



UNITED STATES MARINE CORPS

MARINE CORPS BASE  
PSC BOX 20004  
CAMP LEJEUNE, NORTH CAROLINA 28542-0004

0431  
IN REPLY REFER TO:

6286  
BEMD  
03 NOV 1994

Ms. Carole Hossom  
Federal Facilities Assessment Branch  
Agency for Toxic Substances  
and Disease Registry  
Mailstop E-56  
1600 Clifton Road  
Atlanta, Georgia 30333

Dear Ms. Hossom:

Marine Corps Base, Camp Lejeune has completed its review of the "Initial Release, Public Health Assessment for U.S. MARINE CORPS CAMP LEJEUNE JACKSONVILLE, ONSLOW COUNTY, NORTH CAROLINA, CERCLIS NO. NC6170022580, SEPTEMBER 8, 1994". Enclosure (1) contains our comments to the text and enclosure (2) contains our responses to your recommendations. There are several statements in the Public Health Assessment (PHA) stating the need for additional information. In our letter of October 17, 1994, we provided your agency with the opportunity to attain this information by using the Administrative Record Index which was included. Using this index, please denote the items which are needed and promptly return it to allow us to forward the necessary documents to you.

If you have questions or comments, please contact Mr. Neal Paul, Director, Installation Restoration Division, Environmental Management Department, at telephone (910) 451-5068.

Sincerely,

ROBERT L. WARREN  
Assistant Chief of Staff,  
Environmental Management  
By direction of  
the Commanding General

Encl:

- (1) Comments to the PHA
- (2) Responses to the PHA Recommendations

Copy to:

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# INSTALLATION RESTORATION DIVISION

UNITED STATES MARINE CORPS



COMMANDING GENERAL  
AC/S EMD IRD  
MARINE CORPS BASE  
PSC BOX 20004  
CAMP LEJEUNE, NC 28542-0004

ATTN: Robert Williams, Carole Hossum

DATE: 11-3-94

FAX #: 404 639 6075

FROM: MCB Camp Lejeune : Neal Paul

COMMENTS: Mr. Williams / Ms. Hossum,

Attached are written comments for "Initial Release of  
PHA." As discussed w/ Ms Hossum on Oct. 27, 94, the  
original hardcopy will be provided by mail.

All interested parties w/in MCB CL reviewed the PHA  
and all comments are provided for inclusion  
into the "Brown Cover." I will be on TAD until  
10-14-94. Please call me today or leave message  
and I will contact you ASAP. Thanks you for  
your cooperation and patience in receiving our  
comments.

Sincerely,  
N. Neal Paul

IF THERE IS A PROBLEM WITH THIS TRANSMISSION, PLEASE CALL  
COMMERCIAL (910) 451-5068, OR DSN 484-5068. OUR FAX NUMBER IS  
(910) 451-5997 OR DSN 484-5997. **CLW**

COMMENTS ON THE PUBLIC HEALTH ASSESSMENT FOR MCB CAMP LEJEUNE

1. General note: When referring to Marine Corps Base, Camp Lejeune, throughout document, please capitalize Base.

2. cover page, and inside cover page - Should read: "U.S. MARINE CORPS BASE, CAMP LEJEUNE, ONSLOW COUNTY, NORTH CAROLINA". The Marine Corps Base is a separate entity and not part of Jacksonville, therefore omit "Jacksonville".

3. Summary page, para 1 - MCB Camp Lejeune was listed on the U.S.E.P.A.'s N.P.L. on October 4, 1989.

4. Summary page, para 2 - Should read: "In 1983, Marine Corps Base, Camp Lejeune completed an initial assessment . . ."

5. page 2, para 1 and page 21, para 1 - The pesticide contaminated soil within the children's play area near Building 712 was found to be within acceptable health risk levels. *For. h. h. Study 025*

6. page 2, para 3, page 29, para 1, and page 31, para A. - Water plant records indicate 14 wells have been closed and 68 wells are in operation for drinking water.

7. page 2, para 3 - The text reads that ATSDR recommends "that MCB continue to monitor water from the distribution systems quarterly". Quarterly VOC analysis have been done on one water system only, the Hadnot Point system. Presently, no distribution systems are being monitored for VOC's.

8. page 2, para 4 - The Mercury found in surface water and sediments near Site 48 is within acceptable health risk levels. *R1/PS, RRAP, PSD*

9. page 2, para 4 - The sentence "Additionally, at many locations on the Base, groundwater is believed to be recharging the New River" should be changed to read "Groundwater recharges the New River along the river's entire length".

