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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, S.W.
ATLANTA, GEORGIA 30303

August 16, 2004

Mr. Daniel Hood
Naval Facilities Engineering Command
Code: EV23DH
6505 Hampton Blvd
Norfolk, Virginia 23511-2699

SUBJ: MCB Camp Lejeune
Draft Five Year Review

Dear Mr. Hood:

The Environmental Protection Agency (EPA) has completed its review of the above subject document. Comments are attached.

If there are any questions, I can be reached at (404) 562-8538.

Sincerely,

Gena D. Townsend
Senior Project Manager

cc: Randy McElven, NCDEHNR
Scott Williams, MCB Camp Lejeune

Comments

1. Executive Summary, Page VIII, Last paragraph – Remove the word "every" and replace with "within". Five year reviews are required within five years.

2. Executive Summary, Page X, Summary Form – Change the trigger date to "11/29/99". Change due date to 11/2004

3. Table ES-1 – Correct current status of OU 6. Remove the statement "due to National debate". The debate has ended. (same for OU 19)

4. Page 1-10, Section 1.7 – First five year review completed on 11/29/99. Correct the chart trigger date – 9-30-93, 1st review 11/29/1999, 2nd review 11/29/2004.

5. Page 2-4, Section 2.1.1.4 Data Review, Second paragraph, 7th sentence – change the statement "cost prohibitive" to read the "remediation goals were changed to meet the current Fed/State criteria for industrial sites".

6. Page 2-12, 2nd paragraph – misspelling of "shut down"

7. Page 2-16, Section 2.1.3.4 – Data Review – The data review section should include a gw data summary. It should also include a very brief summary of the operating cost as it relates to contaminant removal/containment. This information can be found in the optimization report. (see the below example from EPA's 5-Year Review Guidance)

Data Review (Example)
Groundwater Monitoring

Groundwater monitoring has been conducted at the Acme Site since the late 1980s. In general, most contaminants were detected at their highest levels early in the Removal/Remedial history of the site (1989 to 1990). This high level followed by a drop in contaminant levels may well have been the result of removal activities eliminating significant source material. The evaluation of the natural attenuation processes at the site was achieved by evaluating four indicators that are recommended in the *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites* (OSWER Directive No. 9200.4-17P, April 21, 1999) for evaluating the performance of an MNA remedy. The four indicators are: 1. Demonstrate that natural attenuation is occurring according to expectations; 2. Detect changes in environmental conditions that may reduce the efficacy of the natural attenuation processes; 3. Identify any potentially toxic or mobile transformation products; and 4. Verify that the plume is not expanding either downgradient, laterally, or vertically. Since construction completion in 1997, 8 of the 13 contaminants for which groundwater cleanup levels have been established, remained below their respective cleanup goals in all sampling events. Furthermore, for the five contaminants that have exceeded their cleanup goals in recent sampling events, there is a marked trend downward in concentrations. Recent monitoring results for the five contaminants are shown in Table 3. MW-104b, MW-104c, and MW-105b are located on the southern end of the treatment area which is the downgradient side. Therefore, trends in contaminant levels in these wells are good indicators of the fate of contaminants remaining in the groundwater near

to the original source areas. In MW-104b and MW-104c, there is a clear downward trend in benzene concentrations, although concentrations remain above the cleanup goals. There is a clear indication that concentrations of TCE and the daughter products, cis 1,2-DCE and vinyl chloride are trending downward in MW-105b and MW-104c. This monitoring record indicates that the groundwater attenuation process conceptualized in the ROD is proceeding essentially as expected.

8. Page 2-39, Section 2.4.1.4, Data Review – The groundwater, surface water and sediment data trends should be presented and summarized in this section. (see example provided with comment #7.)

9. Page 2-48, Section 2.5.1.4 Data Review – Data trends should be included. (see example provided with comment #7.)

10. Page 2-51, Section 2.6, 2nd paragraph - Correct statement. The national debate has ended.

11. Page 2-66, Section 2.6.4.8 – typo in last sentence, remove the word "to".

12. Page 2-94, Section 2.11.2.4 – Text should briefly explain how, with the lower RBCs for Aldrin and Dieldrin, the site remediation goals remain protective. As per an EPA Risk Assessor, if the RBC changes are below a ten fold increase from the original numbers, then this is within the statistical range and the site would remain protective.

13. Page 2-97, Section 2.12.1.4 Data Review – (see example provided with comment #7.)

14. Page 2-104, Section 2.14.1.4 Data Review –(see example provided with comment #7.)

15. Page 2-110, Section 2.15.1.9 – Change anticipated completion date to 2006

16. Page 2-112, Section 2.16.1.3 – Bring information up to date using the current treatability study information.

17. Page 2-116, Section 2.16.2.3 – Change date of planned treatability study. State that a treatability study may be planned for 2005.

18. Page 2-117, Section 2.16.2.8 – Remove the statement regarding the pilot study.

19. Page 2-126, Section 2.18.1.3, Remedial Objectives – Change "PA/SI" to RI, same for sections 2.18.1.9 and 2.18.1.8.

20. Page 2-127, Section 2.19, second paragraph – The National debate has ended. Change sentence to read, "ROD completion is underway". Update the last sentence.

21. Page 2-134, 2nd paragraph – Update text to current conditions. Change ROD date to 2006.

22. Page 2-137, 2nd paragraph, 3rd sentence – typo change "or organic contaminants" to " of organic contaminants".