N62661.AR.002600
NS NEWPORT
5090.3a

EXPLANATION OF SIGNIFICANT DIFFERENCE TO RECORD OF DECISION SITE 9 OLD FIRE FIGHTER TRAINING AREA (OFFTA) WITH TRANSMITTAL NS NEWPORT RI
5/1/2012
TETRA TECH

TETRA TECH

PITT-05-12-003

May 1, 2012

Project Number 112G00632

Ms. Kymberlee Keckler, Remedial Project Manager
USEPA Region I
5 Post Office Square Ste100
Boston, Massachusetts 02109-3912

Ms. Pamela Crump, Project Manager
Office of Waste Management
Rhode Island Department of Environmental Management
235 Promenade St.
Providence, Rhode Island 02908-5776

Reference: CLEAN Contract No. N62472-03-D-0057
Contract Task Order (CTO) No. 0065

Subject: Draft Explanation of Significant Differences
Site 09, Old Fire Fighting Training Area (OFFTA)
Naval Station Newport, Rhode Island

Dear Ms. Keckler, Ms. Crump:

On behalf of Ms. Winoma Johnson U. S. Navy NAVFAC, submitted for your review is the Draft Explanation of Significant Differences for the Old Fire Fighting Training Area (OFFTA) at Naval Station Newport, Rhode Island. Due to the small size, the electronic submittal is being made to you via electronic mail and CDs are not going to be produced.

Should you have any questions or comments please feel free to contact me at 978-474-8412 or Dan Witt at 412-921-8259.

Very truly yours,

Daniel C Witt FOR

James R. Forrelli, P.E.
Senior Project Manager

DCW/clm

Enclosures

c: P. Crump, RIDEM (w/encl. – 1)
W. Johnson, NAVFAC (w/encl. - 1)
D. Ward, NAVFAC (w/encl. - 1)
S. Parker, Tetra Tech (w/encl. - 1)
G. Glenn, Tetra Tech (w/o encl.)
P. Steinberg, Mabbett and Assoc. (w/encl. - 1)
AR – c/o G. Wagner, Tetra Tech (w/encl. - 1)
File G00632-3.2 (w/o encl.)/G00632-5.0 (w/encl. - 1)

Tetra Tech
661 Andersen Drive, Pittsburgh, PA 15220-2700
Tel 412.921.7090 Fax 412.921.4040 www.tetratech.com

Explanation of Significant Differences

Site 9, Old Fire Fighting Training Area

Naval Station Newport, Rhode Island

Addition of Asbestos as a Contaminant of Concern

Introduction and Statement of Purpose

An Explanation of Significant Differences (ESD) is required for Site 9, Old Fire Fighting Training Area (OFFTA) at Naval Station (NAVSTA) Newport, Rhode Island, to modify the Record of Decision (ROD) by adding asbestos as a contaminant of concern (COC). The modification is significant because it adds a COC to be addressed by the selected remedy but does not fundamentally alter the overall cleanup approach documented in the ROD for Site 9 signed in September 2010.

The Navy is the lead agency, with oversight from the United States Environmental Protection Agency (U.S. EPA) and Rhode Island Department of Environmental Management (RIDEM), for cleanup of sites at NAVSTA Newport in the Installation Restoration (IR) Program under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as modified by the Superfund Amendments and Reauthorization Act (SARA). The Navy is issuing this ESD for Site 9 at NAVSTA Newport as part of the public participation requirements under Section 117(c) of CERCLA, Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and the Navy IR Program. In accordance with Section 300.825(a) (2) of the NCP, this ESD will become part of the Administrative Record for the facility. The Administrative Record also contains background information that was used in determining the selected remedy as documented in the ROD and in preparing this ESD. The Administrative Record for NAVSTA Newport is included as part of the Information Repository, which is available for review at the following web site:

http://go.usa.gov/Tsy

This ESD documents the addition of asbestos as a COC that will be addressed by the selected remedy. The ROD outlined the Navy's planned response to contaminated soil and groundwater at Site 9, including covering contaminated soil with a geotextile-lined soil cover in the grassy areas or with asphalt/concrete in paved areas, maintenance of the cover, and land use controls (LUCs). The ROD identified the chemicals of concern (COCs) for Site 9 based on the results of the Remedial Investigation (RI); however, during installation of a replacement stone revetment on the Site 9 site (conducted as part of a non-time-critical removal action), asbestos-containing materials (ACMs) were discovered buried in soil at the site. These materials were pieces of vinyl asbestos floor tile containing between 3 and 5 percent asbestos by bulk analysis. Although asbestos was not originally identified as a COC for Site 9, the remedy for the site as outlined in the ROD will be protective of human health and the environment with respect to the COCs identified in the ROD as well as asbestos.

