7/1/03-00553

Proposed Remedial Action Plan

Site 6: Small Arms Unit

St. Juliens Creek Annex
Chesapeake, Virginia

JULY 2003

1 Introduction

This **Proposed Plan** identifies the preferred alternative for addressing potential historical releases at **Site 6**, Small Arms Unit (formerly called the "caged pit"), at St. Juliens Creek Annex (SJCA), and provides the rationale for this preference. The U.S. Department of the Navy (Navy) proposes no further remedial action at Site 6, based on current site conditions.

This document is issued by the Navy, the lead agency for site activities, the **U.S. Environmental Protection Agency (USEPA)** Region III and the **Virginia Department of Environmental Quality (VDEQ)**, the support agencies. The Navy, in consultation with the VDEQ and USEPA, will make the final decision on the remedial approach for Site 6 after reviewing and considering all information submitted during the 30-day **public comment period**. The Navy and USEPA, along with VDEQ, may modify the Preferred Alternative or select another **remedial action** based on new information or public comments. Therefore, public comment on the Preferred Alternative is invited and encouraged. Information on how to participate in this decision-making process is presented in Section 9.

The Navy is issuing this Proposed Plan as part of its public participation responsibilities under Section 300.430(f)(2) of the **National Oil and Hazardous Substances Pollution Contingency Plan (NCP)**. This Proposed Plan summarizes information that can be found in greater detail in the Final SJCA Sites 3, 4, 5, and 6 **Remedial Investigation (RI)** Report, dated March 2003, and other documents contained in the Administrative Record file and Public Repositories for SJCA (see Section 9). This plan provides the following:

- A site description and summary of previous investigations (Section 2)
- Site characteristics and a discussion of the nature and extent of contamination (Section 3)
- Scope and role of response action (Section 4)
- Summary of site risks (Section 5)
- Remedial action objectives (Section 6)
- Summary of remedial alternatives (Section 7)
- Preferred alternative rationale (Section 8)
- Opportunities for public participation (Section 9)

Mark Your Calendar for the Public Comment Period

June 3 - July 3, 2003

The U.S. Navy will accept written comments on the Proposed Plan during the public comment period.

Public Meeting: June 10, 2003

The U.S. Navy will hold a public meeting to explain the Proposed Plan and all of the alternatives presented in the Site 6 Engineering Evaluation/Cost Analysis Report. Verbal and written comments will also be accepted at this meeting. The meeting will be held at Major Hillard Library at 5:30 pm.

For more information about Site 6, see the Public Repository at the following location:

Major Hillard Library, 824 Old George Washington Hwy N, Chesapeake, VA, 23323

(757) 382-3600

2 Site Description and Summary of Previous Investigations

2.1 Site Description

The SJCA Facility is situated at the confluence of St. Juliens Creek and the Southern Branch of the Elizabeth River in the City of Chesapeake, located in southeastern Virginia (Figure 1). The facility covers approximately 490 acres and includes administrative buildings, wharf areas to the Southern Branch, a central heating plant, numerous nonoperational industrial facilities, and miscellaneous structures.

The facility is bordered on the north by the Norfolk and Western Railroad, the City of Portsmouth, and residential areas; on the west by residential areas; on the south by St. Juliens Creek; and on the east by the Southern Branch of the Elizabeth River. Most surrounding areas are developed and include residences, schools, recreational areas, and shipping facilities for several large industries. The Norfolk Naval Shipyard is located approximately 1.5 miles north. Some undeveloped areas surround the facility. In August 2000, SJCA was placed on USEPA's **National Priorities List (NPL)**.

