LAND USE CONTROL REMEDIAL DESIGN
Decision Unit 5-1 at Tank Farm 5 (Site 13)
Operable Unit 2
Naval Station Newport
Middletown, Rhode Island

FINAL

Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Mid-Atlantic
9742 Maryland Ave.
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Comprehensive Long-Term Environmental Action Navy
Contract Number N62470-11-D-8013

CTO WE39

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July 23, 2014

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LIST OF ACRONYMS AND ABBREVIATIONS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COCs	Chemicals of Concern
DGA	Data Gap Assessment
DoD	United States Department of Defense
DU 5-1	Decision Unit 5-1
EPA	United States Environmental Protection Agency
ER	Environmental Restoration
ERA	Ecological Risk Assessment
FFA	Federal Facilities Agreement
IR	Installation Restoration
LUC	Land Use Control
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MIDLANT	Mid-Atlantic (NAVFAC Mid-Atlantic Division)
MNA	Monitored Natural Attenuation
NAVFAC	Naval Facilities Engineering Command
NAVSTA	Naval Station
Navy	Department of the Navy's
NCP	National Contingency Plan
NETC	Naval Education and Training Center
NPL	National Priorities List
O&M	Operation and Maintenance
OWS	Oil-Water Separator
PAH	Polycyclic Aromatic Hydrocarbon
POL	Petroleum, Oil, and Lubricants
RD	Remedial Design
RIDEM	Rhode Island Department of Environmental Management
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
UST	Underground Storage Tank

1.0 INTRODUCTION

This document constitutes the Land Use Control (LUC) Remedial Design (RD) for Decision Unit (DU) 5-1 at Tank Farm 5, Site 13, Operable Unit 2, at the Naval Station (NAVSTA) Newport, Middletown, Rhode Island. This LUC RD was prepared by Resolution Consultants on behalf of the Department of the Navy's Naval Facilities Engineering Command Mid-Atlantic (NAVFAC MIDLANT). The Navy is the lead agency conducting the environmental investigations and cleanup of NAVSTA Newport. The LUC RD was developed as part of the remedial design for DU 5-1 at Tank Farm 5 to address LUC implementation actions in accordance with the Record of Decision (ROD) for DU 5-1 at Tank Farm 5 (NAVFAC, 2013) and the NAVSTA Newport Federal Facility Agreement (FFA) (EPA, 2002). This document is considered a primary document in accordance with the FFA and has been prepared in accordance with the Navy *Principles and Procedures for Specifying, Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions* as agreed between United States Environmental Protection Agency and the Department of Defense (DoD) (DoD, 2004).

2.0 BACKGROUND AND SITE DESCRIPTION

NAVSTA Newport is located approximately 25 miles south of Providence, Rhode Island, on Aquidneck Island within Narragansett Bay. The facility occupies approximately 1,000 acres, with portions of the facility located in the City of Newport and the Towns of Middletown, Portsmouth, and Jamestown, Rhode Island. The western boundary of NAVSTA Newport follows the western shoreline of Aquidneck Island for nearly six miles, facing the Eastern Passage of Narragansett Bay. The major commands currently located at NAVSTA Newport include the Surface Warfare Officers School Command, Naval Undersea Warfare Center, and Naval War College. Research, development, and training are the primary activities at NAVSTA Newport. NAVSTA Newport was formerly known as the Naval Education and Training Center (NETC), established in the 1940s during World War II. NAVSTA Newport is an active military training facility and is expected to remain active for the foreseeable future.

In 1989, EPA placed NETC/NAVSTA Newport on the National Priorities List (NPL). NAVSTA Newport is an active facility, with environmental investigations and remedial efforts funded under the Navy's Environmental Restoration (ER) Program. The Navy is conducting its Installation Restoration Program, a subset of the ER Program, at NAVSTA Newport in accordance with an FFA between the Navy, EPA, and Rhode Island Department of Environmental Management (RIDEM).

Tank Farm 5 (Site 13) is in the northern portion of the NAVSTA Newport facility, located in Middletown, Rhode Island, as shown on Figure 1. Tank Farm 5 occupies approximately 85 acres and is the former location of eleven 2.5-million-gallon-capacity underground storage tanks (USTs) historically used to store No. 6 fuel oil. Two of the USTs were also periodically used to store heating oil and waste oil. The USTs were cleaned and demolished in place in the late 1990s. Tank Farm 5 is partially fenced and signs are posted at entrances restricting access to authorized personnel. There are no functional buildings at Tank Farm 5.

A corrugated sheet metal shed measuring approximately 10' x10' is located in the northern portion of the Site. This shed was investigated as a separate DU (DU 5-3) as part of the Data Gaps Investigation for Category 2 and 3 sites at Tank Farms 4 and 5 in 2010. Three soil borings were installed at DU 5-3 and completed as monitoring wells. Soil and groundwater results from that investigation indicated the presence of similar constituents (PAHs and metals) at levels within the range or below the levels detected in soil samples collected from DU 5-1. Some results exceeded EPA RSLs but, with the exception of three metals, all were below the RIDEM Residential Direct Exposure Criteria (RDEC) and GA Groundwater Objectives. The metals were all below background

levels established in the Basewide Background Study (2008). This area has been investigated in accordance with RIDEM's Remediation Regulations and concentrations measured in samples collected indicate no impacts or releases. The shed is not described further in this document. The investigation of DU 5-3 is described in the Data Gaps Investigation Report for Category 2 and 3 Areas Tank Farms 4 and 5 NAVSTA Newport, Rhode Island (Tetra Tech, 2011).

DU 5-1 occupies approximately 6 acres at the northwestern corner of Tank Farm 5 and is bounded to the north by Greene Lane, to the east by rest of Tank Farm 5, to the south by the Navy Fire Fighting School (previously part of Tank Farm 5), to the west by Defense Highway and Narragansett Bay, as shown on Figure 2. Gomes Brook transects DU 5-1 from east to west. Gomes Brook flows westerly, to Narragansett Bay, and provides surface drainage for the northern portion of the facility.

When operative, DU 5-1 was part of the Tank Farm 5 drainage system; it contained a former oil water separator (OWS) and associated discharge pipes and discharge areas. Accordingly, the site is considered to be industrial, although it is not currently used for any purpose, and will remain as such for the foreseeable future. Groundwater underlying NAVSTA Newport is not used for drinking water and DU 5-1 does not lie within the watershed of any area water supply reservoirs (NAVSTA, 2013).

