03,01-10/13/93-01021

(804) 322-4818

5090
1823:KHL:srw

OCT 13 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, Georgia 30365

Re: MCB Camp Lejeune; Response to EPA Region IV Comments on the Draft RI/FS Project Plans for Operable Unit No. 7 (Sites 1, 28, and 30)

Dear Ms. Townsend:

This letter addresses your comments (from Athens Laboratories and Dynamac) on the above referenced project. Navy/Marine Corps responses are attached.

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

Sincerely,

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

Attachment

Copy to:
NCDEHNR (Mr. Patrick Watters)
MCB Camp Lejeune (Mr. Neal Paul)
Baker Environmental, Inc. (Mr. Daniel Bonk)

Blind copy to:
18232 (2 copies w/encls)
18S
F:\Admin\Typeout\EPACMOU7.KHL

ATTACHMENT A

Response to Comments Submitted by the U.S. Environmental Protection Agency, Region IV on the Draft RI/FS Project Plans for Sites 1, 28, and 30, (Operable Unit No. 7), MCB Camp Lejeune, North Carolina Comment Letter by Ms. Gena Townsend, (Comments from Athens Laboratory & Dynamac)

Response to General Comments

1. The proposed Feasibility Study (FS) tasks presented in the Work Plans provide standard information which has been presented in previous plans submitted to Region IV US Environmental Protection Agency (USEPA). The FS report will comply with USEPA's RI/FS Guidance Document (OSWER Directive No. 9355.3-01).

2. Analytical data from previous investigations are discussed in the Section 2.0 (Site History). Data from the Initial Assessment Reports are provided in the appendices, and are depicted visually on several drawings. In addition, recent groundwater analytical data from the April 1993 Baker investigation are also provided in the appendices and are depicted visually on several drawings. Please refer to these sections and drawings for these pertinent data. MCL data will be added to the text where appropriate.

3. A master acronym list will be provided for both documents; the Work Plan and Field Sampling and Analysis Plan (FSAP). The contaminant concentration units will be depicted on the drawings. Moreover, north arrows have been placed on the figures.

Response to Specific Comments - Work Plan (Comments 1 through 44)

1. The depths/thicknesses of the two aquifers (surficial and Castle Hayne) were clarified on page 2-7. The thickness of surficial aquifer near the Hadnot Point Industrial Area (HPIA) varies between 50 and 100 feet; the Castle Hayne aquifer underlies the surficial aquifer. Note that there is no laterally continuous confining layer which separates these two aquifers in the area.

2. The reference to Figure 5-3 was change to Figure 2-4.

3. Figure 2-4 will be revised to depict the contaminants which exceed both the Federal Maximum Contaminant Levels (MCLs) and North Carolina Water Quality Standards (NCWQS). A north arrow has been added along with a depiction of groundwater flow direction.

4. The concentration of zinc detected in well 1GW4 will be added to Figure 2-4.

5. The surface and sediment samples were collected in November 1986. This information has been added to the paragraph.

6. The results of the surface water and sediment investigation conducted in May 1993 at Operable Unit No. 1 will be used to characterize Cogdels Creek and the New River. These sampling locations are shown on Figures 5-2 and 5-5 in the Work Plan. Note that portions of the New River and Cogdels Creek (tributaries or branches) near Site 1 and 28 however, were not sampled as part the RI for OU No. 1. The portions of the New River and Cogdels Creek near Sites 1 and 28 that were not previously sampled will be investigated under the RI for OU No. 7. As part of the RI for OU No. 7, all data (OU No. 1 and OU No. 7) will be used in the human health and ecological risk assessments; however, impacts to the upstream reaches of Cogdels Creek from OU No. 1 will be noted.

7. The results of the July 1991 soil investigation will be prepared in table form and will be added to this section.

8. Proposed well 28GW5, which is located east of western burn dump, will replace well 28GW4 as a site specific background well. Well 28GW5 is situated in a wooded area which is believed to be unimpacted by contamination. Proposed well 28GW1 will be added to Figure 2-6. The sewage treatment outfall will be indicated on Figure 2-6.