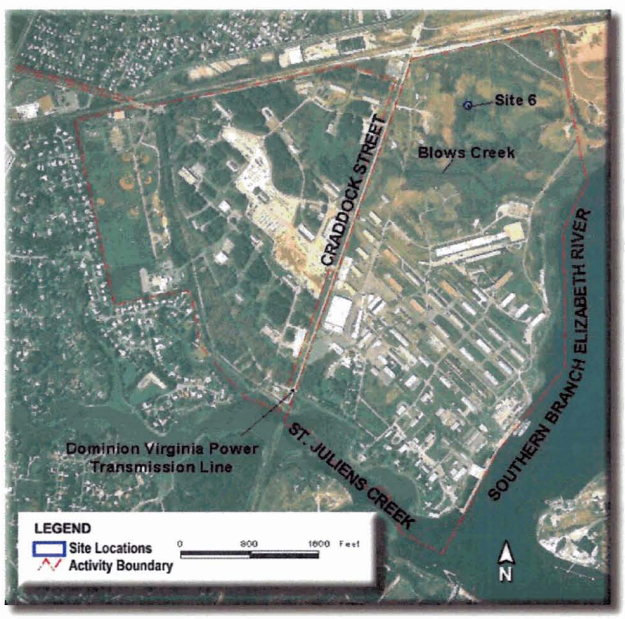

Figure 1. Base Location Map

Site 6, the Small Arms Unit, was operated as part of the ordnance disposal operations at the Annex. It was located in the northeastern portion of the Annex, surrounded by other Installation Restoration (IR) sites currently under investigation (Figure 2). The Small Arms Unit consisted of an 8-ft wide by 20-ft long by 12-ft high steel container underlain by a concrete pad. Interviews with former employees indicate that small items were transported into a steel container via a conveyor belt for destruction. Historical records do not indicate the dates of operation. A review of historical aerial photographs indicates that activities associated with Site 6 likely began around 1949 and continued through the early 1980s. According to the Phase II **RCRA Facility Assessment (RFA)** report (March 1989), an unknown volume of small items, such as igniters and fuzes, were burned in the unit. The RFA also reported that the Navy had filled in the area "during recent years." Due to its proximity to Site 5, Site 6 was investigated during the RI as part of Site 5 (the Burning Grounds).

2.2 Summary of Previous Investigations

Previous basewide investigations include the Initial Assessment Study (IAS), dated August 1981; a Phase II RFA, dated March 1989; and a Relative Risk Ranking (RRR) System Data Collection Report, dated April 1996. Additionally, an RI was performed at Site 6 in conjunction with Sites 3, 4, and 5. The SJCA Sites 3, 4, 5, and 6 RI, dated March 2003, was conducted in three phases from November 1997 to August 2001. Subsequent to the RI, an **Engineering Evaluation / Cost Analysis (EE/CA)**, dated June 2002, was performed to determine removal action alternatives for Site 6. Subsequent to the EE/CA, contaminated soils were removed from Site 6 in September 2002. Following the removal action, a Site 6 Closeout Report and Site 3 Removal Summary Report, dated March 2003, documented the removal action activity.

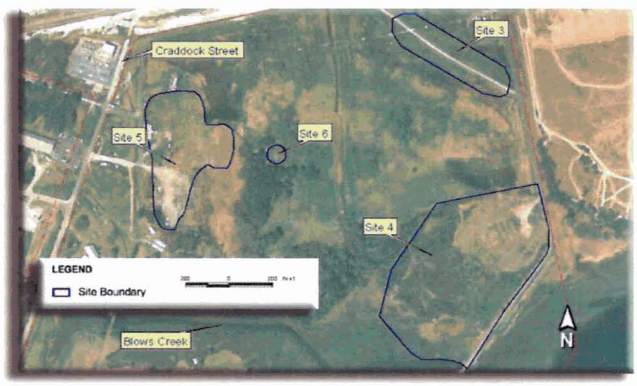

Figure 2. Site Location Map

The following paragraphs briefly summarize the purpose and scope of the previous investigations completed to date at Site 6.

Initial Assessment Study (1981)

In 1981, the Navy conducted the IAS as part of the Naval Assessment and Control of Installation Pollutants (NACIP) Program. The purpose was to qualitatively identify and assess sites that posed a potential threat to human health or the environment as a result of contamination from past handling of (and operations involving) hazardous materials. This study's results determined that low-level concentrations of ordnance materials existed throughout the facility; however, the sites identified, including Site 6, were determined not to pose a threat to human health and the environment, and no confirmation study was conducted.

