03-01-8/31/90-00338

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511-6287

TELEPHONE NO:
(804) 445-1814

5090 IN REPLY REFER TO:
1822:LAB
31 AUG 1990

Mr. Pat Tobin
U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Remedial Investigation and Feasibility Study,
Camp Lejeune Military Reservation

Dear Mr. Tobin:

In reference to your letter RCRAFFB dated 2 August 1990, the Atlantic Division, Naval Facilities Engineering Command (LANTNAVFACENGCOM) and Marine Corps Base, Camp Lejeune (MCB Camp Lejeune) have reviewed the Environmental Protection Agency's (EPA) comments to the Camp Lejeune Remedial Investigation and Feasibility Study (RI/FS) of June 1990 and provide the following responses:

a. Even though the Federal Facility Agreement (FFA) has not been signed, we agree with EPA that all parties involved should meet early on to discuss Installation Restoration (IR) initiatives. It is our intent that such meetings will occur more frequently once the FFA comes into existence.

b. All parties came to an agreement during the 25 July 1990 Technical Review Committee (TRC) that further definition of the soil contamination would be determined prior to implementing a remedial action for the shallow aquifer. This is especially true for the Hadnot Point area as the design and implementation of unsaturated soil remediation may affect the shallow aquifer. Once the extent of soil contamination is determined, we will consider all feasible alternatives for cleanup of the shallow aquifer, soil, or both in conjunction. Funds have been budgeted to initiate development of a remedial design (planned design July 1991) for the shallow aquifer.

c. The intention of the Work Plan is not to conduct an RI/FS at Sites 6, 48, 69, and the deep aquifer and unsaturated soils at Hadnot Point. Since data at Sites 6, 48, and 69 is outdated (1985), we contend it is necessary to obtain current data in order to develop a scope for the RI/FS phase. The intent of the Work Plan for the unsaturated soils and deep aquifer at Hadnot Point is to fully characterize the relationship of these to the shallow aquifer and, in addition, obtain sufficient data in order

to scope the RI/FS for these units. We intend to move into the RI/FS phase for these three sites and initiate the RI/FS phase for the deep aquifer and unsaturated soils at Hadnot Point in third quarter FY-91.

d. MCB Camp Lejeune will forward all information concerning the Hadnot Point Fuel Farm (HPFF) to you via separate cover. Corrective actions for leaks from underground storage tanks (UST) have been and continue to be regulated by the State of North Carolina. Remedial efforts undertaken in the Installation Restoration program will continue to be coordinated with UST actions.

e. We do not agree with the EPA's contention that a quantitative Risk Assessment of the HPFF is unnecessary. Quantitative data will be obtained to properly evaluate and justify proposed remedial actions for the shallow aquifer.

f. A tentative schedule of the milestones contained in the Workplan shall be forwarded to EPA along with the Draft Final Workplan. Schedule will include estimated start and completion dates of field investigations. Also, a tentative schedule of following actions (i.e. remedial action plan for shallow aquifer at HPFF) will be provided under separate correspondence by 30 October 1990.

g. The two guidance documents "Basics of Pump-and-Treat Groundwater Remediation Technology" and "Guidance on Preparing Superfund Decision Documents" will be incorporated and referenced in the Work Plan.

The following address EPA's specific comments:

Section 1.1	The objective of this Work Plan is not to specifically address EPA and DEHNR comments offered on May 1988. This correspondence is addressed separately.
Section 2.1	Paragraph 1.d. of this letter applies.
Section 3.1 (pg. 10)	We concur.

5090
1822:LAB

Re: Remedial Investigation and Feasibility Study,
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Section 3.1 (pg. 11)	A proposed plan describing the preferred alternative will be prepared when the draft RI/FS is completed.
Section 4.1.4.1	We have completed the hydrogeologic studies. MCB Camp Lejeune will provide you a copy via separate cover.
Section 4.2. (pp. 19-24)	A reference to the Site Characterization Report should be sufficient
Section 4.2.1 (p. 19)	We concur.
Section 4.2.1 (pg. 22)	Camp Lejeune will provide all information on the HPFF to the EPA.
Tables 4-1 through 4-4	We concur.
Section 4.4.1	We concur.
Section 4.4.2	We concur.
Section 4.5	Paragraph 1.c. applies.
Section 4.5.1	We concur.
Section 4.5.2.5	We concur.
Section 5.1 (pg. 39, para. 1)	We concur. This section will be modified to provide specifics regarding the data required to accomplish the stated objectives.
Section 5.1 (pg. 39, para. 1)	With respect to a quantitative risk assessment, paragraph 1.e of this letter applies. See paragraph 1.c. concerning an RI/FS.
Section 5.1 (pg. 39, para. 2)	Paragraph 1.c. applies.

