K-gal steel AST which receives non-hazardous paint solids and wastewater. No RFI required. Listed as NFA on 7/2007 SWMU Status Table.	2007 SWMU Status Table
31	Waste Accumulation Tank - Pb Laundry	Bldg 28	NFA	10/31/2007	6K-gal steel AST which received lead-contaminated water from laundering of clothing. In email dated 10/31/07, EPA granted NFA based on soil sampling results reported in RA submitted 9/30/07.	2007 RA requesting NFA 2007 NFA email from EPA
32	Waste Accumulation Tank - AST (KOH)	Bldg 518	NFA	2003	Former 2.6K-gal steel AST which stored potassium hydroxide. Tank removed, no RFI required. Listed as NFA on 7/2007 SWMU Status Table.	2007 SWMU Status Table
33	Waste Accumulation Tank -UST 713 - Photographic Laboratory	Bldg 6	NFA	2003	Former 2K-gal UST received photographic rinse water. Tank removed, no RFI required. Listed as NFA on 7/2007 SWMU Status Table.	2007 SWMU Status Table
34	Waste Accumulation Tank - UST 603	Bldg 1744	NFA	2005	Former 4K-gal fiberglass UST which received used oil. Tank and soil removed, EPA granted NFA based on soil results in UST removal report dated 8/13/1992. EPA confirmed NFA status in email dated 12/21/15.	2015 NFA email from EPA
35	Waste Boiler Condensate Reaction Tank	Bldg 4602	NFA	2003	Former 2K-gal AST which collected condensate from pipe cleaning operations. Tank removed, no RFI required. Listed as NFA on 7/2007 SWMU Status Table.	2007 SWMU Status Table
36	Electroplating Plant Trenches	Bldg 4620	NFA	6/9/2010	Trenches receive electroplating rinse water. In email dated 6/9/10, EPA granted NFA based on groundwater monitoring results reported in 2008 Facility Wide Groundwater Monitoring Report submitted 11/12/09 (Report Dated 10/23/2009).	2009 Facility-Wide Groundwater Report 2010 NFA email from EPA
37	Waste Accumulation Tank - Water Curtain - Bonderizing Shop	Bldg 4681	NFA	6/26/2007	10K-gal fiberglass UST that receives wastewater from metal cleaning activities. In email dated 6/26/07, EPA granted NFA based on groundwater monitoring results which indicated no release had occurred.	2007 NFA email from EPA
38	Pipe Shop Trenches	Bldg 29	MNA	–	Site investigated for release from pipe shop trenches. Groundwater and soil results did not indicate a release adjacent to trenches. Interim measures and monitoring proposed to address LNAPL (mineral oil) in well PZ-22 on west side of B-29.	2010 RA Report
39	Pipe Shop Trenches	Bldg 161	NFA	12/8/2011	6 ASTs at pipe shop, 2 contain TSP, 4 contain H_2SO_4 and NaOH solutions. In email dated 12/8/11, EPA granted NFA based on no record of release at site and observation of work practices employed to prevent/contain release.	2011 NFA request letter 2011 NFA email from EPA