9. The sentence has been revised to reference Appendices B and E.

10. A discussion of the contaminant concentrations detected in well 28GW1 has been added to the paragraph. Note that the concentrations are also presented on Figure 2-6.

11. The term "landfill" does not refer to a separate disposal area at the site but actually refers to the burn dump area. Accordingly, the phase "burn dump area" will replace the word landfill.

12. After further review of the data, it appears that low levels of pesticides were detected in both groundwater (28GW1) and surface water (28SW1 and 28SW2) samples. Accordingly, this paragraph will be rewritten and the conclusion will be removed regarding surface water contamination.

13. The acute toxicity levels for polychlorinated biphenyls (PCBs) and benzene hexachloride, a(BHC, A) has been added to the paragraph.

14. The symbol for well 30GW3 has been added to the legend in Figure 2-7.

15. The concentration of chloroform detected was low (2.7 ug/l). Chloroform is a common laboratory contaminant and is a by-product of chlorination. Chlorinated water may be used, by the laboratory, during the volatile analysis accounting for the presence of chloroform. Furthermore, the source of contamination identified at the site is related to the disposal of sludge from fuel storage tanks (i.e., leaded gasoline). Chloroform is a compound which is not typically associated with leaded fuels.

16. A bullet has been added which addresses airborne fugitive particulates released from contaminated surface soils. The word "incidental" has been also deleted from the first bullet. Moreover, bullet 5 has been deleted from the section.

17. The sentence has been clarified by eliminating the first "inorganics".

18. The paragraph has been rewritten to correct the typographical and grammatical errors.

19. The sentence has been rewritten.

20. The bullet items have been addressed per comment No. 16.

21. The last sentence has been eliminated from the paragraph.

22. The paragraph has been rewritten to address the typographic and grammatical errors.

23. The sentence has been rewritten to clarify the surface water and sediment sampling programs.

24. A bullet has been added which addresses airborne fugitive particulates released from contaminated surface soils.

25. The two samples collected north of the site will be considered as background samples while samples collected east (near wash racks) and south (adjacent to H.M. Smith Boulevard) will be considered as control samples. The two samples north of the site are situated in woodlands and are believed to be in areas which are unimpacted by contamination.

26. Response to comment not required. The three subsections will remain the same.

27. The number of surface water and sediment samples to be collected at Site 1 has been added to Table 5-1.

28. The paragraph has been rewritten to correct the typographical and grammatical errors.

29. The approximate direction of groundwater flow has been added to Figure 5-2.

30. The justification for the use of polyvinyl chloride (PVC) constructed monitoring wells is provided in Appendix B (Justification Criteria for Use of PVC as Well Casing Material) of the Field Sampling and Analysis Plan (FSAP). Please refer to this appendix section.

31. Please refer to Appendix B of the FSAP for justification of the use of PVC constructed wells. Further, Section 5.4.1.3 has been changed to Section 5.4.2.3.

32. The approximate direction of groundwater flow has been added to Figure 5-4.

33. The two surface water and sediment sample locations will be depicted on Figure 5-5.

34. The background samples proposed for Site 30 will be moved approximately 400 to 500 additional feet (total of 800 to 900 feet away from suspected source area) east of the site. Figure 5-6 has been modified to depict these changes.

35. The exact well construction details for the two existing monitoring wells are unknown. Based on the cross-section drawings provided in Appendix C of this Work Plan, it appears that the wells are approximately 25 feet deep with 10-foot screen sections. The proposed well, 30GW3, is intended to further evaluate potential impacted groundwater upgradient from the site and will be installed at approximately the same depth as the existing wells. Based on the previous analytical data (1984, 1986, 1987, and 1993), groundwater dose not appear to have been impacted; therefore the vertical extent of contamination will not be evaluated. Justification for the use of PVC constructed monitoring wells is provided in Appendix B of the FSAP. Section 5.4.1.3 has been changed to Section 5.4.3.3.