DU 5-1 is defined in the ROD as the portion of Tank Farm 5 where contaminant releases have been detected that are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Petroleum contamination in the remaining portions of Tank Farm 5 was addressed through separate investigations, removal actions, and Corrective Action Plans under the RIDEM UST Regulations.

DU 5-1 includes a former OWS and associated discharge pipe and discharge area, as depicted on Figure 2. The OWS was originally constructed as a burning chamber for tank bottom sludge, but was subsequently converted to an OWS fed by the bottom sediment and water (BSW) piping from each of the former USTs. Excess fluids were drained from the burn chamber/OWS to the wetland formed by Gomes Brook to the north/northwest of the OWS.

Potential site impacts in soil, groundwater, surface water, and sediment were identified during past environmental assessments at DU 5-1 and were attributed to previous activities including uncontrolled burning of tank bottom sludge in the burning chamber/OWS structure and associated waste discharged into the environment via piping (NAVFAC, 2013).

Previous investigations have been conducted to evaluate environmental conditions at DU 5-1. Previous remedial efforts have occurred at DU 5-1 as a part of an investigatory removal action in 2004 and 2005, described in the Final Closeout Report for Sludge Disposal Trenches and Review Areas at Tank Farms 4 and 5 (TtEC, 2007). The site investigation and removal action were conducted to confirm whether sludge burning pits were present at Tank Farm 5. No evidence of sludge pits was found. The former OWS and associated discharge lines were removed and soil samples were collected from the surrounding excavation. The results indicated the presence of semivolatile organic compounds (SVOCs), metals and dioxins/furans at concentrations exceeding RIDEM criteria. Subsequent removal actions were conducted.

As described in the ROD, a CERCLA action is required at DU 5-1 because arsenic, cobalt, iron and manganese concentrations in groundwater pose potentially unacceptable risk to hypothetical future residents. Additionally, arsenic is present in soil at concentrations exceeding the state regulatory criteria and manganese is present in soil at concentrations posing a potential risk to construction workers. No unacceptable human health risk was identified from site sediment or surface water. Due to the fact that the screening ecological risk assessment (ERA) found limited potential ecological risks, the overall low concentrations of most ecological COCs, and the fact that most of those potential risks are due to PAHs at a single location at DU 5-1, it was concluded that, no further action is required to protect ecological receptors (NAVFAC, 2013).

The Selected Remedy as presented in the ROD for DU 5-1 at Tank Farm 5 (NAVFAC, 2013) includes the following components:

- A permeable soil cover will be installed to isolate surface soils with concentrations of COCs that exceed RGs.
- Groundwater will be monitored to verify that groundwater quality is not being adversely affected by COCs in site soils remaining at concentrations that exceed the RGs.
- MNA will document the expected reductions in metals in groundwater brought out of solution by natural geochemical processes.
- LUCs will ensure that future use of the property is limited to industrial activities (residential and unrestricted recreational site use will be prohibited), prevent disturbance of the soil cover, assure that subsurface soils that are above RGs are not disturbed without appropriate precautions, restrict potential exposure to COCs in groundwater, and to prohibit groundwater use until RGs have been achieved. LUCs will also protect components of the groundwater remedy (wells).

- Five Year Reviews.

3.0 LAND USE CONTROLS

LUCs are implemented at sites where contaminants are left in place at levels that do not allow for unlimited use and unrestricted exposure. The LUCs ensure that any remaining contaminants do not pose an unacceptable risk to human health or the environment. LUCs can consist of institutional controls and/or engineering controls. Institutional controls, such as restrictions, notifications, etc., are typically legal documents in the form of deed restrictions, easements, and restrictive covenants. In the case of an active military base, they can consist of base instructions, notations on installation land use plans, or similar instruments. In the form of legal documents, the institutional controls will run with the land. Engineering controls are typically barriers, such as asphalt, buildings, or fencing.

The ROD (NAVFAC, 2013) identified LUCs, including institutional controls and engineering controls, as components of the selected remedy for DU 5-1 to control or restrict certain types of property uses. The LUCs included in the selected remedy will be maintained until concentrations of hazardous substances have been reduced to levels that allow for unlimited use and unrestricted exposure.

The following LUC performance objectives for DU5-1 are required by the ROD:

- Prevent use of the groundwater at the property for any consumptive purpose, including for household use, drinking water supply, or residential irrigation. Non-consumptive industrial use of the groundwater is allowable because groundwater currently meets enforceable drinking water standards including maximum contaminant level (MCLs) and non-zero Maximum Contaminant Level Goals (MCLGs).
- Prevent excavation or intrusive use of the ground, monitoring wells, and any other components of the remedy without proper engineering controls to prevent uncontrolled exposure of soil COCs that are present in the subsurface soil.
- Prevent residential or unrestricted recreational use of the site through the use of existing fencing and signage; assure that at least 6-24 inches of clean surface soil remains undisturbed in areas where remaining subsurface soil exceeds industrial cleanup levels to prevent uncontrolled exposure of soil COCs (6 inches in areas where arsenic was detected in surface soil between 17 and 43 mg/kg and at least 24 inches in areas where arsenic was detected in surface soil greater than 43 mg/kg).
- Establish requirements and conduct LUC compliance inspections to verify the continued maintenance of LUCs until the cleanup levels have been achieved.

Institutional controls and engineering controls will be implemented to ensure that the above LUC performance objectives are met. The ROD (NAVFAC, 2013) identified the perimeter of DU 5-1 as the boundary for LUCs. This area will be referred to in this LUC RD as the "Site 13 DU 5-1 LUC Area." The Site 13 DU 5-1 LUC Area is presented on Figure 3. The LUCs established for DU 5-1 include the set of restrictions defined below. Following EPA and RIDEM approval of this LUC RD, the restrictions will be implemented on the site property to ensure the LUC performance objectives are met.

The following activities and uses are inconsistent with the LUC performance objectives and are prohibited:

- Excavation or other intrusive use of the ground that disturbs the top 6-24 inches of soil without prior authorization from NAVFAC MIDLANT Environmental (includes digging, drilling, plowing, planting, cultivating, or construction of buildings or other structures).
- Groundwater supply (extraction) well installation and use of groundwater at the property for any consumptive purpose, including for household use, drinking water supply, or residential irrigation.
- Any additional uses of the LUC area other than environmental investigation/monitoring, industrial/commercial and restricted recreational use.
- Any use or activity that would improperly interfere with the implementation, effectiveness, integrity, operation, or maintenance of the required remedy components, including, but not limited to: (1) the top 6-24 inches of surface soil and (2) any system used to monitor groundwater to ensure that the remedy remains effective and protective of human health and the environment.