Phase II RCRA Facility Assessment (1989)

A.T. Kearney, Inc., and K.W. Brown and Associates, Inc., prepared a Phase II RFA in 1989. The RFA included a preliminary review of all available relevant documents and a visual site inspection (VSI) for 34 Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs). No sampling was conducted during the RFA. The RFA recommended that further investigation at Site 6 should be combined with any RCRA Facility Investigation (RFI) activities at Site 5.

Relative Risk Ranking System Data Collection Report (1996)

CH2M HILL submitted a Relative Risk Ranking (RRR) System Data Collection Report for the SJCA to the Department of the Navy in April 1996. The goal of the sampling effort was to gather data for the Navy to perform assessments of the sites using the Navy's RRR System. One surface soil sample was collected from Site 6 at a depth of 0 to 1 foot. With the exception of three pesticides and one metal, the detected compounds were at concentrations below background levels.

Remedial Investigation (1997 through 2003)

Because Site 6 covers a small area and is located near Site 5, the Site 6 RI was conducted as part of the Site 5 RI and was included with the RI documentation for Sites 3, 4, and 5/6. Surface soil is the primary medium of concern at Site 6. The nature and extent of contamination, as well as likely fate and transport of contaminants, were characterized during the RI and are discussed in this Proposed Plan in Section 3. A baseline **Human Health Risk Assessment (HHRA)** was conducted to evaluate the potential human health risks associated with the presence of site-related soil, surface water, sediment, and deep- and shallow-groundwater contamination at Sites 5/6. Additionally, a screening **Ecological Risk Assessment (ERA)** was conducted to evaluate the potential ecological risks to terrestrial and aquatic **receptors**.

Given that Site 6 is a very small area where remnants of the caged unit was believed to be buried, the Navy, USEPA, and VDEQ agreed that complete removal of the caged unit and associated potential risk from exposure to soil at Site 6 was warranted.

Engineering Evaluation/Cost Analysis (2002)

Subsequent to the RI, an EE/CA was performed in accordance with USEPA and Navy guidance for a non-time-critical removal action (NTCRA) under **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**. The purpose was to identify and analyze remedies or removal actions to mitigate potential risk at Site 6. Three alternatives were identified, evaluated, and ranked. Based on the comparative analyses of the removal alternatives, the selected removal action involved excavation, disposal characterization (including unexploded ordnance [UXO] oversight), and disposal of the remnants of the caged unit at Site 6. This eliminated potential risk related to Site 6 and was most protective of human health and the environment. The volume of the material and soil to be removed was estimated to be 60 cubic yards. Confirmatory samples were to be collected from the remaining soils at the sides and bottom of the excavated areas to verify that cleanup goals were met.

Site 6 Soil Removal Action (2002)

The Navy contracted the removal activity at Site 6 to OHM Remediation Services Corporation (OHM/SHAW) of Virginia Beach, Virginia. Removal activities took place in September 2002.

The initial extent of excavation at Site 6 was defined on the basis of soil-sampling results and geophysical survey data collected as part of the RI and previous investigations. The data used to determine the Site 6 excavation limits were derived from the RI. Closure for Site 6 was achieved by removing all remnants of the caged unit and associated soil at Site 6.

Because all Site 6 surface soils were excavated, groundwater and subsurface soil remain the only medium of concern. Following the removal at Site 6, the groundwater and subsurface soil confirmatory sampling results were used to assess potential risks posed to human health and ecological receptors. The confirmatory sampling results indicated no remaining risk at Sites 6 and the results are summarized in Section 5.

3 Site Characteristics and Nature and Extent of Contamination

3.1 Site Characteristics

Site 6 currently consists of a small, open, grass-covered area east of Craddock Street in the facility's northern portion (Figure 1). The site is not used for any facility activities and there are no buildings at the site. The site's topography is relatively flat with a land surface elevation of approximately 8 feet above mean sea level. The land surrounding Site 6 is open grassland with Site 5, the Burning Grounds, to the west.

Groundwater at the site ranges seasonally between 3 and 9 feet below ground surface and flows toward nearby surficial water bodies (i.e., Blows Creek to the south and the Southern Branch of the Elizabeth River to the southeast) and the low-lying marsh area between Site 5 and Blows Creek. Site 6 groundwater was characterized in the RI as part of Site 5. Surface water runoff from Site 6 flows west to the nearby surface water bodies and through a drainage swale to the Site 5 marsh area.

