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LETTER TRANSMITTING COMMENTS ON REMEDIAL REMOVAL ACTIONS SITE 17 AND
SITE 42 NSWC INDIAN HEAD MD
7/12/2005
NAVFAC WASHINGTON



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From: Commanding Officer, Navy Environmental Health Center
To: Commander, Engineering Field Activity Chesapeake, Naval Facilities Engineering
Command (Jeff Morris), 1314 Harwood Street SE, Washington Navy Yard, DC 20374-5018

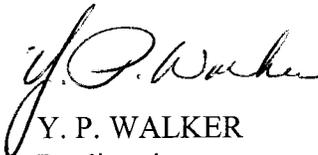
Subj: COMMENTS ON REMEDIAL REMOVAL ACTIONS, SITES 17 AND 42, NAVAL
SURFACE WARFARE CENTER, INDIAN HEAD, MD

Ref: (a) Memo EFA Northeast J. Morris/NEHC D. McConaughy of 23 May 05

Encl: (1) Subject Health and Safety Plan

1. Per reference (a), we have completed a review of the subject document and forward our comments to you as enclosure (1).

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 Mr. Donald J. Coons at (757) 953-0936 or Mr. David F. McConaughy at (757) 953-0942. The DSN prefix is 377. The e-mail addresses are: coonsd@nehc.med.navy.mil or mcconaughyd@nehc.med.navy.mil.


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By direction

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NAVY ENVIRONMENTAL HEALTH CENTER ENVIRONMENTAL PROGRAMS DIRECTORATE

Health and Safety Plan Review

Location: Indian Head, MD

Command: Naval Surface Warfare Center

Site: Sites 17 and 42

Work Description: Remedial/Removal Actions

Document Date: 21 April 2005

Contract No/Contract Task Order No: N62470-03-D-4402/011

EP Document No: 1630

Prepared for: NAVFAC EFA CHESAPEAKE

Prepared by: Shaw Environmental, Inc.

Date Received: 25 May 2005

Reviewed by:

Mr. Donald J. Coons, (757) 953-0936, coonsd@nehc.med.navy.mil, DSN 377

HEALTH AND SAFETY PLAN REVIEW

- Ref: (a) 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response)
(b) 29 CFR 1926.65 (Hazardous Waste Operations and Emergency Response)
(c) Navy/Marine Corps Installation Restoration Manual (February 1997)
(d) U. S. Army Corps of Engineers, Safety and Health Requirements Manual, EM 385-1-1

General Comment: We compared this health and safety plan (HASP) to federal requirements found in references (a) through (d), and have noted discrepancies in this HASP from these primary references. The acronyms used in our comments are included as Attachment (1).

Administrative Comments:

1. The information presented is incomplete and in a format which is often difficult to follow or locate information. We suggest the following site for assistance in preparing an acceptable health and safety plan <http://www.osha.gov/dep/etools/ehasp>. This e-tool can be downloaded and used for creating site-specific health and safety plans. An additional source of guidance can be found at <http://www-nehc.med.navy.mil/downloads/ep/checklist002.pdf>. This site provides a checklist which will assist in preparing the HASP ensuring all required information is included.
2. Various Shaw Health and Safety Procedures such as HS400, "Working in Hot Environments," HS045, "Job Safety Analysis," HS600, "Personal Protective Equipment," and HS601, "Respiratory Protection Program," are cited as guiding documents for this project. These procedural documents should be made available on-site for review or the pertinent information incorporated into the health and safety plan.
3. Neither location or site maps were included in this document for Site 17 or Site 42. A location map will show the general area where the site is located in relation to the base or surrounding area in general. Site maps show the proposed layout of the site, such as location of proposed work, decontamination facilities and/or major structures or obstacles such as buildings, roads, gullies, or bodies of water, etc.
4. This document needs a thorough proof reading to eliminate grammatical errors.

Specific Comments:

1. Page 1-2, Section 1.4, "Disclaimer":

Comment: This section appears to be generic and it is unclear what information/guidance is being provided. The health and safety plan document is intended to be site-specific, addressing those tasks the contractor/subcontractor/s is/are hired to perform.