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Newport News, Virginia

Updated : 8/30/2018

SWMU/ AOC #	Name	Location	RCRA Status / Proposed Remedy	NFA Date	Notes	Documents in Administrative Record
40	Chem. Lab. Waste Collection Area + AST	Bldg 11	NFA-IC	8/31/2010	Materials testing lab, TPH detected in soil in Freon storage area. In email dated 8/31/10, EPA granted NFA with IC based on impacted soil remaining in-place.	2008 RA requesting NFA 2010 RA Addendum No. 2 requesting NFA 2010 NFA-IC email from EPA
41	Machine Shop TCE Degreasing Tanks	Bldg 65	NFA-IC	6/1/2009	Four former 100-gal degreasing tanks which contained TCE. TCE in soil below residential RBCs, but above SSL. No TCE detected in groundwater. In email dated 6/1/09, EPA granted NFA with IC based on TCE impacted soils remaining in-place.	2007 RA requesting NFA 2009 RA Addendum requesting NFA 2009 NFA-IC email from EPA
42	Shielding/Panel Shop (Baghouses)	Bldg 4582	NFA-IC	12/8/2011	Former baghouses which filtered process air from lead ingot melting operations. Pb concentrations above industrial RBC detected in soil. Interim Measures completed November 2008 to remove shallow soils. No Pb impacts in groundwater. In email dated 12/8/11, EPA granted NFA with IC based on subsurface lead-impacted soils remaining in-place.	2011 RFI requesting NFA 2011 NFA-IC email from EPA
43	Steel and Brass Foundry (Baghouses)	Bldg 550	NFA	11/28/2006	Baghouses that collected dust from steel burning operations. Impacted soils removed and asphalt cap installed. In letter dated 11/28/06, EPA granted NFA based on lead concentrations below residential screening levels.	2006 IM Report requesting NFA 2006 NFA letter from EPA
44	Stop 550 - Waste Consolidation Yard	Stop 550	NFA-IC	11/20/2012	Waste consolidation yard for storage of grease, oily rags, used oil, coolant, paint, solvents, cardboard, pallets, fluorescent tubes, and empty drums. Release Assessment submitted in October 2012 requested NFA based on soil and groundwater results, which indicated no evidence of release. In email dated 11/20/12, EPA granted NFA with ICs based on Benzo(a)pyrene, arsenic, and chromium impacts in shallow soils.	2012 RA Addendum requesting NFA 2012 NFA-IC email from EPA
45	Grinder	Stop 550	NFA	2003	Grinder removed, no RFI required. Listed as NFA on 7/2007 SWMU Status Table.	2007 SWMU Status Table
46	Oxygen Plant, Cylinder Cleaning w/TCE	Bldg 518	NFA	7/17/2013	TCE impacted soil from TCE-containing nitrogen gas venting during O2 cylinder cleaning. 2013 soil results indicated TCE below residential RBC. In email dated 7/17/13, EPA granted NFA based on soil analytical results.	2008 RA Addendum requesting NFA 2013 Soil Sample Results and NFA Request 2013 NFA email from EPA
47	Building 276, Bays 3 and 5	Bldg 276	NFA-IC*	–	Elevated TPH-DRO concentrations detected in soil during construction activities.	2009 RA Report
48	Proposed Substation 3 - BTEX PAH	Substation 3	NFA-IC*	–	Petroleum and metals impacts detected in soil during construction of Substation 3. Groundwater results indicate impacts are not migrating from soil significantly. SWMU open to delineate Pb and Hg impacts in soil pending future access in restricted areas.	2012 RA Report 2013 Soil Analytical Summary Table
49	Grit Separator Excavation	Bldg 4720	NFA-IC*	–	Elevated TPH-DRO concentrations detected in soil during excavation activities.	–
50	North 20	North 20 area N of Dry Dock 12	NFA	3/8/2018	Elevated naphthalene concentrations detected in groundwater during Phase II ESA, Annual groundwater sampling until Jan 2016, site construction/dewatering in June-Aug 2016 indicated removal of naphthalene, VDEQ granted NFA via email dated 3/8/2018.	2008 Schnabel Phase II ESA 2016 GW Monitoring Report 2018 Dewatering Summary (NFA Request) 2018 NFA Concurrence
ORF1	Oil Reclamation Facility 1	S. Bldg 276	NFA-IC	12/12/2011	Former oily wastewater processing facility. Release Assessment did not indicate groundwater impacts. Appears most petroleum impacts in soil removed during construction of Bldg 276 Bay 3. In email dated 12/12/11, EPA granted NFA with IC for soil under building based on limited confirmatory soil sampling data.	2009 RA Report requesting NFA 2011 NFA-IC email from EPA
ORF2	Oil Reclamation Facility 2	S. Bldg 1761	GW - MNA Soil - NFA-IC*	–	Former oily wastewater processing facility. During closure, petroleum impacted soils encountered. Annual groundwater sampling ongoing.	2013 RA Report 2018 GW Monitoring Report 2018 DEQ Concurrence
Waste Collection Boxes	Waste Collection Boxes - Oily Waste/Dinosaur/Waste Collection	Various Locations - managed by Stop 550	NFA	1/22/2016	Double-walled 910-gallon box tanks used to collect oily and non-oily wastewater prior to processing at NNS wastewater pre-treatment plants. No visual evidence of releases, no RFI required, NFA.	2016 NFA request letter 2016 EPA NFA email
SMOF	SMOF - Submarine Modular Outfitting Facility	S. Dry Dock 10	NFA	12/21/2015	Potential Lead and PCB impacts detected in soil and removed during SMOF construction. No release detected by groundwater monitoring well results reported 10/13/2010. EPA confirmed NFA status in 12/21/15 email.	2010 Groundwater results letter report 2011 ash/soil stockpile results letter 2015 NFA email from EPA

Definitions:
EI - Environmental Indicator
EPA - United States Environmental Protection Agency
ESA - Environmental Site Assessment
GW - Groundwater
IM - Interim Measure
MNA - Monitored Natural Attenuation
NFA - IC - No Further Action with Institutional Controls
NFA - No Further Action
NNS - Newport News Shipbuilding
O&M - Operations and Maintenance
PCB - polychlorinated biphenyl
RCRA - Resource Conservation and Recovery Act
RFI - RCRA Facility Investigation
SWMU/AOC - Solid Waste Management Unit/Area of Concern
VDEQ - Virginia Department of Environmental Quality
* - Pending agency concurrence