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HEALTH AND SAFETY PLAN FOR DECONTAMINATION SERVICES BUILDING 1602
HAZARDOUS WASTE CONTAINER STORAGE FACILITY NS MAYPORT FL
6/1/2002
TETRA TECH NUS

Health and Safety Plan
for
Decontamination Services
Building 1602
Hazardous Waste Container
Storage Facility

Naval Station Mayport
Mayport, Florida



Southern Division
Naval Facilities Engineering Command
Contract No. N62467-94-D-0888
Contract Task Order 0267

June 2002

**HEALTH AND SAFETY PLAN
FOR
DECONTAMINATION SERVICES
BUILDING 1602
HAZARDOUS WASTE CONTAINER STORAGE FACILITY**

**NAVAL STATION MAYPORT
MAYPORT, FLORIDA**

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

**Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406**

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**CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0267**

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1.0 INTRODUCTION

This Health and Safety Plan (HASP) has been written to encompass site activities that are to be conducted at the Naval Station (NAVSTA) Mayport, Mayport, Florida as part of Contract Task Order (CTO) 0267. Specifically, this HASP addresses activities conducted as part of the Decontamination Services for Building 1602 Hazardous Waste Container Storage Facility within NAVSTA Mayport. This HASP is being prepared for NAVSTA Mayport as part of an overall effort conducted under Comprehensive Long-Term Environmental Action Navy (CLEAN) III contract administered through the United States Navy (Navy) Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), as defined under Contract Number N62467-94-D-0888. In addition to the HASP, a copy of the Tetra Tech NUS, Inc. (TtNUS) Environmental Health and Safety Guidance Manual must be present at the site during the performance of site activities. The Guidance Manual provides detailed information pertaining to the HASP, as well as TtNUS Standard Operating Procedures (SOPs). Both documents must be present at the site to comply with the requirements stipulated in the Occupational Safety and Health Administration (OSHA) Standard 29 Code of Federal Regulations (CFR) 1910.120.

This HASP has been developed using the latest available information regarding known or suspected chemical contaminants and potential physical hazards associated with the proposed work and site. The HASP will be modified if new information becomes available. Changes to the HASP will be made by the Project Health & Safety Officer (PHSO) and approved by the TtNUS Health and Safety Manager (HSM) and the Task Order Manager (TOM). The TOM will notify affected personnel of the changes.

The elements of this HASP are in compliance with the requirements established by OSHA 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response" (HAZWOPER), and sections of 29 CFR 1926, "Safety and Health Regulations for Construction". The information contained in this plan, as well as policies on conducting on-site operations, has been obtained from the TtNUS Health and Safety Program.

1.1 KEY PROJECT PERSONNEL AND ORGANIZATION

This section defines responsibility for site safety and health for TtNUS and subcontractor employees engaged in on-site activities. Personnel assigned to these positions will exercise the primary responsibility for the on-site health and safety. These persons will be the primary points of contact for any questions regarding the safety and health procedures and the selected control measures that are to be implemented for on-site activities.

- The TtNUS TOM is responsible for the overall direction of health and safety for this project.

- The PHSO is responsible for developing this HASP in accordance with applicable OSHA regulations. Specific responsibilities include:
 - i. Providing information regarding site contaminants and physical hazards associated with the site.
 - ii. Establishing air monitoring and decontamination procedures.
 - iii. Assigning personal protective equipment (PPE) based on task and potential hazards.
 - iv. Determining emergency response procedures and emergency contacts.
 - v. Stipulating training requirements and reviewing appropriate training and medical surveillance certificates.
 - vi. Providing standard work practices to minimize potential injuries and exposures associated with hazardous waste work.
 - vii. Modifying this HASP, as it becomes necessary.

- The TtNUS Field Operations Leader (FOL) is responsible for implementation of the HASP with the assistance of an appointed Site Safety Officer (SSO). The FOL manages field activities, executes the work plan, and enforces safety procedures as applicable to the work plan.

- The SSO supports site activities by advising the FOL on the aspects of health and safety on site. These duties may include:
 - i. Coordinating the health and safety activities with the FOL.
 - ii. Selecting, applying, inspecting, and maintaining PPE.
 - iii. Establishing work zones and control points in areas of operation.
 - iv. Implementing air-monitoring program for on-site activities.
 - v. Verifying training and medical clearance of on-site personnel status in relation to site activities.
 - vi. Implementing Hazard Communication, Respiratory Protection Programs, and other associated health and safety programs as they may apply to site activities.
 - vii. Coordinating emergency services.
 - viii. Providing site-specific training for on-site personnel.
 - ix. Investigating accidents and injuries (see Attachment I - Illness/Injury Procedure and Report Form).
 - x. Providing input to the PHSO regarding the need to modify, this HASP, or applicable health and safety associated documents as per site-specific requirements.

- Compliance with the requirements stipulated in this HASP is monitored by the SSO and coordinated through the TtNUS CLEAN HSM.

Note: In some cases one person may be designated responsibilities for more than one position. For example, at NAVSTA Mayport the FOL may also be responsible for SSO duties. This action will be performed only as credentials, experience, and availability permits.

1.2 SITE INFORMATION AND PERSONNEL ASSIGNMENTS

Site Name: NAVSTA Mayport **Address:** Mayport, Florida
Navy Engineer-in-Charge: Todd Daily **Phone Number:** (843) 820-5508
Facility Contact: Cheryl Mitchell **Phone Number:** (904) 270-6730

Purpose of Site Visit: This purpose of this project is to decontaminate the Hazardous Waste Storage Facility Building 1602 with high pressure cold water using a non ionic surfactant at 1500 to 2,500 pounds per square inch (psi) This activity includes sampling of the collected wash and rinse waters.(see Section 4.0)

Proposed Dates of Work: June 2002 until completion

Project Team:

TtNUS Personnel:

Terry Hansen, P.G.