Recommendation: If Shaw Environmental will be the prime contractor, their subcontractor(s) should, as a minimum, submit properly completed activity hazard analysis describing the specific task/s the subcontractor is hired to perform to the appropriate Shaw

representative for approval. The subcontractor, as the subject matter expert, would assign their own supervisory personnel. This procedure would eliminate the need for multiple HASPs.

2. Pages 2-1 through 2-3, Section 2.0, "Site History/Scope of Work":

Comments:

a. Section 2.1, "Background," third paragraph, first sentence states "A removal action to mitigate silver contamination was performed on two swales that drain from Site 5, the Grain manufacture and X-Ray building, into swales located west and south of Site 42." It is unclear what effect this information has on the scope of work intended for Site 42. Additionally, information noted in the Work Plan, Section 1.0, "Introduction," page 1-2, third paragraph states "A Remedial Investigation (RI) identified localized "hot spots" containing ethyl benzene, toluene, and xylene indicating fuel-related contaminants in subsurface soils." Further information also cites the presence of TCE, several pesticides, SVOCs, VOCs, and some metals, including silver at Site 42.

b. Section 2.2, "Scope of Work" is confusing and difficult to follow. For example, the section starts by providing information for Site 17, then the third paragraph provides a listing of tasks that appear to apply to Site 42. This paragraph is not identified nor does it provide any narrative as noted in the first two paragraphs relating to Site 17.

Recommendations:

a. Revise the final site-specific health and safety plan to reflect what COPCs are anticipated on this site. The AHAs should specify which activity is associated with which COPCs.

b. Revise this entire section, identifying what information applies to which site and in an appropriate sequence, clearly delineating/distinguishing between the two sites. We recommend separate sections describing the details such as Section 2.2.1, "Site 17," and Section 2.2.2, "Olsen Road Landfill."

3. Page 3-1, Section 3.0, "Key Personnel and Management":

Comment: The fourth sentence of the second paragraph states, "The SS/SSO will be the main contact in any on-site emergency situation and will insure off-site emergency agencies have been contacted prior to start of work." Both of these officials are listed as "TBD." As this document is intended to be site-specific, the names of these company officials should be readily available.

Recommendation: Appoint an appropriate company official to fill this/these important post/s so that the important functions of the position can be accomplished in a timely manner.

4. Pages 4-1 through 4-19, Section 4.0, “Activity Hazards”:

Comments:

a. Pages 4-1 through 4-3, information provided in the table entitled “Levels of Site Contaminants” lists PAHs as site COPCs. Table 4-1 includes no information pertaining to these PAHs.

b. Section 4.2, “Hazard Communication,” cites 29 CFR 1926.59 as the guiding reference for hazard communication issues. The more appropriate citation is 29 CFR 1910.1200.

c. Section 4.2.3, “Employee Information and Training,” cites 29 CFR 1910.120 for HAZWOPER training information.

d. Section 4.4.1, “Heat Stress,” cites the “Shaw Health and Safety Procedure HS400, Working in Hot Environments” as outlining methods for preventing heat stress injuries. This document was not provided for review so we cannot comment on its completeness. However, information describing the signs, symptoms and the proper field treatment and management of heat stress injuries was not included in this HASP.

e. Page 4-6, Table 4.2, Guidelines For Work-Rest Periods Protection Level Number of Hours Before Rest Period”: Due to the short turn around time we were not able to evaluate the protection of the work-rest periods.

f. Pages 4-5 and 4-6, Section 4.4.1, “Heat Stress” fourth paragraph states “Each individual will count his/her radial (wrist) pulse as early as possible during each rest period. If the heart rate exceeds 75 percent of their calculated maximum heart rate (MHR = 200 – age) at the beginning of the rest period, then the cycle will be decreased by one-third.” Guidance provided in the ACGIH TLV/BEI, dated 2005, recommends the use of a heart rate (HR=180 –age) vice 200.

g. Section 4.7, “Activity Hazard Analysis”: The first sentence states “Attachment 3 contains Activity Hazard Analyses (AHA) for primary tasks.” The only AHA noted in Attachment 3 addresses the task of mobilization only. Guidance for drum handling, trenching, excavation, sampling, decontamination of heavy equipment, or other potential tasks are not provided.