Site History, Contamination, and Selected Remedy

Site History

NAVSTA Newport was placed on the National Priorities List (NPL) in 1989. Multiple investigations have been performed at Site 9, including a RI (2001), Groundwater Risk Evaluation (2002), Draft Feasibility Study (2002), Soil Pre-Design Investigation (2004-2005), Supplemental Risk Evaluation (2007), and Revised Draft Final Feasibility Study, finalized through a July 2010 Technical Memorandum (2009-2010). The final remedy for the site was documented in the ROD, which was signed by the Navy and EPA Region I in September 2010, with concurrence from RIDEM.

Site 9 is approximately 8.2 acres and is a mix of active parking areas and construction lay-down areas for construction projects in the immediate vicinity. Future use of the site was proposed in 2004 by the Navy to be unrestricted. However, in 2008, the NAVSTA Master Plan was updated, and the site was identified as planned parking for a new fitness facility to be constructed south of the site. The selected remedy will be protective of human health and the environment under this planned land use, which would be equivalent to an industrial/commercial use.

The site was the location of a Navy fire fighting training facility from World War II until 1972. During training operations, fuel oils were ignited in various structures at the site and then were extinguished by trainees. Underground piping reportedly carried the water/oil mixture from underground storage tanks (USTs) to the structures. Unburned fuels and water were drained from the buildings and routed to an oil-water separator before being discharged to Coasters Harbor. Upon closure in 1972, the training structures were demolished and buried in mounds on the site. The entire area was then covered with topsoil and converted to a recreational area that included a baseball field, picnic area, and open pavilion. This recreational area was opened as "Katy Field" in 1976 for Navy use. During a short period in the 1990s, local

community youth baseball teams were allowed to use the baseball field, and Building 144 was used as a day care facility. Katy Field was used for recreation until it was closed and fenced in October 1998 because of potential environmental and human health concerns. Building 144 was demolished in 2009.

In 2003, the Surface Warfare Officers School (SWOS) Applied Instruction Building was constructed on a portion of the site south of the now former Katy Field (Building 1362). The SWOS is separated from the former Katy Field by Taylor Drive. During construction, contaminants detected within the construction zone were determined to be similar to and contiguous with those at the former Katy Field. As a result, the SWOS area and soils under a portion of Taylor Drive were added to Site 9.

A series of non-time-critical removal actions have been conducted to remove soil-covered mounds of debris resulting from demolition of the fire fighting training area, to remove soil with contaminant concentrations exceeding RIDEM upper concentration limits (UCLs), and to replace the stone revetment along the shoreline to prevent erosion of contaminated soil from the site.

During the removal action associated with the stone revetment replacement, ACM was encountered, which likely resulted from poor housekeeping associated with the building demolition activities. The work plan for this project was revised to include removal and off-site disposal of ACM encountered during excavation activities within the footprint of the revetment.

Soil Contaminants of Concern at Site 9

Following the removal actions, the remaining soils at the site contain polycyclic aromatic hydrocarbons (PAHs) and metals, comingled with petroleum-related contaminants, at concentrations that pose potentially unacceptable risk to human receptors under hypothetical future residential and unrestricted recreational scenarios, as well as under the current industrial use scenario. The soil COCs listed in the ROD for Site 9 include arsenic, lead, manganese, benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, and dibenzo(a,h)anthracene. Asbestos was not identified as a COC in the ROD. This memorandum adds asbestos to the list of soil COCs for Site 9.

Selected Remedy

The selected remedy for Site 9 includes the following components:

- An asphalt/soil cover system.
- Surface water control structures in paved areas.
- Development and implementation of land use controls (LUCs).
- Maintenance of the cover systems.
- Monitoring.
- Five-year reviews.

Cover System

The asphalt/soil cover system will be designed and constructed over the area of contaminated soil (approximately 8.6 acres) to reduce site-wide average exposure concentrations to less than soil industrial cleanup levels. Areas that are not paved will receive a 2-foot soil cover consisting of geotextile and 18 inches of clean fill overlain by 6 inches of topsoil, which will be graded and vegetated to prevent ponding of rainwater and to prevent erosion. Areas that are currently paved (or to be paved) for parking, roadways, and sidewalks will provide an effective barrier to prevent access to contaminated soil, including soil contaminated with total petroleum hydrocarbons (TPH). Areas to be paved will be provided an asphalt cover or will be covered with some other surface material providing a reduced permeability similar to that of asphalt.

