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CONSENSUS LETTER REGARDING REMOVAL OF THE WASTE SLAG PILE ARE THE
AREA OF CONCERN 6 WASTE SLAG MATERIAL SUBAREA CHEATHAM ANNEX FISC
WILLIAMSBURG VA
1/23/2014
CH2M HILL

Removal of the Waste Slag Pile at the Area of Concern 6 Waste Slag Material Subarea, Naval Weapons Station Yorktown Cheatham Annex, Williamsburg, Virginia

PREPARED FOR: CAX Tier 1 Partnering Team:
Scott Park – NAVFAC Mid-Atlantic
Gerald Hoover – USEPA Region III
Wade Smith – VDEQ

PREPARED BY: CH2M HILL

DATE: January 23, 2014

This consensus letter documents the CAX Tier 1 Partnering Team's approval for the removal of the waste slag pile at the Waste Slag Material subarea within Area of Concern (AOC) 6 at Naval Weapons Station Yorktown Cheatham Annex (CAX). Following completion of the *Final No Action Technical Memorandum for Soil and Groundwater at the Waste Slag Subarea of AOC 6* (CH2M HILL, 2013), the CAX Tier 1 Partnering Team agreed to remove the waste slag pile as a conservative measure to eliminate any potential for future impacts from the slag material to site media. Given that there are no unacceptable risks from soil and groundwater to human health and the environment as a result of the waste slag pile, this action will be conducted as a solid waste removal. Consequently, an Engineering Evaluation and Cost Estimate (EE/CA) and associated Action Memorandum are not necessary. This consensus letter documents the Team's agreement that an EE/CA and Action Memorandum are not needed to conduct the waste slag pile removal. It also describes how the Navy will document that the removal has been completed.

Background

This section provides a brief site description and summary of previous work conducted at the Waste Slag Material subarea. Additional details of site features and investigation results for the subarea are included in the *Final Site Inspection Narrative Report, Penniman Shell Loading Plant* (Weston, 1999) and the *Final No Action Technical Memorandum for Soil and Groundwater at the Waste Slag Subarea of AOC 6* (CH2M HILL, 2013).

Site Description

CAX is located in Williamsburg, Virginia, on the York-James Peninsula (Figure 1). It was established in June 1943 as a satellite unit of the Navy Supply Depot to provide bulk storage facilities. Prior to 1943, CAX had been the location of the Penniman Shell Loading Plant (PSLP), a large powder and shell loading facility operated by DuPont during World War I. Today the mission of CAX is supplying Atlantic Fleet ships and providing recreational opportunities to military and civilian personnel.

The Waste Slag Material subarea is one of five subareas that comprise AOC 6 (Penniman AOC) (Figure 2). It was originally identified during a Site Inspection (SI) of the former PSLP in 1999 and consists of a pile of metallic slag material of unknown origin (Weston, 1999). It has been speculated that the waste slag may have been broken out of steam locomotive boilers and dumped along the tracks during the PSLP era (Weston, 1999). The waste slag pile is irregular in shape, covers an area of approximately 600 square feet, and measures up to 1.5 feet in height (Photograph 1). The slag may be embedded into the ground surface up to a few inches at some locations within the pile. In November 2012, the waste slag was readily discernible in texture, and sometimes color, from the adjacent soil.



PHOTOGRAPH 1
Waste Slag Pile

The Waste Slag Material subarea is located in a wooded area with no specified designated use; however, recreational use of the area as part of the CAX hunting program is allowed. While the area is not surrounded by a gate or fencing, it is within the confines of CAX and access is restricted for the general public. Future land use at the Waste Slag Material subarea is not expected to change and will likely continue as wooded/ green space with recreational use for the CAX hunting program for the foreseeable future. Groundwater is not used as a water source on the base; water is supplied by the City of Newport News, VA. There is no surface water body within the subarea.

Previous Work and Recommendations

In January 2001, CAX was placed on the National Priorities List, which required all subsequent activities for Navy Environmental Restoration sites be conducted under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) procedures. Although the slag pile is considered to be associated with former railroad activities and not a CERCLA-regulated release, it was included as one of eight source areas evaluated as part of the CAX Hazard Ranking System and it was included in the CAX Federal Facilities Agreement (USEPA et al., 2005) to be addressed.

