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**DEPARTMENT OF THE NAVY**

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From: Commanding Officer, Navy Environmental Health Center  
To: Commander, Atlantic Division, Naval Facilities Engineering  
Command, Attn: Art Wells, 1510 Gilbert Street, Norfolk,  
VA 23511-2699

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

Ref: (a) LANTNAVFACENCOM transmittal ltr of 07 Feb 95

Encl: (1) Health and Safety Program Review

1. As you requested in reference (a), we completed a medical review of the "Draft Health and Safety Plan for Investigation and Characterization of Site 16, SWMU 45, Interim Corrective Measure, Naval Station Roosevelt Roads, Puerto Rico." 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.

  
A. F. JONES  
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 "Draft Health and Safety Plan for Investigation and Characterization of Site 16, SWMU 45, Interim Corrective Measure, Naval Station Roosevelt Roads, Puerto Rico," was prepared for LANTNAVFACENCOM, by Baker Environmental Inc., and forwarded to the Navy Environmental Health Center on 10 February 1995. The document is dated 7 February 1995.
2. The method for the review is to compare the health and safety plan (HASP) 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. A list of acronyms used in our comments is included as Attachment (1).
3. The point of contact for review of the HASP is Ms. Mary Ann Simmons, Industrial Hygienist, who may be contacted at (804) 444-7575, or DSN 564-7575, extension 402.

### Specific Comments:

1. Section 1.3, "Project Description": The second bullet specifies "cooling water tower sampling," while the work plan specifies "cooling water tunnel sampling." Revise the final document to reflect consistent terminology.
2. Section 2.0, "Site Organization and Coordination": An alternate for the Baker SHSO should be designated.
3. Section 3.0, "Hazard Evaluation":
  - a. Sub-section 3.1, "Physical Hazards": While it appears that personnel will not enter the USTs (underground storage tanks), it is not specifically stated. We recommend clearly indicating, in the HASP, that confined space entry is not anticipated.
  - b. Sub-section 3.2, "Chemical Hazards": As stated in this section the primary chemical hazards for this site are Fuel Oil #6 and polychlorinated biphenyls (PCBs). However, in Section 3.2.2 of the work plan, "Cooling Water Tunnel Sampling," the chemical hazards listed include VOCs, SVOCs, PCBs, TPHs, metals and vanadium. Revise the final HASP to include information consistent with that in other site documents.

Enclosure (1)

4. Sub-section 4.2, "Level C," page 4-2: The last sentence states that unauthorized personnel will not be permitted into the work area. Include the requirements that personnel and visitors must meet prior to being authorized entry to the work zone. Also include a method to document personnel entering and exiting the work zone.

5. Section 5.0, "Exposure Monitoring":

a. Include requirements to monitor for combustible gas/oxygen levels in this plan.

b. Sub-section 5.4, "Equipment Calibration": We recommend calibrating equipment in accordance with manufacture's instructions and standard industrial hygiene practice, before and after each period of use.

c. Sub-section 5.5, "Monitoring Documentation": Include provisions to inform employees of monitoring results.

6. Sub-section 6.1, "Levels of Protection": Information presented in Section 6.1, "Levels of Protection," indicates that the highest anticipated level of PPE is "D+." However, Section 4.2 lists several activities for which "Level C" will be required. Revise the final HASP so that consistent PPE requirements are maintained throughout the document. Also, it is good industrial hygiene practice to begin an activity at the higher PPE level and then downgrade as monitoring information becomes available.

7. Section 7.0, "Decontamination Procedures": Include information regarding containing and disposal of used decontamination solutions and contaminated PPE.

8. Section 8.0, "Emergency Preparedness and Evaluation Procedures (EPEP)":

a. Include information on who is to establish appropriate communications with potential emergency responders, such as the fire and medical department representatives.

b. Sub-section 8.4, "Emergency Medical Care":

(1) The first paragraph cites the Naval Hospital as the source of emergency care. Include information describing how civilian contractor personnel are to be treated (i.e., civilian humanitarian, or other). Include information on the availability of off-base medical support.

(2) In the second paragraph, include a statement indicating where a copy of the hospital map and directions can be found in an emergency (i.e., in Baker command post, field vehicle).

c. Sub-section 8.5, "Emergency Phone Numbers": Include telephone numbers for the NOSC/NOSCDR, LEPC, local or regional poison control center, and ATSDR, a known expert in

medical emergency response. It is unclear why the National Response Center is listed as an emergency point of contact. If a hazardous materials release to coastal waters were to occur, contacting the Marine Safety Office San Juan would be more appropriate. Also, include written directions to the local medical facility.

d. Sub-section 8.7, "Emergency Alerting":

(1) The first paragraph states that the SHSO is the certified emergency first aid/CPR provider. There is no indication that the SHSO has been trained in the Bloodborne Pathogens Program (BBP), as required by 29 CFR 1910.1030. We recommend revising this section to indicate that the Baker written BBP is found in Attachment A. We also recommend that at least two personnel, trained and certified in adult first-aid/CPR be present at all times work is being performed on the site.

(2) In the second paragraph, it is unclear who authorizes re-entry into the work zone after an evacuation.

e. Section 8.9, "Personal Protection and Emergency Equipment": Clearly indicate where the emergency PPE and first aid equipment will be located. Additionally, an eye wash bottle is listed as part of the emergency equipment. The emergency eye wash/showers must meet the criteria stated in ANSI Standard Z358.1-1990. Additionally, eye wash bottles are only authorized for use as an adjunct to, and not as a replacement for, the appropriate 15-minute emergency eye wash stations.

f. Include provisions to periodically exercise and critique the emergency response plan.

9. Section 9.0, "Medical Surveillance": No information is provided indicating that the medical surveillance program was developed by, or the physical examinations were performed by or under the supervision of, a board-certified occupational medicine physician. Include a provision to maintain copies of medical clearance certificates on-site for all workers.

10. Section 10.0, "Training and Hazard Communication Requirements": Include a requirement for a pre-entry briefing and periodic tail-gate safety meetings. Indicate who will conduct these briefings.

11. Attachment A, "Baker Safety Standard Operating Procedures," Section 5.0, "Heat Stress," Sub-section 5.4.1, "Monitoring for Permeable Clothing": It is unclear what is meant by the phrase "fluid intake discipline." The goal of any heat stress prevention program is to minimize heat related casualties and one method to reach this goal is for employees to maximize their fluid intake.

## ACRONYMS

ACGIH:	American Conference of Governmental Industrial Hygienists
AG:	Acid Gas
ANSI:	American National Standards Institute
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
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
SCBA:	Self Contained Breathing Apparatus
SOP:	Standard Operating Procedure
STEL:	Short Term Exposure Limit
TLV:	Threshold Limit Value