

04.01-2/28/94-

Baker

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February 28, 1994

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Linda Berry, P.E.
Code 1823

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Order (CTO) 0222
Contaminated Soil and Groundwater
Remedial Design, Operable Unit No. 2
MCB, Camp Lejeune, North Carolina

Dear Ms. Berry:

Baker Environmental, Inc. (Baker) is pleased to submit for your review six (6) copies of the revised pages of the Final Remedial Design Project Plans for the subject project. Copies of these revised pages have been submitted to Mr. Neal Paul (MCB Camp Lejeune), Ms. Gena Townsend (USEPA Region IV), Mr. Patrick Watters (North Carolina DEHNR), the Naval Environmental Health Center, the ROICC, and to the Members of the Technical Review committee. These revised pages should replace the corresponding pages from the Draft Project Plans.

The Final Project Plans reflect the comments received from LANTDIV (February 15, 1994), the Activity (February 15, 1994), USEPA (February 22, 1994), and North Carolina DEHNR (February 23, 1994), in addition to revisions noted by Baker. Baker's response to these comments are attached.

The most significant revision to the Project Plans involves aquifer testing to determine hydraulic characteristics. At your request, Baker evaluated three options for performing an aquifer test. The results of this evaluation were summarized in my letter of February 22, 1994. The selected option, conducting the aquifer test during construction of the groundwater remediation system, has been incorporated in these Final Project Plans.

Submittal of the revised pages for the Final Project Plans has been delayed by two days from the target date of February 23, 1994, as comments from North Carolina DEHNR were not received until February 23, 1994. A schedule modification request letter will be submitted to Ms. Beth Hacic for this change.

Baker

Ms. Linda Berry
February 28, 1994
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If you have any questions regarding this submittal, please contact me at (412) 269-2064 or Mr. Ray Wattras (Activity Coordinator) at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.



Don P. Joiner, P.E.
Project Manager

DPJ/jc
Attachments

cc: Mr. Neal Paul, AC-S EMD, MCB Camp Lejeune
Ms. Beth Hacic, Code 02231 (letter only)
Ms. Lee Anne Rapp, Code 183 (letter only)

ATTACHMENT A

**Response to Comments Submitted by LANTDIV
on the Draft Project Plans for Contaminated Soil and Groundwater Remedial Design,
Operable Unit No. 2
MCB, Camp Lejeune, North Carolina**

**Comment Letter from Mr. William Mullen, P.G.
Received by Baker Environmental, Inc. via Fax on 2-15-94**

Response to Comment No. 1, Part I, Page 2-4

Baker was informed that a response was not required for this comment.

Response to Comment No. 2, Part I, Page 4-1

Mr. Mullen's comment will be included in the fifth bullet on this page. The seventh bullet will be reworded.

Response to Comment No. 3, Part II, Page 3-3

A discussion regarding different options for determining aquifer characteristics was presented in Baker's letter of February 22, 1994 to Ms. Berry.

Response to Comment No. 4, Part II, Page 4-2 and Figure 4-1

Although the ravine area, AOC 2, does extent north of the Lot 203 fence line, surface and subsurface contamination found in the area north of the fence line did not exceed any remediation goals. Therefore, the northern boundary of AOC 2 is shown to align with the Lot 203 fence line. The removal of drums and battery packs from the ravine is intended to remove a suspected source of contamination from the site.

Response to Comment No. 5, Part I, Page 5-2 (Figure 5-1)

As documented in Section 9.0 of the Final Record of Decision for Operable Unit No. 2 (Baker, 1993), which was approved by US EPA and the State, the intent of the groundwater remedial action at OU No. 2 is "Collecting contaminated groundwater in both the shallow and deep portions of the aquifer through a series of extraction wells installed within the plume areas with the highest contaminant levels." This action focuses on the area of highest contamination within the shallow and deep plumes at Site 82, as shown on Figure 5-1. Samples from the other four areas of groundwater contamination shown on this figure (6GW16, 6GW17, 6GW21, AND 6GW22) detected only one contaminant, from each well, that slightly exceeded Federal MCLs or State groundwater standards. Groundwater monitoring will continue at these four locations, and additional actions will be considered if the monitoring indicates a change in groundwater quality. Baker will edit Section 5.0 of Part I to include this explanation.

Response to Comment No. 6, Part II, Page 4-4

Baker was informed that a response was not required for this comment.

