CP-01305-03.01-06/29/93

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June 29, 1993

Halliburton NUS Project Number 8P06

Commander, Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511-6287

Attention: Mr. Gary McSmith (Code 1822)

Subject: Final Phase 2 RI Planning Documents and Response to EPA Comments
Site 29 - Crash Crew Burn Pit
Bogue Field, North Carolina
Contract No. N62470-90-D-7630

Dear Mr. McSmith:

Enclosed are five copies of the Final Phase 2 RI Planning Documents for the subject site for your files. I have also sent twenty copies to Renee Henderson at Cherry Point and one copy to Sue Russell of Mitre Corporation, for their distribution and files.

The RI Planning Documents have been revised based on EPA comments received (see attached), and subsequent conversations between the Navy, HALLIBURTON NUS, and the EPA. A written response to each EPA comment is also attached.

If you have any questions, I can be reached at (412) 921-8418.

Very truly yours,

Matthew G. Cochran

Matthew G. Cochran
Project Manager

MGC/blb

cc: Ms. Renee Comfort (w/o enclosures)
Ms. Renee Henderson (w enclosures)
Ms. Sue Russell (w enclosures)
Ms. Vicki Bomberger (w enclosures)
Mr. Norman Straub
File (w enclosures)

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RESPONSE TO EPA COMMENTS ON DRAFT FINAL PHASE 2 RI PLANNING DOCUMENTS SITE 29-CRASH CREW BURN PIT

Comment on Cover Letter

The discussion of a Feasibility Study was beyond the scope of this work assignment. Funding does not exist at this time to incorporate discussion of the Feasibility Study.

General Comment #1

A discussion that summarizes the SI analytical data base has been added to Section 1.1 and a section that summarizes the RI has been added to Chapter 2. SI sample analyses results and data point locations are included in Appendix A and RI sample analyses results are included in Appendix B.

General Comment #2

Background soil samples were collected for organic and inorganic analyses during the RI and are discussed in Section 2.

One of the 16 proposed soil borings shall be relocated and used as a background boring for TPH. Sufficient funding does not exist to add any additional data points. The text was modified to include discussion of the background boring.

General Comment #3

Funding presently does not exist to conduct a habitat/biota survey.

Specific Comment #1

The text references the RI Report for a more comprehensive discussion of the site geology and hydrogeology. Funding does not exist to reiterate this information in the RI Planning Documents.

Specific Comment #2

A figure has been added which shows the topography.

Specific Comment #3

a) Figure 1-3 also shows the RI data point locations. A figure which shows the SI data point locations has been added as an appendix to the Work Plan.

b) The surface water and sediment samples were collected during the initial RI. The figure has been revised for clarification.

Specific Comment #4

a) The word "hypothetical" was eliminated and substituted with the word "future" in paragraph 3.

b) The word "soils" was eliminated and replaced with the word "groundwater" in the 3rd paragraph.

Specific Comment #5

The word "soils" was eliminated and replaced with the word "groundwater" in the 5th paragraph.

Specific Comment #6

The text that was added to the work plan in response to EPA general comment #1 should clarify the rationale for the identified data gaps. Further rationale is provided below.

During the SI, groundwater, soil, surface water, and sediment samples were analyzed for TCL VOAs, TPH, lead, and PCBs. PCBs were not detected in any of the media, subsequently, those compounds were eliminated from further evaluation.

During the RI, groundwater, soil, surface water, and sediment samples were analyzed for TCL VOAs, and TPH, in addition to TAL metals and TCL semi-VOA analyses which were not performed during the SI. Therefore, the analyses program would have screened many of the potential waste types that may have been disposed at the site.

The results of the RI determined that the site is not exerting a major impact on the surface water and sediment in the drainage ditch. Therefore, no additional study of the surface water and sediment in this area was recommended.

Soil samples collected at the site detected BTEX, semivolatile organics, metals, and TPH. TPH was the only contaminant detected in soil that exceeded state or Federal ARARs. Seven of 13 soil sample results for TPH exceeded the North Carolina action level of 10 parts per million.

With respect to risk driven ARARs, only one exposure scenario, that for the future adult resident, presented an unacceptable cancer risk increase due the semivolatile organic compound N-nitroso-di-n-propylamine which was detected in only one sample at the site, and may not be site related. The calculated cumulative risk increase of 7.1×10^{-6} exceeds the lower EPA risk range goal of 10^{-6}, but is well below the upper risk range goal of 10^{-4}. All other risk exposure scenarios were below the lower risk range goal.

