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DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
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01 JUL 1996

CERTIFIED MAIL RETURN RECEIPT REQUESTED

United States Environmental Protection Agency
Region IV
Attn: Ms. Gena Townsend
Waste Management Division
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: MCB Camp Lejeune, Response to Comments on the Draft
Feasibility Study, Operable Unit 12 (Site 3)

Dear Ms. Townsend:

Enclosed please find responses to your comments on the Draft Feasibility Study for Operable Unit 12 (Site 3) at MCB Camp Lejeune. These responses are being submitted in lieu of a Draft Final document. In order to maintain the schedule for submittal of the Final document on August 15, 1996, your comments on these responses are requested no later than July 22, 1996.

The Navy/Marine Corps appreciates your continued involvement in this project. Please direct any questions or comments to Ms. Katherine Landman at (804) 322-4818.

Sincerely,

A handwritten signature in cursive script that reads "L. G. Saksvig".

L. G. SAKSVIG, P.E.
Head

Installation Restoration Section (South)
Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Enclosure

Copy to:

NC DEHNR (Mr. Patrick Watters)
MCB Camp Lejeune (Mr. Neal Paul)
Baker Environmental, Inc. (Mr. Matt Bartman)
Activity Admin Record File

**Response to Comments Submitted by
the United States Environmental Protection Agency
on the Draft Feasibility Study Report for Operable Unit No. 12 (Site 3)
MCB, Camp Lejeune, North Carolina**

Comment Letter by Gena D. Townsend dated May 6, 1996

General Comments

1. The text will be revised accordingly. The statement "well locations where benzene was detected appear to be unrelated" will be omitted. The statement "benzene concentrations detected in the shallow aquifer only slightly exceeded the federal and state standards" (i.e., the second bulleted paragraph) will be revised to read "the benzene concentration detected during the third sampling round (3J ug/L) only slightly exceeded the state standard and did not exceed the federal standard".
 2. The following figures will be included in Section 5.0:
 - Figure 5-1 - Soil RAA No. 5: Biological Treatment in Plan View
 - Figure 5-2 - Soil RAA No. 5: Biological Treatment in Cross-Section View (i.e., a cross-section of a soil treatment pile)
 - Figure 5-3 - Groundwater RAA No. 3: Extraction and On-Site Treatment in Plan View
 - Figure 5-4 - Groundwater RAA No. 3: Process Flow Diagram for the Treatment Plant
- However, figures for Soil RAA No. 3: Source Removal and Landfill Disposal and Soil RAA No. 4: Source Removal and Incineration will not be included. Under Sections 5.1.3 and 5.1.4, the reader is referred to Figure 3-5 for an illustration of the area to be excavated. The off-site landfill and incineration facilities are the final disposal destinations of the excavated soil. Figures depicting a landfill or an incineration process that may be associated with the disposal facilities are not necessary to comprehend the alternatives.
3. It is anticipated that the treated soil will be taken to an on-Base borrow pit and reused as fill material at some other location on the Base. The text will clarify this.
 4. Monitoring wells 03-MW07 and 03-MW08 will be included under the long-term groundwater monitoring program. The following rationale will be given for the selection of wells to be monitored: "With the exception of 03-MW04 and 03-MW13, wells where VOCs and SVOCs were detected in excess of the remediation levels will be monitored. Well 03-MW04 will monitor downgradient contaminant migration, and well 03-MW13 will ensure that downgradient migration does not affect nearby water supply wells."
 5. The text will indicate a qualitative amount of toxicity, mobility, and volume reduction for each alternative. An approximate time frame for the reductions will also be given.
 6. The text in Section 6.3.4 will be revised to indicate that Soil RAA No. 3 does not result in toxicity, mobility, or volume reduction through treatment. As a result, Sections 6.2.3 and 6.3.4 will be consistent.
 7. Groundwater monitoring, and the costs associated with it, will be omitted from the soil alternatives.

Specific Comments

1. Table 2-5 will be revised accordingly.
2. Figure 2-8 will be revised accordingly.
3. The text in Section 3.7.1.1 will be revised accordingly.
4. The text in Section 3.7.2 will be revised accordingly.
5. The “bulleted” footnote means that a contaminant was retained as a COPC and evaluated against state and federal criteria or standards. Even if a contaminant was not retained as a COPC for the human health risk assessment, it may have been retained for evaluation against state and federal criteria. For example, TCE was not prevalent in the groundwater so it was not retained as a COPC for the human health risk assessment. However, TCE was qualitatively evaluated against criteria because it was positively detected. Table 3-1 will be revised to reflect this.
6. Bis (2-ethylhexyl) phthalate was shown in Table 2-7 of the FS, but was eliminated as a COPC after evaluation of blank contamination. This contaminant was addressed in the nature and extent section of the RI report. However, in the risk assessment portion of the RI, BEHP was eliminated as a COPC due to its presence in associated blank samples. The text of Section 3.0 of the FS will be revised to reflect this.
7. The text in Section 4.3 will be revised accordingly.
8. Dual phase extraction will be eliminated in Table 4-3 for the same reasons that in situ air stripping (i.e., air sparging and in well aeration) were eliminated.
9. Soil RAA No. 5 will be revised to include an on-site biopile rather than on-site composting in windrows. Although the actual design of a biological treatment system for Soil RAA No. 5 will depend on treatability study results, a biopile will be used as the conceptual treatment approach for the purposes of the FS. Compared to composting, a biopile appears to be more appropriate for the site-specific conditions.

Additionally, the title of Soil RAA No. 5 will be changed from “Source Removal and Composting” to “Source Removal and Biological Treatment”. This title change reflects the fact that a form of biological treatment (e.g., biopile, aerated lagoon) will be implemented, but the exact form is not known at this time.
10. Soil RAA No. 5 will be revised to include an on-site biopile rather than on-site composting in windrows.
11. The text in Section 6.2.3 will be revised accordingly.
12. The word “off-site” will be added to the titles of Soil RAA Nos. 3 and 4.
13. Table 6-1 and the text in Section 6.0 will be revised accordingly.
14. The text in Section 7.1.3 will be revised accordingly.
15. It is impossible to predict the amount of contamination that will remain in the subsurface adsorbed to soil particles or trapped in pore spaces and fissures. It is highly dependent on unknown subsurface conditions. The text will be revised to more clearly indicate that remaining contaminants may affect the quality of remediation.

16. Table 7-1 will be revised accordingly.
17. The cost estimates will be revised so that these quantities are consistent.
18. Soil RAA No. 5 will be revised to include an on-site biopile rather than on-site composting in windrows. The revised costs for Soil RAA No. 5 will include a sampling frequency based on the anticipated biodegradation treatment rate (as per a vendor quote) as opposed to a random schedule.
19. Soil RAA No. 5 will be revised to include an on-site biopile rather than on-site composting in windrows.
20. Soil RAA No. 5 will be revised to include an on-site biopile rather than on-site composting in windrows.
21. The cost estimate will be revised accordingly.
22. The table will be revised accordingly.

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