

06.01-05/13/94-01194

(804) 322-4793

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MAY 13 1994

CERTIFIED MAIL RETURN RECEIPT REQUESTED

North Carolina Department of Environment,  
Health, and Natural Resources  
Attn: Mr. Patrick Watters  
P.O. Box 27687  
401 Oberlin Road  
Raleigh, North Carolina 27611

Re: Draft Final Proposed Remedial Action Plan (PRAP) and  
Record of Decision (ROD) for Operable Unit No. 2,  
MCB Camp Lejeune, North Carolina

Dear Mr. Watters:

Attached please find responses to NCDEHNR comments dated  
December 16, 1993 on the above referenced documents.  
These comments were received after the ROD was signed on  
September 23, 1993. Any questions concerning these  
responses should be directed to Ms. Linda Berry at  
(804) 322-4793.

Sincerely,

L. A. BOUCHER, P.E.  
Head  
Installation Restoration Section  
(South)  
Environmental Programs Branch  
Environmental Quality Division  
By direction of the Commander

Attachment

Copy to: (w/attachment)  
EPA Region IV (Ms. Gena Townsend)  
MCB Camp Lejeune (Mr. Neal Paul) (w/o attachment)  
Baker Environmental (Mr. Ray Wattras, Ms. Tammi Halapin)

Blind copy to:  
1823 (LGB) 2 copies w/attachment)  
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Fish2.lgb

Response to Comments Submitted by the  
North Carolina DEHNR Superfund Section on the  
RI, FS, PRAP and ROD for OU No. 2  
Comment Letter Dated December 16, 1993

The December 16, 1993 correspondence from Mr. Patrick Watters (DEHNR Superfund Section) references comments received from various DEHNR personnel who were involved with the review of the RI/FS documents. Responses to these individual comments are provided below.

Comments Submitted by Mr. Preston Howard on the Draft Final Record of Decision (memorandum dated November 8, 1993)

Response to Comments from the Groundwater Section

1. The description of shallow and deep groundwater contamination was revised in the Final ROD to match the extent of contamination in Figures 4-24 through 4-27 of the RI.
2. The Atlantic Division, Naval Facilities Engineering Command (LANTDIV) has previously responded to DEHNR's comments on the human health and ecological risk assessments. These responses were provided in correspondence dated September 2, 1993 (from Ms. L.A. Boucher to Mr. Patrick Watters).
3. No response necessary (DEHNR concurs with the proposed soil remedial action alternative No. 7).
4. The groundwater remedial action alternative (Intensive Groundwater Extraction and Treatment) focuses on the worst area of groundwater contamination, which is onsite. The intent of this alternative is to initially focus on this area, which is contaminated with VOCs as high as 78 parts per million total. In time, the remediation efforts will address offsite contamination, which has only been detected in a few wells at levels less than 10 parts per billion total VOCs. The alternative will meet the objective of remediating groundwater to State standards, in time.

Comments Submitted by Mr. Preston Howard on the Draft Proposed Remedial Action Plan and Record of Decision (memorandum dated October 8, 1993)

Response to Comments from the Air Quality Section

1. An air permit will not be necessary since this requirement is waived under CERCLA. However, the alternative will meet the substantive requirements of the air permit.

Response to Comments from the Groundwater Section

1. The statement "however, based on studies conducted to date, there does not appear to be any impact to the fish or benthic communities due to site contamination" was in reference to

species diversity, which showed a healthy population, and a lack of abnormalities such as lesions. It is later stated in this section that fish and crabs did contain contaminants that may be attributable due to the site. Further studies have since been conducted, which indicate that some contaminants may have bioaccumulated in fish.

2. With respect to the water supply wells near Sites 6 and 82 that have been closed, the source of contamination is most likely associated with an area of concern at Site 82. With respect to the supply wells near (south of) Site 9 that have been closed, the source of contamination is likely from the Hadnot Point Industrial Area. Site 82 is in the design and remediation stages. The remediation of the shallow aquifer at the HPIA will be initiated in the near future. The source of the deep groundwater contamination near the HPIA appears to be migration of contaminants in the shallow aquifer. The operating supply wells at MCB Camp Lejeune are periodically sampled.

3. With respect to the statement regarding variances or reclassification of groundwater, the Department of Navy has not considered requesting any variance and is addressing the cleanup of the problem at hand.

4. The groundwater remedial action alternative (Intensive Groundwater Extraction and Treatment) focuses on the worst area of groundwater contamination, which is onsite. The intent of this alternative is to initially focus on this area, which is contaminated with VOCs as high as 78 parts per million total. In time, the remediation efforts will address offsite contamination, which has only been detected in a few wells at levels less than 10 parts per billion total VOCs. The alternative will meet the objective of remediating groundwater to State standards, in time. The North Carolina DEHNR concurred with this alternative in a meeting with Mr. Jack Butler, Mr. Bruce Reed, and Mr. Rick Shiver on August 17, 1993.