The following activities and uses are consistent with the LUC performance objectives and will be allowed within the Site 13 DU 5-1 LUC Area:

- Continued industrial use (includes possible future renewable energy project), maintenance activities (includes mowing, plowing, brush clearing) and restricted recreational use (includes bow hunting).
- Any remedial operation and maintenance (O&M) activities conducted in accordance with the approved Sampling and Analysis Plan (SAP) or other approved work plan to provide for the sampling, inspection, and installation of groundwater monitoring wells or other O&M actions.

- Any environmental investigations and/or remedial actions conducted in accordance with an approved work plan.
- Installation of any other systems to ensure that the remedial action remains effective and is protective of human health and the environment.
- In accordance with COMNAVREG MIDLANT INSTRUCTION 11011.11A (Navy, 2011) (Appendix A), site approval is required for actions that affect or may affect facilities or land located on Navy-controlled land holdings. The site approval process includes determining if the proposed action is compatible with Environmental Restoration LUCs, and requires NAVFAC MIDLANT Environmental to identify all environmental compliance requirements. The NAVSTA Newport Installation Restoration (IR) Program Manager will provide notice and coordinate project review with the EPA and the RIDEM. Based on the outcome of this coordination, the IR Program Manager will provide guidance for projects to ensure consistency with the site remedy. The IR Program Manager will provide specific requirements for the project, detail waste management procedures, and establish standards for protecting remedial infrastructure and restoration of the project site.

Implementation actions to ensure that the LUC performance objectives are met are discussed in the following section. Section 4.0 also defines the required notifications and authorizations, and the roles and responsibilities for implementing the actions.

4.0 LAND USE CONTROL IMPLEMENTATION ACTIONS

Pursuant to the ROD, the Navy is responsible for implementing, inspecting, reporting, and enforcing the institutional and engineering controls in accordance with this LUC RD. For purposes of the LUC RD, the term "implementation actions" means the action to implement, operate, maintain, and enforce the LUC component of the remedy. The Navy will perform all short- and long-term implementation actions at DU 5-1 per *The Principles and Procedures for Specifying, Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions (DoD, 2003)*, the FFA, the ROD, and applicable Navy directives. The Navy may, in the future, delegate or transfer authority to conduct these actions to another entity as part of property transfer agreements (i.e. deed).

The Navy will submit a copy of Figure 3 to the land record offices of the Town of Middletown, Rhode Island, and a listing of LUCs that have been imposed, for the limited purpose of providing public notice of the environmental conditions of, and limitations on, the use of property. Additionally, copies of Figure 2 will be provided to EPA and the RIDEM.

As set forth in this LUC RD, the following implementation actions will be performed to ensure that the LUC objectives are met in accordance with the FFA and ROD:

1. Prepare a map defining Site 13 DU 5-1 LUC Area boundaries. Depict on this map the location and boundary of Site 13 DU 5-1 and the extent of the area over which the LUCs will apply, as shown on Figure 3. Indicate where LUCs have been imposed and annotate LUCs in the Navy Geographical Information Systems database and real estate summary map(s) for the installation, and follow LUC-related procedures pertaining to ground-disturbing activity and changes in land use per Commander, Navy Region, Mid-Atlantic Instruction 5090.2, *Installation Restoration; Land Use Controls at Navy Region, Mid-Atlantic Installations; Establishment and Maintenance,* as amended. The Navy will notify EPA and the RIDEM in advance of any changes to these internal procedural instructions that would impact the effectiveness of the LUCs. These instructions are provided in Appendix A.

2. Incorporate Figure 3 into the Site 13 DU 5-1 Long-Term Management Plan (to be developed); additionally, copies of this map will be provided to EPA and the RIDEM.

3. Monitor compliance with the LUCs. LUC monitoring (i.e., inspections) will be coordinated with the Long Term Management program. LUC monitoring will be conducted by the Navy to verify LUCs are being properly implemented and that the LUC objectives are being met. The LUC monitoring results will be provided to the EPA Region 1 and the State of Rhode Island as part of an annual report. The LUC implementation actions to be conducted as part of the monitoring are summarized in Table 1. LUC compliance inspections will be conducted on an annual basis, unless the frequency is reduced by agreement with the Navy, EPA, and the State of Rhode Island. A checklist to be used during LUC inspections is provided in Appendix B.

4. Report to and notify regulatory agencies. The notification requirements are summarized in Table 1 and include the following:

    a. Notify EPA Region 1 and the State of Rhode Island 45 days in advance of any proposed change in land use that would require modifications to the LUCs to remain consistent with the LUC performance objectives or the selected remedy. The notice shall describe how the LUCs will be changed and mechanisms by which the new LUCs will be implemented to maintain the protectiveness of the remedy.

    b. Notify EPA Region 1 and the State of Rhode Island by telephone and by e-mail as soon as practicable, but within 10 working days, after discovery of any activity that is inconsistent with the LUC objectives or use restrictions, or any other action that may interfere with the effectiveness of the LUCs. Notify EPA Region 1 and the State of Rhode Island regarding how the breach will be or has been addressed within 10 days of sending EPA Region 1 and the State of Rhode Island the discovery notification of the breach activity. For more complex breach situations, a telephone call within this 10-day period among Navy, EPA, and the State of Rhode Island to discuss options for addressing the breach will be considered sufficient to meet this notification requirement. Furthermore, any activity that is inconsistent with the LUC objectives or use restrictions, or any other actions that may interfere with the effectiveness of the LUCs will be addressed as soon as practicable, but in no case will the process be initiated later than 10 days after the Navy becomes aware of the breach.

c. Notify EPA Region 1 and the State of Rhode Island in writing at least six months prior to an anticipated transfer or sale of the property subject to LUCs out of Navy custody and control, including any federal-to-federal transfer, so that EPA Region 1 and the State of Rhode Island can be involved in discussion with the Navy on the appropriate provisions to be included in the transfer terms and conveyance documents to maintain the effective LUCs. If it is not possible for the Navy to notify EPA Region 1 and the State of Rhode Island at least 6 months prior, the Navy will make this notification as soon as possible, but no later than 60 days before the transfer or sale of any property subject to LUCs. The Navy shall provide a copy of the executed deed or transfer documents to EPA Region 1 and the State of Rhode Island.

d. Submit reports of annual monitoring. LUC compliance monitoring shall be conducted annually and the results submitted to the EPA Region 1 and the State of Rhode Island. The annual reports will be used in preparation of the Five-Year Review to evaluate the effectiveness of the remedy. The LUCs portion of the annual report will evaluate the status of the LUCs and how any LUC deficiencies or inconsistent uses have been addressed. The LUCs portion of the annual report will also address whether Navy instructions remain current in regards to LUC enforcement, and whether use of the property has conformed with such restrictions and controls.

