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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

September 17, 1996

4WD-FFB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

SUBJ: MCB Camp Lejeune
Draft RI
Operable Unit No. 13 - Site 63

Dear Ms. Landman:

The Environmental Protection Agency (EPA) has completed its review of the above subject document and comments are enclosed.

If you have any questions or comments, please call me at (404) 562-8538.

Sincerely,

Gena D. Townsend
Senior Project Manager

Enclosure

cc: Dave Lown, NCDEHNR
Neal Paul, MCB Camp Lejeune

General Comments

While I have some specific comments below regarding the assessment of lead, my main concern is whether or not the soil (especially subsurface) is adequately characterized. Sample 63-SB23-03 reported a lead concentration of 1650 ppm, but no other surface or subsurface soil sample reported a lead concentration greater than 182 ppm (health based screening value is 400 ppm). Nine other inorganics are also reported as having their maximum soil concentrations in sample 63-SB23-03. While the concentrations reported in this sample do not warrant a health concern (especially since they are in the subsurface), you should be certain that more samples are not needed in this area of the site (i.e. that a "hotter" area has not been missed).

Specific Comments

1. Table ES-1, pgs ES-8 through ES-10 - Summary of Site Contamination. Why is the groundwater protection soil screening level listed for surface soil constituents (listing no value for several constituents)? For screening, the ingestion (residential) based RBC value should be used if it is lower than the gw protection value. [The appropriate screening procedures appear to have been used in the human health baseline risk assessment.] For better readability, list the concentration units in the second column for each chemical class in each medium.

2. Section 6.2.3.6, pg 6-7, Sediment Screening Levels; Table 6-8, sediment COPC selection. EPA has no recommended "Sediment Screening Levels" for the protection of human health. The Sediment Screening Values are for aquatic life protection. It is acceptable, in the human baseline risk assessment, to use Soil Screening Levels to screen sediment constituents.

3. Section 6.3.1.2, pg 6-12, current receptors. A young child (1 to 6 year old) would not ordinarily be a trespasser. Limit this scenario to the older child (7-16 y.o.) unless site specific justification is provided.

4. Section 6.3.1.2, pg 6-12, future residential receptors; Table 6-9, exposure parameters. EPA Region 4 does not recommend residential exposure to undiluted subsurface soil as a default assumption. The assumptions used here indicate that regular residential exposure would occur on a daily basis (equivalent to surface soil exposure). As a default, region 4 generally considers a construction worker exposure to the subsurface (as is assumed in this BRA for the military receptor) as well as the potential for constituents

to leach to groundwater. Revise or add more support to the text for the assumptions used.

5. Section 6.3.4.6, pg 6-23. The text here should state the assumed scenario (wading or swimming?). I assume from the last paragraph of Section 6.3.4.8 that wading is assumed.

6. Section numbering, pgs 6-23, 6-24. The text goes from Section 6.3.4.6 to 6.3.4.8. Where is Section 6.3.4.7?

7. Section 6.3.4.3, pg 6-21, inhalation by trespasser. The text here states that 12 m^3/day is assumed for the child (ref. cited). The following sentence, however, states that "the conservative value of 10 m^3/day is used because an IR has not been published for children." The latter text should be omitted.

8. Section 6.4.2, pg 6-29; Table 6-2, data summary; Table 6-11, toxicity values. The COPC screening value and toxicity values for PCBs are used appropriately for the detected Arochlor compound. This should <u>not</u> be described as a "surrogate" approach, however, since Arochlor <u>is</u> a PCB compound.

9. Section 6.6; Appendix P - assessment of lead. The IEUBK Pb Model version 0.99d should be used to assess lead for potential health effects. Figures 6-2, 6-3 indicate that version 0.99d was used, but Appendix P indicates otherwise. The text in the last paragraph on pg 1 of App. P refers to the "default values in version 0.4". Table P-1 alters the default soil ingestion rate values from those in version 0.4 of the model. Version 0.99d has default values that differ from version 0.4. The second column on Table P-1 is labeled "Site Specific Values", but the note at the foot of the table states that these values are from an EPA guidance document, indicating that these are actually default values. The default exposure values for ALL routes of exposure (from the model, version 0.99d) should be retained unless site specific data are presented.

   The <u>average</u> (not maximum) concentration of lead in soil and other exposure media should be used in the IEUBK model (second paragraph of section 6.6; App. P). The average lead concentration in the surface and subsurface soils (13.8 and 43.3, respectively) are both well below the level of health concern. Since only one reported soil concentration exceeded the screening value of 400 ppm (1650 ppm in subsurface), the location of this exceedance should be discussed qualitatively, including the potential for its impact on underlying groundwater.

10. Table 6-6, groundwater COPC selection. No justification (blank contamination?) is given for not selecting bis(2-Ethylhexyl)phthalate as a COPC.

11. Table 6-7, surface water COPC selection. No justification (blank contamination?) is given for not selecting bis(2-Ethylhexyl)phthalate and acetone as COPCs.