



DEPARTMENT OF THE NAVY
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02 MAR '94

From: Commanding Officer, Navy Environmental Health Center
To: Commander, Atlantic Division, Naval Facilities Engineering Command

Subj: MEDICAL REVIEW OF INSTALLATION RESTORATION PROGRAM
DOCUMENTS FOR NAVAL STATION ROOSEVELT ROADS, PR

Ref: (a) LANTNAVFACENGCOM memo of 1 Feb 94,
Contract N62470-93-C-3032, Deliver Order No. 004

Encl: (1) Health and Safety Plan Review

1. As you requested in reference (a), we completed a medical review of the "Remedial Action Health and Safety Plan, Building 121, Naval Station Roosevelt Roads, PR." Our comments are provided in enclosure (1).

2. The technical point of contact for comments 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 require additional assistance, please call Ms. Sheila Berglund, P.E., Head, Installation Restoration Program Support Department at (804) 444-7575 or DSN 564-7575, extension 430.


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 "Remedial Action Health and Safety Plan, Building 121, U.S. Naval Station Roosevelt Roads, Contract Number N62470-93-C-3032, Delivery Order 004" was prepared for LANTNAVFACENGCOM by OHM Remediation Services Corporation and forwarded to the Navy Environmental Health Center on 1 February 1994. The document was dated 20 January 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). 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 2.0, Sections 2.2, "Site Safety Officer" and 2.7, "Site Superintendent/Emergency Coordinator": These sections are in apparent conflict regarding emergency coordinator duties. Section 2.2 stipulates that the Site Safety Officer (SSO) is the main contact in any on-site emergency situation, but section 2.7 states the Site Superintendent is the emergency coordinator. In order to avoid the potential for confusion, we recommend that only one of these individuals be designated as the Emergency Coordinator and the other designated as the alternate.
2. Section 3.0, "Job Hazard Analysis":
 - a. Sections 3.1, "Chemical Hazards": This section is presented in a haphazard manner. It is not alphabetized to facilitate locating information, is confusing and inaccurate, some carcinogens/suspect carcinogens are not appropriately identified, and routes of exposure are not completed. The site history indicates ethylene bromide as a chemical of concern, however, ethylene dibromide is cited as a chemical hazard in this section. In the health

Enclosure (1)

hazards/physical hazards section for both arsenic and copper arsenite, arsene is listed as resulting from a reaction with hydrogen gas. We believe that the correct term is arsine not arsene. Review entire section and revise as necessary so section reflects accurate and clear information.

b. Section 3.3.1, "Heat Stress": This section presents inadequate and incorrect information regarding control of heat stress. Recommend review of "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," DHHS (NIOSH) Publication No. 85-115, and the ACGIH TLV (latest edition) for additional guidance and revising this section as necessary.

c. Section 3.2, "Physical Hazards": Include a description of anticipated physical hazards in this section.

d. Section 3.3.2, "Biological Hazards": Include information on the potential threat from toxic fauna.

e. Section 3.4, "Task-Specific Risk Assessment": Some items in this section, specifically clearing/grubbing, grading, staging/dumps and cylinders, heavy equipment and vehicles and roll-offs and containers, do not appear to reflect the tasks listed in the scope of work in section 1.2. Revise section to specifically address tasks to be accomplished as noted in the scope of work. Include anticipated levels of contaminants.

3. Section 5.0, "Protective Equipment":

a. Section 5.1, "Anticipated Protection Levels": No mention is made regarding Personal Protective Equipment (PPE) for personnel assisting other employees with decontamination. Revise to include this information.

b. Section 5.2.5, "Level A": No information has been provided regarding the need for this level of PPE. Recommend either providing rationale for this level or delete reference.

c. Section 5.3, "Supplied-Air Respirators": Section states that if Level B protection is needed, the Survivair 9881-02 Hippack Airline Respirator (ALR) will be utilized. No information is provided regarding the source of air provided to the ALR. Revise to include this information.

d. Section 5.5, "Air-Purifying Respirators": MSA "Ultra-Twin" air purifying respirators are specified in this section. It is unlikely that all employees will be able to be successfully fitted to a single type of respirator. Recommend revising this section to allow for individual fitting variation.

e. Section 5.13, "Medical Certification": No mention is made here or in section 10.0, "Medical Surveillance" as to where copies of medical certification will be maintained. Recommend that a copy of each employee's medical certification be maintained on the site.

f. Section 5.14 "Site-Specific Respiratory Protection Program": The second sentence states, "The primary objective of respiratory protection is to prevent atmospheric contamination." This is generally not the purpose of a respiratory protection program. The comment regarding GMC-H respirator cartridges only holds true for MSA equipment. Review and revise as necessary.

4. Section 6.0, "Decontamination Procedures":

a. Section 6.1, "Personnel Decontamination": This is generic information and does not address site-specific requirements. The listed sixteen steps of the decontamination process are confusing in that the person processing through the decontamination procedure is apparently wearing three pairs of boots/booties, three layers of various Tyvek type suits, and five pairs of gloves. Review and revise to accurately reflect site conditions.

b. Section 6.1.2, "Personal Hygiene": Recommend modifying statement by prefacing with, "As a minimum."

c. Section 6.2, "Equipment Decontamination": No task specific hazard/task analysis has been presented for this function to include PPE requirements. Provide.

d. Section 6.3, "Disposal": No information was presented regarding the proper disposal of contaminated PPE nor decontamination fluids. Revise to include this.