TBD

Matthew M. Soltis, CIH, CSP

Clyde J. Snyder

TBD

Discipline/Tasks Assigned:

TOM

FOL

CLEAN HSM

PHSO

SSO

Non-TtNUS Personnel:

TBD

TBD

Affiliation/Discipline/Tasks Assigned:

Hazard Assessments (for purposes of 29 CFR 1910.132) and HASP preparation conducted by:
Clyde J. Snyder

TBD - To be determined

2.0 EMERGENCY ACTION PLAN

2.1 INTRODUCTION

This section is part of a planning effort to direct and guide field personnel in the event of an emergency. The site activities will be coordinated with NAVSTA Mayport emergency services prior to commencement. In the event of an emergency, which cannot be mitigated using on-site resources, personnel will evacuate to a safe place of refuge and the FOL will contact "911" to report the emergency. Site personnel may transport ill workers or those who have non-serious injuries to medical facilities, provided that such transport can be done safely. The emergency response agencies listed in this plan are capable of providing the most effective response, and as such, will be designated as the primary responders. These agencies are located within a reasonable distance from the area of site operations, which ensures adequate emergency response time. NAVSTA Mayport Emergency Dispatch will be notified anytime that outside response agencies are required. This Emergency Action Plan conforms to the requirements of 29 CFR 1910.38(a), as allowed in 29 CFR 1910.120(l)(1)(ii).

TtNUS will, through necessary services, include initial response measures for incidents such as:

- Initial fire-fighting support and prevention.
- Initial spill control and containment measures and prevention.
- Removal of personnel from emergency situations.
- Provision of initial medical support for injury/illness requiring only first-aid level support.
- Provision of site control and security measures as necessary.

2.2 EMERGENCY PLANNING

Through the initial hazard/risk assessment effort, injury or illness resulting from exposure to chemical or physical hazards are the most probable emergencies that can be encountered during site activities. The SSO and/or the FOL are responsible for minimizing and eliminating these potential emergency situations, pre-emergency planning activities associated with this project include the following.

- Coordinating response actions with NAVSTA Mayport Emergency Services personnel to ensure that TtNUS emergency action activities are compatible with existing facility emergency response procedures.
- Establishing and maintaining information at the project staging area (Support Zone) for easy access in the event of an emergency. This information includes the following:
 - Chemical Inventory (for substances used on site), with Material Safety Data Sheets (MSDS).

- On-site personnel medical records (medical data sheets).
 - A logbook identifying personnel on site each day.
 - Emergency notification phone numbers in the site vehicles.
-
- Identifying a chain of command for emergency action.

 - Educating site workers to the hazards and control measures associated with planned activities at the site, and providing early recognition and prevention, where possible.

It is the responsibility of the TtNUS FOL to ensure that this information is available and present at the site.

2.3 EMERGENCY RECOGNITION AND PREVENTION

2.3.1 Recognition

Foreseeable emergency situations that may be encountered during site activities will generally be recognizable by visual observation. A clear knowledge of the signs and symptoms of overexposure to contaminants of concern may alert personnel of the potential hazards concerning themselves or their fellow workers. These potential hazards, the activities with which they have been associated, and the recommended control methods are discussed in detail in sections 5.0 and 6.0 of this document. Additionally, early recognition will be supported by periodic site surveys to eliminate any conditions that may predispose site personnel or properties to an emergency. These surveys will consist of ensuring:

The FOL and the SSO will constitute the site evaluation committee responsible for these periodic surveys. A site survey will be conducted during the initiation of this effort. The survey will be documented.

2.3.2 Prevention

TtNUS and subcontractor personnel will minimize the potential for emergencies by ensuring compliance with the HASP, the Health and Safety Guidance Manual, applicable OSHA regulations, and by following directions given by those persons responsible for the health, safety, and welfare of personnel.

2.4 SAFE DISTANCES AND PLACES OF REFUGE

In the event that the site must be evacuated, personnel will immediately stop activities and report to a pre-determined safe place of refuge. The safe place of refuge may also serve as the telephone communication point, as communication with emergency response agencies may be necessary. Telephone communication points and safe places of refuge will be determined prior to the commencement of site activities and will be conveyed to personnel as part pre-site training. Upon

reporting to the refuge location, personnel will remain there until directed otherwise by the TtNUS FOL or the On-Scene Incident Commander. The FOL will take a head count at this location to confirm the presence of site personnel. Emergency response agencies will be notified of any unaccounted for personnel.

2.5 EVACUATION ROUTES AND PROCEDURES

Once an evacuation is initiated, personnel will proceed immediately to the designated place of refuge, unless doing so would further jeopardize the welfare of workers. In such an event, personnel will proceed to a designated alternate location (to be identified) and remain there until further notification from the FOL. The use of these locations as assembly points provides communication and a direction point for emergency services, should they be needed.

Evacuation procedures will be discussed prior to the initiation of any work at the site. This shall include identifying primary and secondary evacuation routes and assembly points. Evacuation routes from the site are dependent upon the location at which work is being performed and the circumstances under which an evacuation is required. Additionally, site location and meteorological conditions (i.e., wind speed and direction) will influence the designation of evacuation routes. As a result, assembly points at NAVSTA Mayport will be selected, and in the event of an emergency, field personnel will proceed to these points by the most direct route possible without further endangering themselves.