5. Obtain EPA Region 1 concurrence, in consultation with the State of Rhode Island, prior to modifying or terminating the LUCs or implementation actions. The Navy or other entity shall seek prior concurrence from EPA Region 1, in consultation with the State of Rhode Island, before taking any anticipated action that may disrupt the effectiveness of the LUCs or before taking any action that may alter or negate the need for LUCs.

6. Evaluate effectiveness of LUCs as part of each Five-Year Review. Site remedy reviews are required by CERCLA and the NCP as specified in the ROD for DU 5-1 and Tank Farm 5. The last Five-Year Review for NAVSTA Newport was completed in December 2009. The next Five-Year Review will be completed in December 2014 and will include a discussion of the Site 13 DU 5-1, Tank Farm 5 remedy. Five-Year Reviews will be submitted to USEPA Region 1 and the State of Rhode Island for review, per the FFA.

Should the Navy fail to complete the required LUC implementation action, EPA and/or RIDEM shall notify the Navy Remedial Project Manager and seek immediate action. If the Navy fails to complete a required LUC implementation action within a reasonable time of being notified, EPA and/or RIDEM may notify the Deputy Assistant Secretary of the Navy (Environment), who will ensure that necessary action is taken.

Should a subsequent owner of or a third party at the DU 5-1 site fail to complete a required LUC implementation action, for which such owner or party is responsible, EPA, RIDEM, and the Navy will consult on the appropriate enforcement action. If after the property has been transferred, the Navy fails to complete a required LUC implementation for which it is responsible, EPA and/or RIDEM may notify the Navy Remedial Project Manager, or designated project manager per Section VIII in the NAVSTA Newport FFA. If necessary, EPA and/or RIDEM may notify the Deputy Assistant Secretary of the Navy (Environment), who will ensure that necessary corrective action is taken.

5.0 REFERENCES

Department of Defense (DoD), 2004. Memorandum: Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Record of Decision (ROD) and Post-ROD Policy, Attachment 1 Navy Principles and Procedures for Specifying, Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions, January 16, 2004.

Department of the Navy (Navy), 2003. COMNAVREG MIDLANT. Instruction 5090.2. Installation Restoration; Land Use Controls at Navy Region, Mid-Atlantic Installations; Establishment and Maintenance. May 27, 2003.

Department of the Navy (Navy), 2011. COMNAVREG MIDLANT Instruction 11011.11A. Site Approval Requirements and Process. February 14, 2011.

Naval Facilities Engineering Command (NAVFAC), 2013. Record of Decision (ROD), Decision Unit 5-1 at Tank Farm 5 – Site 13, Operable Unit 2, Naval Station Newport, Portsmouth, Rhode Island. December 2013.

Tetra Tech EC, 2007. Final Closeout Report for Sludge Disposal Trenches and Review Areas at Tank Farms 4 and 5, NAVSTA Newport, Portsmouth, Rhode Island. June 19.

Tetra Tech, 2013. Feasibility Study for DU 5-1 at Site 13 – Tank Farm 5, NAVSTA Newport, Newport, Rhode Island. Final – December.

United States Environmental Protection Agency (EPA) Region I and the State of Rhode Island and the United States Department of the Navy. 1992*. Federal Facility Agreement Under CERCLA 120, In the Matter of the U.S. Department of the Navy, Naval Education and Training Center, Newport, Rhode Island and Naval Undersea Warfare Center, Newport, Rhode Island.* March 1992*.*

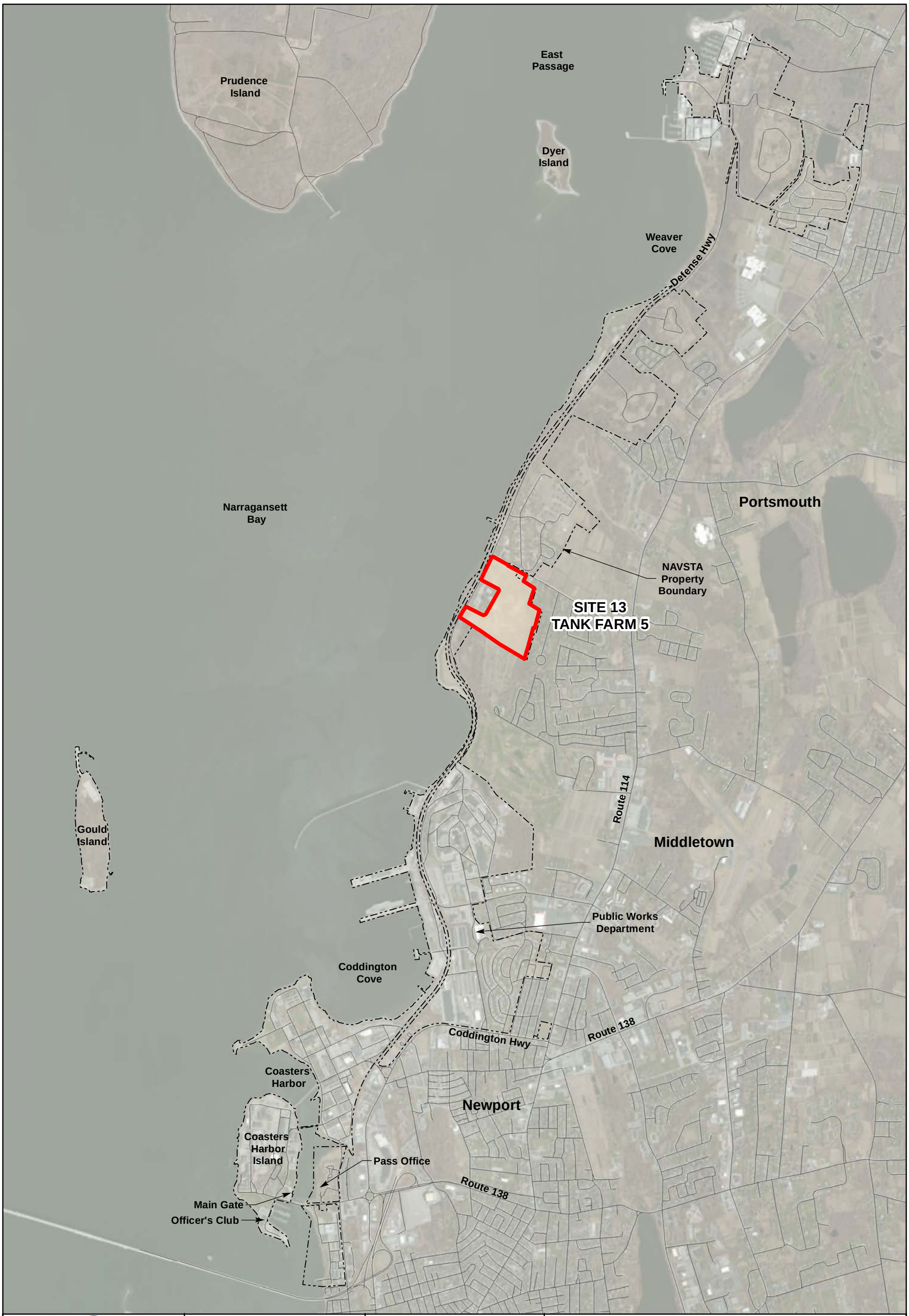
United States Environmental Protection Agency (EPA), 2013. Sample Federal Facility Land Use Control ROD Checklist with Suggested Language (LUC Checklist), OSWER Directive 9355.6-12, January 4, 2013.

