

**DEPARTMENT OF THE NAVY**NAVY ENVIRONMENTAL HEALTH CENTER
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From: Commanding Officer, Navy Environmental Health Center
To: Commander, Atlantic Division, Naval Facilities Engineering
Command, (Code 0526), 1510 Gilbert Street, Norfolk, VA
23511-2699


Subj: MEDICAL REVIEW OF INSTALLATION RESTORATION PROGRAM
DOCUMENTS FOR MARINE CORPS BASE, CAMP LEJEUNE, NC

Ref: (a) LANTNAVFACENGCOM memo of 28 Nov 94
Contract N62470-93-D-3032, Delivery Order 0015

Encl: (1) Health and Safety Plan Review

1. As you requested in reference (a), we completed a medical review of the "Site-Specific Health and Safety Plan for Soil and Groundwater Remediation, Operable Unit No. 2, Marine Corps Base, Camp Lejeune, North Carolina." Our comments are provided in enclosure (1).

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 Ms. Mary Ann Simmons at (804) 444-7575 or DSN 564-7575, extension 402.


W. P. THOMAS
By direction

HEALTH AND SAFETY PLAN REVIEW

Ref: (a) 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response)
(b) Navy/Marine Corps Installation Restoration Manual (February 1992)

General Comments:

1. The "Site-Specific Health and Safety Plan for Soil and Groundwater Remediation, Operable Unit No. 2, Camp Lejeune, North Carolina, Contract N62470-93-D-3032, Delivery Order 0015" was prepared for LANTNAVFACENGCOM by OHM Corporation and forwarded to the Navy Environmental Health Center on 29 November 1994. The document is dated November 1994.
2. This review addresses both health and safety and emergency response sections of the plan.
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). Deviations and/or differences in the plan from these two primary references are noted. A list of acronyms used in our comments is included as Attachment (1). The majority of these comments have been made previously for OHM Corporation health and safety plans.
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 2.0, "Key Personnel and Management":
 - a. Sub-section 2.4, "Employee Safety Responsibility": This section states that two OHM policy documents, "Employee Safety Guide" and "OHM Health and Safety Procedures," provide guidelines for safe equipment use. Indicate where these documents are located.
 - b. Indicate which company official will be tasked to establish communications with local health care providers, the NOSC/NOSCDR, the LEPC, or other agencies that may be tasked to provide emergency support.
 - c. Sub-section 2.5, "Responsible OHM Health and Safety Personnel": The Site Safety Officer is yet to be decided. In view of the significance of this person's functions and the need

Enclosure (1)

for coordination with local agencies, we recommend designating this person as soon as possible.

2. Section 3.0, "Job Hazard Analysis":

a. Sub-section 3.1, "Chemical Hazards":

(1) Include information on anticipated chemical concentrations and where they are expected.

(2) In the description for anticipated chemicals for Site 82, unexploded ordnance (UXO) is noted. This is the only reference to UXO found in this document. If UXO is anticipated, we recommend including additional information in the plan, for example, a description of UXO and what to do if it is encountered.

b. Sub-section 3.3, "Physical Hazards": One of the physical hazards discussed is "Excavation and Trenching." If employees will enter an excavation or trench, consider hazards such as confined space in addition to the cave-in hazard noted in the plan. Perform appropriate air monitoring if there is any likelihood that a flammable, oxygen deficient, or toxic atmosphere may exist.

c. Sub-section 3.5, "Task Specific Risk Assessment":

(1) Include the site-specific chemical information in these assessments. A suggestion is to incorporate information from Sub-section 3.1 as it applies to each of these tasks.

(2) We also recommend including PPE requirements found in Sub-section 5.2, "Task-Specific Levels of Protection" in these individual assessments.

3. Section 5.0, "Protective Equipment":

a. Sub-section 5.1, "Level B": No information has been provided indicating a need for a level of protection greater than Level C. We recommend either providing information supporting the need for higher levels of PPE, or deleting the reference to them.

b. Sub-section 5.3, "Respirator Cartridges": Mine Safety Appliance (MSA) "GMC-H air purifying cartridges" are specified in this section. Since it is unlikely that all employees can be successfully fitted to a single type of respirator we recommend revising this section to specify "air purifying cartridges" without restricting them to one manufacturer.

c. Sub-section 5.4, "Air-Purifying Respirators": MSA "Ultra-Twin" air purifying respirators are specified in this section. It is unlikely that all employees can be successfully

fitted to a single type of respirator. We recommend revising this section to allow for individual fitting variation.

d. Sub-section 5.5, "Cartridge Changes": We recommend changing cartridges at least daily, or more often, if there is an increase in breathing resistance or breakthrough.

e. Sub-sections 5.6, "Supplied-Air Respirators," and 5.7, "Breathing-Air Quality": Since supplied air respirators are not required for this site work, we recommend deleting this information.

f. Sub-section 5.9, "Fit Testing": All personnel required to wear an air-purifying respirator as part of their employment should be fit tested at the time of assignment and at least annually thereafter.

