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LETTER AND COMMENTS FROM VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY  
REGARDING DRAFT FINAL REMEDIAL INVESTIGATION REPORT SITE 11A BUILDING  
3033 JEB LITTLE CREEK VA  
01/06/2010  
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY



# COMMONWEALTH of VIRGINIA

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January 6, 2010

Mr. Bryan Peed  
NAVFAC Mid Atlantic  
9742 Maryland Avenue  
Code OPHREV4, Bldg. N-26, Rm.3300  
Norfolk, Virginia 23511-3095

Subject: Join Expeditionary Base Little Creek – Fort Story  
*Draft Final Remedial Investigation Report*  
*Site 11a, Building 3033 Former Vehicle Repair Facility and Waste Oil Tank*

Dear Mr. Peed:

The Virginia Department of Environmental Quality (VDEQ), Office of Federal Facilities Restoration has reviewed the *Draft Final Remedial Investigation Report for IR Site 11a, Building 3033 Former Vehicle Repair Facility and Waste Oil Tank* dated November 2009. Based on this review the following comments are offered.

1. Table 5-3 and Table A6: Why doesn't the data presented in Table 5-3 include the TCE Field Screening Results shown in Table A6? Are the data provided in Table A6 discussed anywhere in the report? Please explain. Also, please include sample points SS306 through SS319 on Figure 3-1.
2. Figure 5-4: Why are the screening results for S306 – SS319 provided in Table A6 not included in on this figure? Please explain
3. Section 6.1.3, Spatial Distribution of Geographic Parameters: Please change the table reference in the 1<sup>st</sup> sentence of the 1<sup>st</sup> paragraph as Table 5-4 contains subsurface soil data rather than geochemical data for groundwater.
4. Section 6.1.3, PCP: The DO level in well LS11-MW20D is nearly anaerobic at only 0.6 mg/L while 3 of the 5 closest downgradient wells measured levels above 2.5 mg/L. Please revise the 1<sup>st</sup> sentence of the last paragraph to clarify this fact.
5. Section 7 and Section 8: Please explain in each section why the Soil TCE Field Screening Results data provided in Table A6 is not discussed.
6. Section 7.3.2, Exposure Points and Exposure Routes: Please revise the opening sentence of the 3<sup>rd</sup> paragraph to address the phrase "dermal contact current residents". For the "future land use exposure routes" bullets, please delete the "Resident (adult) bullet from within the "Trespassers/Visitors" bullet.
7. Table 7-2: Please add a definition for the asterisk assigned to "Soil".
8. Section 8.2.3, Potential Source Areas and Release Mechanisms and Transport Pathways: Please note the purpose Building 3033 served as well as the possibility for the release of contaminants from the building to the surface soils (runoff, incidental spills as suggested by the data in Table A6). Please modify Figure 8-1 to include the possible surface soil source area.

9. Section 9.1: In the opening paragraph please state whether concentrations of VOCs, SVOCs, pesticides, and inorganics found in soils (surface and subsurface) drive human health or ecological risk. In the last sentence of the opening paragraph it may be worth noting runoff from paved surfaces around the former vehicle repair facility may have contributed to the levels of certain contaminants detected in soils (see Table A6).
10. Section 9.1.1: Please note in the 3<sup>rd</sup> and 4<sup>th</sup> paragraphs the HI greater than 1.0 based on liver effects represents a cumulative value. In the last sentence of the last paragraph, please note the vapor intrusion analysis will be presented in the Feasibility Study report.
11. Section 9.1.2: Much of the information provided in the opening paragraph is not supported by the data presented in Table A6 as the levels of TCE found at 3 sample points exceeded 10,000 ug/kg. Please revise as necessary.

The following comments are provided by the VDEQ risk assessor following their review of the document.

I have reviewed the revised Draft Final RI for Little Creek Site 11a. The majority of my previous comments have been addressed. However, there were some issues with how the new risk assessment for soils was performed as outlined in my comments below.

1. Risk assessments provided for soils do not accurately reflect exposure pathways for many receptors. Likely residential exposure scenarios rarely involve subsurface soils, especially for children. Likewise, it is unclear how trespassers would have a chance to be exposed to deeper subsurface soils. The commercial/industrial worker is also generally focused on surface activities rather than intrusive ones, as reflected by the absence of direct groundwater exposures under this scenario. The only scenario where evaluating aggregate soils may be appropriate is the construction worker scenario, and even then a worker in a trench (the scenario used for groundwater inhalation) would primarily be exposed to subsurface soils. Other exposure scenarios should only use surface soil data in the risk assessments.
2. Section 9.1.1: This section states that "Exposure to soil by all potential current and future residents would result in RME non-carcinogenic hazards and carcinogenic risks within USEPA's acceptable risk levels." However, Section 7.5.2 states "Exposure to combined surface and subsurface soil may pose non-carcinogenic hazards above USEPA target levels for future child residents." Cumulative risks should always be considered, particularly for sensitive populations such as children. It is unclear if these cumulative risks would be reflected if only surface soils are considered.

This concludes VDEQ's comments concerning this document at this time. If you have any questions concerning these comments, please give me a call at (804) 698-4464.

Sincerely,



Paul E. Herman, P.E.  
Remediation Project Manager

cc: NABLC Tier 1 (electronic copy)  
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