



DEPARTMENT OF THE NAVY
NAVY ENVIRONMENTAL HEALTH CENTER
2510 WALMER AVENUE
NORFOLK, VIRGINIA 23513-2617

7/6/98-03770
CTO-303

5090.5
Ser EP4243/00967

6 JUL 1998

From: Commanding Officer, Navy Environmental Health Center
To: Commanding Officer, Atlantic Division, Naval Facilities
Engineering Command (Maritza Montegross), 1510 Gilbert
Street, Norfolk, VA 23511-2699

Subj: DRAFT FINAL RECORD OF DECISION FOR OPERABLE UNIT NO. 6
(SITES 36, 43, 44, 54 AND 86), MARINE CORPS BASE, CAMP
LEJEUNE, NC

Ref: (a) Baker Environmental, Inc. ltr of 8 June 98

Encl: (1) Subject Record of Decision
(2) Medical/Health Comments Survey

1. Per reference (a), we have completed a review of the subject document. We are forwarding our comments to you as enclosure (1).

2. Please complete and return enclosure (2). Your comments are needed to continually improve our services to you.

2. We are available to discuss the enclosed information by telephone with you and, if necessary, with you and your contractor. If you require additional assistance, please call Mr. Kenneth Gene Astley (757) 363-5541 or Mr. David McConaughy at (757) 363-5557. The DSN prefix is 864.

G. D. KRAMER
By direction

Copy to:
CNO (N-453)
NAVFACHQ Environmental (42WS)
BUMED (MED-24)

**MEDICAL REVIEW OF THE
DRAFT FINAL RECORD OF DECISION
FOR OPERABLE UNIT NO. 6 (SITES 36, 43, 44, 54, AND 86)
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA**

Ref: (a) Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, October 1988 (EPA/540/G-89/004)

General Comments:

1. The document entitled "Draft Final Record of Decision for Operable Unit No. 6 (Sites 36, 43, 44, 54, and 86), Marine Corps Base, Camp Lejeune, North Carolina," dated 8 June 1998 was provided to the Navy Environmental Health Center for review on 11 June 1998. The Record of Decision was prepared for the Atlantic Division, Naval Facilities Engineering Command by Baker Environmental, Inc.

Review Comments and Recommendations:

1. Page 7, Site 36, Section 2.5, "Human Health Risk Assessment"
Page 18, Site 43, Section 3.5, "Human Health Risk Assessment"
Page 23, Site 44, Section 4.5, "Human Health Risk Assessment"

Comments:

a. The text states on page 7 that "Exposure to surface soil, surface water, and sediment was assessed for current trespassers." The text also states on page 7 that "A construction worker was evaluated for subsurface soil exposure." The future construction worker was not evaluated for surface soil exposure.

b. The text states on page 18 that "Under the future exposure scenario, child and adult residents were evaluated as potential receptors, and risk values were calculated for exposure to groundwater, surface soil, surface water, and sediment. In addition, a construction worker receptor was evaluated for subsurface soil exposure." The future construction worker was not evaluated for surface soil exposure.

c. The text states on page 23 that "Under the future exposure scenario, child and adult residents were evaluated as potential receptors, and risk values were calculated for exposure to groundwater, surface soil, surface water, and sediment. In addition, a construction worker receptor was evaluated for subsurface soil exposure." The future construction worker was not evaluated for surface soil exposure.

Enclosure (1)

Recommendation: Explain further in the text why the surface soil exposure pathway was not considered for future construction workers.

2. Page 10, Site 36, Section 2.6, "Summary of Remedial Action Alternatives"
Pages 30 and 31, Site 54, Section 5.6, "Summary of Remedial Action Alternatives"
Pages 42 and 43, Site 86, Section 6.6, "Summary of Remedial Action Alternatives"

Comments:

a. The text states on page 10 that institutional controls would have a total cost in thirty years of \$399,000. Monitored natural attenuation would cost \$1,080,000.

b. The text states on page 30 that institutional controls would have a total cost in thirty years of \$717,000. The text states on page 31 that monitored natural attenuation would cost \$1,010,00 in thirty years.

c. The text states on page 42 that institutional controls would have a total cost of \$534,000. The text states on page 31 that monitored natural attenuation would cost \$1,040,000.

d. Institutional controls and monitored natural attenuation are essentially the same remedial action. The difference in cost should be explained more fully in the text.

Recommendation: Explain in detail the difference in cost between institutional controls and monitored natural attenuation.

3. Page 13, Site 36, Section 2.7, "Reduction of Toxicity Mobility or Volume Through Treatment"
Page 34, Site 54, Section 5.7, "Reduction of Toxicity Mobility or Volume Through Treatment"
Page 46, Site 86, Section 6.7, "Reduction of Toxicity Mobility or Volume Through Treatment"

Comment: Reference (a) section 6.2.3.4 states that the evaluation of reduction of toxicity, mobility, or volume through treatment criterion should address the amount of hazardous materials that will be destroyed or treated, including how the principal threat(s) will be addressed, the degree of expected reduction in toxicity, mobility, or volume measured as a percentage of reduction (or order of magnitude) and the type and quantity of treatment residuals that will remain following treatment. The amount of hazardous materials that will be destroyed, the degree of expected reduction in toxicity, mobility, or volume measured as a percentage of reduction (or order of magnitude) and the type and quantity of treatment residuals that will remain following treatment was not addressed in the text.

Recommendation: Indicate the degree of expected reduction in toxicity, mobility, or volume measured as a percentage of reduction (or order of magnitude) and the type and quantity of treatment residuals that will remain.

4. Page 14, Site 36, Section 2.7, "Short-Term Effectiveness"
Page 35, Site 54, Section 5.7, "Short-Term Effectiveness"
Page 46, Site 86, Section 6.7, "Short-Term Effectiveness"

Comments:

a. Reference (a) section 6.2.3.5 states that the short-term effectiveness criterion should address the protection of the community during remedial actions and the protection of workers during remedial actions to include the effectiveness and reliability of protective measures that would be taken.

b. The text states under the "Short-term Effectiveness" sections on pages 14 and 46 that implementation of remedial action alternatives (RAAs) 4 and 5 may pose minimal risk to the military (local) community and/or workers because they involve construction and operation of on-site treatment facilities. This statement does not adequately address the effectiveness and reliability of protective measures.

c. The text states under the "Short-term Effectiveness" section on page 35 that implementation of RAAs 4a, 4b, and 5 may pose minimal risk to the military (local) community and/or workers because they involve construction and operation of on-site treatment facilities. This statement does not adequately address the effectiveness and reliability of protective measures.

Recommendation: Clearly state what protection workers will be afforded during remedial actions.

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FAX COVER SHEET**TO:** Maritza Montegross**FAX NUMBER:** 322-4805**SUBJECT:** FINAL RECORD OF DECISION FOR OPERABLE UNIT
#6, MARINE CORPS BASE, CAMP LEJEUNE, NC**PAGES** (including cover sheet): 04**Date:** 1-July-98**FROM:** Kenneth Gene Astley**TELEPHONE:** (757) 363-5541**DSN:** 864-5541**FAX:** (757) 444-7261**E - MAIL:** astleyg@nehc.med.navy.mil**REMARKS:**

Here are our comments on the Final Record of Decision for Operable Unit 6, Marine Corps Base, Camp Lejeune, NC. If you have any questions please feel free to call. The original signed copy is being sent in the mail.

Respectfully,

Gene Astley

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DRAFT

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