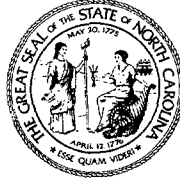


03.01-11/24/92-00847



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

November 24, 1992

William L. Meyer
Director

Return Receipt Requested

Commander, Atlantic Division
Naval Facilities Engineering Command
Code 1822

Attention: MCB Camp Lejeune, RPM
Ms. Linda Berry
Norfolk, Virginia 23511-6287

Commanding General

Attention: AC/S, Environmental Management
Building 1, Marine Corps Base
Camp Lejeune, North Carolina 28542-5001

RE: Draft RI/FS Work Plan for Operable Unit #1, MCB Camp Lejeune
Jacksonville. Onslow County, North Carolina

Dear Ms. Berry:

Attached please find comments provided by the Superfund Section for the referenced document. I look forward to discussing these comments with you and with other members of the state including our toxicologist in regards to ARAR's. If you have any questions, please contact me at (919) 733-2801.

Very Truly Yours,

A handwritten signature in cursive script that reads "E. Peter Burger".

E. Peter Burger, P.E.
Superfund Section

cc: Michelle Glenn, US EPA Region IV
George Radford, MCB Camp Lejeune

Attachment

Comments Operable Unit #1

The comments will be provided in the following format:

- A. General Comments Operable Unit #1.
- B. General Comments pertaining to Site 78.
 - a. Specific comments.
- C. General Comments pertaining to Site 24.
 - a. Specific comments.
- D. General Comments pertaining to Site 21
 - a. Specific comments.
- E. Comments on Fields Sampling and Analysis Plan.
- F. Comments on Health and Safety Plan.

A. General Comments Operable Unit #1

Please provide water supply well ID# and location on all Figures when applicable.

In a number of cases where 14 day quick turnaround samples are required, is the 28-40 day sample analysis be eliminated if quick turnaround does not indicate degradation of soils or groundwater?

Section 2.1.3

This section refers to areas of poor drainage as not being wetland areas. Any areas of work that are suspected of being wetlands should be investigated by a professional in order to properly identify them. Wetland areas, of course, are regulated and will require special consideration prior to work within them. Location specific ARARs may also apply.

Table 6-2

Please provide an additional flow chart that shows structure between all parties of the FFA agreement and Baker Engineering.

B. General Comments, Site 78

Methods should be undertaken to establish if the supply wells in the deep aquifer have been contaminated by contaminants in the shallow aquifer that have been transported along the outside of the well casing.

a. Specific Comments, Site 78

Section 5.3.1.3 Groundwater Sampling and Analysis

Please correct 1st paragraph. 2nd sentence to read "TAL inorganics", I believe this is what was intended.

Section 2.0 Back Ground and Setting.

Records Search

Provide reference for Records Search (ESE Characterization Step, May 1988)

Soil Gas Survey

Provide Figure or Map of HPIA area showing location of soil gas vapor monitoring and contaminant level. Potential source areas of contaminants should also be provided on this Figure.

Monitoring Well Installation and Sampling

Provide figure showing location of Monitoring Wells, Water Supply Wells, Contaminated Plume Isopleths and tables summarizing monitoring well and water supply well sampling events, i.e. well ID, Sampling date, Contaminant levels, and analysis performed.

Shallow Soil Sample Results

Provide Figure showing shallow soil boring locations and provide table indicating date of sample, depth, contaminants along with analysis performed.

Section 3.0 RI/FS Evaluation

Section 3.1.4.1 - Chemical Specific ARARs

Please include TOSCA Standards as a possible ARAR for areas where PCB contaminated soils may be encountered. Soils and sediments do not have levels established by the state of North Carolina. Contaminant levels will be established to assure that groundwater and surface water will not be degraded.

Section 3.1.4.2 - Location Specific ARARs

All applicable regulations as promulgated in the North Carolina Administrative Code, Title 15, pertaining to Coastal Areas and Wetlands should be included as ARARs.

As a possible ARAR, please consider regulations for disposal of contaminated soils at NC Landfills, hazardous waste landfills or out of state landfills.

These comments apply to all sites in Operable Unit #1.

Section 4.0 RI/FS Objectives

Section 1A, Table 4-1

Should criteria for meeting objective (1a) and (1f) include characterization for TCL organics and TAL inorganics.

Would the following objectives not listed be of benefit in the RI/FS phase.

- UST testing to determine leaks in tank/piping.
- Re-evaluation of building records and re-inspection of buildings and site area in suspected source areas of contaminated shallow aquifer (if this work hasn't been verified), to rule out drains below sewer inverts connected to drywell, cracked or broken drains, etc.

Section 3.1.6.5 Aquatic Life

Correct sentence to read "...should be evaluated first"....

Section 5.0 RI/FS Study Tasks

Provide figure showing location and ID# of active and inactive Water Supply Wells.

Section 5.3.1.4

Please indicate which aquifer pump tests will be performed on. I believe this refers to the intermediate/deep aquifer, please clarify and assure that this task is reflected in the RI/FS Objectives.

Question 1.) If this work pertains to the intermediate/deep aquifer, is it necessary prior to establishing if treatment of the deep aquifer is required?

Question 2.) If this work pertains to the shallow aquifer, is it a duplication of work being performed in the Interim Remedial Design phase for the shallow aquifer at HPIA.

C. General Comments Site 21

None

a. Specific Comments, Site 21

Section 2.3.5.2

Please locate soil borings and monitoring well 21GW1 on Figure 2-4. Please show location of water supply wells or other wells if in the area depicted by Figure 2-4.

