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DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
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21 APR 1995

CERTIFIED MAIL RETURN RECEIPT REQUESTED

North Carolina Department of Environment,
Health, and Natural Resources
Attn: Mr. Patrick Watters
P. O. Box 27687
401 Oberlin Road
Raleigh, North Carolina 27611

Re: MCB Camp Lejeune
Response to NC DEHNR Comments
Draft RI Report
Operable Unit Number 10
(Site 35)

Dear Mr. Watters:

Enclosed are Navy/Marine Corps responses to your comments on the above-referenced document. These responses address comments from Mr. David Lilley dated January 18 and 19, 1995 and your comments of January 27, 1995. The Draft Final version of the document (issued March 10, 1995)incorporates these comments.

Please direct any questions to Ms. Katherine Landman at (804) 322-4818.

Sincerely,

L. G. Saksvig

L. G. SAKSVIG P.E.
Acting Head
Installation Restoration Section
(South)
Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Enclosure

Copy to:
EPA Region IV (Ms. Gena Townsend)
MCB Camp Lejeune (Mr. Neal Paul)
Baker Environmental, Inc. (Mr. Ray Wattras, Mr. Dan Bonk)
Activity Admin Record File

Response to Comments Submitted by the North Carolina DEHNR (Mr. Patrick Watters) on the Draft RI for Operable Unit No. 10, MCB Camp Lejeune (Dated January 27, 1995)

1. A clarification was incorporated into text that will provide the reader a source to identify which samples were collected for each of the parameters.

2. As per the comment, the text was changed as so not to include subsurface soils in the statement about PCBs.

3. The reason for eliminating the possible association of the mercury detected in the surface water to contamination at the site was the geographic location of the samples containing mercury. That is, the samples containing mercury were located upstream of the site indicating that the source may be located north of the site. Additionally, the background check did not indicate that present or historical activities at the site would result in suspected mercury contamination.

4. The additional work scheduled for Site 35 will include installation of wells south of monitoring wells 35-MW32A/B and 35-MW35A/B. Monitoring well 35-MW34A/B is located south of 35-MW33A/B delineating the southern edge of the groundwater contamination. However, the well was not included on the figure by mistake. Pertaining to the VOC contamination detected in wells MW-21 and MW-25, Law installed wells northwest of these monitoring wells in which the contamination was delineated. Therefore, since Baker was conducting confirmatory sampling at wells MW-21 and MW-25, the "clean" wells were not sampled. Since the absence of these wells caused confusion, Baker will include these wells on the figures and make reference to Law's report for results of the sampling.

5. The contamination at Site 35, including that detected at monitoring wells MW-19 and MW-33B is addressed in the Draft Interim FS, prepared by Baker dated 12/9/94.

6. A mistake was made on the figure, but it has been corrected as per the comment.

7. As per the comment, the figures have been separated by contaminant per media in the Draft Final version of the RI (ie., TCE results recorded during groundwater screening, benzene results recorded during groundwater screening, TCE in soil gas, and benzene in soil gas). The color schemes have also been corrected as per the comments.

8. Sampling of surface and subsurface soils will be included in the additional work scheduled for Site 35. This will fill in the data gaps and satisfy this comment.

9. See response to comment no. 8.

10. As per the comment, the text was modified removing the reference to pesticides being analyzed in subsurface soil samples.

11. A sentence has been added to the paragraph that indicates that PCBs were not detected in the surface water or sediment samples. The typo in the first sentence was corrected. The sentence now reads "... no *pesticides* were observed ...".

12. The figure was modified as per the comment.

Responses to Comments Submitted by the North Carolina DEHNR (Mr. David Lilly) on the Draft RI for Operable Unite No. 10, MCB Camp Lejeune (Dated January 19, 1995)

1. The reference to "judicious use of data" has been removed from the text.

2. Section 6.2.2.1, has been revised. Carbon disulfide, toluene and xylenes were detected one time in the surface soil at concentrations less than the Region III residential soil RBC level, therefore, they were not retained as COPCs.

3. SVOCs in the surface soil were evaluated based on frequency of detection, comparison to Region III residential soil RBC levels, and comparison to investigation QA/QC concentrations. Based on these comparisons, phenanthrene, benzo(b)fluoranthene, and benzo(g,h,i)perylene were retained as COPCs in the surface soil.

4. Beta-BHC was detected in the surface soil at concentrations less than the residential soil RBC level and is therefore not retained as a COPC. Endosulfan II, endrin ketone and endrin aldehyde have been added to the list of COPCs in the surface soil based on frequency of detection and comparison to residential soil RBC levels.

5. Potassium, silver and sodium were not detected in the surface soil and all references to these chemicals in Table 6-2 have been deleted.

6. The data for antimony and thallium have been added to Table 6-2.

7. Aluminum, calcium, iron and magnesium are considered essential nutrients and are not expected to cause adverse effects at the detected concentrations and therefore are not retained as COPCs in the surface soil. Chromium was detected at concentrations less than the residential soil RBC level and has not been retained as a COPC.

