

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



January 17, 2007

NAVFAC Atlantic  
Attn: Daniel R. Hood  
Code: OPCEV  
NC/Caribbean IPT, EV Business Line  
6506 Hampton Blvd  
Norfolk, VA 23508-1273

RE: Comments on the Draft Remedial Investigation Report  
Operable Unit (OU) # 15, Site 88 at MCB Camp Lejeune, NC  
Soil and Groundwater  
Camp Lejeune, NC6170022580  
Jacksonville, Onslow County, North Carolina

Dear Mr. Hood:

The NC Superfund Section has received and reviewed the Draft Remedial Investigation Report for Operable Unit (OU)#15, Site 88 at the Camp Lejeune, MCB Superfund Site located in Jacksonville, NC. The following comments are offered for the Partnering Teams consideration. If you have any questions or comments please contact me at (919) 508 8467.

### Specific Comments

1. Table 6-1 and other search results indicate that the Solubility of PCE is between 137,000ug/l and 150,000ug/l. Why was 200,000ug/l used for the 10,000ug/L (5 Percent of the solubility of PCE) calculation of the PCE concentration as discussed in the fourth paragraph on Page ES-4? Should we be using lower concentrations for establishing the presence of DNAPL PCE at our Sites?
2. The second paragraph under the Human Health Risk Assessment heading on page ES-5 states that "A detailed indoor air emission evaluation was not performed as part of this study . . ." A vapor intrusion study of Building 25 and surrounding buildings was completed by the Base in 2003-2004. We may wish to include this fact in this Section of the report.

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Mr. Daniel Hood

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3. As we now know the DPT data (15 –55 feet bgs) and the Deep Monitoring Wells (80-85 feet bgs) were not sufficiently deep to confirm the vertical depth of contaminated groundwater west of McHugh Boulevard. See Figure 4-1. Please include some discussion of this fact in this and other Sections of the report and note that a Technical Memo detailing the plan has been submitted for review in its draft form.
4. The bottom of Page 5-9 and the top of page 5-10 discusses the ORP range “where reductive dechlorination occurs.” Based on studies that I have read, ideal Oxidation-Reduction Potential (ORP) for methanogenesis is in the range of –400 mV too less than – 500 mV.
5. The last sentence of the 5<sup>th</sup> paragraph on page 6-5 should be changed as follows: “It should be noted that DNAPL PCE [**in the source area under and around former building 25**] has been observed and treated under a separate NTCRA at the site.”
6. The second paragraph on page 7-3 states that: “A residential land use scenario is assumed to estimate the worst-case exposure conditions, although it **is highly unlikely that housing would be built on this site.**” The State disagrees with this statement. We all know that a plan is presently in place that would restrict the construction of residential housing or other sensitive receptors such as a day care center.

However, presently there is a residential barracks housing a large number of Marines within 50 to 100 feet of the Site 88 source area, and the entire length of the groundwater plume is surrounded by barracks on both sides. Even if a drinking water supply well were constructed within a mile of this plume the high concentrations of the DNAPL could easily be drawn into the drinking water well. This has been observed in drinking water wells at other sites over distances of 6000 feet from the source plume. Please qualify the statement on page 7-3.

7. The period or decimal in the last two sentences of the second paragraph on page 8-2 should be change to commas (97,000 ug/L and 11,000 ug/L).
8. The second paragraph on page 8-3 states that: “The plume appears to be migrating west, primarily within the intermediate zone and to a lesser extent in the deep zone . . .” Please qualify this statement. I am not sure that we have confirmed that the plume is migrating to a “lesser extent in the deep zone.”
9. The Summary and Recommendations Section 8.5 is incomplete. There is no discussion of the undefined deep and very deep zone. Nor is there any discussion of the plan to further delineate the deep or very deep zone of the plume. Please include a discussion of this information in the report and in Section 8.5.
10. Dave Lilley with the NC Superfund Section will be reviewing the risk assessment information in this report. His comments will be forwarded to the team after he completes them.

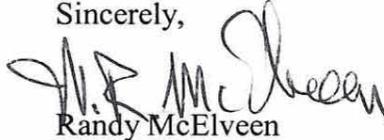
Mr. Daniel Hood

01-17-2007

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If you have any questions or comments, please contact me, at (919) 508 8467 or email [randy.mcelveen@ncmail.net](mailto:randy.mcelveen@ncmail.net)

Sincerely,

A handwritten signature in black ink, appearing to read "Randy McElveen". The signature is written in a cursive style with a large, prominent "R" and "M".

Randy McElveen  
Environmental Engineer  
NC Superfund Section

Attachment

Cc: Dave Lown, NC Superfund Section  
Bob Lowder, EMD/IR  
Gena Townsend, USEPA

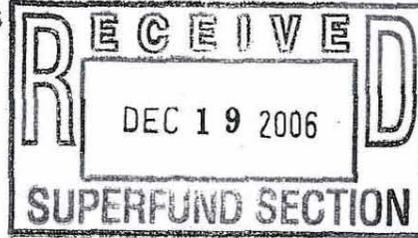


Michael F. Easley, Governor

William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director  
Division of Water Quality

December 18, 2006



Memorandum

TO: Randy McElveen, Superfund Section  
THROUGH: Charlie Stehman  
FROM: Ginny Henderson   
SUBJECT: Draft Remedial Investigation Report  
OU 15, Site 88, Building 25  
Camp Lejeune, Onslow County  
Incident No. 85277

Based on our review of the subject report provided by CH2M Hill, on behalf of the Department of the Navy, Naval Facilities Engineering Command, Mid-Atlantic Division; the Division of Water Quality, Aquifer Protection Section, Wilmington Regional Office (WiRO) has the following comments to offer for the final version of the report:

- The water table was not contoured in Figure 3-13 for the very deep aquifer. The text for this section (page 3-5) stated, " The spacing of the wells is insufficient to determine the groundwater flow pattern for this aquifer". DWQ believes that the spacing of the wells is adequate for contouring.
- On page 4-1, in Section 4.1, in the second sentence, the of between depths and ranging should be removed.
- On page 5-3, the report states, "The PCE reported in MW19DW (2.4 µg/L) appears to be an isolated instance. MW-19DW is located more than 1,600 feet southwest of the former building 25 location." Does this mean that there is another source of contamination in this location that needs to be investigated?
- The dissolved contaminant plume appears to be undelineated vertically and the very deep plume is undelineated horizontally (Figure 5-5).

If you have questions, please call me at (910) 796-7339.

cc: WiRO-APS Files

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One North Carolina  
*Naturally*

North Carolina Division of Water Quality

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