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LETTER REGARDING U S NAVY RESPONSES TO VIRGINIA DEPARTMENT OF  
ENVIRONMENTAL QUALITY COMMENTS ON THE DRAFT TECHNICAL MEMORANDUM  
NON-TIME CRITICAL REMOVAL ACTION PROJECT COMPLETION SUMMARY FOR SOLID  
WASTE MANAGEMENT UNIT 3 (SWMU 3) PIER 10 SANDBLAST YARD AND SOLID WASTE  
MANAGEMENT UNIT 7B SMALL BOATS SANDBLAST YARD JEB LITTLE CREEK VA

9/13/2013  
CH2M HILL



**CH2M HILL**  
5701 Cleveland Street,  
Suite 200  
Virginia Beach, VA 23462  
Tel 757.518.9666

September 13, 2013

Virginia Department of Environmental Quality  
Attn: Mr. Paul Herman, P.E.  
629 Main Street, 4th Floor  
Richmond, VA 23219

**Subject:** Responses to VDEQ comments on the *Draft Technical Memorandum, Non-Time Critical Removal Action Project Completion Summary, SWMU 3 – Pier 10 Sandblast Yard and SWMU 7b – Small Boats Sandblast Yard, Joint Expeditionary Base Little Creek, Virginia Beach, Virginia, Navy CLEAN 8012, Contract N62470-11-D-8012, Task Order WE65*

Dear Mr. Herman:

On behalf of the Navy, CH2M HILL is pleased to submit the following responses to the comments received from VDEQ dated August 27, 2013 on the *Draft Technical Memorandum, Non-Time Critical Removal Action Project Completion Summary, SWMU 3 – Pier 10 Sandblast Yard and SWMU 7b – Small Boats Sandblast Yard, Joint Expeditionary Base Little Creek, Virginia Beach, Virginia* (CH2M HILL, August 2013):

**Comment 1:** Section 1.3: Please revise sentence in the 3<sup>rd</sup> paragraph to reflect the findings of the finalized risk assessment.

**Response:** Last sentence revised to read, “No current vapor intrusion pathway is present at SWMU 3. Potentially unacceptable risks associated with trichloroethene (TCE) and vinyl chloride were identified based on maximum detected concentrations of VOCs in groundwater. However, calculated risks were representative of site conditions in 2007. Based upon CSM considerations, and proximity of elevated TCE and vinyl chloride concentrations to the adjacent shoreline, elevated concentrations of these chemicals are expected to have undergone natural biodegradation, as well as advection with groundwater flow, and have discharged to Little Creek Harbor since 2007. As a result, calculated risks are likely an overestimation of actual potential risks; therefore, the Navy and U.S Environmental Protection Agency (USEPA), in consultation with Virginia Department of Environmental Quality (VDEQ), agreed that no action is warranted to address vapor intrusion at SWMU 3 (CH2M HILL, 2013a).”

**Comment 2:** Section 1.5: While noting a thorough explanation of PRG development is provide in the EE/CA for each SWMU, please add some text briefly explaining why Table 1-1 and Table 1-2 have similar COCs with different PRGs.

**Response:** Text revised to read, “The preliminary remediation goals (PRGs) for SWMU 3 and SWMU 7 are presented in **Tables 1-1** and **1-2**. Development of the PRGs is described in detail in the EE/CAs for SWMU 3 (CH2M HILL, 2012) and SWMU 7b (CH2M HILL, 2013) and summarized below.

For SWMU 3, regression equations developed based on correlations between ABM content and metals contaminant of concern (COC) concentrations, along with consideration of site-specific background concentrations and literature-based sediment effect levels (effects range-low [ER-L], effects range-median [ER-M], threshold effects level [TEL], and probable effects level [PEL]), were used to define the sediment PRGs for the five primary COCs (**Table 1-1**). The PRGs for copper, lead, and tin were based upon the regression equations (at 1 percent ABM); none of these PRGs exceeded the ER-M (where available) and all were comparable to the maximum background concentration. The PRG for nickel was set at the maximum background concentration because maximum background exceeded the regression-derived value and was below the ER-M. For zinc, the ER-M was selected as the PRG because the regression-derived value exceeded all effects-based criteria. It should be noted, however, that the maximum background value for zinc also exceeded the ER-M.

For SWMU 7b, because the amount of ABM in sediment was not quantified, no correlation between ABM and metals COC concentrations at SWMU 7b was established. However, based upon the similarity of SWMU 3 and SWMU 7b, and the urban nature of Desert Cove, preliminary remediation goals (PRGs) were established as the NOAA ER-M screening value (**Table 1-2**). Because ABM itself is not toxic and does not pose risk to the environment, the presence of ABM in sediment does not drive the need for action at either site.

**Comment 3:** Section 3.1: Please verify the list of pre-construction meeting attendees. The roster provided in Attachment F does not include representatives from Port Weanack or Bay Environmental but does list a representative from Paradise Point Marine.

