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(804) 322-4793

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MAY 13 1994

CERTIFIED MAIL RETURN RECEIPT REQUESTED

United States Environmental Protection Agency,
Region IV
Waste Management Division
Attn: Ms. Gena Townsend
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Draft Final Aquatic Survey Operable Unit No. 2
(Sites 6, 9, 82) MCB Camp Lejeune, North Carolina

Dear Ms. Townsend:

Enclosed please find responses to USEPA comments dated February 14, 1994 concerning the above referenced report. Any questions concerning these responses should be directed to Ms. Linda Berry who may be reached 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

Enclosure

Copy to: (w/encl)
NC DEHNR (Mr. Patrick Watters)
MCB Camp Lejeune (Mr. Neal Paul) (w/o encl)
Baker Environmental (Mr. Ray Wattras, Mr. Rich Bonelli)

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Response to Comments Submitted by EPA Region IV on the
Draft Final Supplemental Aquatic Survey Report, OU No. 2
Comment Letter Dated February 14, 1994

General Comments

The Ecological Risk Assessment was presented in the Final Report RI for Operable Unit No. 2 (August, 1993).

1. Section 3.5

The screening value application used in the risk assessment will note that 1×10^{-5} was used and not 1×10^{-6} .

2. Section 5.2.2.1; Table 5-1

The exposure frequency (EF) of 48 days/year (i.e., 48 meals/year), as used in the Draft Final Report, has been reduced to 24 meals/year, based on newly-acquired site-specific information. Base personnel provided site-specific information concerning the harvest of fish from Wallace Creek in order to assess the most realistic exposure scenario. Recreational harvest of largemouth bass is primarily in the spring and summer months. According to local sportsman, Wallace Creek is not fished as extensively as other local fresh and/or brackish waters. Striped mullet are harvested off shore and in salt water marshes adjacent to the Atlantic Intercostal Waterway. The investigation of fishing patterns in Wallace Creek indicated that consumption of largemouth bass comprises a maximum of 24 fish meals per year.

EPA Region IV currently recommends a default ingestion rate of 145 grams (g) per meal when the exposure frequency is determined on a site-specific basis. In addition, the Protocol for a Uniform Great Lakes Sport Fish Consumption Advisory (Great Lakes Sport Fish Advisory Task Force, September, 1993) has recommended a 50 percent estimated reduction factor for residues in the untrimmed raw fillet due to losses through trimming and cooking. The EPA ingestion rate of 145 g per meal, the site-specific exposure frequency of 24 meals per year, and the Task Force recommended 50 percent reduction factor were used to recalculate the incremental lifetime cancer risk level (ICR) for consumption of largemouth bass and striped mullet. For the Final Report, the ICR for consumption of largemouth bass and stripped mullet will be 1.3×10^{-5} and 4.9×10^{-5} , respectively.

The Great Lakes Sport Fish Advisory Task Force has developed an individual health protection value (HPV) for PCBs considering a weight-of-evidence approach that incorporates all the existing toxicologic values and studies. The HPV value is 5.0×10^{-5} mg/kg/day total PCBs residue from fish and forms the basis for advice to anglers on consumption of their fish. This HPV translates into a limit of 3.5 ug PCBs/day. While individually nearly all of the toxicological studies considered and referenced in the Protocol had identified weaknesses and flaws, including the EPA Human Cancer Potency Factor of 7.7 (mg/kg/day)⁻¹ that was used in

this risk assessment, taken collectively, the Task Force felt the data supported the selected HPV.

The chronic daily intake calculated for the Final Report for consumption of largemouth bass was 1.7×10^{-6} mg/kg/day PCBs and for consumption of striped mullet was 6.4×10^{-6} mg/kg/day PCBs. Both of these values are less than the Task Force HPV of 5.0×10^{-5} mg/kg/day total PCBs.

State of North Carolina

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To <i>Ray Wallras</i>	From <i>UBerry</i>	
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February 3, 1994

Commander, Atlantic Division
 Naval Facilities Engineering Command
 Code 1823-1
 Attention: MCB Camp Lejeune, RPM
 Ms. Linda Berry, P. E.
 Norfolk, Virginia 23511-6287

Commanding General
 Attention: AC/S, EMD/IRD
 Marine Corps Base
 PSC Box 20004
 Camp Lejeune, NC 28542-0004

RE: Draft Final Aquatic Survey for Wallace Creek and
 Bearhead Creek for Operable Unit #2 (sites 6, 9,
 and 82)

Dear Ms. Berry:

The referenced document has been received and reviewed by the North Carolina Superfund Section. Our comments are attached. Please call me at (919) 733-2801 if you have any questions about this.

Sincerely,

Patrick Watters

Patrick Watters
 Environmental Engineer
 Superfund Section

Attachment

cc: Gena Townsend, US EPA Region IV
 Neal Paul, MCB Camp Lejeune
 Bruce Reed, DEHNR - Wilmington Regional Office

P.O. Box 27687, Raleigh, North Carolina 27611-7687 Telephone 919-733-4996 FAX 919-715-3605
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North Carolina Superfund Comments
Camp Lejeune MCB Operable Unit #2
Supplemental Aquatic Survey for
Wallace Creek & Bearhead Creek

1. Page 2-2, Section 2.2.1
The sample designations shown on Figure 1 are different from those listed on this page and on various tables in the document.
2. Page 2-10, Table 2-2
This table does not include any water quality measurements for Bearhead Creek.
3. Pages 2-13 through 2-19, Section 2.5.2 and Table 2-4
The discussion on composite fish samples does not provide enough detailed information to fully describe how they were generated and handled. Also, the information provided on Table 2-4 needs clarification in the following areas.
 - The first column of Table 2-4 is titled "Number of Individuals" with a list of sequential numbers in the column. It is not clear if this is intended to be just a numerical listing of the samples or to present composite sample information. Please clarify.
 - Please explain how the "mean" at the bottom of the table is calculated. It is supposed to represent the composite mean length however it is apparently not the mean of the listed numbers in the table.
 - Table 2-4 on page 2-14 shows the maximum length fish for WC9A-SF as 273.05 mm when it should be 279.4 mm.
 - Please explain how the length of a fish or crab is measured to the nearest 1/100th of a millimeter. Also, could some of the fish length data been inadvertently placed in more than one column. For example, Table 2-4 on Page 2-17 indicates that there were six separate fish samples each measuring 387.35 mm and four separate fish samples each measuring 400.05 mm.
4. Page 5-3, Section 5.2.2.1
The equation for chronic daily intake (CDI) on this page indicates the exposure frequency (EF) is 48 days/year. This does not seem appropriate for the following reasons. (1) - Page 6-22 of the EPA RAGS manual indicates that if a long-term average contact rate (e.g. daily fish ingestion rate averaged over a year) is used, then a daily exposure frequency (i.e. EF = 365 days) should be used. (2) - An EF of 48 days/year along with an average ingestion rate (IR) of 6.5 grams/day will yield a total of 11 ounces of fish consumed per year. This annual fish consumption rate does not seem representative of the coastal areas of North Carolina.