



DEPARTMENT OF THE NAVY

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

5090

Ser 611/ 5217

29 NOV '93

From: Commanding Officer, Navy Environmental Health Center
To: Commander, Atlantic Division, Naval Facilities Engineering
Command, Code 1822, Norfolk, VA 23511-6287

Subj: MEDICAL REVIEW OF HEALTH AND SAFETY PLAN FOR MARINE CORPS
BASE, CAMP LEJEUNE, NORTH CAROLINA

Ref: (a) Baker Environmental transmittal of 28 Oct 93

Encl: (1) Medical Review of the Draft ^{Final} Remedial Health and Safety
Plans for Marine Corps Base, Camp Lejeune, North
Carolina

1. As requested per reference (a), we completed a medical review of the "Draft Final Remedial Investigation/Feasibility Study Health and Safety Plan for Operable Unit No. 10 (Site 35) and Draft Final Remedial Investigation/Feasibility Study Health and Safety Plan for Operable Unit No. 7 (Sites 1, 28, and 30) Marine Corps Base, Camp Lejeune, North Carolina." Our comments are provided as enclosure (1).

2. The technical point of contact for comments on the review is noted in the enclosure. We are available to discuss the enclosed information by telephone with you and, if necessary, with you and your contractor. If you have any questions, please call Ms. Sheila A. Berglund, P.E., Head, Installation Restoration Program Support Department at 444-7575, extension 430.

W P Thomas
W. P. Thomas
By direction

HEALTH AND SAFETY PLAN REVIEW

Ref: (a) 29 CFR 1910.120
(b) Navy/Marine Corps Installation Restoration Manual (February 1992)

General Comments:

1. The "Draft Final Remedial Investigation/Feasibility Study Health and Safety Plan for Operable Unit No. 10 (Site 35) and Draft Final Remedial Investigation/Feasibility Study Health and Safety Plan for Operable Unit No. 7 (Sites 1, 28, and 30) Marine Corps Base, Camp Lejeune, North Carolina" was prepared for LANTNAVFACENCOM by Baker Environmental, Inc. and forwarded to the Navy Environmental Health Center on 28 October 1993. The documents were dated 27 and 28 October 1993.
2. The plans were virtually identical. This review combines comments for health and safety and emergency response sections of both plans.
3. The method used for the review is to compare the health and safety plan to federal requirements under OSHA regulations (29 CFR 1910.120) and to Department of the Navy requirements under the "Navy/Marine Corps Installation Restoration Manual" (see references (a) and (b) above). We noted deviations and/or differences in the plan from these two primary references.
4. The point of contact for review of the health and safety plan is Ms. Mary Ann Simmons, Industrial Hygienist, who may be contacted at (804) 444-7575, or DSN 564-7575, extension 477.

Specific Comments:

1. Section 1.2, "*References*": The last reference cited, U.S. EPA, Office of Emergency and Remedial Response, Emergency Response Division, Standard Operating Safety Guides, July 1988, has been revised. The latest edition is June 1992.
2. Section 2.0, "*Project Personnel and Responsibilities*": The Site Manager and the Site Health and Safety Officer will be named prior to on-site activities. Since these individuals have so many responsibilities we recommend designating individuals to these positions as soon as possible. The specific names should be included in the final version of the health and safety plan.
3. Section 3.0, "*Site Characterization*": The hazard evaluation should be the backbone of the health and safety plan. However, the information presented in this section is incomplete, confusingly presented and general in nature. Some examples are cited below. We recommend revising this section to include a clear description, associated hazards and

Enclosure (1)

preventive measures for each task. Avoid including general information for which site-specific information could be used. For example, Section 3.3.3.3 refers to monitoring for heat stress and/or cold stress. Since we assume the dates of the sampling are known, a site-specific determination on the type of thermal stress expected (if any) should be fairly obvious. The final product should provide a clearer understanding of site/task specific conditions.

a. Section 3.3.3.6, "Noise": Noise is anticipated as a hazard produced during drilling and other heavy equipment operation, yet, a hearing conservation program is not included nor is a method with which to evaluate noise levels.

b. Section 3.3.3.7, "Confined Space Entry": It is not clear why this section was included since there is no indication that confined space entry is anticipated during this site work.

4. Section 3.3.4, "*Radiation Hazards*": Since there is no reason to suspect a radiation hazard, include the rationale that would lead to radiation monitoring.

5. Section 3.3.5, "*Environmental Hazards*": The last sentence of this section cites the requirement to question each individual "as to any known sensitivities to the previously mentioned organisms or agents." This information should typically be queried during the medical surveillance examination for example while completing the medical history.

6. Section 4.0, "*Site Control*": Information in this section is not site-specific. Include only work zone details pertaining to the actual site work.

7. Section 5.0, "*Environmental Monitoring*":

a. Provide an explanation on how real time, direct reading instruments will be used to evaluate employee exposure levels since the exposure standards are based on an 8-hour time weighted average.

b. We recommend leaving the work area and contacting the Project Health and Safety Officer if any type of radiation exceeds background levels.

8. Section 6.0, "*Personal Protective Equipment*": Information in this section is not site-specific. Level D or Level D+ equipment is all that is anticipated to be used, yet information on Level B and C is also included. We recommend deleting section 6.3 of this section since that information does not appear applicable to these jobs.

9. Section 7.0, "*Decontamination Procedures*": We recommend revising this section to include only site-specific information.

10. Section 8.0, "*Emergency Procedures*":

a. All phone numbers and emergency points of contact need to be verified prior to the start of work. Our attempts to contact several of the listed emergency points of contact were unsuccessful. Include phone numbers for the Agency for Toxic Substances and Disease Registry, a recognized authority on emergency responses, and for Navy emergency response personnel, such as the Navy On-Scene Commander.

b. We recommend a minimum of two employees trained in first aid/CPR on the site at all times. A Bloodborne Pathogen program, in accordance with 29 CFR 1910.1030, needs to be included for all employees who may perform first aid.

c. Include only information pertinent to the site. The emergency decontamination procedures include procedures for Level C and Level B when only Level D and Level D+ are anticipated.

d. We recommend careful review and revision (as necessary) of the sections on snake bite injury and spider bite injury. The occupational medicine physician should be able to provide technical assistance on these subjects. The last paragraph in the discussion on snake bite injury does not relate to snake bites and should be moved to a more appropriate location within the emergency procedures section.

e. Discuss the rationale for using Navy Medical Treatment facilities for civilian contractor employees.

11. Section 10.0, "*Medical Surveillance Procedures*": There is no indication in this section that the physician has received site-specific information upon which to base the medical examinations.

12. Appendix C, "*Emergency Procedures for Exposure to Hazardous Materials/Waste*": We recommend combining this information with the emergency procedures in Section 8.0.