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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

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

May 22, 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 Remedial Investigation
Operable Unit No. 12 - Site 3

Dear Ms. Landman:

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

If you have any questions or comments, please call me at (404) 347-3016 or voice mail, (404) 347-3555, x-6459.

Sincerely,

Gena D. Townsend

Gena D. Townsend
Senior Project Manager

cc: Patrick Waters, NCDEHNR
Neal Paul, MCB Camp Lejeune

Comments

1. Pgs ES-11,12; Table 6-17; Section 6.4- Toxicity Assessment; Appendix N- risk spreadsheets. The calculation of the dermal risks to the resident from groundwater is not fully explained. Adjustments to the toxicity values to account for absorption appears to be done for some chemicals and not others (?). Actually, the toxicity values in the risk spreadsheets for dermal exposure to groundwater and the resultant risks are unreadable due to the extremely small type. Please add a table to Section 6 to list and explain the toxicity values used to evaluate dermal exposure.

2. Section 6.2.2- Selection of Contaminants of Potential Concern. If any of the carcinogenic PAH compounds (cPAHs) are retained as COPCs, then all detected cPAHs should be retained.

3. Section 6.3.4.1 (pg 6-13); Table 6-9. The text states that the military personnel receptor has a soil ingestion rate (IR) of 480 mg/d with an exposure frequency (EF) of 250 days/yr, and an exposure duration (ED) of 25 yrs. In contrast, Table 6-9 lists an IR of 100, EF of 350, and ED of 4 for this receptor. Address this discrepancy.

4. Section 6.3.4.3 (pg 6-16); Table 6-11. The child inhalation rate listed (10 cu.m/d) is not supported by the references cited. EPA Region 4 Supplemental Guidance Bulletin for Exposure Assessment (November 1995) gives a default inhalation rate of 15 cu.m/d for a child.

5. Section 6.6.6, pg 6-27. The text refers to "3 COPCs without toxicity values", but the list that follows only includes 2 chemicals. Address this discrepancy.

6. Table 6-2, Soil Data Summary. "RBC" should be defined and a reference cited here.

7. Table 6-6, Groundwater Data Summary. Benzene is shown as having 3 "Detects above MCL", but a frequency of detection of 2/2. Address this discrepancy.

8. Table 6-8, Matrices of Potential Exposure. NA" for exposure of all receptors to Surface Water and Sediment provides insufficient information. Either add an explanation to the footnote that Site 3 has no surface water/sediment or omit the listing of these media from the table.

9. Table 6-14, Inhalation of Volatile Organics from Groundwater. A volatilization factor is needed to go from

the water concentration (mg/L) to the inhalation rate (cu.m/hr).

10. Table 6-15, Toxicity Factors.
Benzene has a provisional oral RfD of 3E-04 mg/kg-d (EPA-NCEA, 6/94). The noncarcinogenic inhalation value is actually an inhalation reference dose (mg/kg-d[RfDi]), rather than an RfC. Correct the column heading and the footnote.
Benzo[a]pyrene has an updated provisional inhalation slope factor of 3.1E+00/mg/kg-d (EPA-NCEA, 12/94).
The carcinogenic WOE for Carbazole is B2 (HEAST, 1995).
The toxicity values (along with an explanation of their derivation) used to calculate risks from dermal exposure should be shown here or on a separate table. [See comment #1 above]