



**DEPARTMENT OF THE NAVY**

NAVY ENVIRONMENTAL HEALTH CENTER  
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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: MEDICAL REVIEW OF DRAFT SITE INVESTIGATION REPORT SITE 10  
ORIGINAL BASE LANDFILL, MARINE CORPS BASE, CAMP LEJEUNE, NC

Ref: (a) Baker Environmental, Inc. Transmittal Ltr of 21 Aug 98

Encl: (1) Subject Medical Review  
(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 you desire, with you and your contractor. If you require additional assistance, please call Ms. Wendy Bridges at (757) 462-5552 or Mr. David McConaughy at (757) 462-5557. The DSN prefix is 253. The e-mail addresses are: bridgesw@nehc.med.navy.mil and mcconaughyd@nehc.med.navy.mil.

*Paul B. Gillooly*  
P. B. GILLOOLY

By direction

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MCB Camp Lejeune (ACS EMD/IRP, Tom Morris)

**MEDICAL REVIEW OF DRAFT  
SITE INVESTIGATION REPORT  
SITE 10 – ORIGINAL BASE LANDFILL  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA**

- Ref: (a) Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program, June 1988 (NEESA 20.2-047B)  
(b) Risk Assessment Guidance for Superfund, Volume I, Part A: Human Health Evaluation Manual, December 1989 (EPA/540/1-89/002)

**General Comments:**

1. The document entitled "Draft Site Investigation Report, Site 10 – Original Base Landfill, Marine Corps Base, Camp Lejeune, North Carolina" dated 21 August 1998 was provided to the Navy Environmental Health Center (NAVENVIRHLTHCEN) for review on 31 August 1998. The report was prepared for the Naval Facilities Engineering Command, Atlantic Division, by Baker Environmental, Inc.
2. The risk assessment in this report concludes that potential carcinogenic and noncarcinogenic risks exist for future residents. These risks are based on use of the shallow aquifer as a potable water source for future residents. If the shallow aquifer will not be used as a potable water source, we would support the decision of a "No Further Action Alternative." The Camp Lejeune Base Master Plan should stipulate that site remediation issues need to be addressed should Site 10 be considered for future residential and, therefore, possible potable water use. Specific review comments and recommendations are provided below.

**Specific Review Comments and Recommendations:**

1. Page 4-10, Section 4.4, "Analytical Results"

**Comments:**

- a. There is no discussion of the Quality Assurance/ Quality Control (QA/QC) used when analyzing the soil, groundwater, surface water and sediment samples for Site 10. There is no discussion of the Contract Laboratory Program (CLP) methods or the level of Data Quality Objectives (DQO), in this report. There are five general levels of analytical options used to support data collections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Reference (a) indicates that three of these analytical levels (i.e., C, D, and E) are used by the U. S. Navy as QA requirements, of which Level D QC is used for sites on the National Priorities List (NPL). The level of QC required at the site is decided by the Navy Engineer In Charge (EIC) or Remedial Project Manager (RPM).
- b. Marine Corps Base (MCB) Camp Lejeune was placed on the CERCLA NPL on 4 October 1989.

**Recommendation:** Discuss the CLP method and analytical levels used for this data. Reference (a) requires Level D QC for sites listed on the NPL. Revise the text to indicate the actual DQO Level(s) used for the investigation.

2. Page 6-44, Section 6.6.3, "Exposure Assessment"

**Comment:** The text states that groundwater samples were analyzed for total (unfiltered) inorganic contaminants. We strongly recommend the collection of both filtered and unfiltered groundwater samples. EPA guidance, such as reference (b), states that collecting both filtered and unfiltered groundwater data helps determine the chemical mobility within the aquifer.

**Recommendation:** We recommend collecting both unfiltered and filtered groundwater samples.

3. Table 6-17, "Values Used for Daily Intake Calculations"

**Comment:** Table 6-17 is a table of values for future construction workers. In this table the body weight is written as 45 kg. However, the correct default body weight for an adult is 70 kg.

**Recommendation:** Use the standard default value of 70 kg for body weight or provide justification for using 45 kg for body weight for a construction worker.