As previously noted, Site 6 was investigated as part of Site 5 because of its size, proximity to Site 5, and similar influence on surface water and sediment. Consequently, groundwater, surface water, and sediment samples were not collected at Site 6 during the RI. Primary fate and **contaminant migration pathways** for constituents of interest (COIs) at Sites 5 and 6 were examined, including their dissolution and suspension in sediment and surface water, leaching into shallow groundwater,

discharge in groundwater to surface water, and transport to deep groundwater. The RI determined that transport of constituents through surface runoff and erosion from Site 6 was expected to be minimal.

3.2 Nature and Extent of Contamination

Constituents identified in surface soil which may cause potential impacts from Site 6 were barium and zinc, which were present at concentrations greater than background. Only barium also exceeded the risk-based screening criteria for human health and ecological receptors.

There were no constituents in subsurface soil which may cause potential impacts from Site 6. Arsenic and iron were detected at concentrations that exceeded the residential human health screening criteria; however, neither compound exceeded background concentrations. One volatile organic compound (VOC) and three SVOCs were detected in subsurface soil but none exceeded their respective background concentrations or residential human health-screening criteria.

The RI presents a summary of the risks determined by the baseline HHRA and screening ERA. Section 5 of this Proposed Plan summarizes the potential risk associated with Site 6 following implementation of the NTCRA.

4 Scope and Role of Response Action

This section of the Proposed Plan addresses the evaluation of remedial alternatives for Site 6, Small Arms Unit. The response action does not include or affect any other sites at the facility that fall under the CERCLA process.

The role of the preferred alternative presented in this proposed plan is to address all potential threats posed by Site 6 and to eliminate current exposure pathways that may pose unacceptable human health or ecological risk from contamination. The specific objectives of the preferred remedy are referred to as **Remedial Action Objectives (RAOs),** listed in Section 6.

5 Summary of Site Risks

This section examines the current risks associated with Site 6 following the removal of soil and the remnants of the caged unit. Media of concern at Site 6 are subsurface soil and groundwater. A more-detailed discussion of risk previously found at Site 6 can be found in the RI (CH2M HILL, 2003) and, subsequent to the removal action, in the Closeout Report (CH2M HILL, 2003).

TABLE 1

Site 6 Risk Assessment Results

Media	Human Health Risk	Ecological Risk
Surface Soil	Within acceptable limits	Within acceptable limits
Subsurface Soil	Within acceptable limits	Not Evaluated
Groundwater	Within acceptable limits[a]	Not Evaluated

[a]Non-carcinogenic risk based on future use as drinking water source

5.1 Human Health Summary

There are no human health risks associated with Site 6. All surface soil has been removed from Site 6, and therefore no human health risk exists from surface soil at Site 6. A subsurface soil sample was collected from the excavation floor at Site 6, following removal of the remnants of the caged unit, and was submitted to the laboratory for analysis. The parameters detected in subsurface soil prior to the removal action at Site 6 that posed a potential human health risk, as identified in the RI, were arsenic and iron. The confirmatory sample results for these compounds were below background concentrations; therefore, Site 6 activities have not impacted subsurface soil.

Though Site 6 groundwater was not considered a risk in the RI, one groundwater sample was collected from the excavation and submitted to the laboratory for analysis. There were no exceedances of the **Federal Drinking Water Maximum Contaminant Level (MCL)** in the Site 6 groundwater sample. The Site 6 groundwater sample results were below the maximum, and for most parameters, even below the mean groundwater concentrations reported in the RI for Sites 5/6, where no human health risks were identified for shallow groundwater. Although total arsenic and total and dissolved manganese concentrations exceeded the adjusted tap water RBCs, concentrations were less than those reported for upgradient groundwater in this dredged-filled portion of SJCA and were consistent with concentrations reported for facilitywide background groundwater (CH2M HILL, October 2001). These data showed that historical activities at Site 6 have not impacted groundwater beneath the site.

5.2 Ecological Risk Summary

All surface soil has been removed from Site 6 and, therefore, no ecological risk to terrestrial receptors exists from Site 6.