36. A bullet has been inserted to include the Supplemental Region IV Risk Assessment Guidance document (USEPA 1991).

37. Average background concentrations will be provided on the data summary tables or on separate tables.

Non-detected constituents will not be incorporated into the average concentrations but will be considered in the calculation of 95 percent upper confidence limits. This change has been made in the text.

The criteria to be used in selecting the Contaminants of Potential Concern (COPC) from the constituents detected during the sampling and analytical phase of the investigation are: historical information, prevalence, mobility, persistence, toxicity, comparison of the Applicable Relevant, and Appropriate Requirements (ARARs), comparison to blank data or base-specific naturally occurring levels (i.e., background), and comparison to anthropogenic levels. The criteria chosen to establish the COPC are derived from the US EPA's Risk Guidance for Superfund (USEPA, 1989).

38. Air pathways will be included and evaluated in the exposure assessment.

39. The text will be revised. The dates on the references will be removed from the Work Plan. The referenced dates provided in the Work Plans will not be relevant at the time the risk assessment is conducted. A statement will be provided, therefore, which indicates that the most up-to-date toxicity information obtained from IRIS and/or HEAST will be used in the exposure assessments.

40. Site surveys and/or reconnaissance will be performed in addition to literature searches to locate ecological reference areas if required.

41. The stock pond and recreational areas at Site 28 will be identified.

42. The proposed well locations for Site 1 are anticipated to fully evaluate the extent of contamination. The locations of the proposed wells are based on the April 1993 groundwater analytical results which indicated detectable levels of inorganic contaminants only (note that organic contamination was not present in any of the wells). Therefore, the use of on site screening techniques for volatiles (e.g., soil gas) would not be appropriate since the predominant contamination appears to be related to an inorganic source.

43. The proposed well locations for Site 28 are anticipated to fully evaluate both the horizontal and vertical extent of contamination. The locations of the proposed wells are based on the April 1993 groundwater analytical results which indicated detectable levels of predominantly inorganic contaminants. Note that only well 28GW1 exhibited concentrations of volatiles (very low). Again, the use of on site screening techniques for volatiles (e.g., soil gas) would

not be appropriate since the predominant contamination appears to be related to a inorganic source.

44. The proposed well locations for Site 30 are anticipated to fully evaluate the extent of contamination. The locations of the proposed wells are based on the April 1993 groundwater analytical results which indicated detectable levels of inorganic contaminants only (note that organic contamination was not present in any of the wells). Therefore, the use of on site screening techniques for volatiles (e.g., soil gas) would not be appropriate since the predominant contamination appears to be related to a inorganic source.

Response to Specific Comments - FSAP (Comments 45 through 51)

45. The use of field blanks is appropriate and required at these sites to determine if contaminants present in the area (e.g., airborne particles) have affected sample integrity. Samples of drilling fluid (i.e., drilling mud) will be collected at sites requiring mud rotary drilling.

46. As stated in response Nos. 42, 43, and 44, groundwater screening techniques (i.e., for volatiles) are not applicable at these sites since recent analytical data indicated that the predominant contamination present may be related to inorganic sources. Note that "quick" turnaround (seven days) soil samples will submitted to the laboratory to determine if additional samples are required to delineate the extent of potential soil contamination. Furthermore, this data may also assist in identifying the source areas and potentially impacted groundwater.

47. The rationale for the use of PVC constructed monitoring wells is provided in Appendix B of the FSAP. Note that low levels of volatiles were detected at these sites which serves as the primary rationale for use of PVC. Other monitoring well construction materials (e.g., sand, bentonite) are in accordance with USEPA Region IV Standard Operating Procedures (SOPs).

48. Low flow (less than 3 gallons per minute) submersible pumps (Redi-Flo2) will be used to purge the monitoring wells prior to sample collection. Measurements of pH, temperature, and specific conductance are recorded after each well volume is purged to determine if the well has stabilized. Following stabilization, the well will be sampled.

49. Potable drinking water well HP-638 will be sampled in accordance with USEPA Region IV SOPs.

50. The sample coring device will be a Kemmer Sampler equipped with a stainless-steel bucket.

51. The decontamination procedures outlined are in accordance with USEPA Region IV SOPs.