03.01-08/02/93-00993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

AUG 02 1993

4WD-FFB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Linda Berry
Department of the Navy - Atlantic Division
Naval Facilities Engineering Command
Code 1823
Norfolk, Virginia 23511-6287

RE: Marine Corps Base Camp Lejeune NPL Site
Operable Unit 4, Sites 69 and 74
Jacksonville, North Carolina

Dear Ms. Berry:

EPA has reviewed the documents titled "Draft Remedial Investigation/Feasibility Study Project Plans Unit No. 4 (Sites 69 and 74)" dated June 1993. EPA comments on the draft document are enclosed.

If you have any questions or comments, please call me at (404) 347-3016.

Sincerely,

Michelle M. Glenn

Michelle M. Glenn
Senior Project Manager

Enclosure

cc: Peter Burger, NCDEHNR
Neal Paul, MCB Camp Lejeune

COMMENTS
DRAFT RI/FS PROJECT PLANS
Operable Unit Four
(Sites 69 and 74)

GENERAL COMMENTS

1. The references for the Integrated Risk Information System (IRIS) and Health Effects Assessment Summary Tables (HEAST) cited in the work plan are out of date. The most recent versions of IRIS and HEAST should be referred to for chemical toxicity values in conducting toxicity assessments.

2. More detailed rationale for establishing reference areas for the ecological assessment should be presented. If the reference areas are based on literature review, explain how any data gaps in the literature will be filled.

3. Hydropunch sampling locations are not plotted on Figure 5-2.

SPECIFIC COMMENTS

1. Page 1-2, Paragraph 1, Last Bullet, Section 1.2 - This section describes the proposed scoping activities. The last bullet, "Defining the optimum remedial alternative," is not required at the scoping stage. Furthermore, it would be premature to define an optimum remedial alternative prior to evaluating the RI data. Therefore, this activity should be deleted from the list of scoping phase activities.

2. Page 2-4, Section 2.1.5 - The section on Regional Hydrogeology describes the surficial aquifer and the underlying Castle Hayne aquifer in the Camp Lejeune area. The Castle Hayne aquifer is characterized as either confined or semiconfined, but there is no description of the confining unit. The confining unit lithology, thickness and variability over the Camp Lejeune area should be included since the text indicates that the Castle Hayne aquifer contains the principal water supply for Camp Lejeune. This information is important in assessing the potential for any contaminants at Sites 69 and 74 to migrate to the Castle Hayne aquifer.

3. Page 2-8, Section 2.1.6, 3rd Paragraph - What boundaries separate the SA areas from the SC areas? Is it very easy to accidentally stray into an SC area, for instance Site 69?

-2-

4. Page 2-9, Section 2.1.8, 4th Paragraph - Who exactly harvests the fish? Is Camp Lejuene a popular fishing retreat for locals or is the main concern with base personnel?

5. Page 2-10, Section 2.1.8, 2nd Paragraph - Are the areas under ecological protection in one region (i.e. North or East) or are they scattered randomly about the base? Where are they in relation to sites 69 & 74?

6. Page 2-10, Section 2.1.9, 1st Paragraph - How is this 60,000 population distributed? A map detailing Population distribution and wildlife preserve locations would be helpful.

7. Page 2-11, Section 2.2.1 - Where is the school located in relation to Site 69? A list of buildings within a half mile should be included to give an idea of who might accidentally wander onto a site.

8. Page 2-12, Figure 2-4, Section 2.2.1 - The Site 69 reconnaissance map should include a scale.

9. Page 2-13, Paragraph 2, Section 2.2.1 - The text refers to an approximately 75- foot by 4-foot trench identified during the site reconnaissance that corresponds to a trench identified from the aerial photography study included in Appendix B of the Draft RI/FS Work Plan. The aerial photographs indicate a north-south trending trench along the eastern border of the site and an east-west trending trench along the southern border. However, neither of these trenches nor the trench described in the text appears to have been included in Figure 2-4, which contains other key site features. The trench described on page 2-13 should be included in Figure 2-4.

10. Page 2-14, Section 2.2.3, 3rd Paragraph and Last Sentence - Was the Site in the same inactive, access restricted state when the troop training exercises occurred? How inactive is "inactive?"

11. Pages 2-15 and 2-32 - A brief description is provided that describes ground water flow at the sites. At site 69, the reported ground water flow directions are north and northwest. It is possible that ground water mounding occurs at the site causing ground water to flow in these directions (as discussed on page 2-15). It seems more likely that the ground water flow direction is toward the

New River, northeast of the site. It is recommended that once new wells are installed, water levels should be measured during a complete tide cycle and seasonally. Potentiometric surface maps for the surficial aquifer during high and low tide (if any difference exists) should be submitted along with water level data.

12. Page 2-21, Table 2-2 - EPA's Maximum Contaminant Levels (MCLs) for chlorobenzene (100 ug/l), tetrachloroethylene (5 ug/l), 1,1,2-trichloroethane (5 ug/l), and trichloroethylene (5 ug/l) should be listed.

13. Page 2-26, Table 2-3, Section 2.2.5.3 - The surface water sampling dates described in Table 2-3 for Site 69 do not agree with the text. The Draft RI/FS Work Plan, Section 2.2.5.2, describes two surface sampling rounds, one conducted in December 1986 and the other in January 1991. Table 2-3 indicates the following discrepancies with the text: two sets of surface water data for sample number 69SW1, both dated 8/4/84; three sets of data for sample number 69SW2, two dated 12/12/86 and one set dated 8/4/84; one sampling round for sample number 69SW3, dated 12/12/86. These discrepancies between the text and table should be corrected.