Although total aluminum and total and dissolved manganese were detected in the groundwater sample collected following the NTCRA, the concentrations did not exceed the ecological surface water risk screening values. An ecological risk assessment of Blows Creek, a receiving body for Site 6 groundwater and surface water, is planned for Fiscal Year 2003.

What is Risk and How is it Calculated?

A human health risk assessment estimates the "baseline risk." This is an estimate of the likelihood of health problems occurring if no cleanup action were taken at a site. To estimate the baseline risk at a site, the Navy performs the following four-step process:

Step 1: Analyze Contamination

Step 2: Estimate Exposure

Step 3: Assess Potential Health Dangers

Step 4: Characterize Site Risk

In Step 1, the Navy looks at the concentrations of contaminants found at a site as well as past scientific studies on the effects these contaminants have had on people (or animals, when human studies are unavailable). Comparisons between site-specific concentrations and concentrations reported in past studies help the Navy to determine which contaminants are most likely to pose the greatest threat to human health.

In Step 2, the Navy considers the different ways that people might be exposed to the contaminants identified in Step 1, the concentrations that people might be exposed to, and the potential frequency (how often) and length of exposure. Using this information, the Navy calculates a "reasonable maximum exposure" (RME) scenario that portrays the highest level of human exposure that could reasonably be expected to occur.

In Step 3, the Navy uses the information from Step 2 combined with information on the toxicity of each chemical to assess potential health risks. The Navy considers two types of risk: (1) cancer risk, and (2) noncancer risk. The likelihood of any kind of cancer resulting from a contaminated site is generally expressed as an upper bound probability; for example, a "1 in 10,000 chance." In other words, for every 10,000 people that could be exposed, one extra cancer may occur as a result of exposure to site contaminants. An extra cancer case means that one more person could get cancer than normally would be expected to from all other causes. For noncancer health effects, the Navy calculates a "hazard index." The key concept here is that a "threshold level" (measured usually as a hazard index of less than 1) exists below which noncancer health effects are no longer predicted.

In Step 4, the Navy determines whether site risks are great enough to cause health problems for people at or near the site. The results of the three previous steps are combined, evaluated, and summarized. The Navy adds up the potential risks from the individual contaminants and exposure pathways and calculates a total site risk.

6 Remedial Action Objectives

It is the Navy's current judgement, after consultation with VDEQ and USEPA, that the Preferred Alternative identified in the Proposed Plan will protect public health, welfare, and the environment from actual or threatened releases of hazardous substances. The site-specific remedial action objective (RAO) for Site 6 is as follows:

- Prevent or minimize direct contact of human and ecological receptors with remnants of the caged unit.

7 Summary of Remedial Alternatives

Based upon the results of the NTCRA conducted at Site 6 in September 2002, the Navy, USEPA, and VDEQ have determined that the site no longer poses an unacceptable risk. Therefore, no other alternative beyond the NFA alternative was considered or evaluated.

8 Preferred Alternative

In accordance with 40 CFR Section 300.430(f)(2), the assessment of risk information as related to both human health and the environment is detailed in the preceding Summary of Site Risks (Section 5). Sections 2 and 4 provide the investigation summary information and rationale to determine that Site 6 no longer poses an unacceptable risk to human health or the environment, due to the Site 6 soil removal activity performed in September 2002. Therefore, pursuant to 40 CFR Section 300.425(e)(1)(iii), the taking of remedial measures at Site 6 is no longer appropriate. Hence, the no-action alternative is the only remedial alternative considered, and a feasibility study (FS) as defined in 40 CFR Part 300.430 (e) is not required for Site 6. **Therefore, the Navy recommends No Further Action as the Preferred Alternative for Site 6. The estimated cost to implement this alternative is $0.**

The Navy, VDEQ, and USEPA support the Preferred Alternative. However, their final concurrence with the alternative will be provided following review of all comments received during the

public comment period. The Preferred Alternative could change based on public comments.

