06.01-09/10/97-01936

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1510 GILBERT ST
NORFOLK, VA 23511-2699

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CERTIFIED MAIL RETURN RECEIPT REQUESTED

North Carolina Department of Environment,
Health and Natural Resources
Attn: Mr. Dave Lown
Superfund Section
P. O. Box 27687
401 Oberlin Road
Raleigh, North Carolina 27611-7687

Re: MCB Camp Lejeune Response to Comments Draft
Basis of Design Phase 1 Operable Unit Number 10,
Site 35

Dear Mr. Lown:

Enclosed please find Navy/Marine Corps responses to your comments dated July 17, 1997 and comments from Mr. David Lilley dated July 16, 1997 on the subject document. These responses have been incorporated into the final version of the document submitted on August 14, 1997.

Please direct any questions or comments to Ms. Katherine Landman at (757) 322-4818.

Sincerely,

for L. G. SAKSVIG, P.E.
Head
Installation Restoration Section
(South)
Environmental Programs Branch
Environmental Division
By direction of the Commander

Enclosure
Copy to: (w/encls)
EPA Region IV (Ms. Gena Townsend)
MCB Camp Lejeune (Mr. Neal Paul, Mr. Mick Senus)
Baker Environmental, Inc. (Mr. Matt Bartman, Mr. Dan Bonk)
Activity Admin Record File

Response to North Carolina DEHNR Comments dated July 17, 1997 on Draft Basis of Design for Phase I Interim Remedial Action Operable Unit No. 10, Site 35

1. A plan addressing the effects of increasing the oxygen levels in the groundwater should be incorporated into the work plan.

Response: The specifications (Section 02903, section 3.8.1) includes provisions for measuring dissolved oxygen (DO) in the groundwater at monitoring points located upgradient and downgradient of the trench as well as along the length of the trench. This data is intended to provide evidence as to the extent to which the system is releasing oxygen to its surrounding. This data will be combined with additional data obtained separately by Baker to evaluate the level of natural attenuation at Site 35 and the impact of the air sparging trench.

According to Pankow (1993), if the groundwater is anoxic, will the introduction of oxygen "lead to the problematic precipitation of iron and manganese oxyhydroxides in, as well as downgradient of, the sparge zone." The design provides for monitoring for these effects directly through the measurement of inorganics in groundwater within the air sparging trench and at points downgradient. Other indirect data specified in the design to be obtained, such as pressure levels along the air sparging trench, may provide an indication that the system is experiencing a buildup of iron and manganese precipitants.

It should be noted that since the planned remedial action is the first phase of an overall remedial action at the site, one of the goals of this phase is to assess the applicability of the technology for the entire site, based on the given site conditions.

2. The remediation level value for 1,1,2,2-tetrachloroethane in Table 2-1 may be incorrect, if this number was taken from the USEPA Region III Risk Based Concentration Table. The reference to this number is not provided.

Response: This table (Table 2-1) was taken from the Draft FS for OU No.10. The risk-based RGO of 0.41 ug/L for 1,1,1,2-tetrachloroethane was calculated using a target carcinogenic risk level of 1.0 x 10-6. The equation used to calculate this RGO is based on guidance found in the USEPA Region IV Bulletin, Nov. 1995.

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