2.6 EMERGENCY ALERTING AND ACTION/RESPONSE PROCEDURES

Since TtNUS personnel will not always be working in the proximity of each other, hand signals, voice commands, air horns, and/or two-way radios may comprise the mechanisms to alert site personnel of an emergency.

If an incident occurs, site personnel will initiate the following procedures:

- Initiate incident alerting procedures (if needed) verbally, by air horn, or using two-way radios.
- Evacuate non-essential personnel.
- Initiate initial response procedures.
- Describe to the FOL (who will serve as the Incident Commander) what has occurred in as much detail as possible.

In the event that site personnel cannot control the incident through offensive and/or defensive measures, the FOL and/or the SSO will enact emergency notification procedure to secure additional outside assistance in the following manner:

- Report the emergency to the NAVSTA Mayport Emergency Dispatch (See Table 2-1) by calling “911”.
- Give the emergency operator the location of the emergency and a brief description of what has occurred.
- Stay on the phone; follow the instructions given by the operator.
- The appropriate agency will be notified and dispatched.
- Call the Navy On-Site Representative.
- Call the TOM.

If an incident occurs outside of our designated operating areas impacting field personnel, the following procedures are to be initiated:

- Initiate an evacuation (if needed) by voice commands, hand signals, air horns, or two-way radio.
- Call the Navy On-Site Representative.
- Proceed to the assembly points as directed by NAVSTA Mayport or other Navy personnel.

2.7 EMERGENCY CONTACTS

Prior to performing work at the site, personnel will be thoroughly briefed on the emergency procedures to be followed in the event of an incident. A cellular phone shall be available at the site. Table 2-1 provides a list of emergency contacts and their corresponding telephone numbers. These numbers will be used for the site to be visited during this project. This table must be readily available to personnel at the site.

TABLE 2-1
EMERGENCY CONTACTS
NAVSTA MAYPORT

| AGENCY | TELEPHONE |
|--|--|
| NAVSTA Mayport - Emergency Dispatch | 911 |
| EMERGENCY (outside services) (Police, Fire, and Ambulance Services) | 911 or (904) 270-5333 |
| Base Security | (904) 270-5583 or (904) 270-5584 |
| Base Medical Center (for life threatening emergencies only) | (904) 270-5444 |
| Memorial Health Care Center (for other emergencies) | (904) 858-7500 |
| Base Safety Department | (904) 270-5218 |
| Site Point of Contact, Ms. Cheryl Mitchell | (904) 270-6730 ext. 201 (904) 223-1808 (home) (904) 812-2698 (pager) |
| Public Works Trouble Desk (for utility problems) | (904) 542-2122 |
| Sunshine State Utility One-Call of Florida | (800) 432-4770 |
| Naval Station Operator (for information) | (904) 270-5011 |
| Poison Control Center | (800) 222-1222 |
| Chemtrec | (800) 424-9300 |
| National Response Center | (800) 424-8802 |
| TtNUS Jacksonville Office | (904) 281-0400 |
| Task Order Manager - Terry Hansen, P.G., Tallahassee Office | (850) 385-9899 |
| CLEAN Health and Safety Manager Matthew M. Soltis, CIH, CSP | (412) 921-8912 |
| Project Health and Safety Officer Clyde J. Snyder | (412) 921-8904 |
| WorkCare | (800)-455-6155 (enter Ext. 109) |

Note: When calling base telephone numbers from within the base (i.e., from an on-base telephone), dial a zero (0) and the last four digits of the telephone number. For example, to contact the Base Medical Clinic dial 05444.

2.8 ROUTE TO HOSPITALS

For emergency care only, non-Navy personnel are permitted to go to the Base Medical Center.

Branch Medical Clinic
NAVSTA Mayport
Mayport, FL 32228

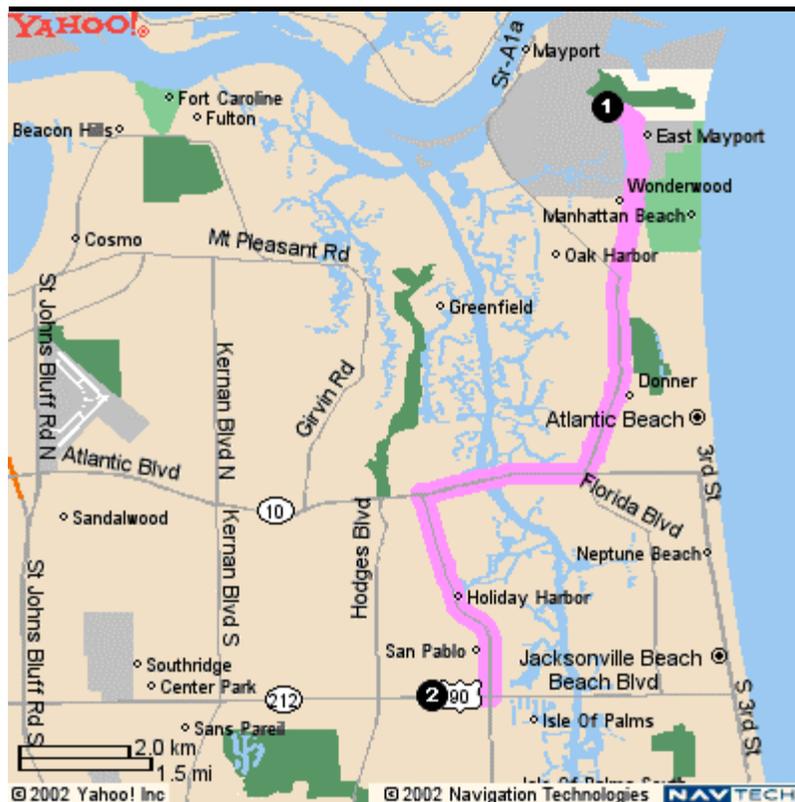
The Base Medical Clinic should be used for life-threatening emergencies only. It is located in Building 1363 on Massey Avenue.