5. Section 7.0, "Air Monitoring":

a. Explain value of photoionization detector (PID) monitoring efforts since the majority of the chemicals of concern do not have an ionization potential (IP).

b. Delete or provide rationale for the inclusion of Level A PPE reference.

c. Provide information regarding VOCs and why hourly readings are to be taken since they have not been previously identified as contaminants.

d. Provide information regarding the use of the mini-aerosol monitor, such as where and how often monitoring will occur.

e. Describe how the direct reading instruments will be used to determine PPE levels since the expected contaminants are not measured by the instruments noted in this section.

f. Reference was made to hazardous "noise" levels which required use of hearing protective devices in section 3.4. Provide information as to how these determinations are to be made.

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

a. No mention is made in this section as to what medical facility would be utilized in the event of an emergency. If the medical facility to be utilized is the US Naval Hospital, indicate the method by which civilian employees will be treated (i.e., civilian humanitarian).

b. On page 36, the second bullet refers to emergency responders. Provide information as to who these persons are, what type of training they have, and where copies of the training certificates are maintained for OHM personnel.

c. On page 36, the fourth bullet states emergency response activities to be coordinated with the Local Emergency Planning Committee (LEPC). Suggest that the Navy On-Scene Coordinator/Navy On-Scene Commander (NOSC/NOSCDR), once identified, should also be included in the pre-work emergency coordination.

d. Trenching and shoring, listed on page 37, were not listed in the scope of work and would not appear to be relevant to this HASP.

e. Page 38, paragraph 1, lists the Site Superintendent as the emergency coordinator, whereas section 2.2 cites the Site Safety Officer as the main point of contact in the event of an emergency. Revise to make points of contact consistent.

f. Section 8.4, the second and third paragraphs and Section 8.6.2, second and third paragraphs all provide information regarding clean-up or containment of hazardous materials releases. Information provided in Section 1.1 indicates all bulk hazardous materials were previously removed from this site. Revise so HASP presents consistent information.

g. Section 8.4, fourth paragraph, directs the OHM emergency coordinator or his designee to inform the local public population in the event of a threatened hazardous materials release. This is a function more appropriately under the cognizance of the NOSC/NOSCDR or whoever is designated as the incident commander.

h. Section 8.5.2, "Evacuation Procedures": The second bullet provides information on accounting for personnel evacuated from the exclusion zone and from the contamination reduction zone. Include information on emergency decontamination procedures.

i. Section 8.6.2, page 44, third paragraph and following bullets provide no substance to this HASP and there are no indications that the personnel performing clean-up have been properly trained or to what level they have been trained. Further, it is not clear why this

section was included as information provided in Section 1.1, which stated that bulk hazardous materials had previously been removed. Clarify.

j. The first sentence of the third paragraph in Section 8.8.1, page 47 is misleading. If a person is seriously injured while working in the Exclusion Zone (EZ) or Chemical Reduction Zone (CRZ), the first task of on-site responders will be to maintain an open airway, stop serious bleeding, immobilize fractures (if possible), and remove from the area of contamination. Additional emergency care, including decontamination, if feasible, can then be performed while awaiting emergency transport.

k. In Section 8.9, "Fire Contingency Measures": The third bullet, states "No Smoking" signs be posted where flammable materials are located. Recommend that smoking not be allowed anywhere on-site, other than in the support zone.

l. Section 8.11.1, "Response" contains generic information not specific to this site. Specific information from this section could more appropriately be combined in other areas of this HASP such as in section 8.6.2 and section 8.8.1. The emergency coordinator needs to be talking to the NOSC/NOSCDR as well as the client representative, who should be specifically named.

m. Recommend inclusion of information provided in Table 1 into Section 8 or at least refer to its existence in Section 8. Phone numbers for the Agency for Toxic Substances and Disease Registry (ATSDR), a recognized authority for emergency response, and the NOSC/NOSCDR were not provided. The listed number for the USEPA Region Branch Response Center was for the incorrect region. Verify all phone numbers prior to the start of work. Coordinate with all potential emergency responders and medical facilities prior to the start of work to determine their ability to respond to chemical emergencies.

n. Address the increased hazard of the single means of egress for Building 121.

7. Section 9.0, "Training Requirements": This section provides information on 40-hour HAZWOPER training. However, no mention is made regarding the required period of supervised field work. There are no provisions for emergency response training or to what level responders are to be trained. There are numerous inferences made throughout this HASP that OHM personnel will or may be required to provide emergency first aid to injured workers. We recommend a minimum of two employees trained and certified in first aid/CPR be on-site at all times, during work operations. A bloodborne pathogen program, in accordance with 29 CFR 1910.1030, needs to be developed and included for these employees. Revise section to include this information.

8. Section 10.0, "Medical Surveillance": Paragraph 1 states the medical surveillance program was developed in conjunction with a consultant toxicologist. While not minimizing a toxicologist's qualifications, a certified occupational health physician is more appropriate as being responsible for developing a medical related program. This is required by reference (b). No information is provided that site specific medical examinations were conducted on site personnel. Also, recommend information provided in Table 2 be incorporated into this section.