The geotextile will separate the clean fill from the underlying contaminated soil and will serve as a marker layer if any future land-disturbing activities are conducted. Grassed traffic islands around the SWOS building parking lots will be covered with a modified permeable cap consisting of 6 inches of topsoil underlain by a geogrid that will serve as a barrier layer to incidental excavation in the area. The existing 6 inches of topsoil will be stripped off, the geogrid placed, and the 6 inches of topsoil replaced. Alternatively, these grassed islands could be paved and replaced with vehicle stops.

For areas that are currently covered by pavement or sidewalks (including Taylor Drive, the SWOS parking areas, walkways, etc.), the existing pavement will provide a suitable barrier to direct contact with underlying soil and to infiltration of rainwater into underlying soil.

The replacement stone revetment along the northern perimeter of the site (replaced as part of a non-time-critical removal action) will protect the northern edge of the soil cover from erosion by ocean waves, and will provide stability during coastal flooding events, and will contain any potential migration of contaminated soil toward the sediment. Long-term maintenance of the revetment will be conducted along with asphalt/soil cover maintenance as described below.

Surface Water Controls

Surface water control structures will be installed in paved areas to collect and prevent intrusion of runoff water into the subsurface and direct it to existing or new on-site storm drainage systems.

LUCs

LUCs will be developed and implemented to accomplish the following:

- Establish a waste management area for the site where contaminants associated with releases from fire training operations remain in place. The waste management area will encompass all of the area within the Site 9 boundary and be maintained and monitored by the Navy.
- Restrict property uses to those consistent with industrial/commercial activities, such as parking,

roadways, sidewalks, material stockpiles, heavy equipment storage, etc.

- Prevent use of groundwater at the property for any consumptive purpose, including for household use, drinking water supply, irrigation, or industrial use.
- Prevent excavation or disturbance of the asphalt/soil cover, monitoring wells, and any other components of the remedy, and prevent access to contaminated soil by persons who are not adequately trained and properly informed of the hazards associated with such activities.
- Establish LUC compliance monitoring requirements, as described below.

The LUC will be established and implemented in accordance with a post-ROD LUC Remedial Design (RD) that is in draft final format and undergoing regulatory review. If the property is transferred from the Navy to another federal owner, upon meeting the requirements for transfers under the facility's Federal Facility Agreement, the Navy will ensure as part of the transfer process that the gaining agency is made aware of the existing controls and will take appropriate action to ensure that such controls remain in place. If the property is ever transferred to non-federal ownership, deed restrictions, meeting state property law standards, will be recorded that will incorporate the land use restrictions required by the ROD. Although the Navy may transfer the procedural LUC responsibilities to another party by contract, property transfer agreement, or through other means, the Navy shall retain ultimate responsibility for remedy integrity. LUCs will be maintained at Site 9 until concentrations of hazardous substances in soil and groundwater are at such levels to allow for unrestricted use and exposure.

Maintenance

Maintenance of the cover systems will be conducted to ensure continued protection of receptors. Maintenance will be conducted as needed and as defined by the periodic inspection schedule to be generated by the Installation Commander's designee.

Monitoring

Monitoring will be conducted to ensure that the cover system remains intact, that the revetment is not breached and is still providing protection of soil from erosion, and to ensure that contaminants are not migrating beyond the property boundary. A Long-Term Monitoring Program (LTMP) Work Plan will be developed to describe the monitoring parameters. At a minimum, the monitoring program will include the following:

- Groundwater monitoring upgradient of the compliance boundary to ensure that contaminants are not migrating away from the site into areas that have no current LUCs to prevent groundwater use.
- Sediment monitoring downgradient of the compliance boundary to ensure that contaminants are not migrating into the marine ecosystem.
- Annual inspections of the cover system, revetment, and land use and land improvements to ensure that there are no violations of the land use restrictions. The Installation Commander or his designee will provide annual certification of the inspections to EPA and RIDEM. If a violation of the restrictions occurs, a description of the violation and the corrective actions to be taken to restore protectiveness will be reported to EPA and RIDEM.