For non-emergency care services:

Memorial Health Care Center
14444 Beach Blvd
Jacksonville, Florida 32202
(904) 858-7500

Memorial Health Care Center will be used for medical care beyond basic first aid treatment. Directions to the Center: Exit base, take Mayport Road (A1A) to Atlantic Blvd. Take a right onto Atlantic Blvd. across the Intercoastal Waterway. At the first intersection, take a left onto San Pablo Blvd. The Medical Center is at the intersection of San Pablo Blvd. and Beach Blvd (14444 Beach Blvd.). See Figure 2-1 "Route to Memorial Health Care Center".

Figure 2-1
Route to Memorial Health Care Center



2.9 DECONTAMINATION PROCEDURES/EMERGENCY MEDICAL TREATMENT

During any site evacuation, decontamination procedures will be performed only if doing so does not further jeopardize the welfare of site workers. Decontamination will not be performed if the incident warrants immediate evacuation. However, it is unlikely that an evacuation would occur which would require workers to evacuate the site without first performing the necessary decontamination procedures.

TtNUS personnel will perform removal of personnel from emergency situations and may provide initial medical support for injury/illnesses requiring only first-aid level support. Medical attention above that level will require assistance and support from the designated emergency response agencies. **If the emergency involves personnel exposures to chemicals, follow the steps provided in Figure 2-2.**

2.10 INJURY/ILLNESS REPORTING

If any TtNUS personnel are injured or develop an illness as a result of working at the site, the TtNUS "Injury/Illness Procedure" (Attachment I) must be followed. Following this procedure is necessary for documenting the information obtained at the time of the incident.

Any pertinent information regarding allergies to medications or other special conditions will be provided to medical service personnel. This information is listed on Medical Data Sheets (Attachment II) filed on site. If an exposure to hazardous materials has occurred, provide information on the chemical, physical, and toxicological properties of the subject chemical(s) to medical service personnel.

FIGURE 2-2 EMERGENCY RESPONSE PROTOCOL

The purpose of this protocol is to provide guidance for the medical management of exposure situations.

In the event of a personnel exposure to a hazardous substance or agent:

- Rescue, when necessary, employing proper equipment and methods.
- Give attention to emergency health problems -- breathing, cardiac function, bleeding, and shock.
- Transfer the victim to the medical facility designated in this HASP by suitable and appropriate conveyance (i.e. ambulance for serious events)
- Obtain as much exposure history as possible (a Potential Exposure report is attached).
- If the exposed person is a TtNUS employee, call the medical facility and advise them that the patient(s) is/are being sent and that they can anticipate a call from the WorkCare physician. WorkCare will contact the medical facility and request specific testing which may be appropriate. WorkCare physicians will monitor the care of the victim. Site officers and personnel should not attempt to get this information, as this activity leads to confusion and misunderstanding.
- Call WorkCare at 1-800-455-6155 (enter Ext. 109), or follow the voice prompt for after hours and weekend notification, and be prepared to provide:
 - Any known information about the nature of the exposure.
 - As much of the exposure history as was feasible to determine in the time allowed.
 - Name and phone number of the medical facility to which the victim(s) has/have been taken.
 - Name(s) of the exposed Tetra Tech NUS, Inc. employee(s).
 - Name and phone number of an informed site officer who will be responsible for further investigations.
 - Fax appropriate information (e.g., MSDS) to WorkCare at (714) 456-2154.
 - Contact Corporate Health and Safety Department (Matt Soltis) at 1-800-245-2730.
 - Contact Corporate Human Resources Manager (Marilyn Duffy) at 412-921-8475.

As environmental data is gathered and the exposure scenario becomes more clearly defined, this information should be forwarded to WorkCare. WorkCare will compile the results of the data and provide a summary report of the incident. A copy of this report will be placed in each victim's medical file in addition to being distributed to appropriately designated company officials.

Each involved worker will receive a letter describing the incident but deleting any personal or individual comments. This generalized summary will be accompanied by a personalized letter describing the individual's findings/results. A copy of the personal letter will be filed in the continuing medical file maintained by WorkCare.

FIGURE 2-2 (continued)
POTENTIAL EXPOSURE REPORT

Name: _____ Date of Exposure: _____

Social Security No.: _____ Age: _____ Sex: _____

Client Contact: _____ Phone No.: _____

Company Name: _____

I. Exposing Agent

Name of Product or Chemicals (if known): _____

Characteristics (if the name is not known)

Solid Liquid Gas Fume Mist Vapor

II. Dose Determinants

What was individual doing? _____

How long did individual work in area before signs/symptoms developed? _____

Was protective gear being used? If yes, what was the PPE? _____

Was their skin contact? _____

Was the exposing agent inhaled? _____

Were other persons exposed? If yes, did they experience symptoms? _____

III. Signs and Symptoms (check off appropriate symptoms)

Immediately With Exposure:

Burning of eyes, nose, or throat
Tearing
Headache
Cough
Shortness of Breath

Chest Tightness / Pressure
Nausea / Vomiting
Dizziness
Weakness

Delayed Symptoms:

Weakness
Nausea / Vomiting
Shortness of Breath
Cough

Loss of Appetite
Abdominal Pain
Headache
Numbness / Tingling

IV. Present Status of Symptoms (check off appropriate symptoms)

Burning of eyes, nose, or throat
Tearing
Headache
Cough
Shortness of Breath
Chest Tightness / Pressure
Cyanosis