Comments Submitted by Mr. Preston Howard on the Draft Remedial Investigation, Feasibility Study, and Ecological Risk Assessment documents (memorandum dated September 20, 1993)

#### Response to Comments from the Water Quality Section

1. LANTDIV's contractor has discussed the discharge of freshwater into Wallace Creek with personnel from the DEHNR, EPA, U.S. Fish and Wildlife, and NOAA. The individuals contacted have indicated to use "best professional judgment" considering such things as flow rates, discharge rate, and potential impacts to habitat. The introduction of 300 gallons per minute into Wallace Creek should not have any known adverse impact (e.g., flooding, loss of habitat, etc.) due to the relatively large size of the creek. The creek is tidally influenced and receives freshwater from both surface runoff and groundwater discharge. Habitat within the creek migrates both upstream and downstream depending on the salinity of the water. This was observed during the field investigation when salinity measurements throughout the stream differed on two separate occasions. During the first aquatic survey, freshwater species were observed as far downstream as the Holcomb Boulevard bridge. During the second aquatic survey, freshwater species were only found upstream due to higher salinity.

### Response to Comments from the Air Quality Section

1. An air permit will not be necessary since this requirement is waived under CERCLA. However, the alternative will meet the substantive requirements of the air permit.

### Response to Comments from the Groundwater Section

1. With respect to defining the vertical and horizontal extent of groundwater contamination, a Pre-design study was conducted in order to better define groundwater contamination. The Pre-Design Study was submitted to the DEHNR on December 29, 1993.

2. With respect to the comment regarding the feasibility study, the North Carolina DEHNR has concurred with soil remedial alternative No. 7 (Onsite Treatment and Offsite Disposal) and groundwater remedial action alternative No. 4 (Intensive Groundwater Extraction and Treatment).

02/15/94

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

340 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

FOR RAY

February 14, 1994

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

AWB-FFI

Ms. Linda Barry  
Department of the Navy - Atlantic Division  
Navy Facilities Engineering Command  
Code 1123  
Norfolk, Virginia 23511-6287

SUBJ: MCB Camp Lejeune - OU2  
Draft Final Aquatic Survey

Dear Ms. Barry:

The Environmental Protection Agency (EPA) has completed its review of the above listed document. Comments are enclosed.

If there are any questions or comments, please call me at (404) 347-3016.

Sincerely,

*Gena D. Townsend*  
Gena D. Townsend  
Senior Project Manager

Enclosure

cc: Mr. Neal Paul, MCB Camp Lejeune  
Mr. Patrick Watters, NCDEHNR

OPTIONAL FORM NO. 10 (7-90)

FAX TRANSMITTAL

TO: LINDA BERRY  
NAVY FAC ENGR  
(404) 322-4805

FROM: GENA TOWNSEND  
(404) 347-5016

GENERAL SERVICES ADMINISTRATION

# of pages: 2

EPA  
Comments

The baseline risk assessment in this document has assumed some inappropriate exposure parameters. Use of more appropriate exposure assumptions results in carcinogenic risk estimates of about  $1 \times 10^{-4}$  for ingestion of fish contaminated with the maximum PCB concentration. This is about 20 times greater than the risk estimated in this document.

This document has dealt with potential human health effects from the fish contamination to the exclusion of assessment of any ecological effects. Potential ecological effects should be investigated; if this has already been done, it should be so stated in this document.

Comments to Be Conveyed to the Document Preparer

- Section 3.2.2 The EPA guidance document from which the screening values were obtained used a risk of  $1 \times 10^{-5}$ , but suggested that target risk levels for screening values should be selected by the risk manager (in this case, the EPA RPM). In applying screening values to retain or eliminate contaminants from further risk considerations, the Superfund program generally uses values based on  $1 \times 10^{-4}$  risk and 0.1 HQ. It appears that, for this particular risk assessment, use of these more protective screening values would not result in retention of any additional chemicals of potential concern. However, the above criteria should be reflected in this document.
- Section 5.7.2.1; Table 5-1 For the scenario assessing ingestion of fish, it is inappropriate to assume an ingestion rate (IR) of 6.5 g/dy in conjunction with an exposure frequency (EF) of 48 dy/yr. The IR of 6.5 g/dy is based on averaging the ingestion over the entire year and thus should be used in conjunction with a EF of 365 dy/yr (RAGS, 1989). EPA Region IV currently recommends a default IR of 145 g per meal, with EF (number of meals of fish per year) to be determined on a site-specific basis. If no site-specific EF is available, 48 meals/yr could be used as a default value (RAGS, 1989).