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LETTER AND COMMENTS FROM VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY  
REGARDING DRAFT SITE INSPECTION REPORT MORALE, WELFARE AND RECREATION  
SKEET RANGE JEB LITTLE CREEK VA  
09/23/2010  
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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September 23, 2010

Mr. Bryan Peed  
NAVFAC MIDLANT  
Environmental Business Line  
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9742 Maryland Ave.  
Building N-26, Suite 3300  
Norfolk, Va. 23511-3095

Subject: Joint Expeditionary Base Little Creek – Fort Story  
*Draft Site Inspection Report*  
*Morale, Welfare, and Recreation Skeet Range*  
*Military Munitions Response Program*

Dear Mr. Peed

The Virginia Department of Environmental Quality (VDEQ), Office of Federal Facilities Restoration has reviewed the *Draft Site Inspection Report - Morale, Welfare, and Recreation Skeet Range - Military Munitions Response Program* dated August 2010. The following comments are offered.

1. Section 2.2: In order to understand what the soil sampler was looking for when deciding how deep to collect a “surface” soil sample, please consider moving some of the lithologic discussion found in the last paragraph of Section 3.1 and use it to introduce the 2<sup>nd</sup> paragraph’s sample depth discussion.
2. Section 2.6.2, Background UTLs: Certain soil samples were collected from depths where the original ground surface or native material was encountered. It does not seem appropriate to use Background UTLs developed for dredge fill when evaluating data from those native/original ground surface soil samples. Please explain.
3. Section 3.2.1, PAHs: The PAHs detected in surface and subsurface soil may be anthropogenic or they may be associated with the known CERCLA release. While skeet target fragments may not have been found during the investigation does not mean they aren’t present. The absence of skeet target fragments may be due to the volume of heavy machinery that reworked the site during grading and construction of the LCAC and in the process pulverized any target fragments that remained after the range closed. Is there a way to fingerprint the PAHs detected to determine their origin? If not it may be necessary to determine if the detected PAH levels drive risk? If there is risk, a hotspot removal may be needed.

4. Section 4.1: The 1<sup>st</sup> bullet should note those areas where native soil was sampled at the surface which would imply subsurface geology would also be native soil rather than dredge fill. Please revise the 3<sup>rd</sup> bullet as necessary to incorporate the response to comment 3 above.
5. Section 4.2: VDEQ does not agree with the recommendation at this time. VDEQ believes the source of the PAH contamination may be related to the CERCLA activity (pulverized skeet targets). Additional information is needed regarding the PAH contamination present as to whether or not the levels drive a human health risk. Also, since the area underneath the LCAC pad has not been investigated, the LCAC pad would need to remain in place and a land use control implemented to ensure the area beneath the pad is investigated for the presence/absence of site related metals and PAHs should it ever be removed.
6. Appendix C: In the core description, what does the acronym SAA mean?

VDEQ's risk assessor, Mr. Kyle Newman, provided the following comment:

Soil and groundwater data indicate that a release of PAHs has occurred at the site. "Background" levels of PAHs are not an appropriate comparison to site soil concentrations as the Navy would have to demonstrate a definitive source other than site activities (I would also argue the term "background" is used inappropriately- "ambient" would be more accurate for what is being described). There are several lines of evidence that point to these detections above screening levels are related to a release and not ambient deposition:

- 1) The detection of Benzo(a)pyrene above screening levels in sample LSR01-SO11 six feet below the surface
- 2) Even though the detections were below screening levels, the identification of PAHs in groundwater indicates a release to soils.
- 3) Logical sources exist on-site that are common sources of PAHs, including ASTs for fuel. The dredged fill material could be another potential source of release.

If you have any questions concerning this comment, please give me a call at (804) 698-4464.

Sincerely,



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

cc: NABLC Tier 1 (electronic copy)  
NABLC Correspondence File  
Milt Johnston, VDEQ-TRO (electronic copy)  
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