Five-Year Reviews

Five-year reviews will be required because contaminants with concentrations that exceed cleanup goals are being managed in place. The five-year reviews for Site 9 will be prepared along with reviews for the other IR Program sites on the same cycle. Five-year reviews will be conducted in accordance with current Navy and EPA guidance. The need to continue each element of the Site 9 monitoring program will be revisited at each five-year review cycle, and the LTMP Work Plan will be revised as appropriate. The last five-year review was conducted in 2009, and the next five-year review will be conducted in 2014 (final report due December 2014).

Basis for the Document

This ESD addresses the Navy's discovery of asbestos, a new COC, at Site 9 following signing of the ROD. During construction of the replacement stone revetment at Site 9 in 2010, the Navy discovered pieces of resilient floor covering in the subsurface and found that this material contained asbestos. This material is also known as vinyl asbestos tile (VAT). The Remedial Action Contractor reported that there are two types of ACM present, green floor tile with 3 percent asbestos and brown floor tile with up to 5 percent asbestos. The material was found during excavation activities as 1-inch to 6-inch loose pieces in the subsurface and as whole tiles affixed to pieces of concrete rubble.

Description of Significant Differences

ACM appears to have been inadvertently placed at the shoreline of the site at some time in the past as part of the placement of concrete floor slabs to reduce erosion. Over time, some of this material apparently became dislodged from the concrete and mixed within subsurface soil at the shoreline. The material found during excavation may extend landward of the limits of the excavation for the replacement stone revetment, and therefore it is presumed that there may be other pieces of VAT in the subsurface soil that will be covered with the soil/asphalt cover specified in the ROD. This material will be managed in place along with the other site COCs though establishment of a waste management area, as documented in the ROD. This ESD documents the addition of asbestos as a COC that will be addressed by the selected remedy. The ROD outlined the Navy's planned response to contaminated soil and groundwater at Site 9, including covering contaminated soil with a geotextile-lined soil cover in the grassy areas or with asphalt/concrete in paved areas, maintenance of the cover, and land use controls (LUCs).

The ROD identified the chemicals of concern (COCs) for Site 9 based on the results of the Remedial Investigation (RI);

however, during installation of a replacement stone revetment on the Site 9 site (conducted as part of a non-time-critical removal action), asbestos-containing materials (ACMs) were discovered buried in soil at the site. These materials were pieces of vinyl asbestos floor tile containing between 3 and 5 percent asbestos by bulk analysis.

The selected remedy will be protective of human health and the environment with regard to the original list of COCs as presented in the ROD and with regard to asbestos, which is now a COC as documented in this ESD. The cover required by the ROD will prevent direct exposure to asbestos and will prevent asbestos fibers from becoming airborne.

Support Agency Comments

U.S. EPA and RIDEM representatives, as part of the NAVSTA Newport IR Team, have had ongoing involvement in the decision-making process associated with the change in the Site 9 remedy. The Navy has obtained concurrence from the U.S. EPA and RIDEM on the modification to the cleanup remedy for Site 9.

Statutory Determinations

ACM, which is regulated in buildings and building construction/demolition/remodeling, is found as insulation and fireproofing material and in miscellaneous building materials including ceiling tiles, mastics, caulking, and plasters. Asbestos is also found in brake and clutch linings, gaskets, specialty fabrics, and other products. As a result, asbestos-related regulations have evolved to protect persons interacting with the materials. These include the Mine Safety and Health Administration (MSHA) and Occupational Safety and Health Administration (OSHA) (rules for protection of workers mining and manufacturing asbestos and conducting building abatements), Asbestos Hazard Emergency Response Act (AHERA) (rules for managing asbestos in schools and other public buildings), Department of Transportation (DOT) (rules for transportation of ACM), Toxic Substances Control Act (TSCA) (limitations on use/content of asbestos in products manufactured and sold in the United States), and Clean Air Act (National Emission Standards for Hazardous Air Pollutants [NESHAPs] Subpart M, which describes the air emission and compliance requirements for removal and disposal of ACM).

All regulatory requirements that discuss disposal of ACM refer to the Clean Air Act (NESHAPs, Subpart M) for the management of asbestos waste at sites such as currently active disposal sites and inactive previous disposal sites at facilities, such as asbestos mills and manufacturing and fabricating operations, where ACM has not been disposed of within the past year. NESHAP requirements for inactive waste disposal sites such as asbestos mills and manufacturing and fabricating operations (Section 61.151) are not directly applicable to Site 9 (an area of miscellaneous/inadvertent disposal of ACM), but these requirements would be considered relevant and appropriate to address asbestos management at Site 9.