Section 3.0 Evaluation of Existing Information

Section 3.2.4.1 Chemical-Specific ARARs

See Site 78.

Section 3.2.4.2

See Site 78.

Section 4.0 RI/FS Objectives

Table 4-2

Concerning RI/FS Criteria (1a) and (1b), please include contamination delineation along with contaminant levels.

Table 4-2

Should (1d) be included in Section 2. Groundwater?

Table 4-2

Concerning (3c) Criteria, please indicate how "risk based action levels" will be established and provide additional information on EPA Region IV TBCs for sediment. The state of North Carolina will require contaminant levels for soil and sediment that is protective of surface and groundwaters.

Section 5.0 RI/FS Study Tasks

Section 5.3.2.2

Soils Investigation

Historical information indicates soil contamination outside of fenced in area. Please indicate this as one of the areas to be investigated, in opening summary.

Former Transformer Oil Disposal Pit

Please include NC DEHNR in consultation regarding further investigation, 4th paragraph.

Section 5.3.2.4

Former Pesticide Mixing Area.

3rd paragraph, should TCL Organics be replaced by TCL Pesticides/Herbicides.

Figure 5-10

Please elaborate on Chemical Analysis, i.e. TCL Organics/TAL inorganics.

D. General Comments, Site 24

a. Specific Comments, Site 24

Section 3.18

Correct typo "approximately"

Section 3.3.4.1 Chemical Specific ARARs.

See Site 78.

Section 3.3.4.2 Location Specific ARARs.

See Site 78.

Section 4.0 RI/FS Study Objectives

Table 4.3

Section 2. Groundwater

Groundwater contamination at this site has not been determined. The initial "Objective" should be to assess contamination of the groundwater.

Section 3c RIFS Objective

Change to read, "Determine the extent and nature of sediment contamination..."

Section 3c, Criteria for Meeting Objectives

Please add, "NC standards that are protective of groundwater and surface water.

Section 5.3.3.2

Borrow and Debris Disposal Area. Please include NC DEHNR in discussions concerning field investigation.

Page 5.40 Typo, Section Monitoring Well Construction.
Change area to are.

Section 5.3.3.3 Groundwater Investigations/Monitoring Wells/Ground Water Sampling

Please provide reasoning for location and number of additional wells. One well at the source of the sludge disposal area and a background well would seem to be sufficient based on previous information and existing wells at this site.

E. Field Sampling and Analysis Plan

General

Please incorporate comments from Work Plan in Sampling and Analysis Plan where applicable. (i.e. requested figures, or for instance, locating water supply wells on figures, etc.).

Specific

Section 2.2, pg. 2-21

Provide criteria to meet each Data Level.

Section 3.1.1 Surveying

Please indicate datum to be used.

Section 3.1.3.1 UST Locations

Page 3-14, please indicate that soil samples will be taken at the water table in addition to a surface sample and a sample at 5 foot intervals. Figures 3-1, 3-2, and 3-3 call for "Continuous Sampling to 10 feet". Please eliminate any contradictions.

Section 3.1.3.1

Page 3-14, 3rd paragraph. Please check proposed analysis. Do you intend to use analysis for TCL volatiles or TCL Organics?

Figure 3-7

Please indicate location and ID# of Water Supply Wells.

Section 3-2, Site 21 Transformer Storage Lot

Please indicate the possible contaminated area outside the fenced area as a "area of concern". (This area is discussed in Section 2.3.5.2 RI/FS Work Plan).

Section 3.3.2 Surveying

Please provide survey data on geographical features such as drainage ditches and swales at this site.

Section 5.1.3 Test Pits

6 Bullet, 2nd sentence; typo, change form to from. Care must be exercised in obtaining samples from bucket without possibility of cross contamination. Please emphasize this point.

Section 5.2 Monitoring Well Installation

Please provide monitoring well schematic. Figure 5.1 is missing.

Page 5-7 Bullet 2, Please state that the installation of "Flush" manhole cover must provide positive drainage away from cover.

Section 5.9.3.1

The North Carolina Superfund Section requires that drill cuttings and sample material, not retained for analysis, will be properly containerized, labeled, and stored. The disposition of the containerized soil will be determined after a TCLP test is performed. Drill cuttings from background wells may be disposed of without special handling. The use of a HNU or OVA is not acceptable for classifying waste as hazardous or not.

Section 5.9.6 Container Storage

State of North Carolina, Hazardous Waste Regulations must be considered in this section. Please discuss sampling and classification of contaminated material, estimated volume, and estimated duration of storage.

F. Comments, Health and Safety Plan

Page 34: It is unrealistic to assume PID/FID reading will remain in such a narrow range as 5 to 7 ppm.

Page 34: Due to interferences, it is not possible to use Drager tubes to identify many airborne contaminants. Detector tubes take time to use and integrate the sample over the time the air was actually pulled through the tube, so peak concentration will be masked. For these reasons, the use of detector tubes on this site is not recommended.

Page 35: It is unclear to the reader what information is presented in the last paragraph.

Page 40: It is unclear to the reader why a hard hat is part of every listed level of protection except D+.

Page 42: The statement that cartridge changeover will occur when PID/FID concentrations are greater than or equal to 100 ppm is inconsistent with the guidance listed on page 34.

Page 48 and 49: The names of the roads should be marked on the map.

Page 52: Do field personnel know how to treat for shock?

Page 53: It is unclear to the reader what information is presented in the last paragraph of the section titled "decontamination".