Tables

TABLE 1
SUMMARY OF LAND USE CONTROL IMPLEMENTATION ACTIONS
DECISION UNIT 5-1 AT TANK FARM 5 (SITE 13) LUC RD
NAVSTA NEWPORT
MIDDLETOWN, RHODE ISLAND

LUC REQUIREMENT / DESCRIPTION	FREQUENCY
INSTITUTIONAL CONTROLS	
Issue Final LUC RD.	Once
Incorporate the LUCs into the land records documentation with the Town of Middletown, Rhode Island.	Once
Conduct LUC Compliance Inspections.	Annually
Issue Annual Inspection Reports to EPA and RIDEM.	Annually
ENGINEERING CONTROLS AND MONITORING REQUIREMENTS	
Conduct groundwater monitoring.	Quarterly
Conduct inspections of the soil cover (conduct maintenance as needed).	Annually
Conduct inspections of the partial fencing and signage (conduct maintenance as needed).	Annually
Issue monitoring and inspection reports	Per event, or per the LTMP
NOTIFICATION REQUIREMENTS	
Navy will notify EPA and RIDEM of activities that are inconsistent with LUC objectives, restrictions, or effectiveness, and how inconsistent activities were/will be addressed.	Per event, as soon as practicable but within 10 days of discovery
Navy will notify EPA and RIDEM of (1) proposals for changes in land use that would be inconsistent with use restrictions and exposure assumptions described in the ROD; (2) any anticipated action that may disrupt LUCs effectiveness; or (3) any action that may alter or negate the need for LUCs.	Per event, 45 days in advance
Navy will notify EPA and RIDEM prior to any anticipated transfer or real property subject to LUCs, out of Navy custody and control.	Per event, typical 6-month advance notice, but not less than 60 days

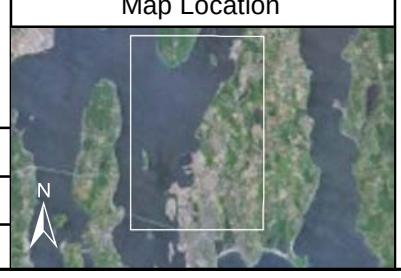
Figures



RESOLUTION CONSULTANTS

Drawn:	HM	2/19/2014
Approved:	MK	2/19/2014
Project #:	60268619	

Map Location



N

0 1,200 2,400

Scale in Feet

FIGURE 1
SITE MAP

NAVSTA NEWPORT, RHODE ISLAND

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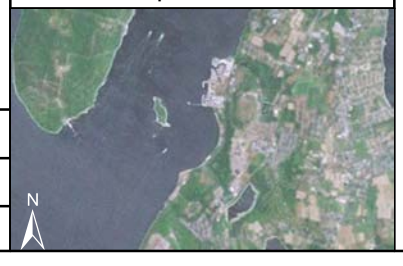
RESOLUTION CONSULTANTS

Drawn:	HM	10/29/2013
Approved:	NO	10/29/2013
Project #:	60271456	

Map Location



N

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Scale in Feet

FIGURE 2
SITE LAYOUT MAP
DECISION UNIT 5-1
TANK FARM 5 (SITE 13)

NAVSTA NEWPORT, RHODE ISLAND

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DEFENSE HIGHWAY

GOMES BROOK

LAND USE CONTROL BOUNDARY

Tank Farm 5 Boundary
Decision Unit Boundary and LUC Boundary
Wetland
Fence Line

RESOLUTION CONSULTANTS

Drawn:	HM	2/20/2014
Approved:	NO	2/20/2014
Project #:	60271456	

Map Location

N

0 50 100 200

Scale in Feet
1 inch = 100 feet

FIGURE 3
LAND USE CONTROL BOUNDARY
DECISION UNIT 5-1
TANK FARM 5 (SITE 13)

NAVSTA NEWPORT, RHODE ISLAND

Appendix A

LUC Instructions

Appendix A.1

Commander, Navy Region, Mid-Atlantic Instruction 5090.2, Installation Restoration; Land Use Controls at Navy Region, Mid-Atlantic Installations; Establishment and Maintenance

DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION, MID-ATLANTIC
6506 HAMPTON BLVD.
NORFOLK, VA 23508-1273

IN REPLY REFER TO:
COMNAVREG MIDLANT
INST 5090.2
REG ENG/Code 90

27 MAY 2003

COMNAVREG MIDLANT INSTRUCTION 5090.2

Subj: INSTALLATION RESTORATION; LAND USE CONTROLS AT NAVY REGION, MID-ATLANTIC INSTALLATIONS; ESTABLISHMENT AND MAINTENANCE

Ref: (a) DUSD (ES/CL) memo of 17 Jan 01
(b) Navy Environmental Policy Memo 99-02
(c) Navy-Marine Corps Installation Restoration Manual (COMNAVFACENGCOM Feb 97)
(d) OPNAVINST 5090.1 Series
(e) COMNAVREGMIDLANTINST 3120.1
(f) JAGMAN
(g) NAVREGS

1. Purpose. This instruction prescribes procedures for establishing and maintaining land use controls at sites remediated under the Navy Installation Restoration Program (IRP) and otherwise, and assigns mission, functions, and tasks necessary to successful management and maintenance of land use controls. References (a) through (d) pertain.

2. Applicability. This instruction applies to installations under the custody, control, and command of Commander, Navy Region, Mid-Atlantic (COMNAVREG MIDLANT). Reference (e) pertains.