Re: Remedial Investigation and Feasibility Study,
Camp Lejeune Military Reservation

Section 6.1	We agree to incorporate these documents with the exceptions noted on paragraph 3 of this letter.
Section 6.2	We concur. This section will be modified to include more specific information about data required to accomplish the stated objectives. Refer to paragraph 1.e. of this letter concerning "Risk Assessment."
Section 6.2.2	Paragraph 1.f. applies.
Section 6.2.3	Paragraphs 1.c. and 1.f. apply.
Table 6-1 (p. 43)	We concur.
Figure 6-1 (pg. 44)	The Project Operations Plan will provide this information.
Section 6.2.4	Paragraph 1.f. applies.
Section 6.2.5 (pg. 45)	Paragraph 1.f. applies. The second section will be modified as suggested by EPA.
Section 6.2.5 (pg. 46)	We concur. The second paragraph will refer to the TCLP. The specific depths at which soil samples will be taken and the description of locations soil samples are to be taken will be described in the Project Operation Plan versus the Workplan.
Section 6.3 and 6.4	Surface water/sediment samples will coincide with sampling locations from the previous investigation, since the objective of the Workplan is to obtain current data at these same locations. Paragraph 1.c. responds to EPA's comment concerning moving into the RI/FS phase for Sites 6 and 48.

Re: Remedial Investigation and Feasibility Study,
Camp Lejeune Military Reservation

	Paragraph 1.f. responds to EPA's comment for a specific implementation schedule.
Section 6.4.3	We concur.
Section 6.5	Paragraphs 1.c. and 1.f. apply.
Section 6.5.4	We concur.
Section 6.8	Paragraph 1.c. applies.
Section 6.9	Treatability studies were not considered as part of the Statement of Work (SOW) and will be addressed in a pre-design phase.
Section 6.10	Paragraph 1.c. applies.
Section 6.11	Paragraph 1.c. applies.
Section 6.12 and 6.13	These tasks will be completed by June 1991.

We have compared the Field Sampling (FSP) and the Quality Assurance Project Plan (QAPP) to the "Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual" referenced by EPA's comments. With the exceptions noted below, we agree to modify the FSP and QAPP to reflect this EPA Region IV guidance. Based on our professional and technical judgement, we do not concur with the EPA document on the following sections:

a. Sampling Equipment Construction Material (Section 4.2.3)
Whereas the EPA document requires use of monitoring well bailers constructed of Teflon, glass, or stainless steel, the use of dedicated PVC bailers is consistent with sampling of the present and proposed monitoring wells at Camp LeJeune which are PVC.

b. Blank Samples (Section 4.4.5 and 4.4.7)
In addition to requiring trip blanks for aqueous VOC samples, EPA Region IV requires trip blanks for soil/sediment VOC samples. We contend that trip blanks are ineffective monitors of cross-contamination between soil/sediment samples due to the difference in media.

5090
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c. Monitoring Well Purging Techniques (Section 4.7.5.3)
EPA Region IV requires Teflon or stainless steel intake lines on purging pumps. Our rational for non-concurrence is the same as in paragraph 3.a.

d. Soil Sampling (Section 4.9.6)
EPA Region IV requires thorough mixing of soil samples prior to filling VOC sample vials. This requirement is technically flawed as mixing of soil enhances the loss of VOCs from the sample.

e. Standard Cleaning Procedures (Appendix B.1 and B.4)
EPA Region IV's standard decontamination procedure requires hot tap water and solvents with a 24-hour air dry step. Since decontamination with detergents/solvents is considered "general practice," we will adopt this procedure. However, we will use room temperature water, not hot water, and sampling equipment will be air dried, but not necessarily for a period of 24 hours.

f. Deionized Water Blanks (Section B.2.1)
EPA Region IV requires one deionized water (DI) blank per week. We recommend one DI blank per lot of DI water.

g. Equipment Cleaning - Large Soil Borings and Drilling Rigs (Sections B.7.4, B.4, and B.8.3)
EPA Region IV requires the same decontamination procedure (i.e., solvents and 24 hour air dry) for auger flights as that for split-spoons and other small sampling equipment. General practice in other EPA regions and state agencies consists of high-pressure steam cleaning only. High-pressure steam cleaning is generally considered sufficient since auger flights never actually come in contact with environmental samples.

The draft final RI/FS documents will be revised and submitted to EPA within 45 days.

Please address any comments to Laurie Boucher, P.E., telephone (804) 445-1814.

R.D. CROWSON
By direction

5090
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Re: Remedial Investigation and Feasibility Study,
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