On this basis, only TPH contamination in soils will be investigated further during the Phase 2 RI. All other compounds were either not detected or detected at concentrations that do not pose a significant unacceptable risk scenario.

The groundwater sample analytical results detected BTEX, inorganic compounds, semivolatile organic compounds, and TPH. No other volatile organic compounds were detected, and therefore further analyses of volatile organic compounds other than BTEX is not warranted.

There were no quantifiable risks associated with the semivolatile organic compounds in groundwater, and groundwater ARARs for these compounds do not apply; which was the basis for eliminating semivolatile compounds from further analyses.

Only one well, 29GW02 detected TPH contamination, which was most likely the result of floating product present in the well. Currently, there are no state, Federal, or risk-based ARARs available for TPH in groundwater. This analyte has been eliminated from further evaluation.

Therefore, BTEX and TAL inorganic analyses shall be performed on the site groundwater samples. Semivolatile and TPH compounds will not be analyzed for the reasons stated above.

Specific Comment #7

The last sentence in paragraph 3 has been omitted. Samples shall be collected at or immediately below the water table as suggested. Exact depths will be determined in the field by the field geologist as detailed in Section 3.2.3 of the Work Plan.

Specific Comment #8

The surface water and sediment samples shown on Figure 1-3 are previous sample locations collected during the initial RI. No surface water and sediment samples are proposed for the Phase 2 RI.

Specific Comment #9

The table has been revised.

Specific Comment #10

A paragraph presenting the rationale for the number and location of soil samples has been added to Section 3.2.3 of the Work Plan.

Specific Comment #11

A description of the Navy analytical options has been added to Section 3.3

Specific Comment #12

References to surface sampling at depths of 0-3" have been changed to 0-12" to include the highest observed contaminated interval as appropriate.

Specific Comment #13

Reference to stopping the purging process at 10 well casing volumes has been deleted. The development procedure has been modified to include final pumping with a peristaltic pump, which should result in visibly clear discharge water. This procedure has been used in the past at MCAS Cherry Point with satisfactory results.

Specific Comment #14

The text has been changed from three to five casing volumes in paragraph 4 of Section 5.5.

Specific Comment #15

The text was changed to reflect the decontamination requirements stated in the comment.

Specific Comment #16

A & B) Two sentences have been added to the second paragraph on page C.3-1. The sentences reference Table 5-1 of the Field Sampling Plan for analytical methods. Quantitation limits are specified in each method reference.

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Specific Comment #17

Two sentences have been added to Section 3.2 which identify the selected data quality level (Level C), and reference a description of this level which is provided in Section 3.3 of the Work Plan.

Specific Comment #18

A sentence has been added to Section 6.1 which references SOPs for calibration procedures.

Specific Comment #19

a) It is believed that sampling with the low flow peristaltic pump procedure will yield a more representative sample than the peristaltic pump - vacuum jug procedure recommended by EPA. This is based on the fact that the vacuum jug is eliminated in the proposed procedure and therefore, the potential of cross contamination is minimized.

   The proposed procedure uses flexible tubing that is discarded between each sample. One end of the tubing is lowered into the well and the other end is wrapped around a rotating head on the pump with approximately one foot of tubing sticking out of the end. As the pump head rotates, the tubing expands and contracts at a high frequency which exerts a vacuum. Water is lifted through the tubing to the outlet and directly into the sample bottle. At no time does any part of the pump come in contact with the groundwater sample. This procedure has been successfully used in the past at Cherry Point.

   On this basis, it is believed that this procedure is a more effective means of collecting groundwater samples than the peristaltic pump/vacuum jug procedure, with minimal potential for cross contamination. Therefore, this proposed procedure will be used.

b) Analyses for BTEX volatile organic compounds originally specified to be performed employing CLP SOW methodology will be changed to analysis by EPA Method 602 as described in "40 CFR 136, Appendix A. Analysis by this method will result in detection limits for benzene (and the other target compounds of interest - toluene, ethylbenzene, and xylenes) that are less than the lowest prescribed ARAR for the respective compounds in groundwater.