3. Background

a. Land use controls restrict use of, and may also limit access to, real property at which contamination is allowed to remain in place. Land use controls, which are of two types, engineered controls[1] and institutional controls, are placed on IRP (and other) sites to protect human health and the environment until such time, if ever, as they are no longer needed. Engineered controls include fences, signs, and other physical means of regulating access to and use of real property. Institutional controls are legal and administrative restrictions on land use, such as notations on installation land use plans,

[1] "Engineering controls" is also used in some texts to refer to engineered controls. For purposes of this instruction these terms are synonymous.

notices recorded in public land records, and periodic site inspections.

b. Land use controls, which may be of indefinite duration, must be reviewed at least every 5 years for effectiveness. They are, or are part of, a clean-up remedy accepted by or approved for COMNAVREG MIDLANT by the Regional Engineer, as set forth, for example, in the Record of Decision[2] for an IRP site. After a Record of Decision or other decision document is finalized, terms and conditions for establishing and maintaining land use controls will be developed and memorialized in a Remedial Design (or other document), in the manner Atlantic Division, Naval Facilities Engineering Command (LANTNAVFACENGCOM) (or other Navy authority) shall recommend. Land use controls may be modified as site conditions change.

c. To be effective, land use controls must be timely imposed, and thereafter maintained for as long as necessary. Long-term maintenance of land use controls requires vigilance, diligence, cooperation, and funding. COMNAVREG MIDLANT, recognizing its role in protecting human health and the environment, has determined that a comprehensive, coordinated approach to land use controls is required for its installations. This approach requires close cooperation between the Regional Engineer, the Regional Program Manager for Facilities and Environmental programs, and LANTNAVFACENGCOM, the IRP program manager.

4. Action. The following action is directed:

a. Regional Engineer

(1) Execute Records of Decision, decision documents, and other land use control related documents on behalf of COMNAVREG MIDLANT.

(a) In so doing, coordinate closely with LANTNAVFACENGCOM, to ensure that operational flexibility, accomplishment of core mission requirements, combat readiness, security, force protection, and cost are taken into consideration in remedy selection.

[2] Records of Decision are issued under authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Land use controls are also imposed in clean-ups carried out under the Resource Conservation and Recovery Act (RCRA).

(2) Implement institutional controls in the manner and within the time prescribed in Records of Decision and other decision documents.

(a) In so doing, program and budget for the cost of maintaining land use controls the responsibility for which has transferred from LANTNAVFACENGCOM to COMNAVREG MIDLANT.

(3) Integrate land use controls into site approval processes, dig permits, infrastructure plans, installation maps, and geographic information systems, and, in the name of COMNAVREG MIDLANT, deny permission to conduct ground-disturbing activity at, make use of, or develop sites in a manner inconsistent with approved land use controls.

(a) In so doing, implement procedures and safeguards to withhold or deny site approval until it has been verified that no land use controls exist, or that the proposed use or development is consistent with existing land use controls, references (c) and (d), and other legal authorities. The site approval process is a key element of the regional program to protect human health and the environment through maintenance of land use controls.

(4) Establish procedures to conduct and budget for site inspections, other monitoring of land use controls, and 5-year reviews, and to notify and interact with regulators.

(5) Retain Records of Decision and other land use control documents for all sites to which this instruction applies.

(6) Inform Installation Commanders, Program Managers, and tenant activities at least annually, of land use controls at their installations and installations at which they conduct operations. This may be accomplished by inviting these parties' attention to a list of land use controls published on the Regional Engineer's website.

(7) Include information on land use controls and compliance obligations in statements of work prepared for facility support contracts and other contracts involving use of or ground-disturbing activity at IRP sites and other locations where land use controls have been imposed.

(8) Take appropriate steps to preclude ground-disturbing activity by Navy public works personnel (or contractors) that is inconsistent with approved land use controls.

b. Installation Commanders and Regional Program Managers

(1) Observe, adhere to, and publicize to their organizations (and, in the case of installation commanders, tenant activities), land use controls imposed on their installations and installations at which they conduct operations. This is especially important for Navy Family Housing and Morale, Welfare, and Recreation[3] facilities and activities.

(2) Take appropriate steps to preclude land use, site development, and ground-disturbing activity inconsistent with approved land use controls. This includes, but is not limited to, following site approval procedures, adhering to dig permit requirements, and incorporating land use controls into infrastructure plans and host/tenant support agreements.

(a) Commanders of installations not served by Environmental Compliance Departments of the Regional Environmental Group perform the functions assigned to the Regional Engineer in subparagraphs a (1)-(8) of this paragraph.

(3) Include information on land use controls and compliance obligations in statements of work prepared for contracts involving use of or ground-disturbing activity at IRP sites and other locations subject to land use controls.

(4) Report to the Regional Engineer all activity inconsistent with known land use controls and conditions, e.g., failure of an engineered control, which may affect human health or the environment. The Regional Engineer, in turn, will inform the cognizant LANTNAVFACENGCOM Remedial Program Manager.

c. Tenant Activities of COMNAVREG MIDLANT Installations

(1) Observe, adhere to, and publicize to their organizations, land use controls imposed on installations at which they conduct operations.

[3]The Support Services Program Manager will develop a standard clause for Non-Appropriated Fund Instrumentality contracts that requires contractors to comply with land use controls.

(2) Take appropriate steps to preclude land use, site development, and ground-disturbing activity inconsistent with approved land use controls. This includes, but is not limited to, consulting the Regional Engineer organization during the site approval process and when applying for dig permits.

(3) Include information on land use controls and compliance obligations in statements of work prepared for contracts involving use of or ground disturbing activity at IRP sites and other locations subject to land use controls.

(4) Report to the Regional Engineer all activity inconsistent with known land use controls and conditions, e.g., failure of an engineered control, which may affect human health or the environment. The Regional Engineer, in turn, will inform the cognizant LANTNAVFACENGCOM Remedial Program Manager.

5. Coordination with LANTNAVFACENGCOM

a. Per reference (d), COMNAVFACENGCOM is responsible for the IRP. LANTNAVFACENGCOM is the NAVFAC component that serves the installations to which this instruction applies. In carrying out its program responsibilities LANTNAVFACENGCOM works with Regional Engineer staff to:

(1) Consider operational flexibility, security, force protection, combat readiness, and maintenance costs in selecting land use controls;

(2) Develop land use controls, including but not limited to:

(a) Engineered and institutional controls;

(b) Remedial Designs and other similar land use control documents; and

(c) 5-year reviews and other long-term management;

(3) Report to the Regional Engineer activity, including performance of contracts supervised by Resident Officers in Charge of Construction, inconsistent with known land use controls, or conditions, e.g., failure of an engineered control, that may affect human health or the environment; and

(4) Include appropriate clauses in contracts for work to be performed on or affecting sites to which land use controls apply.

