

**FINAL  
HEALTH AND SAFETY PLAN  
ADDENDUM TO THE  
FINAL HEALTH AND SAFETY PLAN  
(JULY 1991)**

**FOR  
RESIDUAL MANAGEMENT ACTIVITIES**

**COMPREHENSIVE LONG-TERM  
ENVIRONMENTAL ACTION NAVY (CLEAN)  
PROGRAM**

**CONTRACT NUMBER N62472-90-D-1298**

**APRIL 1992**





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R-49-2-92-11

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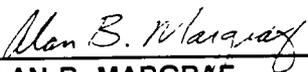
**Submitted to:  
Northern Division  
Environmental Branch, Code 14  
Naval Facilities Engineering Command  
Building 77-L, U.S. Naval Base  
Philadelphia, Pennsylvania 19112-5094**

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**CONTRACT NUMBER N62472-90-D-1298  
CONTRACT TASK ORDER 002**

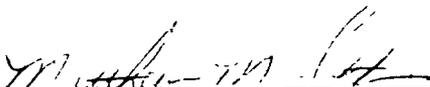
**APRIL 1992**

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## **1.0 INTRODUCTION**

This document is an addendum to the existing Health and Safety Plan (HASP) which covered HALLIBURTON NUS employees engaged in investigatory activities at the Naval Weapons Industrial Reserve Plant (NWIRP) in Calverton, New York. The existing Health and Safety Plan (July 1991) will serve as the general HASP for activities scheduled for March 1992. The general HASP, coupled with this addendum, will satisfy the requirements of OSHA Standard 29 CFR 1910.120. Neither of the aforementioned articles will serve as a stand-alone document for this particular task, therefore, site personnel must be cognizant of both general HASP and addendum requirements.

## **2.0 BACKGROUND**

The following background information was taken from the Site Investigation Work Plan addendum:

During July and August 1991, field activities for the Site Investigation (SI) were conducted. These activities included sampling of soils, sediments, groundwater, and surface water. As a result of these activities, 34 drums containing solid and liquid materials were generated and are stored on site in 55-gallon drums. Each drum was uniquely labeled for positive identification of the drummed contents. Furthermore, each drum was wrapped within plastic to isolate it from the environment.

## **3.0 SCOPE OF WORK**

The planned activities, taken from the SI Work Plan Addendum, are summarized as follows:

The contents of 15 drums will be consolidated into 11 drums, then treated and disposed via offsite incineration. The four emptied drums will be field-decontaminated and collected for recycling. The decontamination fluids and associated disposal decontamination equipment will also be consolidated for offsite treatment and disposal. Furthermore, solids from an upcoming water screening activity will be included with these 11 drums for offsite treatment and disposal.

A summary of the fate of the drums, drummed contents and drum locations can be found in the SI Work Plan Addendum.

A breakdown of activities by task, for the purposes of this addendum (not necessarily in order), is as follows:

- Task 1 - Spread the contents of 10 drums containing non-contaminated soils on site.
- Task2 - Transport nine drums of contaminated water to the onsite wastewater treatment facility.

Screen sizable solids from the contaminated water and consolidate the solids for offsite treatment and disposal.

- Task 3 - Consolidate the contaminated content of 15 drums containing contaminated soil, water, and PPE into 11 drums for offsite treatment and disposal.
- Task 4 - Decontaminate the four emptied drums which contained contaminated soils and consolidate decontamination fluids and associated disposal decontamination equipment for offsite treatment and disposal.

A more detailed Scope of Work for each task can be found in the SI Work Plan Addendum.

## **4.0 HAZARD ASSESSMENT**

Based on the scope of work, potential exposure to site contaminants (via inhalation, skin absorption, and/or ingestion) could occur during the planned activities, especially during drum consolidation. Exposure to various organic compounds could occur due to volatilization of contaminants during waste transfer activities. Exposure to contaminants could also occur via direct skin contact and/or inhalation/ingestion of airborne particulates.

### **4.1 HAZARD EVALUATION PER TASK**

- Task 1 - OnSite Soil Redeposition

These soils contain an insignificant amount of contaminants and, therefore, are being redeposited on site. A low hazard rating has been assigned to this task.

- Task 2 - OnSite Wastewater Disposal

This task presents a low to moderate hazard rating based on the potential of contact with contaminated water. Contact could occur while moving the drums (i.e., leaks, spills) or when pumping the water through the screen mesh sieve to separate coarse particles.

- Task 3 - Drum Contents Consolidation

Transferring/consolidating contaminated soil, water, and PPE from one drum to another presents exposure potentials via all routes of entry (i.e., inhalation, skin/eye contact, and ingestion). A moderate to high hazard rating has been assigned to this task.