Response to Comment No. 7, Part II, Page 4-5

As noted in the response to Comment No. 5, the proposed extraction wells at Site 82 have been located to extract groundwater from the areas of highest contamination. In addition, due to the topography of Site 82, wells could not be located further north toward Wallace Creek due to marsh conditions. Figure 4-2 will be revised to show topography at the site, which helps clarify the proposed locations of the extraction wells.

Contamination detected from four monitoring wells at Site 6 (6GW16, 6GW17, 6GW21, and 6GW22), was limited to one different contaminant at each well, therefore the approximate extent of contamination is shown centered at each of these wells. The vertical extent of contamination at Site 6 was evaluated based on samples collected from deep monitoring well 6GW7D, and from potable wells HP-635 and HP-636.

Response to Comment No. 8, Part III, Page 3-4

Mr. Mullen's first comment is correct, however, the intent of collecting four samples from each of the three PCB Areas of Concern (AOC 3, AOC 4, and AOC 6) is to verify the extent of contamination in each area with samples sent to the laboratory. These samples are not intended to serve as QA/QC samples. The number of samples to be collected for QA/QC purposes are listed in Part IV, Table 11-1 of the Project Plans.

Response to Comment No. 9, Part III, Page 3-9

Section 3.2.5 will be edited so that it agrees with the Work Plan (Part II).

Response to Comment No. 10, Part III, Page 3-10

Figure 3-6 will be revised to delete the soil gas concentrations shown in parentheses next to the location of groundwater headspace samples.

The text will be revised to address the location of proposed SVE sampling/monitoring points.

ATTACHMENT B

**Response to Comments Submitted by USEPA
on the Draft Project Plans for Contaminated Soil and Groundwater Remedial Design,
Operable Unit No.2
MCB, Camp Lejeune, North Carolina**

**Comment Letter from Ms. Gena Townsend
Received by Baker Environmental, Inc. via Fax on 2-22-94**

Response to Comment No. 1, Part II, Page 4-6

Random samples will be taken of the solids generated from the treatment process to verify that it is non-hazardous, prior to shipment to a solid waste landfill.

Response to Comment No. 2

The laboratory to be used, Ortek Environmental Laboratory, is a fixed base lab, using CLP methods.

Response to Comment No. 3, Part III, Page 3-13

Discarded personal protective equipment will be segregated and placed in plastic bags. However, because these items should not be grossly contaminated, they are considered as non-hazardous, and will be disposed in a solid waste landfill. This conforms with EPA guidance on the handling of investigative-derived waste.

ATTACHMENT C

Response to Comments Submitted by NCDEHNR on the Draft Project Plans for Contaminated Soil and Groundwater Remedial Design, Operable Unit No.2 MCB, Camp Lejeune, North Carolina

**Comment Letter from Mr. Patrick Watters
Received by Baker Environmental, Inc. via Fax on 2-23-94**

Response to Work Plan Comment No. 1

Section 3.2 of the Work Plan will be revised to include a discussion of AOC 2 and why no additional sampling is planned for this area.

Response to Work Plan Comment No. 2, Page 3-1

The text in Section 3.2 will be revised to indicate that five AOCs have been identified for soil excavation.

Response to Work Plan Comment No. 3, Page 4-2

The text in Section 4.1.1 will be revised to include AOC 6.

Response to Work Plan Comment No. 4, Page 4-7

The acronym HTRW (Hazardous, Toxic, and Radiological Waste) is be defined in the text.

Response to Work Plan Comment No. 5, Page 8-2

Figure 8-1 will be revised to show a 30 day agency review period for the 90 percent design submittal. This change will delay the submittal date for the final design package from August 1, 1994 to approximately August 17, 1994.

Response to Sampling and Analysis Plan, Comment No. 6

This comment is correct, the pesticide cleanup level of 60 ppm for OU No. 2 was determined based on a site specific risk assessment, with a risk level of 1.0E-04. However, this cleanup goal was accepted by the regulatory agencies and specified in the Record of Decision for OU No. 2. A 1.0E-04 clean-up level was accepted based on the fact that the area would be used for industrial purposes.

Response to Sampling and Analysis Plan, Comment No. 7, Page 3-13

QA/QC sampling requirements noted in Section 3.9 are listed in Table 11-1 of the Quality Assurance Project Plan.