6. Oversight. Land use, site development, and ground-disturbing activity inconsistent with applicable land use controls may result in risk to human health and the environment, and may give rise to civil and criminal liability under Federal law. Thus, incidents of this nature should be reported per reference (d), investigated per reference (f), and when warranted, appropriate action should be taken to address personal accountability. Regional Program Managers, Installation Commanders, Commanding Officers, and Officers in Charge should work closely with the Regional Engineer to cooperate with regulatory agencies per reference (g). The Regional Engineer and the Regional Environmental Coordinator staff should be notified promptly of the commencement of any enforcement action related to breach or neglect of land use controls.

G. E. EICHERT
Chief of Staff

Distribution: www.cnrma.navy.mil

Appendix A.2

Commander, Navy Region, Mid-Atlantic Instruction 11011.11A Site Approval Process

DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION, MID-ATLANTIC
1510 GILBERT ST.
NORFOLK, VA 23511-2737

IN REPLY REFER TO:
COMNAVREGMIDLANTINST 11011.11A
N4/ARE
14 FEB 2011

COMNAVREG MIDLANT INSTRUCTION 11011.11A

From: Commander, Navy Region, Mid-Atlantic

Subj: SITE APPROVAL REQUIREMENTS AND PROCESS

Ref: (a) OPNAVINST 11000.16A w/CH-1
(b) NAVFACINST 11010.45
(c) COMNAVREGMIDLANTINST 5090.2
(d) NOSSA INST 8020.22
(e) NAVFAC BMS B-2.1.7-B-2.1.10 Site Approval Processes

Encl: (1) Sample Site Approval Request Letter
(2) NAVFAC Site Approval Request Form (NAVFAC 11010/31)

1. Purpose. Provide guidance for process and preparation of site approvals in the Navy Region, Mid-Atlantic, Area of Responsibility (AOR).

2. Cancellation. COMNAVREGMIDLANTINST 11011.11.

3. Background. Per reference (a), Regional Commanders are responsible for management of land and facilities in their Regions. Reference (a) stipulates planning documentation will be prepared and submitted, per reference (b). The site approval process is the review of proposed actions that affect or may affect facilities or land located on Navy-controlled land holdings. The site approval review process includes determining if the proposed action is compatible with Mission requirements, natural and man-made constraints, land use, Installation architecture and appearance, Installation master plan or Shore Infrastructure Plan (SIP), sustainable development principles, Environmental Restoration Land Use Controls per reference (c), and all applicable laws and regulations.

4. Policy. Site approval is not required for routine maintenance and routine repair of facilities. Per reference (b), site approval is required for all actions sited on Navy-controlled land holdings, regardless of funding source, for the following situations:

a. Any project or real estate action that will have explosives safety criteria implications associated with ammunitions and explosives, per reference (d).

b. Any project or real estate action that affects, or is affected by, airfield safety criteria.

c. Any project or real estate action that creates or is proposed to be in an area of electromagnetic illumination, or involves electromagnetic transmission.

d. Any project, real estate action, or proposed use of property that proposes changing the functional use of a facility or the land use or physical layout of an area.

e. Any proposed use of property, permanent or temporary, that involves placing or removing a facility or structure.

5. Implementation. The Installation Commanding Officer (ICO) will be responsible for implementation of the site approval process under references (b) and (c). The Installation Public Works Department (PWD) will manage this process on behalf of the ICO. The ICO will be the Approving Official but may choose to delegate this authority to the Public Works Officer.

a. Activities initiating a proposed action will submit a request for site approval cover letter, enclosure (1), signed by the unit commander, or their designated representative, to the responsible ICO (Attn: Public Works Officer). Note: Request Cover Letters are not required if the PWD is self-generating the site approval. The Activity and the PWD Planner will work together to prepare Section A of the Naval Facilities Engineering Command (NAVFAC) Site Approval Request Form, enclosure (2). The PWD will follow the process identified in references (d) and (e). In situations where the Activity does not specify a particular Installation for the site, the request for site approval shall be submitted to the Assistant Regional Engineer (ARE), COMNAVREG MIDLANT. At the discretion of the ARE, site approvals may require review and endorsement by the ARE.

b. Naval Facilities Engineering Command, Mid-Atlantic (NAVFAC MIDLANT) Environmental will identify all of the environmental and National Environmental Protection Act (NEPA) compliance requirements as described in reference (e). In some situations, permits may be required, or an Environmental Assessment (EA) may be required. Final site approval will not be granted until all required NEPA and Clean Air Act (CAA) documentation is completed.

c. In some cases, NEPA documentation is still required when site approval is not (e.g., repair of historic facilities).

d. The PWD will process, track, and maintain a record of all Activity site approvals except as otherwise described in reference (d) for explosive safety site approvals.

e. Relocatable facilities (trailers) require separate endorsement via ARE (OPNAVINST 11010.33C) in addition to the site approval process.

f. Actions involving explosive safety, electromagnetic radiation, waivers to airfield safety criteria, or small arms range surface danger zones require additional action and approval through the applicable authority: Naval Ordnance Safety and Security Activity (NOSSA); Department of Defense Explosive Safety Board (DDESB); Space and Naval Warfare Systems Command (SPAWAR); Naval Air Systems Command (NAVAIR); Commander, Navy Installations Command (CNIC); or Chief of Naval Operations (CNO). These reviews will be coordinated by the PWD Planner. Because of the approval chain, allow additional time (1 to 8 months) for processing.

6. Site approvals are granted based upon the information in the request. The site approval becomes invalid if any of the conditions in the original request materially change.

7. Forms. NAVFAC Site Approval Request Form 11010/31 is supplied by N4, Regional Engineer, as enclosure (2) of this instruction. More detail on the site approval process and Site Approval checklists can be found in references (d) and (e). Environmental Checklists vary by State and can be provided by the Public Works Department at the Installation.

C. G. WOMACK
Chief of Staff

Distribution: Electronic only, via CNIC Web site/COMNAVREG MIDLANT: https://g2.cnic.navy.mil/cnichome/pages/cnichome.aspx

SAMPLE SITE APPROVAL REQUEST LETTER

11011
Code

From: (Activity Head)
To: Commanding Officer, ----------
(Attn: Public Works Officer)

Subj: REQUEST FOR SITE APPROVAL FOR _____

Ref: (a) NAVFACINST 11010.45

Encl: (1) NAVFAC Site Approval Request Form (NAVFAC 11010/31)

1. Per reference (a), enclosure (1) is forwarded for your review/approval. Requesting site approval to (briefly explain).