- Task 4 - Decontamination of the Four Emptied Drums

Although the drums will have been emptied, residual material will still be present inside each drum. Decontamination will consist of the following procedure:

1. Tap water rinse
2. Nitric acid rinse
3. Tap water rinse
4. Methanol
5. Tap water

## 5.0 AIR MONITORING ACTION LEVELS

Continuous monitoring with an HNu photoionization detector equipped with a 10.2 eV probe will be conducted during all waste handling activities (e.g., drum consolidation, wastewater sieving, and decontamination efforts). Monitoring will be initiated at any potential source of emissions (i.e., inside drum), then moved to the worker's breathing zone if positive readings are observed at the source. The following action levels will be utilized to control inhalation exposure to contaminants:

PID  $\leq$  Background = Continue Monitoring

PID > Background = Monitor Breathing Zones (B.Z.)

PID > Background = Air purifying respirators with organic vapor and acid  
in B.Z.(sustained) gas/HEPA cartridges  
and/or dusty  
conditions evident

PID > 5.0 ppm (sustained in B.Z.) = Stop work, notify Health and Safety Department (Pittsburgh).

In addition, if any odors are perceived by the field team during the planned tasks, personnel will position themselves in an upwind position to avoid potential exposure to contaminants. If this strategy does not eliminate the odors, personnel will don air-purifying respirators equipped with organic vapor and acid gas/HEPA cartridges.

## **6.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS**

### **6.1 MINIMAL REQUIREMENTS**

All personnel must wear, as a minimum, steel-toe/hard-soled work boots and side-shielded safety glasses while on site. Hardhats will be worn in areas where they are required by the facility.

### **6.2 PPE REQUIREMENTS FOR EACH SITE TASK**

#### **6.2.1 Task 1**

No PPE, in addition to minimal requirements, is required for this task. Work gloves may be worn to protect the hands when removing drum rings and lids.

#### **6.2.2 Task 2**

When handling/transporting drums containing contaminated water, nitrile gloves are required to prevent skin contact with these liquids. Nitrile gloves must also be worn when pumping contaminated water through the sieve and, subsequently to handle any particles collected on the screen. PVC coveralls and a splash shield or goggles, should be worn if a splash potential exists or as needed to prevent saturation of work clothes. Respirators will be worn, if necessary, in accordance with the action levels set forth in Section 5.0 of this document.

#### **6.2.3 Task 3**

PPE required for drum contents consolidation will consist of standard Tyvek protective coveralls, latex inner gloves, nitrile outer gloves, boot covers, taped ankle/wrist seams, and respirators in accordance with the action levels set forth in Section 5.0. PVC coveralls may be necessary if splashing causes saturation of Tyvek.

#### **6.2.4 Task 4**

Decontamination of the four emptied drums will require the same protective clothing as described for Task 3. If respirators were required at any time during Task 3, they must be worn during decontamination efforts for this task.

### **7.0 SPILL PREVENTION AND CONTROL (SPC)**

In the performance of the planned site operations, spills of hazardous materials contained in 55-gallon drums could potentially occur. This section addresses the prevention and control measures for these types of incidents, as required by 1910.120 (b)(4)(J) and (j).

#### **7.1 SPC ACTIVITIES**

The following activities will be implemented to minimize the potential for spills and releases:

- Any site personnel using/transporting any containers on site will be responsible for performing visual inspections prior to initiating any such activities.
- All containers used on site will be properly labeled as to their contents. Any unlabeled containers discovered during site operations will be considered to contain hazardous materials and handled accordingly.
- The FOL will be responsible for organizing site operations to minimize the amount of container movement activities.
- Any site employees whose work tasks involve container handling activities will be informed of the potential hazards presented by the operations, and the importance of spill prevention prior to task initiation.
- Spill response equipment (i.e., absorbent materials) will be maintained on site, available for immediate use, in areas where spills, releases, or ruptures may occur.
- Containers which appear that they cannot be moved without rupture, leakage, or spillage will be properly emptied into a sound container using an appropriate device classified for the material being transferred.

- Portable fire extinguishers will be maintained on site, available for use and ready to control incipient stage fires. Extinguishers will be maintained on/in all site vehicles, with additional units at the site trailer and at the personal decontamination area.

## **8.0 PERSONNEL, TRAINING, AND MEDICAL SURVEILLANCE**

HALLIBURTON NUS employees who will be visiting the site to conduct these activities have received the initial 40 hours of Health and Safety Training and the necessary annual refresher training as specified in OSHA Standard 29 CFR 1910.120(e). In addition, HALLIBURTON NUS employees participate in the company medical monitoring program in accordance with 29 CFR 1910.120(f). Site-specific training will be conducted prior to work initiation and will include an overview of appropriate sections of the general HASP along with contents of this addendum.