NESHAP 40 CFR 61 is included as an ARAR in Table A-3 of the ROD. The requirements of Section 61.151 are adequate to prevent exposure to and migration of ACM if any remains within the boundaries of the site after the remedy is completed. Because the ROD establishes a waste management area with LUCs, directs the construction of a cover, and includes inspections and five-year review documentation, the ROD is consistent with this part of NESHAP; therefore, revision to the ARARs in the ROD is not necessary. The action to be taken to attain this ARAR for the COCs as cited in the ROD is to monitor air emissions during regrading of soil prior to installation of the cover, and this action is also appropriate to address ACM.

In situations where ACM is part of a CERCLA site, EPA directs responsible parties to the Framework for Investigating Asbestos – Contaminated Superfund Sites (Office Of Solid Waste and Emergency Response [OSWER] Directive 9200.0-68 September 2008). This guidance document describes methods for sampling, analysis, and evaluation of media contaminated with asbestos for site characterization purposes and describes methods for measuring activity-based risk from those media. Such activity-based assessments are appropriate for determining the need for a remedy, particularly when future site conditions and use are considered. The risk assessment methods are appropriate for evaluating risk from contaminated soil that could produce dust and allow asbestos fibers to become airborne. The framework lists a six-step process to conduct an asbestos site assessment including (1) review of historical and current information, (2) determining if there has been a release to the environment, (3) determining if human exposure is likely under current or future site conditions, (4) performing preliminary environmental sampling, (5) performing Site-Specific Activity Based Sampling, and (6) Response action or institutional controls. The framework allows the site assessment to move to the response action at any point in the process after the first step, if the review of site conditions supports a response action, without additional investigation.

The Navy acknowledges that asbestos has been released into the environment at Site 9. The remedy documented in the ROD is an appropriate response action for the asbestos; therefore, additional investigation or risk assessment at Site 9 for asbestos is not required.

Asbestos is not a listed as a COC in the ROD; it is a previously unknown contaminant discovered during construction of the replacement stone revetment conducted under a non-time critical removal action. Because asbestos is included in the NESHAP cited as an ARAR in the ROD along with the appropriate action to be taken to attain the ARAR, a revision to the ARARs for the Site 9 remedy to account for this additional COC is not necessary. As cited in the ROD, the action to be taken to attain this ARAR is to monitor air emissions during regrading of soil prior to installation of the cover, and this action is also appropriate to address risks posed by asbestos. The remedy documented in the ROD will

be protective of human health and the environment for asbestos as well as the COCs cited in the ROD. The scope, performance, and cost of the remedy are not altered by the new information, and there is no change to any component of the remedy.

The proposed change to the selected remedy will continue to satisfy the statutory requirements of CERCLA Section 121, and the modified remedy will remain protective of human health and the environment and will continue to comply with federal and state ARARs and be cost effective.

Public Participation

Public participation requirements as outlined in the NCP, Section 300.435 (c) (2) (i) have been met.

For More Information

If you have questions or would like further information about the ESD for Site 9 - OFFTA at NAVSTA Newport, please contact:

Ms. Winoma Johnson
Navy Remedial Project Manager
NAVFAC MIDLANT, Code OPTE3
9742 Maryland Avenue, Bldg Z-144
Norfolk, VA 23511-3095
Telephone: (757) 341-2008
E-mail: winoma.johnson@navy.mil

Lisa Rama
Public Affairs Office
690 Peary Street
Naval Station Newport
Newport, RI 02841-1512
401-841-3538

Ms. Kymberlee Keckler
Remedial Project Manager
U.S. . Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Mail Code: OSRR07-3
Boston, MA 02109-3912
Telephone: 617-918-1385
E-mail: Keckler.Kymberlee@epamail.epa.gov

Ms. Pamela Crump
RIDEM Project Manager
Rhode Island
Department of Environmental Management
235 Promenade St.
Providence, RI 02908-5767
Telephone: (401) 222-2797 ext. 7020
E-mail: pamela.crump@dem.ri.gov

Declaration

The issuance of this ESD for Site 9 at NAVSTA Newport is concurred with.

United States Department of the Navy:

Captain Douglas Mikatarian **Date**
Commanding Officer, NAVSTA Newport

United States Environmental Protection Agency:

James T. Owens **Date**
Director
Office of Site Remediation and Restoration
U.S. EPA Region 1