Based on information currently available, the lead agency believes the Preferred Alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternatives with respect to the balancing and modifying criteria. The Navy expects the Preferred Alternative to satisfy the following statutory requirements of CERCLA §121(b): 1) be protective of human health and the environment; 2) comply with Applicable or Relevant and Appropriate Requirements (ARARs); 3) be cost-effective; 4) utilize permanent solutions and alternative treatment technologies to the maximum extent practicable; and 5) satisfy the preference for treatment as a principle element (or justify not meeting the preference).

9 Community Participation

A community relations program is being conducted through the installation restoration process. Public input is a key element in the decisionmaking process. Nearby residents and other interested parties are strongly encouraged to use the comment period to relay any questions and concerns about Site 6 and the Preferred Alternative. The Navy will summarize and respond to comments in a responsiveness summary, which will become part of the official **Record of Decision (ROD)**.

This proposed plan fulfills the public participation requirements of CERCLA Section 117(a), which specifies that the lead agency (i.e., the Navy) must publish a plan outlining any remedial alternatives evaluated for the site and identifying the Preferred Alternative. All documents referenced in this Proposed Plan are available for public review at the information repositories (see Section 9.3 below).

A restoration advisory board (RAB) was formed in 1994. Meetings continue to be held to provide an information exchange among community members, the EPA, VDEQ, and the Navy. These meetings are open to the public and are held about every 3 months.

9.1 Public Comment Period

The public comment period for the Proposed Plan provides an opportunity to provide input regarding the source control and risk reduction process for Site 6. The public comment period will be from June 3 to July 3, 2003, and a public meeting will be held on June 10, 2003 at the Major Hillard Library, St. Juliens Creek Annex at 5:30 PM. All interested parties are encouraged to attend the meeting to learn more about the alternatives developed for Site 6. The meeting will provide an additional opportunity to submit comments on the Proposed Plan to the Navy.

Comments must be postmarked no later than July 7, 2003. On the basis of comments or new information, the Navy may modify the Preferred Alternative or choose another alternative. The comment page included as part of this Proposed Plan may be used to provide comments to the Navy.

9.2 Record of Decision

After the public comment period, the Navy, in consultation with the USEPA and VDEQ, will determine how the Proposed Plan should be modified on the basis of comments received. Any required modifications will be made by the Navy and reviewed by the USEPA and VDEQ. If the modifications substantially change the proposed remedy, additional public comment may be solicited. If not, then the USEPA and Navy will prepare and sign the ROD. The ROD will detail the remedial actions chosen for the site and will include the Navy's responses to comments received during the public comment period.

9.3 Available Information

The Community Relations Plan, Installation Restoration Program fact sheets, and final technical reports concerning Site 6 are available to the public at the following location:

Major Hillard Library
824 Old George Washington Hwy N
Chesapeake, Virginia 23323
(757) 382-3600

If individuals have any questions about SJCA Site 6, they may call or write to one of the contacts listed below.

During the comment period, interested parties may submit written comments to the following addresses:

Ms. Dawn Hayes, Code EV-22DH
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street, Norfolk, VA 23511-2699
(757) 322-4792
Fax: (757) 322-4805

Mr. Todd Richardson, Code 3HS13
Remedial Project Manager
USEPA Region III
1650 Arch Street, Philadelphia, PA 19103
(215) 814-5264
Fax: (215) 814-3051

Ms. Debra Miller
Remedial Project Manager
Virginia Dept. of Environmental Quality
629 Main Street, 4th Floor, Richmond, VA 23219
(804) 698-4206
Fax: (804) 698-4234

Glossary

ARARs: Applicable or Relevant and Appropriate Standards, Limitations, Criteria, and Requirements. These are federal or state environmental rules and regulations.

Background Concentration: Concentrations of naturally occurring and manmade constituents, such as metals, found in groundwater, soil, sediment, and surface water in areas not impacted by spills, releases, or other site-specific activities. Background concentrations of some metals and other constituents are often at levels that may pose a risk to human health or the environment. These background-related risks should be considered (i.e., subtracted) when calculating the risk posed by site conditions.