14. Page 2-37, Section 2.3.5.3 - The North Carolina Water Quality Standard (NCWQS) for iron is 300 ug/l not 30 ug/l.

15. Page 3-2, Section 3.1.2 - Future residential use of the area should be considered as a potential future exposure pathway.

16. Page 3-3, Section 3.1.4.1, 1st Paragraph - The Acronyms "NCWQS" and "AWQC" should either be defined in the list of Acronyms at the beginning of the report, or immediately before their initial usage.

17. Page 3-4 and 3-5, Table 3-1 - The table lists 1,2-dichloroethylene (DCE) as not having a MCL or a NCWQS. The table then lists a MCL and NCWQS for trans-1,2-DCE. The first listing for 1,2-DCE should be listed as cis-1,2-DCE with a MCL and NCWQS of 70 ug/l.

    The footnote for the MCL for copper should state that the value is a Maximum Contaminant Level Goal (MCLG) not a Secondary MCL.

18. Page 3-11, Section 3.2.2 - Future residential use of the area should be considered as a potential future exposure pathway.

19. Page 4-2, Section 4.1.2, 2nd Paragraph - This is a poorly written paragraph. Please rewrite the paragraph.

20. Page 4-6, Section 4.2, 3rd grouping of numbers - Item number 3 "Surface Water and Sediment Investigation" - Was there surface water present at site 74?

21. Page 4-7, Section 4.2.2 - The text is not clear on the proposed sampling of surface soils. It should be clearly stated that the surface soils in the area will be analyzed.

22. Page 4-8 and 4-9, Section 4.2.3 - The text is not clear as to whether or not more monitoring wells will be drilled or if only the two monitoring wells already present will be used for the RI. It should be clearly stated that more monitoring wells will be installed to investigate the ground water quality.

23. Page 5-5, Table 5-1, Section 5.3.1.3 - The Table 5-1 heading describes the list of chemicals as chemical surety compound (CSM) degradation compounds that will be analyzed in samples at Site 69. This implies that the parent CSM compounds will not be analyzed. The text should provide a justification for not analyzing environmental samples for the parent CSM compounds.

24. Page 5-11, Paragraph 5, Section 5.3.1.4 - The text states that all monitor wells will be constructed of polyvinyl chloride (PVC). The ECB SOPQAM discourages the use of PVC in monitor well construction materials where groundwater may be contaminated with organic constituents because of PVC's sorption and leaching properties. Provide justification for the use of PVC well construction materials.

25. Page 5-12 - An additional surface water/sediment sample should be collected in the unnamed tributary located east-southeast of the site (just north of the southeast tributary that will be sampled). See Figure 2-9.

26. Page 5-16, Section 5.3.2.3 - The work plan proposes only two background surface soil samples for Site 74. The results of the background analysis will be better defensible with at least four background samples. This would allow for better statistical analysis.

27. Page 5-17, Figure 5-4, Section 5.3.2.3 - The map of planned sampling locations contains three arrows labelled, "3 exploratory borings." An explanation should be presented since the text does not describe these borings, and boring locations are not shown on the map.

28. Page 5-19, Paragraph 3, Section 5.3.2 - The text states that groundwater flow from the surficial aquifer at Site 74 to Supply Well 654 will be investigated. The location of Supply Well 654 should be indicated in the Draft RI/FS Work Plan.

    The text states that '. . .up to five monitoring wells. . ' will be installed. The statement should read, 'a minimum of 5 wells will be installed.'

29. Page 5-21, Paragraph 4 - Supplemental Region IV Risk Assessment Guidance (EPA 1991) should also be included in the guidance document list and be followed in preparing the baseline risks assessments.

30. Page 5-22, Paragraph 2, Bullet 5 - This bullet, "Defining the extent of the expected impact or threat," should be changed to "Characterizing potential risks."

31. Page 5-23, Section 5.6.1.2 - The data summary table should also provide the maximum detected concentrations along with the average and 95% upper confidence limit (UCL).

32. Page 5-24, Section 5.6.1.3 - As presented, the process and criteria to be used to identify chemicals of potential concern are unclear and incomplete. Additional information is required on how a statistical comparison between background and site sampling data will be conducted. As stated in the Supplemental Region IV Risk Assessment Guidance (EPA 1991), the criteria for determining whether a contaminant is present at significant concentration should generally be two times the background concentration.

    Also, specify if comparisons to background and blanks will be the only two screening criteria to be used in the chemicals of potential concern identifying process.

33. Page 5-25, Paragraph 4 - Recreational users should also be considered as potential receptors for the inhalation of dust exposure pathway.

34. Page 5-26, Section 5.6.1.4 - The text on exposure point concentrations is unclear as to what concentration will be used in calculating the exposure doses. It should be clearly stated that the 95% UCL or the maximum detected concentration will be used as the exposure point concentration in the exposure dose calculations.

35. Page 5-27, Section 5.6.1.5 - The toxicity information in the Health Effects Assessment Summary Table (HEAST) are not in the Integrated Risk Information System (IRIS) database as indicated in the text. It should also be mentioned that the most up-to-date toxicity information will be used from these databases. The references indicate that the data is from 1991 and 1992.

36. Page 5-34, Paragraph 1 - EPA Region IV's Freshwater Water Quality Screening Values and Sediment Screening Values should be referred to and applied in the ecological toxicity assessment.

37. Page 5-34, Paragraph 3 - Clarify what is meant by "significant ecological risks."

38. Page 6-2, Paragraph 1, Section 6.0 - John Barone is described as having responsibility for both quality assurance/quality control (QA/QC) activities and for field team management. This presents an unacceptable conflict of interest since the QA/QC representative would be in the position of potentially reviewing his own project work. An individual should be chosen to manage the project QA/QC function who has no other project responsibilities.