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NAB LITTLE CREEK
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LETTER AND COMMENTS FROM VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
REGARDING DRAFT FEASIBILITY STUDY FOR SITE 11A JEB LITTLE CREEK VA
03/21/2011
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY



COMMONWEALTH of VIRGINIA

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March 21, 2011

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 Feasibility Study
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 Feasibility Study for IR Site 11a, Building 3033 Former Vehicle Repair Facility and Waste Oil Tank* dated April 2010 (February 2011 Revision). Based on this review the following comments are offered.

1. Executive Summary: In the 2nd sentence of the 5th paragraph, please consider replacing the word “provide” with the word “ensure”. In the 9th paragraph, if the technical challenge presented by the shallow water table is not easily and inexpensively overcome, why wasn't this alternative eliminated during the screening phase of alternative development if its overall success is questionable?
2. Section 2.2: Regarding the 2nd bullet, please ensure it clearly states the goal is to achieve MCLs. The wording should be similar to that used at other groundwater sites. The PRGs listed are for the COCs identified however, the daughter products for the COCs and their respective MCLs should also be identified (but not as PRGs). While they are not currently present at the site, if they appear during the remediation, their respective MCLs would become applicable ARARs.
3. Section 3.2.2, ERD Injection: In the 2nd paragraph, please note the injection layout may need to be modified to avoid utilities. In the 2nd sentence of the 3rd paragraph with regard to the location of the down gradient barriers, please change “east” to “west”. Concerning the depth of the injections described in the 3rd paragraph, as there is contamination present in the shallow aquifer, why isn't it being dosed? Please explain how shallow aquifer contamination will be addressed by the remedy.
4. Section 3.2.2, Monitoring Well Construction: Please note the depth of the well screens in the paragraph. With only one well screen proposed, how will the contamination migration be monitored if it is present across the thickness of the aquifer? Please explain.
5. Section 3.2.2, Performance Monitoring and Long-term Monitoring: It is VDEQ's concern that the implementation of the remedy and the resulting COC degradation process may impact the current risk status relating to vapor intrusion in the barracks and quarter deck buildings. Please revise the last sentence of the last paragraph to address this concern or explain how the evaluation of building conditions and groundwater concentrations achieve this level of protection of the building occupants.

6. Section 3.2.3: Regarding the stoichiometric reactions for sodium permanganate, what is the expected impact to the existing levels of manganese in the aquifer due to the addition of this injectate? Post-injection monitoring should include manganese to ensure levels do not exceed MCLs once the reaction is complete and the aquifer stabilizes.
7. Section 3.2.3, Permanganate Injection: In the 1st paragraph please note the injection layout may need to be modified to address utilities. As with Alternative 2, please explain why only the bottom 10 feet of the aquifer will receive injectate as contamination is present in the upper portions of the aquifer, too.
8. Section 3.2.3, Performance Monitoring and Long-term Monitoring: It is VDEQ's concern that the implementation of the remedy and the resulting COC degradation process may impact the current risk status relating to vapor intrusion in the barracks and quarter deck buildings. Please revise the last sentence of the last paragraph to address this concern or explain how the evaluation of building conditions and groundwater concentrations achieve this level of protection of the building occupants.
9. Section 3.2.4, Full-Scale Operation: The 2nd paragraph states the SVE wells are used to "minimize groundwater recovery". Isn't the goal to maximize the recovery? In the 1st sentence of the 3rd paragraph please change "east" to "west" and note in the 2nd sentence six horizontal SVE wells will be installed as shown of Figure 3-3. Please modify Figure 3-3 to show the location of the compressor, controls and other equipment on the site and reference the figure in the 5th paragraph. Regarding the vapor-phase GAC to be used to treat the off-gas, how will spent GAC be managed? Please explain. Do the costs reflect the management of this waste material?
10. Section 3.2.4, Performance Monitoring and Long-term Monitoring: Does AS/SVE produce long-term changes in the aquifer condition such that degradation of COCs continues after active treatment ceases? Please explain.
11. Section 3.2.4, Performance Monitoring and Long-term Monitoring: It is VDEQ's concern that the implementation of the remedy and the resulting COC degradation process may impact the current risk status relating to vapor intrusion in the barracks and quarter deck buildings. Please revise the last sentence of the last paragraph to address this concern or explain how the evaluation of building conditions and soil vapor concentrations achieve this level of protection of the building occupants.
12. Section 4: In the opening paragraph please add Section 4.2 – Sustainability.
13. Appendix C, Table C-1 Federal Chemical Specific ARARs:
 - Clean Air Act - Please spell out "NSPS" in the 2nd Air requirement listed.
 - Safe Drinking Water Act - VDEQ proposes the following language be used in the "Prerequisite" section for 1st groundwater entry, "Groundwater contamination exceeds MCLs. CERCLA requires the return of usable waters to their beneficial use wherever practicable. Based on Virginia's and EPA's expectation for beneficial use of groundwater, cleanup to MCLs for the contaminants presenting Human Health Risk is required."
14. Appendix C, Table C-2 Virginia Chemical Specific ARARs:
 - State Water Control Law - The "Groundwater, decontamination water or other materials discharged to surface water" entry should be "Relevant and Appropriate" to address potential releases to storm sewer drop inlets on or adjacent to the site. This ARAR is necessary to protect from possible discharge of "daylighted" injectate, purge water from wells, etc. to a storm sewer which discharges to surface water via VPDES-permitted storm water outfall.
 - State Water Control Law – The 1st "Surface Water" entry should be "Relevant and Appropriate" to ensure any releases from the site to surface water via storm water outfalls comply with the Virginia Water Quality Standards. Also, this regulation provides for all state waters protection and designated use. "State Waters" are defined as all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction....which affect the public welfare. Va. Code Ann 62.1-44.2 to 62.1-44.34.
 - State Water Control Law – The "Groundwater" entry should be revised listing the "Citation" as follows 9 VAC 25-280-20 to 50 and noting the "ARAR Determination" as "Applicable" (see Table 2-13 of the Site 13 ROD).