Recommendations:

a. Include information relating to PAHs in the final HASP or provide the rationale for not doing so.

b. Revise the final plan to cite 29 CFR 1910.1200 for hazard communication guidance.

c. We recommend referencing both the 29 CFR 1910.120 and 29 CFR 1926.65 in the final health and safety plan.

d. Revise the final health and safety plan to include guidance describing the signs, symptoms and the proper field treatment and management of heat stress injuries. This information may be included as an appendix or attachment or by stating that HS400 will be available on-site for site-personnel use.

e. Ensure that the work/rest intervals are appropriate. We recommend the use of the heat stress monitoring guidelines found in the ACGIH Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposures Indices, dated 2004 or later. Additional heat stress guidance may be found in the NIOSH/OSHA/USCG/EPA *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, DHHS (NIOSH) Publication 85-115, October 1985 and the U. S. EPA *Standard Operating Safety Guides*, Publication 9285.1-03, June 1992.

f. We recommend revising the final HASP using the recommendations found in ACGIH guidelines.

g. Revise the final health and safety plan to include completed AHAs for all major tasks, such as drum handling, soil sampling, or trenching that will be performed under this scope of work. We recommend use of the three column format found in the U. S. Army Corps of Engineers Safety and Health Requirements Manual, page 8, Figure 1-2, EM 385-1-1, 2003, for its simplicity and ease of use to assist in ensuring completeness of the AHAs.

5. Page 6-1, Table 6.1, “Anticipated Protection Levels”:
Page 8-1, Table 8.1, “Direct Reading Air Monitoring Requirements”:

Comment: Guidance for “Site 17: Excavation of Materials and Drum Overpacking” directs the initial use of Level D/Modified Level D PPE with possible upgrade to Level B PPE if subsurface barrels or surface barrels containing unknown materials or liquids are encountered. Guidance noted in Table 8.2, “Direct Reading Air Monitoring Requirements” for Site 17 directs upgrade to Level B if an action level of greater than or equal to 1.0 ppm is noted. It is unclear what substance/s site workers are protecting against as no information is included stating what compound/s would generate this response.

Recommendation: Revise the final site-specific HASP to include information clearly stating what COPCs are being monitored.

6. Page 7-3, Section 7.3, “Disposal”:

Comment: The first sentence states, “All decontamination liquids and disposable clothing will be treated as contaminated waste unless determined otherwise by accepted testing methods.” It is unclear if this waste will be containerized until testing is completed to determine acceptable method/s of disposal.

Recommendation: Include information stating that all spent decontamination liquids will be containerized until test results are available.

7. Pages 8-1 through 8-5, Section 8.0, “Air Monitoring”:

Comment: On page 8-3, information provided in Section 8.2.1.3, entitled “Calibration Methods/Frequency” discusses the calibration of the combustible gas indicator (CGI) meter and “recommends” the CGI be calibrated before and after each use. Then on page 8-5, Section 8.4, entitled “Calibration Requirements,” the first sentence states, “The PID and the LEL/02/H2S will be calibrated daily before use.”

Recommendation: Revise the final HASP to clearly state that all direct reading air monitoring equipment will be calibrated daily before and after each period of use in accordance with manufacturers’ instructions and standard industrial hygiene practice.

8. Pages 9-1 through 9-15, Section 9.0, “Emergency Response”:

Comments:

a. Section 9.1, “Pre-Emergency Planning,” the third paragraph, third bullet states, “It will be the responsibility of the Site Supervisor to brief the on-site response team on anticipated hazards at the site. It is unclear what response team, Shaw employees or off-site emergency responders are being briefed. The Emergency Coordinator shall be responsible for anticipating and requesting equipment that will be needed for response activities.” Information provided in Section 3.1, “Project Safety Responsibilities,” the third sentence states “The SS/SSO will be the main contact in any emergency situation and will insure off-site emergency agencies have been contacted prior to the start of work.” It is unclear if the Site Supervisor and the Emergency Coordinator are different officials or one and the same official.

b. Reference is made in several areas of this section to a “Local Emergency Management Agency (EMA).” It is unclear what organization is being cited. The “Local Emergency Planning Committee (LEPC)” a standing committee required under SARA Title III, would be a more appropriate point of contact.