4. Section, 7.0, "Air Monitoring":

a. None of the air monitoring instruments mentioned in this section will monitor PCBs or chlorinated pesticides, which are stated to be among the potential site contaminants. State how you will monitor for these contaminants or justify why they will not be monitored.

b. Sub-section 7.7, "Calibration Requirements," states that monitoring equipment is to be calibrated daily before use. Good industrial hygiene practice is to calibrate all monitoring instruments before and after each period of use in accordance with manufacturer's recommendations.

5. Section 8.0, "Emergency Response and Contingency Plan":

a. Include a map showing the route(s) to the local medical facility in the final HASP. We suggest including written directions to the medical treatment facility on this map.

b. Coordinate with the NOSC/NOSCDR before starting work.

c. Include provisions to conduct post-exercise and/or incident critiques.

d. Sub-section 8.1, "Emergency Services": The eyewash/safety showers must conform to ANSI Z358.1-1990.

e. Sub-section 8.3, "First Aid": Provide information indicating that the first aid/CPR responders have been properly trained in the bloodborne pathogens standard as required by 29 CFR 1910.1030.

f. Sub-section 8.5, "General Evacuation Plan": The fifth bullet directs notifying the MCB Camp Lejeune construction office and the LANTDIV representative in the event of an

emergency. In the event of an emergency, the NOSC/NOSCDR may be the most appropriate initial notification.

g. Sub-section 8.6, "Spill Control": Since OHM employees are expected to respond to emergencies, describe the additional training they will receive to safely act in this capacity.

h. Table 8.1, "Emergency Contacts":

(1) The base hospital is a "U.S. Naval" hospital, not a "USMC" hospital.

(2) The telephone number given for the Poison Control Center is not accessible from the (804) area code. Prior to starting work, determine if the number is operational from MCB Camp Lejeune. Include telephone numbers for the NOSC/NOSCDR and the LEPC in the final plan.

6. Section 9.0, "Training Requirements":

a. Include a provision to maintain copies of training certificates on-site for all site workers.

b. Indicate that other training requirements have been met. This includes 8-hour annual updates, additional supervisor training and working on-site under the direct supervision of a qualified person.

7. Section 10.0, "Medical Surveillance Program":

a. Include a provision to maintain copies of medical certificates on-site for all site workers.

b. Describe the relationship between the board certified occupational medicine physician and the examining physician, if they are not the same person. Also describe how site-specific information is provided to the occupational physician.

ACRONYMS

ACGIH:	American Conference of Governmental Industrial Hygienists
AG:	Acid Gas
ATSDR:	Agency for Toxic Substances and Disease Registry
BBP:	Bloodborne Pathogen Program
CPR:	Cardiopulmonary Resuscitation
CRZ:	Contamination Reduction Zone
EIC:	Engineer-in-Charge
EMS:	Emergency Medical Service
EPA:	Environmental Protection Agency
EZ:	Exclusion Zone
HASP:	Health and Safety Plan
HBV:	Hepatitis B Virus
HIV:	Human Immunodeficiency Virus
IDLH:	Immediately Dangerous to Life and Health
IPA:	Isopropyl Alcohol
LEPC:	Local Emergency Planning Committee
MSDS:	Material Safety Data Sheet
NIOSH:	National Institute for Occupational Safety and Health
NOSC:	Navy On-Scene Coordinator
NOSCDR:	Navy On-Scene Commander
OSHA:	Occupational Safety and Health Administration
OV:	Organic Vapor
PCB:	Polychlorinated Biphenyl
PEL:	Permissible Exposure Limit
PPE:	Personal Protective Equipment
PPM:	Parts per million
SOP:	Standard Operating Procedure
STEL:	Short Term Exposure Limit
TLV:	Threshold Limit Value