**Response:** The text was revised to accurately reflect meeting attendees.

**Comment 4:** Section 3.3: Please add a bullet noting the remobilization to deploy turbidity curtains that would facilitate a deeper depth when the environmental dredge was replaced with the clamshell dredge.

**Response:** The original turbidity curtain deployed for use during the environmental dredge operations was tied up to shorten length during use of environmental bucket and simply untied when switch to clamshell bucket was made. An additional bullet was not added to Section 3.3; see response to Comment 5 for additional text added.

**Comment 5:** Section 3.4: In the 3<sup>rd</sup> paragraph please note a deeper turbidity curtain was deployed when the clamshell dredge replaced the environmental dredge.

**Response:** The 2<sup>nd</sup> paragraph was updated to read, “Prior to the start of dredging activities, approximately 800 linear feet of Type II, 22-ounce polyvinyl chloride

(PVC) coated polyester (50-foot and 100-foot section lengths with 10-foot depth) turbidity curtains were deployed around the dredge barge and hopper scow to contain excessive turbidity. The turbidity curtains were tied alongside the dredge barge and surrounded the immediate work area to enable easier movement of the dredging operations within grids. An abbreviated skirt length of 5 feet was created for the shallower grids by tying the 10-foot length curtains at various points to create shallower draft curtains, also enabling easier movement of dredge equipment in the shallow areas. In conjunction with the turbidity curtain, 8-inch-diameter oil booms (10-foot section lengths with sorbent capacity of 65 gallons) were deployed around the dredge barge and hopper scow to contain excessive turbidity and oil sheens generated during removal activities.”

The following sentence was added to the 3<sup>rd</sup> paragraph,” Prior to using the clamshell dredge bucket, any portions of the turbidity curtain that were tied up to shorten the length were untied to facilitate a deeper depth around the dredge barge and hopper scow.”

**Comment 6:** Section 3.4.2: In the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph please insert “(letter, Attachment G)” following “VDEQ”. In the 2<sup>nd</sup> paragraph please specify the “Disposal Facility” receiving the decontamination fluids and include its location. Concerning the disposal documentation provided in Attachment I, please separate the dredge sediment disposal tickets from the decontamination fluid disposal tickets.

**Response:** Text revised to read, “In accordance with the requirements set forth by VDEQ (letter, Attachment G), one sample was collected per 2,000 yd<sup>3</sup> of dredged material during dredging operations and analyzed for TPH and paint filter by Test America.

A discussion of the decontamination fluid has been added to the 2<sup>nd</sup> paragraph. Text revised to read, “Following the final offload of material, each barge was towed to McLean’s South Norfolk, Virginia Yard for decontamination using non-potable water, push brooms, and mops. To minimize the consumption of rinse water, the water was filtered through silt bags, pumped and collected in a tank for reuse for decontamination of each of the four barges. After all barges were decontaminated, the decontamination fluids were contained and sampled for characterization. Four samples were collected and analyzed for full TCLP, sulfide, cyanide, pH, and flashpoint. Waste characterization data are provided in **Attachment H**. Based upon the sampling results, decontamination fluids were determined by McLean to be non-hazardous, and the stored rinse water was utilized at McLean’s South Norfolk, Virginia yard for dust control purposes.”

Because decontamination fluids were used for dust control purposes, a manifest was not included in Attachment I.

**Comment 7:** Section 4, General Comment: The use of clamshell dredge and the passive release of water from the dredge bucket during the operation (as opposed to supernatant water from the barge passing through a filter prior to discharge to surface water) are changes from what was presented in the NTCRA Action Memorandum for each SWMU.

Please add a sub-section to completely explain and discuss the QA/QC changes made in the field in order to implement the action.

**Response:** Section 4.2 was added to address deviations from the action memorandums and work plan.

**Comment 8:** Section 5: The 3<sup>rd</sup> sentence should note dredged sediment was transported up river to Port Weanack where the dredged material was solidified prior to offloading to dump trucks for transport to the landfill.

**Response:** Second sentence revised to read, " A total of 12,600 yd<sup>3</sup> of sediment were removed at SWMU 3 and 4,040 yd<sup>3</sup> of sediment were removed at SWMU 7b. Following removal, dredge material was transported up river to Port Weanack for solidification prior to offloading for trucking to the landfill."

**Comment 9:** Attachment E: The core photographs provided include photos (#21 and #23) showing "marina debris in bucket" yet the photo is taken at SWMU 7b where there is no marina. Please revise the captions accordingly.

**Response:** The word "marina" has been omitted from both photographs.

Please do not hesitate to contact me at 504-832-9515 if you have any questions concerning these responses.

Sincerely,



Brooke Harris, E.I.  
Project Manager

cc: Mr. Bryan Peed/NAVFAC Mid-Atlantic  
Mr. Jeffrey Boylan/USEPA  
Ms. Cecilia Landin/CH2M HILL  
Administrative Record File