03.01-11/10/93-01191

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1510 GILBERT ST
NORFOLK VA 23511-2699

TELEPHONE NO:
(804) 322-4818

IN REPLY REFER TO:
5090
1823:KHL:srw

NOV 10 1993

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, GA 30365

Re: MCB Camp Lejeune; Response to EPA Region IV Comments on the Draft RI/FS Project Plans for Operable Unit No. 10 (Site 35)

Dear Ms. Townsend:

This letter addresses your comments on the above referenced project. Navy/Marine Corps responses are attached. These comments have been incorporated in the Draft Final version of the documents (issued by Baker on 10/28/93) which you should have already received under separate cover.

Any questions concerning these responses should be directed to Ms. Katherine Landman at (804) 322-4818.

Sincerely,

DDMcSmith

for L. A. BOUCHER, P.E.
Head
Installation Restoration Section
(South)
Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Attachment

Copy to:
NC DEHNR (Mr. Patrick Watters)
MCB Camp Lejeune (Mr. Neal Paul)
Activity Admin Record File

Responses to Comments Submitted by the USEPA (Region IV)
to the Draft RI/FS Project Plans
Operable Unit No. 10 (Site 35)
Marine Corps Base, Camp Lejeune, North Carolina
Comments Letter Dated September 2, 1993

Responses to General Comments

1. The text of Section 4.0 has been modified to include a statement regarding the objective of the FS.

2. The text of the Work Plan regarding suites of analysis (Section 5.0) has been modified to be consistent with the FSAP. In addition, the texts of the Work Plan and FSAP have been modified to provide for ten percent of the groundwater samples obtained under this study being analyzed for full-scan TCL Organics and TAL Inorganics. Ten percent is consistent with other RI/FS projects at MCB Camp Lejeune under the Navy Installation Restoration Program which have previously been acceptable to EPA Region IV.

3. A review of the previous investigations conducted at this site indicates that a significant volume of data has been obtained to date in the area north of Fourth Street. This is graphically evident in Figure 2-5 of the Work Plan which depicts existing monitoring wells and sampling locations. As indicated in Section 3.6.1, one of the data gaps carried over from previous investigations concerns the definition of the vertical and horizontal extent of halogenated organic contamination in groundwater, and identification of possible source(s) of this contamination. The lack of sample locations south of Fourth Street, the identified halogenated contamination in well MW-10, the apparent sufficiency of data north of Fourth Street, the presence of the storm drain primarily south of Fourth Street, and the location of building TC474 were the reasons that the soil gas and groundwater screening was concentrated south of Fourth Street.

   The texts of the Work Plan and FSAP have been modified to address this concern (see responses to Specific Comments Nos. 11 and 25).

4. Existing sample locations are depicted on Figure 1-4. The large number of existing sample locations precluded their inclusion on Figure 3-2, which depicts proposed sample locations.

Responses to Specific Comments

1. The text has been corrected as per this comment.

2. The text has been modified to include all of the results from previous groundwater sample analysis.

3. The discussion of the results of the 1990 Focused Feasibility Study (FFS) by NUS was excerpted directly from the Comprehensive Site Assessment (CSA) Report by Law (1992). This report does not provide the desired additional details nor was Baker able to acquire a copy of the FFS Report.

4. The text has been modified to include a description of the analytical methods and results from the CSA Report (Law 1992) on identified areas of impacted soil and groundwater.

5. The reference to MTBE was excerpted directly from the CSA Report (Law 1993). The text of the Work Plan has been modified to indicate that MTBE was detected in well MW-26. Because this well is located hydraulically upgradient of the Fuel Farm, Law concluded that its occurrence was unrelated and offered no other explanation for the presence of the compound at this location.

6. The text has been corrected to reference Site 35. The text of the Final version of this document will be modified to include a reference to contaminated sediments.

7. The text has been modified to include a discussion of surface water and sediment data gaps.

8. The text has been modified to include a reference to groundwater samples.

9. The proposed sampling grid is considered to be only a starting point. As indicated throughout the text, additional sampling locations may be selected based on the results of the initial sampling to further define the limits of the soil/groundwater contamination.

   Baker has used the Geoprobe/Hydropunch system successfully at other Camp Lejeune sites as a screening technology and is confident it will provide adequate results in this case.

10. The text has been modified to direct the reader to Figure 2-5 for the locations of existing monitoring wells. The addition of the existing monitoring well locations in Figure 5-1 was deemed impractical because of the large number of proposed sample screening locations depicted on this figure.