10. page 3, para 1 and page 32, para 4 - The New River itself is not an inlet. It empties into Onslow Bay via the New River Inlet.

11. page 3, para 2 and page 33, para 2 - MCB Camp Lejeune has completed a "Supplemental Aquatic Survey" for Wallace and Bearhead Creeks.

12. page 3, para 4 and page 35, para A. - No fence has been constructed around Site 43 and the Base presently has no plans to fence this site. *026 51*

13. page 6, para 2 - Replace the phrase "amphibian groups" with the phrase "amphibious units".

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ENCLOSURE (1)

14. page 6, para 3 - MCB Camp Lejeune does not house "recruits" - replace the word "recruits" with the term "unmarried service personnel (enlisted and officer)".

15. page 7, para 2 - The Department of Defense (DOD) should be abbreviated as (DoD).

16. page 7, para 2 - What is meant by "MCB Camp Lejeune received a **high** priority ranking for a public health assessment"?

17. page 7, para 4 - MCB Camp Lejeune has completed investigation and signed Records of Decision (RODs) at eight sites, Sites 2, 6, 9, 21, 24, 48, 78, and 82. Additionally, the Base has signed Interim RODs for soil remediation at Site 35 and for groundwater remediation at Site 78.

*need  
MAP* 18. page 8 - The Site Location Map of Marine Corps Base, Camp Lejeune should show all of the Base, to include the Greater Sandy Run Area.

19. page 9, table 1, 3a./SOURCE - VOC contamination was not from "Leaking Underground Lines at the Tank Farm at Site 22". The drinking water well with the highest level (parts per million) of contamination was not located in the vicinity of the fuel farm. Nor was it sampled relative to being located in the vicinity of any IR site at the time of its discovery.

20. page 10, para 5 - The statement: "on-base buildings containing lead plumbing" should read: "on-base buildings containing plumbing utilizing lead solder in joints and connections".

21. page 11, para A. - We cannot reasonably assume people will flush water lines before using them.

22. page 14, para 2 - What questions do you have concerning laboratory procedures?

23. General Note for Site 2: To eliminate future exposure to pesticide contaminated soils, the Base initiated a "Time Critical Removal Action" to remove and properly dispose of the soils and concrete pads at Site 2. This removal action is complete. OVS

*1cds  
study 5/5* 24. page 16 para 3 - The statement that the concrete pads and the unpaved parking lot still remain should read: The unpaved parking lot still remains and has been covered with gravel.

25. page 17, para 2 - The word "likelihood" should be replaced with the word "possibility".

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*PLC*  
26. page 17, para 3 - Lawn care workers use lawn mowers on the site no more than one day per week during the summer only (four months), not three days per week for 9 months of the year.

27. page 17, para 6 and page 20, para 3 - Please clarify the statement: "Simultaneous exposures to the pesticides found in soils at Site 2 may further increase this risk".

28. page 18 - Please provide a bar scale on the map.

29. page 20, para 1 and page 22, para 1 - The parking area has been covered with gravel.

30. page 25, para C. - Please reference the studies which have shown that there may be an association between low birthweight, late fetal death and exposure to VOC's.

31. page 31, para A. and page 34, Comments for Groundwater Basewide - The aquifer that the wells tap is a tertiary sand and limestone aquifer.

*or*  
32. page 31, para 4 - The Base is currently assessing 101 leaking underground storage tank sites. As these studies progress, the contamination plumes will be defined and priority for remediation will focus on sites within 1500 feet of supply wells.

33. page 31, para 4 - Note that all off-Base supply wells are hydraulically up gradient of MCB, Camp Lejeune. Such a well would have to possess an extreme discharge, inducing an extraordinary cone of depression to alter Camp Lejeune's hydraulic gradient.

34. page 35, para B. - Beta radiation sources? Where can the validation for beta radiation sources at Site 69 be found? Reference is made to the Halliburton NUS Site Management Plan for Marine Corps Base Camp Lejeune, North Carolina, Fiscal Year 1992, but there is no mention of beta radiation sources at Site 69 in this document.

35. page 36, para 1 - Samples taken for the Remedial Investigation at this site indicate there is no contamination.

36. page 36, para 4 and page 42 - Remove the word Preliminary from the sentence. All analyses were validated.

