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CERTIFIED MAIL RETURN RECEIPT REQUESTED

JAN 28 19

Mr. Peter Burger
North Carolina Department of Environment,
Health, and Natural Resources
Post Office Box 27687
401 Oberlin Road
Raleigh, North Carolina 27611

Re: MCB Camp Lejeune; Responses to North Carolina DEHNR Comments on the Draft RI/FS Project Plans for Operable Unit #5

Dear Mr. Burger:

We have received the North Carolina Department of Environment, Health, and Natural Resources comments (letter dated December 1, 1992 received in our office December 4, 1992) to the subject draft documents. The Navy/Marine Corps responses to these comments are enclosed.

Any questions concerning these responses should be directed to Mr. Byron Brant at (804)-445-2931.

Sincerely,

L. A. BOUCHER, P.E.
Head
Installation Restoration Section
(South)
Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Encl:
Navy/Marine Corps Response to North Carolina DEHNR Comments on the Draft RI/FS Project Plans for Operable Unit #5 at MCB Camp Lejeune, North Carolina Received via Letter Dated December 1, 1992

Copy to:
EPA Region IV (Ms. Michelle Glenn)
MCB Camp Lejeune (Mr. George Radford)

Blind copy to:
182, 1823 (BCB)(2 copies w/encls),
1812, 18S, F:\admin\typeout\driprc}N\.BCB

Navy/Marine Corps Response to North Carolina DEHNR Comments on the Draft RI/FS Project Plans for Operable Unit No. 5 at MCB Camp Lejeune, North Carolina Received via Letter Dated December 1, 1992

General Comments, Site 2

The list of parameters covered by TCL organics and TAL inorganics is provided in the Quality Assurance Project Plan.

The sequence of RI/FS tasks will be defined when the Plans are finalized since additional changes in scope may be made.

Specific Comments, Site 2

Figure 2-4: The scale on drawing 2-4 has been corrected (160 feet).

Section 2.2.5.1: Chemical abbreviations are often used for pesticides/herbicides due to the complex names of these compounds. These abbreviations are also used by the laboratories when reporting the information on Form ID.

Table 2-1: Soil action levels that are protective of human health and the environment will be considered as part of the FS. The contractor will provide the DEHNR with one unbound report as part of upcoming submittals.

Table 2-4: The corrections to Table 2-4 that were noted in the comment have been made.

Section 2.3.6: The NCWQS for iron has been changed to 300 ug/l.

Section 3.2.2: The area surrounding Building 712 has now been included as part of the overall study.

Section 3.1.2: The first bullet has been revised to reference the building 712 area.

Table 2-4: It is not unusual for dissolved metals analyses to be higher than total metals analyses (e.g., salts such as sodium or calcium that readily dissolve in water). Of the 48 pairs of total/dissolved data, only 7 dissolved analyses exceed the total metals. The 7 instances involve mainly salts. In addition, the dissolved values only exceed the total values by about 10 percent (its possible that the constituents are in a dissolved state). We feel that the data are useful to scope the RI/FS.

Section 2.2.4: As mentioned in the Work Plan, there is only a limited amount of information to discuss and present. Only five wells were installed, one round of water level measurements were taken, and no aquifer testing was performed. The site-specific geologic and hydrogeologic characteristics will be expanded in the RI report following the contractor's field investigation.

Section 3.1.4.1: Soil action levels that are protective of human health (e.g., risk-based) and the environment will be considered as part of the FS. At present, there are no soil standards; therefore, no ARARs have been identified in this section that specifically address risk-based action levels.

3.1.4.2: Title 15 regulations pertaining to wetlands and coastal areas have been included. Both RCRA (40 CFR 268) and the State of North Carolina (Rule 0.0012 Part 268) Regulations for land disposal have been included as ARARs.

Table 3-2: The table is presenting the results of surface water samples collected from the Operable Unit (Sites 2 and 74). Therefore, this footnote was necessary since no surface waters have been collected from Site 74. This note is no longer needed since Site 74 has been combined with Site 69 due to the potential presence of chemical agents at Site 74.

Section 3.1.6.2: This section has been revised to note that both arsenic and lead were detected in well 2GW2 above State and Federal standards.

Section 3.1.6: The lack of site-specific geologic/hydrogeologic information has been referenced in this section. This information will be required to better assess potential contaminant migration pathways as well as engineering alternatives such as groundwater pumping.

Section 4.0: The sentence has been revised: "which than" has been replaced with "that".

Table 4-1: The reference to Building 712 in the title of the table has been deleted.

Table 4-1: The presence of an underground storage tank was mentioned only because of the types of contaminants detected in groundwater at the former storage area (fuel constituents such as ethylbenzene and toluene). There is no documented evidence that an underground storage tank exists. The contractor performed a geophysical investigation of this area (it was performed during the geophysical investigations at Site 78 and 24). Based on the findings, no tanks are suspected of being buried in this area of the site. The Work Plan has been revised to include a discussion of the geophysical investigation. In addition, no geophysical investigations will be required as part of the RI.

