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LETTER AND THE U S NAVY RESPONSE TO REGULATOR COMMENTS ON THE DRAFT
FINAL TECHNICAL MEMORANDUM POST-MILCON ACTION EVALUATION FOR SOLID
WASTE MANAGEMENT UNIT 7B (SWMU7B) SMALL BOATS SANDBLAST YARD DESERT
COVE NAB LITTLE CREEK VA

7/20/2012
CH2M HILL



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July 20, 2012

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

Subject: Response to VDEQ Comments on the *Draft Final Technical Memorandum, Post-MILCON Action Evaluation, SWMU 7b – Small Boats Sandblast Yard (Desert Cove)* Joint Expeditionary Base (JEB) Little Creek, Virginia Beach, Virginia
Navy CLEAN 1000, Contract N62470-08-D-1000, Task Order WE32

Dear Mr. Herman:

On behalf of the Navy, CH2M HILL is pleased to submit the following response to the comments received from VDEQ via email April 10, 2012 on the *Draft Final Technical Memorandum, Post-MILCON Action Evaluation, SWMU 7b – Small Boats Sandblast Yard (Desert Cove), Joint Expeditionary Base (JEB) Little Creek, Virginia Beach, Virginia* (CH2M HILL, February 2012):

Comment 1: Page 3, Environmental History: In the 1st bullet, please consider the following revision, “PAHs are not likely attributable to *the CERCLA activities (sandblasting) at SWMU 7.*” In the 2nd bullet, please include the mean, maximum and background concentrations to show the similarities.

Response 1: The text in the 1st bullet has been revised as indicated in the comment. The mean and maximum concentrations have been added to the text of the 2nd bullet; there are no background concentrations for arsenic. However, the similarity in the mean and maximum concentrations indicates that there is relatively little variability in concentrations, suggesting that this chemical is at background levels.

VDEQ Response: Regarding the 2nd portion of the response concerning the absence of background concentrations for arsenic, was this because background samples were not analyzed for arsenic or because the background levels were non-detect? Regarding the similarity between the mean and maximum concentrations found in SWMU 7b sediment this could be attributed to the uniform aerial distribution of arsenic across the site as dust from the sandblasting operations settled on Desert Cove and the adjacent land.

Response: The background samples, collected initially for the SWMU 3 evaluation, were not analyzed for arsenic as arsenic was not a SWMU 3 COC. The Tier 1 partnering team initially discussed collecting additional background samples (at Little Creek Cove reference area) for SWMU 7b to address the additional secondary COCs not common to the two sites (arsenic, selenium, and silver). Following the Team's November 2008 decision that risks associated with PAHs and the secondary COCs did not require further evaluation, the background set from SWMU 3 was used since it now included all of the SWMU 7b COCs.

It is unlikely the uniform arsenic concentrations are due to aerial distribution of ABM residues as arsenic is not typically associated with sandblasting residues and the primary metal COCs do not show similar uniform distributions.

The second bullet has been updated to read: "Arsenic was identified as a secondary COC in the Cove Area and Pier Area during the 2004 RI, where only the discrete RI sediment samples were used to derive the list of COCs. When considering both the discrete and composite RI samples, the site-wide maximum hazard quotient (HQ) for arsenic in surface sediment is low (1.54) and the site-wide mean HQ is less than 1. Arsenic is not typically associated with sandblasting residues. Although arsenic was not measured as part of the background sediment investigation, the similarity of the mean (8.1 mg/kg) and maximum (12.6 mg/kg) concentrations suggests that this chemical is present at background levels. Additionally, the primary metal COCs, which are typically associated with sandblasting residues, do not show similar uniform distributions."

VDEQ Response: According to the Performance Specification – Paint System, Anticorrosive and Antifouling, Ship Hull approved for use by all Departments and Agencies of the Department of Defense (MIL-PRF-24647D(SH) w/INT. AMENDMENT 1, 12 June 2006) SWMU 7b secondary COCs arsenic, selenium and silver are currently approved components of ship hull paint. What were the specifications for ship hull paint back when SWMU 7 was in operation? Please investigate the hull paint specs for "back in the day" to determine if the levels of arsenic, selenium, and silver were specified. Given their potential to be present in ship hull paint, these secondary COCs may warrant inclusion as primary COCs for SWMU 7b. The link to the specification is provided below.

<http://www.docstoc.com/docs/44111664/PAINT-SYSTEM--ANTICORROSIVE-AND-ANTIFOULING--SHIP-HULL>

Response: Following review of the referenced paint specification, Section 4, Environmental History, specifically the text pertaining to risk management of arsenic, selenium, and silver, has been revised to reflect the potential for these constituents to have been a result of sandblasting activities. Reference to primary and secondary COCs has been removed from the document and figures (Figure 4). The risk management bullets have been revised to parallel one another and more clearly reflect the lines of evidence for risk management. Figures 4 and Figure 5 (old Figure 7) have been updated to include SI sample locations and data pertaining to arsenic, selenium, and silver.

The above response (and other Team comments/responses) have been incorporated into the final version of the technical memorandum.

Please do not hesitate to contact me at 757-671-6280 if you have any questions concerning these responses.

Sincerely,

A handwritten signature in black ink, appearing to read 'N. Price', with a stylized flourish at the end.

Nathaniel Price, P.E.
Project Manager

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