In November 2012, a soil investigation was conducted at the Waste Slag Material subarea. The investigation objectives were to: 1) assess if metals, potentially attributable to the waste slag pile, had leached to soil at

concentrations that may pose unacceptable risks to human health and ecological receptors or could leach to groundwater, resulting in groundwater concentrations that may pose unacceptable risks; and 2) collect samples that could be used for pre-waste slag removal characterization, if necessary, to demonstrate that the extent of the slag removal satisfied project objectives (CH2M HILL, 2012). Six co-located surface and subsurface soil samples were collected. Based on these analytical results, a human health risk screening (HHRS) and screening-level ecological risk assessment (SERA) were conducted. The risk evaluations concluded that exposure to surface soil, subsurface soil, or groundwater at the Waste Slag Material subarea would not result in unacceptable human health or ecological risks. The soil analytical results, HHRS, and SERA are documented in the *Final No Action Technical Memorandum for Soil and Groundwater at the Waste Slag Subarea of AOC 6* (CH2M HILL, 2013). As a result, a no further action for soil and groundwater consensus was approved by the CAX Tier 1 Partnering Team for the Waste Slag Material subarea. The consensus statement within the technical memorandum (CH2M HILL, 2013) also documented the recommendation for the waste slag removal as a conservative measure.

The CAX Tier 1 Partnering Team agreed at the September 2013 Partnering Meeting that no post-removal confirmation sampling was necessary and that visual confirmation would be an acceptable method to determine that the waste slag pile has been completely removed from the subarea. Since the results of the November 2012 (pre-removal) soil sampling indicated that there are no unacceptable human health or ecological risks associated with the soil surrounding and underneath the slag pile, it would be difficult to establish a numeric metric, or removal goal. Therefore, post-removal analytical soil data would not be an effective method to confirm that the removal is complete. As previously stated, the waste slag is readily discernible from the surrounding soil via texture and, to a lesser degree, color, so visual confirmation is adequate.

Proposed Removal Action

The waste slag pile at the AOC 6 Waste Slag Material subarea will be removed in order to eliminate any potential for future impacts from the slag pile to site media. Currently, there are no unacceptable risks from soil or groundwater to human health or the environment based on the risk evaluations. Therefore, this action will be addressed as a solid waste removal. Accordingly, the removal action will not require an EE/CA, the associated public comment period, or an Action Memorandum. One of the primary objectives of an EE/CA is to identify and evaluate several action alternatives. However, no other alternatives are deemed as effective as removal and offsite disposal given the relatively small extent of the target treatment area. Recycling of the waste slag was considered, but determined to be infeasible due to the effort it would take to separate the soil and vegetation that has mixed within the waste slag pile over time.

The approximate extent of the removal area is described in the *Site Description* subsection of this consensus letter. The waste slag pile will be removed to visible limits, which should be readily discernible from soil via texture and, to a lesser degree, color. As part of the field activities, photos will be taken to document the visual confirmation of the waste slag pile removal. Detailed descriptions of the photos will also be recorded. The waste slag will be characterized for offsite disposal at an appropriate disposal facility.

Documentation

The following documents will be prepared as a record of the waste slag pile removal:

1. A removal action work plan that details the removal action objectives, scope, and schedule
2. A post-removal report that includes photographic, quality control, and waste disposal documentation

Each document will be submitted for CAX Tier 1 Partnering Team review and approval. Approval of the post-removal report will indicate the removal is complete and the waste slag pile is no longer an issue and requires no further action.

References

CH2M HILL. 2013. *Final No Action Technical Memorandum for Soil and Groundwater at the Waste Slag Subarea of AOC 6, Naval Weapons Station Yorktown Cheatham Annex, Williamsburg, Virginia*. August.

CH2M HILL. 2012. *Final Soil Sample Collection, Sampling and Analysis Plan Addendum, AOC 6 – Penniman AOC, Waste Slag Material Subarea, Naval Weapons Station Yorktown Cheatham Annex, Williamsburg, Virginia*. October.