Section 5.3.1.2: The survey lines were based on assumed data.

Section 5.3.1.2: More than one sample from each area will be analyzed for full TCL organics and TAL inorganics.

Section 5.3.1.3.1: The scope has been changed to collect both surface and subsurface soil samples from around Building 712.

Section 5.3.1.4: All wells will be sampled and analyzed for full TCL organics and TAL inorganics.

Comments to the Sampling and Analysis Plan

Section 3.1.1: No. It was only theorized since fuel-related constituents have been detected in well 2GW3 at the former storage area. Because fuel constituents were detected, the possibility that an UST may exist in this area. This possibility was ruled out based on the recently performed geophysical investigation at this site.

Table 3-1: The pads are very close to one another. We will continue to refer to the pads as only one area. However, we will indicate that two pads are present within this area.

Section 3.1.2.1: Subsurface soil samples will be collected at five-foot intervals to the top of the water table.

Section 3.1.2.2: The text has been revised to indicate nine borings.

Section 3.1.4.1: Groundwater samples will be collected from all wells and analyzed for TCL organics and TAL inorganics.

Figure 3-2(sic): The scale on Figure 5-2 has been corrected.

Section 5.2: National Sanitary Foundation (NSF)-approved PVC will be used. NSF approved PVC takes into account the leachability of compounds. However, no manufacturer's specification will assure that a compound will not absorb to, or leach from PVC since the phenomenon is dependent on site-specific applications. The use of stainless steel is not full-proof with respect to well integrity since even stainless steel will corrode under certain conditions. The use of PVC or any other material must be evaluated on a case by case basis. The use of PVC at site 2 is justifiable as presented in section 5 of the SAP.

Section 5.10.3.1: Drill cuttings will be containerized pending appropriate analytical analysis (TCLP, RCRA Hazardous Waste Characteristics, TCL organics, and TAL inorganics).

Section 5.10.6: The intent of the NC regulations regarding storage is for active TSD facilities and is not directly applicable to storage of purge water and other IDW wastes generated as part of environmental investigations. When applicable to the situation, the NC regulations will be considered. The contractor will follow EPA guidance (EPA Publication 9345.3-03FS, Guide to Management of Investigation-Derived Wastes) for managing investigative-derived wastes. Section 5.10.6 has been revised taking into account the EPA guideline mentioned above.

Comments to the Health and Safety Plan

Page 5: The sentence has been rephrased.

Page 27: It has been our experience that background levels average around 2 ppm, therefore, the 5 to 7 ppm range allows for the sum of the background concentration (i.e., 2 ppm) and the 5 ppm allowable level. Typically, a meter reading will peak at a higher level, stabilize to the range stated, then drop. Every situation varies, but we believe this range to be appropriate based on our experience to date.

It is correct that chemicals cannot be specifically identified with the proposed instrumentation, but overall, the HNu/OVA will respond to volatiles in varying degrees. Although non-volatile pesticides will not register on the HNu/OVA, good sampling techniques and appropriate PPE will reduce the chance of worker exposure.

It is understood that a "ppm" relationship with regard to a realtime instrument's response is unsubstantiated; however, the HNu and OVA scales are expressed in ppm. Therefore, the units "ppm" will remain to express concentrations. Note that EPA also uses "ppm" when expressing recommended levels of protection.

We are not comfortable stating that Level D protection is appropriate for background concentrations and that Level C protection is appropriate for levels as high as 5 ppm above background. Background levels may be elevated in some cases, allowing for an unacceptable exposure scenario.

Page 28: The statement in the Health and Safety Plan will be revised since it is misleading. Drager Tubes are not required for either Site 2 or 74. Although Drager Tubes are not highly accurate and are subject to various interferences, they provide an indication of the constituents present in a timely fashion under certain situations.

Page 30: Due to the level of protection designated for monitoring well installations and soil borings (Level C), continuous monitoring is required since levels may change instantaneously.

It has been our experience during drum sampling that airborne concentrations will peak, then drop and stabilize once a drum is opened; therefore, initial and periodic monitoring is considered appropriate in conjunction with Level B protection.

Page 32: A hard hat will be required under Level D+ protection.

Page 34: The 100 ppm concentration allows for any unforeseen circumstance that may place an employee in a condition under Level C protection, where airborne concentrations (peak concentrations) exceed those specified on Page 27 of the Health and Safety Plan. In this case, the remaining absorbency of the cartridge is questionable, and the cartridge replaced.

Page 41: The names of the roads will be placed on Figure 3.

Page 44: Treatment for shock is covered in Standard First Aid. Personnel trained in first aid will be identified in Table 4.

Page 45: The statement requires that injuries beyond standard first aid (i.e., serious injuries resulting in hospitalization) are reported to management within 24 hours so that appropriate actions can be taken, as necessary. Although it is not directly applicable to the section (decontamination), it is relevant to the preceding paragraph.1992