11. The text has been modified to provide a brief explanation for the sampling rationale south of Fourth Street.

12. The purpose of the soil and groundwater sample screening at Site 35 is to aid in the placement of soil borings and groundwater monitoring wells that will be used to determine the source, and nature and extent of halogenated organic groundwater contamination. TCE was selected as the indicator compound for analysis since it is highly volatile (vapor pressure 57.9 mm Hg), is one of the specific halogenated compounds detected under previous investigations at elevated levels in the shallow groundwater, and is likely to be identified as a contaminant of concern in the risk assessment.

13. Surface soil samples SS-1 and SS-2 are proposed as background samples. The text has been modified appropriately to identify these samples. Both samples are depicted on Figure 5-2.

14. Monitoring well GWD-1 is the proposed background deep aquifer well. The text has been modified appropriately to identify this well. The location of GWD-1 is depicted on Figure 5-2.

15. Figure 5-2 has been modified to include a reference to the sixth surface water/sediment sampling station.

16. Section 7.0 has been modified to include two schedules. Figure 7-1 represents the schedule prepared in accordance with the requirements of the Federal Facilities Agreement (FFA). Figure 7-2 represents the Expedited Schedule. Both schedules include breakdowns of RI/FS tasks.

17. Table 1-1 provides a list of geologic and hydrogeologic units in the coastal plain of North Carolina. Footnote (1) to the table indicates that the Yorktown, Eastover, and Pungo River Formations are "probably not present beneath Camp Lejeune." Consequently, these formations are not discussed in Section 1.1.1.5.

18. The text has been modified to provide clarification as per this comment.

19. The text has been modified to include a discussion of other data gaps including those associated with soil, surface water, and sediment.

20. A footnote has been added to the Table 2-1 to define the term "deep aquifer" at Site 35.

21. A sentence has been added to the third paragraph of Section 3.1 that indicates soil gas analysis shall be performed by an experienced chemist under controlled conditions (i.e., mobile laboratory) in accordance with Data Quality Level II.

22. See response to Specific Comment No. 9.

23. See response to Specific Comment No. 12.

24. See response to Specific Comment No. 10.

25. See response to Specific Comment No. 11.

26. The text has been modified to indicate that the figure number is Figure 3-1.

27. The word "west" has been changed to "east" in the text.

28. Justification criteria for the use of PVC as well casing material is provided in Appendix A.

29. See response to Specific Comment No. 27.

30. No reference is made in the text on page 3-13 to ambient condition blanks. The text indicates that one field blank of source water shall be obtained per event. The text has been modified to indicate that one field blank of the drilling fluid will be obtained and that the type and source of filter pack material, grout, and bentonite, etc. will be recorded in the field logbook.

31. The text has been revised in accordance with the comment.

32. The designation "D" does not necessarily imply to a laboratory that a sample is a duplicate. Other environmental professionals have used "D" to designate the term "deep". At Site 35 the definition of the designator is known only to Baker and LANTDIV project staff.

33. In general, the results of the groundwater screening will be used as the basis for identifying shallow groundwater monitoring well and soil boring locations. The proposed deep wells (GWD-1 through GWD-5) have been positioned specifically to provide data in suspected background areas or at locations where shallow groundwater contamination was identified under previous investigations.

34. The text has been modified to indicate that, for monitoring wells installed to depths greater than 50 feet, the sand pack shall be installed via tremie method.

35. Baker has proposed "double-nested" wells to provide well construction consistent with the majority of those wells previously installed at this site. It is agreed that skill and experience is the key to the proper installation of these wells. Baker will make experience a criteria for the selection of a drilling subcontractor for this work and will be prepared

to install the wells as double clusters (i.e., two wells installed in separate boreholes in close proximity to each other) if the nesting procedure is unsuccessful. As always, EPA is welcome to provide on-site oversight.

36. See response to Specific Comment No. 28.

37. The text has been modified to indicate that the tremie method will be used to install cement-bentonite grout in wells constructed with cement-bentonite grout layers that are longer than 25 feet.

38. The text has been modified to indicate that the drilling will be performed via hollow-stem auger.

39. See response to Specific Comment No. 31.

40. See response to Specific Comment No. 34.

41. The text has been modified as per this comment.

42. The text has been modified as per this comment.

43. The text has been modified as per this comment.

44. No sampling of potable supply wells is proposed. Potable supply wells are sampled periodically by the base. Supply wells in this area are not contaminated.

45. Baker accomplishes well purging using a "Redi-Flo 2" submersible pump. Pumping rates are 1 to 2 gpm. Wells are sampled as soon as 70 percent recharge is achieved. A minimum of three consecutive, consistent measurements of pH, conductivity, and temperature are recorded to ensure stabilization.

46. The procedures detailed have been approved for use at Camp Lejeune by EPA, Region IV (Ms. Jennifer Herndon, Groundwater Section).

47. The text has been modified to identify the "Redi-Flo 2" as the submersible pump to be used for groundwater purging.