

North Carolina
Department of Environment and Natural Resources

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director



November 21, 2003

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

Attention: Mr. Kirk Stevens, PE
Navy Technical Representative
Code EV23KS

RE: Comments on the Draft Pilot Study Work Plan
Operable Unit (OU) # 10, Site 35, MCB Camp Lejeune, NC
Soil and Groundwater
Camp Lejeune, NC6170022580
Jacksonville, Onslow County, North Carolina

Dear Mr. Stevens:

The NC Superfund Section has received and reviewed the OU #10 (Site 35) Pilot Study Work Plan for the Camp Lejeune, MCB Superfund Site located in Jacksonville, NC. The following comments are offered for the Work Teams consideration. If you have any questions or comments please contact me at (919) 733-2801 ext. 341.

General Comment

The work Plan appears to be in good order and contains appropriate details for the proposed Modified Fenton's and Permanganate Injection for treatment of the Solvent plume at site 35. As we discussed at the October partnering meeting, it is strongly recommended that additional injection and monitoring wells be installed on the northeast side of the northbound lane of the highway 17 extension for the proposed Pilot Study. In the future it will be very difficult to get equipment into this northbound lane area. As we discussed last week this will also provide additional monitoring of the existing contaminant plume in this area and will fill a data gap in the modeling data. This will also provide additional monitoring information in the downgradient area of the primary plume target during and after the treatment process.

One of our primary goals is to reduce the concentration of contaminant moving into Brinson Creek. With a thorough well installation pattern east of the Northbound lane, protection of the creek will be maximized since we will be treating the highest concentrations closer to the creek. The treatment process will also be more effective since we will be treating the plume

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-4996 \ FAX: 919-715-3605 \ Internet: www.enr.state.nc.us

more along its flow axis than along a cross section of the plume. Please include a well-engineered injection and monitoring well configuration along the east side of the Northbound lane of highway 17 extension in this Work Plan. Based on Figure 3-1 of this Work Plan it appears that using a similar well spacing to that of the proposed wells, will require approximately 6 additional injection wells to treat the estimated Hot Spot across the concentration contour to 250 mg/l as proposed in the text of the Work Plan.

Specific Comments

1. Street names are discussed throughout the report; however, none of the drawings in this report show the street names.
2. Section 3.1.2 at the bottom of page 3-1 is missing criteria number 1 & 2. Please provide all the criteria for the effectiveness of the test evaluation.
3. As discussed under the general comment section above each section of the report needs to be updated to reflect the additional well locations on the northeast side of the Northbound lane. Utility Location on page 3-3 is one of the Sections that should be updated to include the proposed additional injection wells. Please include appropriate corrections throughout the report to reflect the additional injection wells.
4. Section 4.1 states that monitoring wells will be installed using either hollow stem auger or rotasonic drilling techniques. Section 4.2 states that hollow stem augers will be used to drill injection wells. It is recommended that the same drilling technique be used for all wells to minimize mobilization costs and for consistency of formation development from drilling.
5. The last paragraph of Section 4.6 on page 4-7 states that the injection wells will be "capped and left in place. If the injection wells on the northeast side of the Northbound lane are left in place they should probably not be used for anything but monitoring after highway 17 bypass is opened in November of 2004.
6. The third paragraph of Section 4.10 states that "sampling of IDW water is not required prior to discharge to the Lot 203 treatment system." If visual contamination is present in a container it should be pretreated before treatment and disposal at Lot 203 or disposed at an appropriate off-site treatment facility. Visual contaminants can be confirmed to be VOCs using the FID screening instrument.
7. Analysis for sulfate or sulfide or both could provide additional data to help evaluate when the aquifer returns to it baseline natural attenuation conditions along with redox potential.
8. The schedule, Figure 10-1 needs to be updated since the work plan has not been completed and work is scheduled to start in mid November.

Mr. Kirk Stevens

Page 3 of 3

9. Dave Lilley with the NC Superfund Section has provided comments on the Site 35 Health and Safety Plan. Dave's comments are attached to this letter for your consideration.

If you have any questions or comments, please contact me, at (919) 733-2801, extension 341 or email randy.mcelveen@ncmail.net

Sincerely,



Randy McElveen
Environmental Engineer
NC Superfund Section

Cc: Dave Lown, NC Superfund Section
Rick Raines, EMD/IR
Gena Townsend, USEPA

November 18, 2003

TO: Randy McElveen

FROM: David Lilley

RE: Comments on the Draft Health and Safety Plan, OU 10,
Site 35, MCB Camp Lejeune, NC
September, 2003

Below are technical suggestions on the document mentioned above. Providing these suggestions does not constitute approval of the safety plan, and does not absolve the contractor from any liability for the health and safety of their employees.

1. Why are there different procedures listed each chemical? Why should employees not eat, drink, smoke, chew tobacco or gum, or apply cosmetics around trichloroethylene and vinyl chloride, but it appears to be OK to do so around 1,2-dichloroethene? What do you do in areas that are contaminated with a combination of these chemicals?
2. Section 2.5: According to 29 CFR 1910.1000, Table Z-1, the PEL for 1,2-dichloroethylene is 200 ppm. This value should be used as the exposure limit for the total concentration of the cis and trans isomers.
3. Section C.5.1: Will a gas chromatograph be used with the PID while air sampling? If not, chemicals cannot be identified with the proposed instrumentation, and an air concentration expressed as a volume to volume ratio such as ppm is meaningless. The recommended term is "meter units".
4. Section 2.5: It would be useful to include the PID/FID relative response for each contaminant.