Nausea / Vomiting
Dizziness
Weakness
Loss of Appetite
Abdominal Pain
Numbness / Tingling

Have symptoms: (please check off appropriate response and give duration of symptoms)

Improved: _____ Worsened: _____ Remained Unchanged: _____

V. Treatment of Symptoms (check off appropriate response)

None: _____ Self-Medicating: _____ Physician Treated: _____

3.0 SITE BACKGROUND

3.1 NAVSTA MAYPORT

NAVSTA Mayport is located within the corporate limits of the City of Jacksonville, Duval County, Florida, and approximately 12 miles to the northeast of downtown Jacksonville and adjacent to the town of Mayport. The station complex is located on the northern end of a peninsula bounded by the Atlantic Ocean to the east and the St. Johns River to the north and west.

3.2 BUILDING 1602

Building 1602 is a 3800 square foot single story building, which is divided into seven separate container storage bays with spill containment sumps, a safety equipment bay, and a center isle. Building 1602 is designed for a maximum storage capacity of 480 55-gallon drums for a total volume of 26,400 gallons. Containers ranging in size from 1 gallon to 85 gallons, or up to 90 gallons for over-packed drums, were used for storage of hazardous wastes in this building. The NAVSTA Mayport has been authorized to close the hazardous waste storage facility. The purpose of this project is to decontaminate the walls and floor system with high-pressure cold water.

4.0 SCOPE OF WORK

The following activities are covered in this HASP for the CTO 0267 project:

- Mobilization/Demobilization
- Decontamination of walls and floor of Building 1602
- Multi-media sampling, including:
 - Decontamination Waters
 - Soil around building perimeter
- Surveying
- Investigative-Derived Waste (IDW) Management

Any tasks to be conducted outside of the elements listed here will be considered a change in scope requiring modification of this document. The requested modifications to this document will be submitted to the HSM by the TOM or a designated representative.

5.0 TASKS/HAZARDS/ASSOCIATED CONTROL MEASURES SUMMARIZATION

Table 5-1 of this section serves as the primary portion of the site-specific HASP which identifies the tasks that are to be performed as part of the scope of work. This table will be modified and incorporated into this document as new or additional tasks are performed at the site. The anticipated hazards, recommended control measures, air-monitoring recommendations, PPE, and decontamination measures for this task are discussed in detail. This table and the associated control measures shall be changed, if the scope of work, contaminants of concern, or other conditions change.

Through using the table, site personnel can determine which hazards are associated with each task and at each site and what associated control measures are necessary to minimize potential exposure or injuries related to those hazards. The table also assists field team members in determining which PPE and decontamination procedures to use based on proper air monitoring techniques and site-specific conditions.

A Health and Safety Guidance Manual accompanies this table and HASP. The manual is designed to further explain supporting programs and elements for other site-specific aspects as required by 29 CFR 1910.120. The Guidance Manual should be referenced for additional information regarding air monitoring instrumentation, decontamination activities, emergency response, hazard assessments, hazard communication and hearing conservation programs, medical surveillance, PPE, respiratory protection, site control measures, standard work practices, and training requirements. Many of TtNUS' SOPs are also provided in this Guidance Manual.

Safe Work Permits issued for the Exclusion Zone activities (See Section 9.4 and Attachment III) will use elements defined in Table 5-1 as it's primary reference. The FOL and/or the SSO completing the Safe Work Permit will add additional site-specific information. In situations where the Safe Work Permit is more conservative than the direction provided in Table 5-1 due to the incorporation of site-specific elements, the Safe Work Permit will be followed. Partially completed Safe Work Permits are included in Attachment III of this HASP.

5.1 GENERAL SAFE WORK PRACTICES

In addition to the task-specific work practices identified on Table 5-1, the following safe work practices are to be followed when conducting work on site. These safe work practices address a pattern of general precautions and measures for reducing risks associated with site operations. This is a partial list and may be amended as necessary.

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**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES COMPENDIUM
NAVSTA MAYPORT, MAYPORT, FLORIDA**