The following ARAR should be added to Table C-2.

- Environmental Health Services - Waterworks Regulation 12 VAC 5-590-440: VDEQ suggest that this regulation be listed as Relevant and Appropriate. Section 440, table 2.3 lists the Virginia Primary Contaminant Levels for Organic Chemicals.

15. Appendix C, Table C-3 Federal Location Specific ARARs:

- Coastal Zone Management Act - VDEQ does not agree that site 11a is excluded from the coastal zone management act as exempt lands. VDEQ suggest that this regulation be changed to Relevant and Appropriate with the following proposed language located in the Comment section. "If activities at Site 11(a) affect Virginia's coastal zone, the activities will be consistent to the maximum extent practicable with Virginia's enforceable policies."

16. Appendix C, Table C-4 Virginia Location Specific ARARs:

- Chesapeake Bay Preservation Act – Please revise the citation to read 9 VAC 10-20-120 to 130 and change the "ARAR Determination" to "Relevant and Appropriate" (see Site 13 ROD).
- Endangered Species – While no threatened and endangered species have been found on the site, those species have been found in the vicinity of the site and could forage on the site's grassy areas. Please change the ARAR determination to "Relevant and Appropriate".
- Endangered Plant and Insect Species Act - While no threatened and endangered plant and insect species have been found on the site, those species have been found in the vicinity of the site may become established in the site's vegetated areas. Please change the ARAR determination to "Relevant and Appropriate".

17. Appendix C, Table C-5 Federal Action Specific ARARs:

- Safe Drinking Water Act – The Underground injection citation should also include 144.51(d)(e)(j)(o).
- Clean Air Act – The "ARAR Determination" for Alternative 4 should be "Applicable" to address the vapors generated by the air sparging process.
- Clean Water Act – Storm sewer drop inlets on or immediately adjacent to the site are pathways to surface water bodies. The "ARAR Determination" for this entry should be "Relevant and Appropriate".

18. Appendix C, Table C-6 Virginia Action Specific ARARs:

- Virginia Waste Management Act – The "Solid Waste Management Regulations" portion of the "Citation" entry has been repealed. The new citation is 9 VAC 20-81-40 (B)(C), 90, 95, 100.C.
- State Water Control Law – The "VPDES General Permit Regulation for Discharges of Stormwater from Construction Activities" should be "Relevant and Appropriate" as there are storm sewer drop inlets on and adjacent to the site.
- State Water Control Law – The "VPDES Permit Regulation" may also be "Relevant and Appropriate" is a different type of stormwater general permit is in place for the outfall where the nearby drop inlets discharge.
- State Water Control Law – The Virginia Pollutant Abatement (VPA) Permit Regulation maybe "Relevant and Appropriate" for the proposed alternatives pertaining to IDW or waters that may break through the surface while conducting the remedy.
- Environmental Health Services - Please add Private Well Regulations, 12 VAC 5-630-10 to 480. This regulation pertains to the construction of observation, monitoring and remediation wells and well abandonment.

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)
NABLC Correspondence File
Michelle Hollis, VDEQ Waste Division-ORP (electronic copy)
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