8. Manganese and vanadium were detected at concentrations above two times the background concentrations in the subsurface soil. Therefore, the statement that these chemicals were detected at concentrations below twice the average background concentration has been removed.

9. Antimony was not detected in the subsurface soil and was not added to Table 6-4. Data for thallium has been added to Table 6-4.

10. Calcium, iron, magnesium and potassium are considered essential nutrients and are not expected to cause adverse effects at the detected concentrations and therefore are not retained as COPCs. Chromium, cobalt, selenium and zinc were detected at concentrations less than residential soil RBC levels and therefore are not retained as COPCs. Selenium was detected at concentrations less than two times the site-specific background concentration, Table 6-4 has been updated to include this information.

11. 1,1,2,2-tetrachloroethane is not retained as a COPC because of prevalence (2 out of 50 samples). However, this contaminant will be assessed using State and Federal groundwater criteria.

12. Table 6-5 has been corrected to include the number of detects above NCWQS for trans-1,2-dichloroethene.

13. Table 6-8 has been updated. The X indicates that the chemical was detected in the indicated media, while the * indicates that the chemical has been retained as a COPC.

14. Phenol, fluorene and carbazole were detected either 2 or 3 times out of 24 samples in the groundwater and were detected at concentrations below tap water RBCs. Therefore, they were not retained as COPCs. Phenanthrene and dibenzofuran have been added to the list of COPCs for the groundwater.

15. All references to concentrations above or below CRQLs have been removed. The pesticides were evaluated based on frequency of detection, comparison to groundwater criteria, comparison to tap water RBCs and comparison to investigation QA/QC concentrations.

16. The sentence stating that all inorganics detected in the groundwater were retained as COPCs has been removed. All inorganics detected in the groundwater have been included in Section 6.2.2.1, therefore, evaluations of aluminum, calcium, chromium, iron, magnesium, potassium, silver, and sodium have been added.

17. The base specific background data for all inorganics has been added to Table 6-6.

18. Aluminum, calcium, iron, magnesium, potassium, and sodium were not included as COPCs in the surface water. An evaluation has been added to Section 6.2.2.1, and these chemicals have been included in Table 6-6. Chromium was retained as a COPC in the surface water and has also been added to Section 6.2.2.1, and Table 6-6.

19. Arsenic and thallium have been retained as COPCs in the surface water and the text has been updated.

20. Bis(2-ethylhexyl)phthalate was detected in three out of twenty sediment samples and was detected at concentrations less than ten times the concentrations detected in the investigation QA/QC blanks (after concentration was adjusted from water to soil concentration), therefore it is not retained as a COPC. The reference to this chemical being detected at concentrations below the CRQL has been removed.

21. Chromium has been added to the list of COPCs in the sediment and the text has been updated to include this chemical.

22. The background information for sediment has been added to Table 6-7. Selenium was detected in four out of twenty samples and the text has been updated.

23. Aluminum, calcium, iron, magnesium, mercury, potassium and sodium were detected in the sediment and section 6.2.2.1 has been updated to include information on these chemicals.

24. The section on COPC selection for biota has been rearranged to include all missing data and information.

25. Section 6.2.2.1 has been revised all information concerning selection and/or elimination of COPCs has been included.

26. The concerns of comments 1 through 25 have been addressed.

Responses to Comments Submitted by the North Carolina DEHNR (Mr. David Lilly) on the Draft RI for Operable Unite No. 10, MCB Camp Lejeune (Dated January 18, 1995)

1. Fish were not chemically analyzed from the White Oak River Basin study because background fish and crabs were chemically analyzed during a previous study in Hadnot Creek in September to October, 1993 (Baker, 1994).

2. Bis(2-ethylhexyl)phthalate was not retained as a COPC because all the samples were below the QA/QC blank concentration (see the report for a further discussion).

3. Acetone is retained as a COPC.

4. During review of the data, modifications to the fish data has been incorporated into the report. Appendix U now contains the raw data for the biota. The significant figures in the summary table for Appendix R is due to the program that generates the spreadsheets. Since some of the numbers in other tables are less than one, two significant figures are necessary.

5. Toluene and xylenes were retained as COPCs in the surface soils.

6. The anthropogenic contaminants (including benzo(a)pyrene and dibenz(a,h)anthracene) that were detected in less than 10 percent of the samples in the surface soils were not retained as COPCs. The RBCs are not an appropriate guideline for ecological receptors since they are based on human health toxicity values. Benzo(b)fluornthene was retained as a COPC, however, benzo(a)pyrene, and dibenz(a,h)fluoranthene were not retained as COPCs.

7. Beta-BHC, endosulfan II, endrin aldehyde, and endrin ketone are retained as COPCs in the surface soils.

8. The vapor pressures for cobalt and thallium were changed to "ND" on the table. The text no longer provides the range of values for each of the physical/chemical characteristics since they are already listed on the table.

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