| Tasks/Operation/ Locations | Anticipated Hazards | Recommended Control Measures | Hazard Monitoring | Personal Protective Equipment <i>(Items in italics are deemed optional as conditions or the FOL or SSO require.)</i> | Decontamination Procedures |
|--|---|---|--|--|---|
| Mobilization/ Demobilization | <p>Chemical hazards:</p> <p>1) Exposure to potential site contaminants is not anticipated during this activity. However, chemicals brought on site in support of field activities are to be identified, inventoried, accompanied by an appropriate MSDS, properly stored, and evaluated for purposes of hazard communication.</p> <p>Physical hazards:</p> <p>2) Lifting (strain/muscle pulls) 3) Pinches and compressions 4) Slip, trips, and falls 5) Equipment hazards (Pressure Washers, etc.) 6) Vehicular and foot traffic 7) Ambient temperature extremes (heat stress)</p> <p>Natural hazards:</p> <p>8) Insect/animal bites and stings</p> | <p>1) To eliminate potential chemical hazards associated with this task ensure the following:</p> <ul style="list-style-type: none"> - A chemical inventory list must be generated and maintained for all chemicals brought on site (Complete Section 5.0 of the TtNUS Health and Safety Guidance Manual). - MSDS must be available for all chemicals brought on site. - Materials are to be stored in accordance with recommended practices and according to compatibility (See MSDS for storage and compatibility recommendations). <p>2) Use machinery or multiple personnel for heavy lifts. Use proper lifting techniques.</p> <p>3) Keep any machine guarding in place. Avoid moving parts. Use tools or equipment where necessary to avoid contacting pinch points.</p> <p>4) Preview work locations for unstable/uneven terrain.</p> <p>5) All equipment will be</p> <ul style="list-style-type: none"> - Inspected in accordance with OSHA, and manufacturer's design. - Operated by knowledgeable operators, and knowledgeable crew. <p>6) Traffic and equipment considerations are to include the following:</p> <ul style="list-style-type: none"> - Establish safe zones of approach. - Secure all loose articles to avoid possible entanglement. - All equipment shall be equipped with movement warning systems (except pressure washers). - All activities are to be conducted consistent with the Base requirements. <p>7) Wear appropriate clothing for weather conditions. Provide acceptable shelter and liquids for field crews. Additional information regarding cold/heat stress concerns is provided in Section 4 of the TtNUS Health and Safety Guidance Manual.</p> <p>8) Avoid nesting areas, use repellents. Report potential hazards to the SSO. Follow guidance presented in Section 4 of the Health and Safety Guidance Manual.</p> | <p>Not required</p> | <p>Level D - (Minimum Requirements)</p> <ul style="list-style-type: none"> - Standard field attire (Sleeved shirt; long pants) - Steel toe safety shoes - Safety glasses - Hardhat (when overhead hazards exists, or identified as a operation requirement) - Reflective vest for high traffic areas - Hearing protection for high noise areas, or as directed on an operation-by-operation scenario. <p>Note: The Safe Work Permit(s) for this task (see Attachment III) will be issued at the beginning of each day to address the tasks planned for that day. As part of this task, additional PPE may be assigned to reflect site-specific conditions or special considerations or conditions associated with any identified task.</p> | <p>Not required</p> |
| Multi-media sampling, including, subsurface soil and decontamination water sampling. | <p>Chemical hazards:</p> <p>1) At the time that this HASP was prepared there was limited information regarding the types of chemicals and hazardous materials that were stored in Building 1602. However, the facility is not a large generator of hazardous wastes and there is no information or evidence suggesting significant spills within the building. Possible hazardous wastes that were previously stored in Building 1602 may include solvents, fuels, paints, pesticides, herbicides, Polychlorinated biphenyls (PCBs), acids, bases, and metals. Air monitoring, the use of PPE and implementation of proper decontamination practices will be used to prevent potential exposures.</p> <p>2) Transfer of contamination into clean areas</p> <p>Physical hazards:</p> <p>3) Lifting (strain/muscle pulls) 4) Pinches and compressions 5) Slip, trips, and falls 6) Ambient temperature extremes (heat stress) 7) Vehicular and foot traffic</p> | <p>1) Use real-time monitoring instrumentation, action levels, and identified PPE to control exposures to potentially contaminated media (water, soils, etc.). Termination of activities may be used to minimize exposure to site contaminants.</p> <p>2) Establish the Exclusion Zone for this activity at 10 feet surrounding sample location and the entire Building 1602. Decontaminate all equipment and supplies between sampling locations and prior to leaving the site.</p> <p>3) Use machinery or multiple personnel for heavy lifts. Use proper lifting techniques.</p> <p>4) Keep any machine guarding in place. Avoid moving parts. Use tools or equipment where necessary to avoid contacting pinch points.</p> <p>5) Preview work locations for unstable/uneven terrain.</p> <p>6) Wear appropriate clothing for weather conditions. Provide acceptable shelter and liquids for field crews. Additional information regarding cold/heat stress concerns is provided in Section 4 of the TtNUS Health and Safety Guidance Manual.</p> <p>7) Traffic and equipment considerations are to include the following:</p> <ul style="list-style-type: none"> - Establish safe zones of approach. - Secure all loose articles to avoid possible entanglement. - All equipment shall be equipped with movement warning systems (except pressure washer). - All activities are to be conducted consistent with the Base requirements. | <p>Direct reading instrument such as a Photoionization Detector (PID) with an 10.6 eV source (or higher) will be used as a general screening instrument to detect volatile organic compounds.</p> <p>Source areas (sample locations, building space) will be monitored using a PID. Monitoring shall be performed periodically as the decontamination process proceeds. Any positive sustained results which may impact the decontamination crew will require the following actions:</p> <p>Monitor the breathing zone of at-risk employees. Any sustained reading (greater than 1 minute in duration) above 1 part-per-million (ppm) in worker breathing zones requires site activities to be suspended and site personnel to report to an unaffected area.</p> <p>Work may only resume if airborne readings in worker breathing zone return to background levels. If readings do not subside, contact the PHSO for further guidance.</p> | <p>Level D protection will be utilized for the initiation of all sampling activities.</p> <p>Level D - (Minimum Requirements)</p> <ul style="list-style-type: none"> - Standard field attire (Sleeved shirt; long pants) - Steel toe safety shoes - Safety glasses - Surgical style gloves (double-layered if necessary) - Reflective vest for high traffic areas - Hardhat (when overhead hazards exists, or identified as a operation requirement) - Tyvek coveralls and disposable boot covers if surface contamination is present or if the potential for soiling work attire exists. - Hearing protection for high noise areas, or as directed on an operation-by-operation scenario. <p>Note: The Safe Work Permit(s) for this task (see Attachment III) will be issued at the beginning of each day to address the tasks planned for that day. As part of this task, additional PPE may be assigned to reflect site-specific conditions or special considerations or conditions associated with any identified task.</p> | <p>Personnel Decontamination will consist of a removal and disposal of non-reusable PPE (gloves, coveralls, etc., as applicable). The decon function will take place at an area adjacent to the site activities. This procedure will consist of:</p> <ul style="list-style-type: none"> - Equipment drop - Outer coveralls, boot covers, and/or outer glove removal (as applicable) - Removal, segregation, and disposal of non-reusable PPE in bags/containers provided - Soap/water wash and rinse of reusable PPE (e.g., hardhat) if potentially contaminated - Wash hands and face, leave contamination reduction zone. |