37. page 41, para 1. - The sentence states that "groundwater contamination from the underground fuel tanks and other hazardous substance sources . . ." indicates that UST's containing fuel are hazardous. Fuel, not containing hazardous substances, is not, by definition, hazardous.

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ENCLOSURE (1)

38. page 41, para 4 - MCB Camp Lejeune did not release the statement concerning Mercury contamination in fish and shellfish in the New River. Please review and document the report this information originated from.

39. page 42, para V.1. - At no time do field exercises aboard Marine Corps Base, Camp Lejeune require people to drink water out of creeks or other surface waters. There are five approved potable sources for drinking water available to units in the field located at the Base water treatment facilities. All units are required to have their potable water tested by the Occupational Health and Preventative Medicine Department's Surveillance Unit prior to taking it to the field.

RESPONSES TO RECOMMENDED ACTIONS FOR THE PUBLIC HEALTH ASSESSMENT  
FOR MCB CAMP LEJEUNE

I. PAST PUBLIC HEALTH HAZARDS

A. Lead in Tap Water

1. We are continuing to provide educational material to all base employees, residents, and visitors on ways people can reduce their lead exposure from drinking water.

2. We are continuing to monitor lead levels in base drinking water. Additionally, we are proceeding with corrosion control demonstration studies. Initially, the corrosion control demonstration studies will run continuous flow electrochemical coupon cells for a minimum of 4 weeks resulting in the evaluation of several corrosion control strategies. Following the coupon cell evaluation, a single corrosion control strategy will undergo a minimum of 9 months of confirmation testing resulting in corrosion control optimization. Following corrosion control optimization, lead level monitoring will continue to provide additional assurance of a safe drinking water supply.

3. We have posted "DO NOT DRINK" signs at deep sink faucets base wide.

*What type of filters*  
(4) We are installing filters on water lines to stop residents of single family homes from drinking water from faucets that show lead levels that exceed 15ppb. Additionally, some homes had water lines replaced.

5. In compliance with your earlier recommendation, we have posted signs to prevent people from drinking water at faucets where water samples show lead levels exceeding 50ppb.

B. Pesticides in Soil at Site 2

*Linka* ← (1) The concrete pads and contaminated soil have been removed and properly disposed of. During this action, the Removal Action Contractor conducted air monitoring and implemented dust control procedures, as needed, to prevent office workers and visitors from being exposed to site contaminants.

2. Education was provided to the office workers at building 712 concerning their exposure to the contaminants of concern in the soil at Site 2.

3. Confirmation sampling has been completed to ensure that the desired clean-up levels have been achieved.

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ENCLOSURE(2)

II. POTENTIAL PUBLIC HEALTH HAZARDS

A. Groundwater Contamination

1. MCB Camp Lejeune will continue to monitor contaminated groundwater movement through reviewing Remedial Investigations and Underground Storage Tank studies to prevent on or off base water supplies from being adversely impacted. Measures will be promptly taken to prevent exposure.

2. and 3. The Base is currently developing a plan of action to sample supply water wells semi-annually and to sample the water distribution systems quarterly to prevent exposure to contaminated drinking water. To assist in the development of this plan of action, please provide the analysis needed to effectively monitor supply wells and distribution systems.

B. Potential Fish Contamination (Site 48)

1. Information will be provided via the completed Final Remedial Investigation report for Operable Unit 3, Site 48. The Draft Final Remedial Investigation report for Operable Unit 4, Sites 41, 69, and 74 is scheduled for completion during November 1994. A copy of the Draft Final will be forwarded for your review in November, 1994.

C. Fish Contamination (Sites 6, 9, 82)

1. A copy of the "Supplemental Aquatic Survey" with comments and correspondence will be provided to you the week of 31 October.

III. NO APPARENT PUBLIC HEALTH HAZARDS

A. Soil contamination at Site 69 - Rifle Range Chemical Dump

1. The Record of Decision is scheduled for signature in September, 1995. Construction is tentatively scheduled to begin in December, 1996. Appropriate control measures will be implemented throughout construction to prevent exposure to site contaminants.

B. Possible soil contamination at Site 28 - Orde Recreational Area

1. The surface soils have been sampled at Site 28 and the results will be provided via the Operable Unit #7, Remedial Investigation report. The Draft Final Remedial Investigation report will be provided in November, 1994.

Nov. 21<sup>st</sup>

2

Dec. 14<sup>th</sup>

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ENCLOSURE (2)

1. 5. 7. 2  
SA, CAP

When finalized

Contact Safety concerning Site 43.