2. In addition to completing site approval, request the required National Environmental Policy Act (NEPA) documentation be initiated and completed to allow this project to be executed.

3. My point of contact for this project is (name) at (commercial and DSN phone number), or (E-Mail----------).

SIGNATURE
BLOCK

SAMPLE

REQUEST FOR PROJECT SITE APPROVAL/EXPLOSIVES SAFETY CERTIFICATION NAVFAC 11010/31 (NAVFAC MIDLANT REV. 8-2009)

PART I

DIRECTIONS IN NAVFACINST 11010.45

SECTION A – INSTALLATION SUBMISSION

1. To:			2. From:	
3. Program Year:	4. Cost ($000):	5. Type Funding	6. Activity UIC	7. Date:
8. Category Code and Project Title:				9. Project Number

10. Type of Project:
- ☐ New Construction
- ☐ Change Use
- ☐ Addition to Existing Facility
- ☐ Major Modification to Existing Facility
- ☐ Relocation of Structure
- ☐ Maintenance and/or Repairs
- ☐ Repair by Replacement
- ☐ Demolition
- ☐ Other

11. Type of Request:
- ☐ Airfield Safety Site Approval
- ☐ Explosives Site/Safety Certification
- ☐ EMR Site Approval
- ☐ Re-submittal or Standard Site Approval (No Safety Criteria Involved)

12. Project Description

13. _____Sets of Project Maps Attached

14. _____Sets Part II Division(s)_____Attached

SECTION B –NAVFAC REVIEW

1. Name/Code/Phone No. of Reviewer/E-Mail Address:	2. Date Received:

3. Evaluation:

4. Safety Review Requested: (check appropriate box(es))
☐ NOSSA ☐ DDESB ☐ SPAWAR ☐ NAVAIR ☐ CNO ☐ OTHER

5. Date Forwarded:

6. Date of Safety Certification:

NOSSA	DDESB	SPAWAR	NAVAIR	CNO	OTHER

SECTION C – FINAL SITE APPROVAL ACTION

1. Approvals:
- ☐ Site Approved
- ☐ Site Disapproved
- ☐ Deferred/Returned
- ☐ Explosives Safety Certification Approved
- ☐ Explosives Safety Certification DISAPPROVED
- ☐ Interim Construction Waiver Approved

2. Certification Identification:

3. Remarks

4. Other Approvals Required	5. Approving Official:	6. Date:
☐ Airfield Safety Waiver Required ☐ Final Explosives Safety Review Required		

Appendix B

Land Use Control Compliance Inspection Checklist

Land Use Control (LUC) Compliance Inspection Checklist
Decision Unit (DU) 5-1 at Tank Farm 5 (Site 13)
Naval Station (NAVSTA) Newport, Middletown, Rhode Island

Site Description: DU 5-1 is located in the northwestern portion of Tank Farm 5 at NAVSTA Newport. The LUC boundary is the same as the boundary of DU 5-1 as shown on Figure 3 of the Land Use Control Remedial Design (LUC RD). LUCs have been implemented due to contaminants of concern is surface soil, subsurface soil, and groundwater above levels that would allow for unlimited use and unrestricted exposure.

Documentation Questionnaire
General

	Yes	No	N/A
1. Is the Complete LUC RD (latest version) on file with the Navy (NAVFAC and NAVSTA)? If not, explain below			
2. Are there correspondence records (i.e. letters, emails) on file documenting EPA and RIDEM notifications regarding the following items? If not applicable, specify "N/A".			
2a. Activities inconsistent with LUCs?			
2b. Corrective actions regarding activities inconsistent with LUCs?			
2c. Changes in procedures affecting LUCs?			
2d. Proposed land use changes?			
2e. Proposed transfer or sale of the site property?			
3. Have the LUCs been annotated in the Navy's GIS Database and real estate summary maps?			
4. Is the LUC documentation provided to EPA, RIDEM, and the Town of Middletown up to date? (i.e. if the LUC RD has been revised recently, has the updated version been provided to the stakeholders?)			
5. As of this inspection, the Navy has no plans to transfer the property within the next 6 months. If statement is correct, check yes. If statement is not correct, have EPA and RIDEM been notified?			

Inspection Questionnaire:

General	Yes	No	N/A
1. Is the area free of any indication of a recently installed groundwater extraction well? (includes drinking water and irrigation wells, but not wells associated with the DU 5-1 remedial action). If no, mark the location of the well on a site map and describe below.			
2. Is the area free of any evidence of development for residential use? If no, describe below.			
3. Is the area free of any indication of unrestricted recreational use? If no, describe below.			
4. Is the area free of any changes in land use? If no, describe below and indicate if any changes are inconsistent with the ROD and LUC RD.			
5. Is the top 6 inches to 2 feet of soil within the LUC area undisturbed and in good condition (i.e. no digging, no significant erosion, etc.)? If no, describe below. Also, indicated the location of the intrusive activity and/or soil erosion on a site map and note extent and purpose of the intrusive activity.			
6. Is the partial fencing around Tank Farm 5 intact and secure and signage present and in good condition? If no, describe below.			
7. Is the site free of identifiable concerns, such as, signs of dumping of chemicals or debris? If no, describe below and indicate the location of concern on a site map.			
8. Are the Navy's monitoring wells in good condition (e.g., undamaged casing/road box, properly closed/locked)? In no, describe below.			

Land Use Control (LUC) Compliance Inspection Checklist
Decision Unit (DU) 5-1 at Tank Farm 5 (Site 13)
Naval Station (NAVSTA) Newport, Portsmouth, Rhode Island

Comments: (Provide related question number for each comment)

Recommendations: (Enter suggested improvements to this form)

Navy Annual Certification:
I hereby certify that a complete and thorough inspection and an evaluation of compliance with soil land use controls established for the site in the 2013 Record of Decision for DU5-1 at Tank Farm 5 (Site 13) have been performed and that the items noted on this inspection form have been assessed with respect to the intent of the implemented remedial action objectives for the site.

Navy Representative	Title
Signature	Title

Onsite Inspection Team Roster

Lead Inspector	Title/Affiliation
Signature	Date of Inspection

Others Present

Name	Title/Affiliation
Signature	Date of Inspection
Name	Title/Affiliation
Signature	Date of Inspection