**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES COMPENDIUM
NAVSTA MAYPORT, MAYPORT, FLORIDA**

| Tasks/Operation/ Locations | Anticipated Hazards | Recommended Control Measures | Hazard Monitoring | Personal Protective Equipment <i>(Items in italics are deemed optional as conditions or the FOL or SSO require.)</i> | Decontamination Procedures |
|---|---|--|---|---|--|
| <p>Building 1602 Decontamination and decontamination of Sampling and Equipment.</p> | <p>Chemical hazards:</p> <p>1) At the time that this HASP was prepared there was limited information regarding the type of chemicals and hazardous materials that were stored in Building 1602. However the facility is not a large generator of hazardous wastes and there is no information or evidence suggesting significant spills within the building. Possible hazardous wastes that were stored in Building 1602 include solvents, fuels, paints, pesticides, herbicides, PCBs, Acids, bases, and metals.</p> <p>2) Decontamination fluids - Liquinox (detergent), acetone or isopropanol</p> <p>Physical hazards:</p> <p>3) Lifting (strain/muscle pulls) 4) Noise in excess of 85 decibels (dBA) 5) Flying projectiles 6) Vehicular and foot traffic 7) Slips, trips, and falls 8) Ambient temperature extremes (heat stress)</p> | <p>1) and 2) Employ protective equipment to minimize contact with site contaminants and hazardous decontamination fluids. Establish the exclusion zone for this activity at least 10 feet surrounding Building 1602. Obtain manufacturer's MSDS for any decontamination solvents used on site. Use appropriate PPE as identified on MSDS. All chemicals used must be listed on the Chemical Inventory for the site, and site activities must be consistent with the Hazard Communication section of the Health and Safety Guidance Manual (Section 5).</p> <p>3) Use multiple persons where necessary for lifting and handling sampling equipment for decontamination purposes.</p> <p>4) Wear hearing protection when operating pressure washer.</p> <p>5) Use eye and face protective equipment when operating pressure washer. All other personnel must be restricted from the area.</p> <p>6) Traffic and equipment considerations are to include the following: - Establish safe zones of approach (10 feet surrounding Building 1602). - Secure all loose articles to avoid possible entanglement. - All equipment shall be equipped with movement warning systems (except pressure washer). - All activities are to be conducted consistent with the Base requirements.</p> <p>7) Preview work locations for unstable/uneven terrain and wet flooring causing a slip hazard.</p> <p>8) Wear appropriate clothing for weather conditions. Provide acceptable shelter and liquids for field crews. Additional information regarding heat stress concerns is provided in Section 4 of the TiNUS Health and Safety Guidance Manual.</p> | <p>Direct reading instrument such as a Photoionization Detector (PID) with an 10.6 electron volts (eV) source (or higher) will be used as a general screening instrument to detect volatile organic compounds (VOCs).</p> <p>Source areas (sample locations, building space) will be monitored using a PID. Monitoring shall be performed periodically as the decontamination process proceeds. Any positive sustained results which may impact the decontamination crew will require the following actions:</p> <p>Monitor the breathing zone of at-risk employees. Any sustained reading (greater than 1 minute in duration) above 1 ppm in worker breathing zones requires site activities to be suspended and site personnel to report to an unaffected area.</p> <p>Work may only resume if airborne readings in worker breathing zone return to background levels. If readings do not subside, contact the PHSO for further guidance.</p> <p>Use visual observation, and real-time monitoring instrumentation to ensure that the building is free of contamination. To ensure that all equipment has been properly cleaned of contamination. After decontamination is completed, screen equipment with a PID. If any elevated readings (i.e., above background) are observed, perform decon again and re-screen. Repeat until no elevated PID readings are noted.</p> | <p>For Equipment This applies to high pressure cold soap/water, cleaning wash and rinse procedures.</p> <p>Level D Minimum requirements - - Standard field attire (Long sleeve shirt; long pants) - Steel toe safety shoes - Chemical resistant boot covers - Nitrile outer gloves - Hard Hat - PVC Rainsuits or PE or PVC coated Tyvek - Safety glasses underneath a splash shield - Hearing protection (plugs or muffs)</p> <p>For sampling equipment (trowels, MacroCore Samplers, bailers, etc.), the following PPE is required</p> <p>Level D Minimum requirements - - Standard field attire (Long sleeve shirt; long pants) - Safety shoes (Steel toe/shank) - Nitrile outer gloves - Safety glasses</p> <p>In the event of overspray of chemical decontamination fluids employ PVC Rainsuits or polyethylene (PE) or polyvinyl chloride (PVC) coated Tyvek as necessary.</p> <p>Note: The Safe Work Permit(s) for this task (see Attachment III) will be issued at the beginning of each day to address the tasks planned for that day. As part of this task, additional PPE may be assigned to reflect site-specific conditions or special considerations or conditions associated with any identified task.</p> | <p>Personnel Decontamination will consist of a soap/water wash and rinse for reusable outer protective equipment (boots, gloves, PVC splash suits, as applicable). The decon function will take place at an area adjacent to the site activities. This procedure will consist of: - Equipment drop - Soap/water wash and rinse of outer boots and gloves, as applicable - Soap/water wash and rinse of the outer splash suit, as applicable - Disposable PPE will be removed and bagged.</p> <p>Equipment Decontamination - All equipment decontamination will take place at a centralized decontamination pad immediately outside Building 1602 utilizing a pressure washer with cold water. Heavy equipment will have the wheels and tires cleaned along with any loose debris removed, prior to transporting to the central decontamination area. All site vehicles will have restricted access to exclusion zones, and have their wheels/tires sprayed off as not to track mud onto the roadways servicing this installation. Roadways shall be cleared of any debris resulting from the on-site activity.</p> <p>Sampling Equipment Decontamination - Sampling equipment will be decontaminated as per the requirements in the Sampling and Analysis Plan and/or Work Plan.</p> <p>MSDS for any decon solutions (Alconox, isopropanol, etc.) will be obtained and used to determine proper handling / disposal methods and protective measures (PPE, first-aid, etc.).</p> <p>All equipment used in the exclusion zone will require a complete decontamination between locations and prior to removal from the site.</p> <p>The FOL or the SSO will be responsible for evaluating equipment arriving on site and leaving the site. No equipment will be authorized access or exit without this evaluation.</p> |

