



CH2MHILL

CH2M HILL
5700 Cleveland Street, Suite 101
Virginia Beach, VA 23462
Tel 757.518.9666

N60138.AR.000059
FISC WILLIAMSBURG
5090.3a

April 9, 2010

389659.RP.DF

Ms. Susanne Haug
NPL/BRAC Federal Facilities Branch
United States Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: Response to Comments on the *Draft Proposed Plan, Site 11: Bone Yard, Naval Weapons Station Yorktown Cheatham Annex, Williamsburg, Virginia*

Dear Ms. Haug:

On behalf of the U.S. Department of the Navy's Naval Facilities Engineering Command (NAVFAC), CH2M HILL has prepared this letter in response to your March 5, 2010 e-mail that provided comments for the subject document in a comment letter dated March 5, 2010 and via track changes in the document's Word file. Responses to comments are presented below in two separate sections: (1) to address comments embedded within the document text and (2) to address comments provided in the letter. Comments received are shown in italics, followed by the Navy's response in Blue. All individual editorial changes have been accepted and are not discussed on a case by case basis within this letter.

Comments Embedded Within the Document Word File

- ❖ *Comment #1 - [Document-wide] Decide if "Site" (referring specifically to Site 11) is capitalized and then be consistent.*

Response: "Site" will only be capitalized when specifically referencing to "Site 11." Otherwise, it will be lower case. This change was made throughout the document.

- ❖ *Comment #2 - [Section 2, Site Description and Background] Is this a part of CAX? Or a local DPW?*

Response: The Department of Public Works adjacent to Site 11 is a part of CAX. The text was revised to clarify.

- ❖ *Comment #3 - [Section 2, Confirmation Study, Step 1A] Include brief summary of results.*

Response: A summary of results was included in the discussion of the 1987 Drum Removal.

- ❖ Comment #4 - [Section 2, 1987 Drum Removal] *From whom or what entity? The Navy notified itself?*

Response: The Navy was notified by the subcontractor responsible for the disposal of waste and characterized drums. Based on comments received from VDEQ, this text was removed to avoid confusion.

- ❖ Comment #5 - [Section 2, Site Screening Process] *or in groundwater*

Response: Metals concentrations in soil and groundwater were similar to background, while SVOC concentrations posing potential risks were detected in sediment. The text was revised to reflect this information.

- ❖ Comment #6 - [Section 2, Remedial Investigation] *Add medium – sediment or surface water?*

Response: The SERA concluded that potential unacceptable risks were present in both surface water and sediment within the unnamed tributaries. The text was revised to reflect this information

- ❖ Comment #7 - [Section 4] *Delete. Site conclusion goes in Sections 1 and 6.*

Response: The requested changes were made.

- ❖ Comment #9 - [Section 5.2, Groundwater] *I've left the EPA Counsel comments in this section even though it will need to be re-written to include the data from re-sampling the upgradient wells.*

Response: All requested editorial changes have been made; however, no changes have been made to preferred alternative presented in the Proposed Plan, based on the March 2010 Partnering discussion that the upgradient well RI results are consistent with background (refer also to the response to Comment 1 from the comment letter presented below).

- ❖ Comment #10 - [Section 5.2, Groundwater, "Aquifer Classification" bullet] *Irrelevant for a remedial decision. The State regs would function as an Institutional Control. If the gw is classified as Class 1 or Class 2a or 2b, then site-related contamination must be addressed.*

Response: Agreed, the text has been removed.

- ❖ Comment #11 - [Section 5.3, Surface Water and Sediment] *What Site or AOC includes Penniman Lake and this specific sediment sample location?*

Response: Penniman Lake has been identified as AOC 9 and, along with PCB contamination in associated tributaries, will be addressed as part of a separate study. The text was revised to include this information

- ❖ Comment #12 - [Section 5.3, Surface Water and Sediment] *This conclusion goes in Section 1 or 6.*

Response: The requested changes were made.

- ❖ *Comment #13 - [Glossary] Brownfields Act in 2002 also amended CERCLA quite significantly. It's not logical to list one amendment and not others, so I recommend deleting the reference to the 1986 SARA.*

Response: Agreed, the referenced text was removed.

- ❖ *Comment #14 - [Glossary] Add another sentence to explain significance (like for PCBs, immediately below).*

Response: Another sentence explaining the significance of PAHs was added.

- ❖ *Comment #15 - [Glossary] Delete or tell us where this term comes from. All the other terms are from CERCLA or RCRA.*

Response: The inclusion of 'hazardous constituent' in the definition does not aid in the reader's understanding of the defined term. The referenced text was removed.

- ❖ *Comment #16 [Glossary] - Please add a reference list so the public will know the titles of the documents cited in the text.*

Response: A table listing all documents discussed in the text was added to the *Site Background* section of the report.

Comments Provided via Letter (dated March 5, 2010)

- ❖ *Comment # 1 - As discussed on 3/1/10 (phone call between Sue Haug and Chris Murray) the selected remedy for Site 11 cannot be "No Further Action" due to the two wells that have concentrations above MCLs for arsenic. We can meet to discuss this further. The PRAP must be changed throughout to reflect these changes.*

Response: No Further Action is appropriate for the site since the arsenic concentrations at the site are representative of background conditions and not from a CERCLA-related release. Arsenic concentrations at the two upgradient monitoring wells 11GW01 (13 µg/L) and 11GW05 (10.1 µg/L) were slightly above the CAX maximum background concentration of 9.8J µg/L. In addition, the arsenic occurrence at these two wells correlates with elevated concentrations of iron and manganese, a strong indication that arsenic is naturally occurring and not from a site release.

Arsenic is commonly adsorbed with iron and manganese oxides, clay minerals, and associated with sulfide minerals. Iron and manganese oxides and clay minerals can be variable within soil as a result of chemical weathering ("rusting" appearance) of volcanic derived sediment. Arsenic naturally dissolves or desorbs from these sediments to groundwater.

Ms. Susanne Haug
Page 4
April 9, 2010

The USGS has also conducted numerous studies on the occurrence of arsenic within Virginia. Naturally occurring arsenic concentrations in the coastal plains of southeast Virginia are typically observed above the MCL.

The text was revised to include a more detailed description of the natural occurrence of arsenic at the site.

- ❖ *Comment # 2 - Please include the Preliminary Remediation Goals and post-excavation confirmation sampling results collected after the NTCRA.*

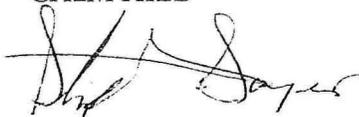
Response: A list of the preliminary remediation goals established in the EE/CA and the post-excavation confirmation sampling results from the NTCRA has been added as Table 3 within the text, following the discussion of the removal action.

- ❖ *Comment #3- EPA encourages the Navy to write Action RODs rather than EE/CAs followed by No Further Action RODs to give the public a greater opportunity to comment on selected remedies. Although there is a public comment period for the EE/CA, the Proposed Plan is more conducive to public participation since the document is typically smaller and is followed by a public meeting.*

Response: Comment noted.

If you have any questions or comments regarding the above response to comments, please feel free to contact me at 757-671-6273.

Sincerely,
CH2M HILL



Stephanie Sawyer
Project Manager

cc: Mr. Christopher Murray /NAVFAC
Mr. Wade Smith/VDEQ
Ms. Marlene Ivester/CH2M HILL
Ms. Stephanie Sawyer/CH2M HILL