c. Page 9-3, Table 9.1, “Emergency Telephone Numbers”: A Regional Poison Control Center telephone number (800) 282-5846 could not be reached from the reviewers’ calling area. The National Poison Control Information Center (800) 222-1222 will place the caller in contact with the poison control center closest to where the call is placed. Further, the Center for Disease Control is listed as a Federal Point of Contact (POC). A more appropriate POC is the National Response Center at (800) 424-8802.

d. Section 9.3.6, “Evacuation Procedures,” second paragraph, third bullet states “Drills must be held annually, at a minimum, to practice all of these procedures and will be treated with the same seriousness as an actual emergency.”

e. Section 9.4.5, “Medical Emergency Contingency Measures”: The last sentence states, “A minimum of two first-aid/CPR trained personnel will be maintained on site.” It is unclear if the first-aid/CPR responders have also received Bloodborne Pathogens training as codified at 29 CFR 1910.1030.

f. Section 9.4.6, “Response, Life-Threatening Incident”: Information or guidance stating how a seriously injured, contaminated worker would be decontaminated is not included in this HASP. For example, the casualty would be wrapped in a blanket to prevent contamination of the ambulance and accompanied by a site officer to assist with decontamination at the medical facility.

Recommendations:

a. Revise the final HASP to clearly state what response group will be briefed, either Shaw Environmental or off-site responders. Use consistent terminology throughout the HASP to prevent confusion. Additionally, if Shaw Environmental employees will be providing emergency response, then information regarding their level of training; for example, first responder awareness level, first responder operations level, hazardous materials technician or hazardous materials specialist, must be included in the HASP.

b. Contact the project RPM to determine the correct point of contact. Include the telephone number for contacting the LEPC in the final HASP.

c. Revise the final HASP to include the more appropriate POCs and the correct telephone numbers. All emergency responders’ telephone numbers should be verified prior to the start of on-site operations.

d. Emergency response drills should be conducted as soon as feasible after a new site is activated. These drills or actual events must also be critiqued for lessons learned.

e. Revise the final HASP to include information stating the first-aid/CPR responders have received the Bloodborne Pathogens training in accordance with the requirements of 29 CFR 1910.1030.

f. Include guidance in the final HASP stating how a seriously injured contaminated worker would be managed.

9. Page 10-1, Section 10.0, “Training Requirements”:

Comments:

a. The third sentence of the first paragraph states “In addition, all personnel must receive annual 8-hour refresher training and three-day on-site training under a trained, experienced Superintendent.” The three-day on-site supervised training applies to the initial 40-hour training program and not the 8-hour refresher training cycle.

b. Information provided in the third paragraph cites 29 CFR 1926.59 as the guidance document requiring Hazard Communication training. The more appropriate citation is 29 CFR 1910.1200.

Recommendations:

- a. Revise the first paragraph to incorporate the three-day on-site training requirement under a trained, experienced, supervisor, vice Superintendent with the initial 40 hour HAZWOPER training. Additionally, revise the third sentence to read “In addition, all personnel must receive annual 8-hour refresher training.”

- b. Revise the final HASP to cite 29 CFR 1910.1200 as the Hazard Communication reference.

ACRONYMS

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|---------|-----------------------------------------------------------|
| ACGIH: | American Conference of Governmental Industrial Hygienists |
| ANSI: | American National Standards Institute |
| ATSDR: | Agency for Toxic Substances and Disease Registry |
| BBP: | Bloodborne Pathogen Program |
| COC: | Contaminant of Concern |
| CPR: | Cardiopulmonary Resuscitation |
| CRZ: | Contamination Reduction Zone |
| EIC: | Engineer-in-Charge |
| EMS: | Emergency Medical Service |
| EPA: | Environmental Protection Agency |
| EZ: | Exclusion Zone |
| HBV: | Hepatitis B Virus |
| HIV: | Human Immunodeficiency Virus |
| IDLH: | Immediately Dangerous to Life and Health |
| LEL | Lower Explosive Limit |
| 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 |
| PID: | Photoionization Device |
| 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 |