Roy F. Weston, Inc. (Weston) 1999. *Final Site Inspection Narrative Report, Penniman Shell Loading Plant, Williamsburg, Virginia*. August.

U.S. Environmental Protection Agency (USEPA), Commonwealth of Virginia, and United States Department of the Navy. 2005. *Federal Facility Agreement for Naval Weapons Station Yorktown Cheatham Annex*. March.

Consensus

As a conservative measure, the Navy, in partnership with the U.S. Environmental Protection Agency and the Virginia Department of Environmental Quality, has agreed to conduct a solid waste removal action at the Waste Slag Material subarea at AOC 6 in order to eliminate any potential for future impacts from the waste slag material to site media. This consensus letter documents approval of the removal action for inclusion in the Administrative Record.

Mr. Scott Park
NAVFAC Mid-Atlantic


Date 1-23-14

Mr. Gerald Hoover
USEPA Region III


Date 1/28/14

Mr. Wade Smith
VDEQ


Date 01/28/2014

Figures



Legend

-  AOC 6 Approximate Study Area Boundaries
-  AOC 2 Approximate Study Area Boundary
-  Cheatham Annex Boundary

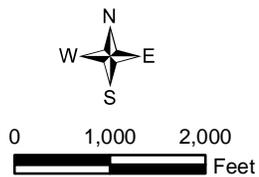


Figure 1
Base and AOC 6 Location Map
AOC 6 Waste Slag Material Subarea
Remedial Alternatives Analysis
Cheatham Annex
Williamsburg, Virginia
CH2MHILL



- Legend**
- Approximate Slag Pile Boundary
 - CAX Boundary

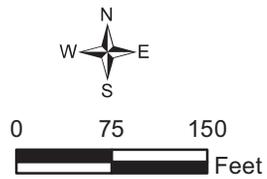


Figure 2
Site Map
AOC 6 Waste Slag Material Subarea
Remedial Alternatives Analysis
Cheatham Annex
Williamsburg, Virginia

Regulator Acceptance



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
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January 21, 2014

Mr. Scott Park
NAVFAC MIDLANT, Building N-26
Hampton Roads Restoration Product Line, Code OPHREV4
9742 Maryland Avenue
Norfolk, VA 23511-3095

Consensus Letter
Removal of the Waste Slag Pile at AOC 6 Waste Slag Material Subarea
Naval Weapons Station Yorktown
Cheatham Annex
Williamsburg, Virginia

Dear Mr. Park:

The Virginia Department of Environmental Quality (DEQ) has received the *Redline Consensus Letter* (Consensus Letter) associated with Removal of the Waste Slag Pile at AOC 6 Waste Slag Material Subarea at Naval Weapons Station Yorktown, Cheatham Annex, Williamsburg, Virginia. The Consensus Letter, prepared by CH2M HILL, was received by the DEQ (electronically) on January 16, 2014.

Thank you for providing the DEQ's Office of Remediation Programs the opportunity to review the above-referenced Consensus Letter. Subsequent to DEQ's internal review, this office concurs with the proposed text revisions and recommends submittal of the *Final Consensus Letter*.

Please contact me at (804) 698-4125 or wade.smith@deq.virginia.gov with any additional questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Wade M. Smith".

Wade M. Smith
Remediation Project Manager
Office of Remediation Programs

cc: Jerry Hoover, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

January 6, 2014

Mr. Scott Park
NAVFAC MIDLANT, Building N-26, Room 3208
Attention: Code OPHE3, Mr. Scott Park
9742 Maryland Avenue
Norfolk, VA 23511-3095

Subject: Draft Consensus Letter - Removal of the Waste Slag Pile at the Area of Concern 6
Waste Slag Material Subarea, Naval Weapons Station Yorktown Cheatham Annex,
Williamsburg, Virginia

Mr. Park:

EPA has reviewed the subject document dated December 12, 2013. EPA has no comments on this document. Please submit a final copy of the subject document for our records.

If you have any questions, please contact me at 215-814-2077.

Sincerely,

A handwritten signature in blue ink that reads "Gerald F. Hoover".

Gerald F. Hoover, RPM
NPL/BRAC Federal Facilities Branch

cc: Wade Smith, VDEQ