Carcinogenic Risk: Cancer risks are expressed as a number reflecting the increased chance that a person will develop cancer if exposed to chemicals or substances. For example, EPA's acceptable risk range for Superfund sites is 1×10^{-4} to 1×10^{-6}, meaning there is 1 additional chance in 10,000 (1×10^{-4}) to 1 additional chance in 1 million (1×10^{-6}) that a person will develop cancer if exposed to a site that is not remediated.

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act. A federal law, commonly referred to as the "Superfund" Program, passed in 1980 that provides for cleanup and emergency response in connection with numerous existing inactive hazardous waste disposal sites that endanger public health and safety or the environment.

Contaminant Migration Pathway: The routes that site contaminants may take to get from the source of contamination to a human being, animal, or plant.

EE/CA: Engineering Estimate/Cost Analysis. A study conducted as part of a non-time-critical short-term cleanup. The EE/CA identifies cleanup objectives and analyzes various alternatives in terms of cost, effectiveness, and ease of implementation.

ERA: Ecological Risk Assessment. An evaluation of the risk posed to the environment if remedial activities are not performed at the site.

FS: Feasibility Study. Analysis of the practicability of a remedial proposal. The feasibility study usually recommends the selection of a cost-effective alternative.

Groundwater: Subsurface water that occurs in soils and geologic formations that are fully saturated.

HHRA: Human Health Risk Assessment. An evaluation of the risk posed to human health should veloped by USEPA. The highest level of a contaminant that is allowed in drinking water.

NCP: National Oil and Hazardous Substances Contingency Plan. Provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.

Noncarcinogenic Risk: Noncancer hazard (or risk) is derived by comparing the estimated exposure to a contaminant to the threshold level of exposure below which no adverse health effects are likely to occur (the reference dose). The noncancer hazard is expressed as a quotient. When this number is equal to or less than 1, no adverse health effects are anticipated. However, if it exceeds 1, there may be a concern for potential noncancer effects.

NPL: National Priorities List. A list, developed by USEPA, of uncontrolled hazardous substances release sites in the United States that are considered priorities for long-term remedial evaluation and response.

Present-Worth Cost: Total cost, in current dollars, of the remedial action. The present-worth cost includes capital costs required to implement the remedial action, as well as the cost of long-term operations, maintenance, and monitoring.

Proposed Plan: A document that presents and requests public input regarding the proposed cleanup alternative.

Public Comment Period: The time allowed for the members of an affected community to express views and concerns regarding an action proposed to be taken by USEPA, such as a rule-making, permit issuance, or Superfund-remedy selection.

RAOs: Remedial Action Objectives. Objectives of remedial actions that are developed based on contaminated media, contaminants of concern, potential receptors and exposure scenarios, human health and ecological risk assessment, and attainment of regulatory cleanup levels, if any exist.

Receptors: Humans, animals, or plants that may be exposed to risks from contaminants related to a given site.

Remedial Action: Implementation of the selected remedy.

RFA: A document produced as part of the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA), that authorizes the USEPA to require corrective action for releases of hazardous waste or hazardous constituents from solid waste management units (SWMUs) and other areas of concern (AOCs) at all operating, closed, or closing RCRA facilities. The RFA includes a Preliminary Review (PR) of all available relevant documents, a Visual Site Inspection (VSI), and, if appropriate, a Sampling Visit (SV).

RI: Remedial Investigation. A study of a facility that supports the selection of a remedy where hazardous substances have been disposed or released. The RI identifies the nature and extent of contamination at the facility.

ROD: Record of Decision. A legal document that describes the cleanup action or remedy selected for a site, the basis for choosing that remedy, and public comment on alternative remedies.

Site: The facility and any other areas in close proximity to it where a hazardous substance, hazardous waste, hazardous constituent, pollutant, or contaminant from the facility has been deposited, stored, disposed of, placed; has migrated; or otherwise come to be located.

USEPA: United States Environmental Protection Agency. The federal agency responsible for administration and enforcement of CERCLA (and other environmental regulations), and with final approval authority for the selected ROD.

VDEQ: The Virginia Department of Environmental Quality. The Commonwealth agency responsible for administration and enforcement of Commonwealth environmental regulations.

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TO: **Ms. Dawn Hayes, Code EV-22DH**
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street
Norfolk, VA 23511-2699

Please print or type your comments here