**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES COMPENDIUM
NAVSTA MAYPORT, MAYPORT, FLORIDA**

| Tasks/Operation/ Locations | Anticipated Hazards | Recommended Control Measures | Hazard Monitoring Type and Action Levels | Personal Protective Equipment <i>(Items in italics are deemed optional as conditions or the FOL or SSO require.)</i> | Decontamination Procedures |
|---|--|--|---|---|---|
| <p>IDW management and moving IDW drums to storage areas</p> | <p>Chemical hazards: 1) At the time that this HASP was prepared there was limited information regarding the type of chemicals and hazardous materials that were stored in Building 1602. However the facility is not a large generator of hazardous wastes and there is no information or evidence suggesting significant spills within the building. Possible hazardous wastes that were stored in Building 1602 include solvents, fuels, paints, pesticides, herbicides, PCBs, acids, bases, and metals.</p> <p>2) Transfer of contaminants to unaffected areas.</p> <p>Physical hazards: 3) Noise in excess of 85 dBA 4) Lifting (strain/muscle pulls) 5) Pinches and compressions 6) Slip, trips, and falls 7) Vehicular and foot traffic 8) Ambient temperature extremes (heat stress)</p> <p>Natural hazards: 9) Insect/animal bites and stings</p> | <p>1) Employ real-time monitoring instrumentation, action levels, and identify PPE to control exposures to potentially contaminated media (e.g. air, water, soils).</p> <p>2) An IDW area will be constructed and barricaded. Only authorized personnel will be allowed access. Decontaminate all equipment and supplies, if they become contaminated, between locations and prior to leaving the site.</p> <p>3) When working near heavy equipment, use hearing protection.</p> <p>4) Use machinery or multiple personnel for heavy lifts. Use proper lifting techniques.</p> <p>5) Keep any machine guarding in place. Avoid moving parts. Use tools or equipment where necessary to avoid contacting pinch points.</p> <p>6) Preview work locations for unstable/uneven terrain.</p> <p>7) Traffic and equipment considerations are to include the following: - Establish safe zones of approach (10 feet around Building 1602). - Secure all loose articles to avoid possible entanglement. - All equipment shall be equipped with movement warning systems. - All activities are to be conducted consistent with the Base requirements.</p> <p>8) Wear appropriate clothing for weather conditions. Provide acceptable shelter and liquids for field crews. Additional information regarding heat stress concerns is provided in Section 4 of the TiNUS Health and Safety Guidance Manual.</p> <p>9) Avoid nesting areas, use repellents. Report potential hazards to the SSO. Follow guidance presented in Section 4 of the Health and Safety Guidance Manual.</p> | <p>Direct reading instrument such as a PID with an 10.6 eV source (or higher) will be used as a general screening instrument to detect VOCs and to evaluate airborne concentrations of potential site contaminants:</p> <p>Source areas IDW containers/drums will be monitored using a PID. Any positive sustained results at a source or downwind location(s) which may impact operations crew will require the following actions:</p> <p>Monitor the breathing zone of at-risk and downwind employees. Any sustained reading (greater than 1 minute in duration) above 1 PPM in worker breathing zones requires site activities to be suspended and site personnel to report to an unaffected area.</p> <p>Work may only resume if airborne readings in worker breathing zone return to background levels. If readings do not subside, contact the PHSO for further guidance.</p> | <p>Level D protection will be utilized for the initiation of all sampling activities.</p> <p>Level D - (Minimum Requirements) - Standard field attire (long sleeve shirt; long pants). - Nitrile or cotton/leather work gloves with surgical style inner gloves. - Safety steel toe shoes. - Safety glasses. - Hardhat (when overhead hazards exists, or identified as a operation requirement). - Reflective vest for high traffic areas. - Tyvek coveralls and disposable boot covers if surface contamination is present or if the potential for soiling work attire exists. - Hearing protection for high noise areas, or as directed on an operation by operation scenario. - Work/rest regimen.</p> | <p>Personnel Decontamination will consist of a soap/water wash and rinse for reusable outer protective equipment (boots, gloves, PVC splash suits, as applicable). The decon function will take place at an area adjacent to the site activities. This procedure will consist of: - Equipment drop - Soap/water wash and rinse of outer boots and gloves, as applicable - Soap/water wash and rinse of the outer splash suit, as applicable - Disposable PPE will be removed and bagged.</p> |
| <p>Geographical Survey</p> | <p>Chemical hazards: Significant exposure to site contaminants is anticipated to be unlikely given the nature of this task.</p> <p>Physical hazards: 1) Slips, trips, and falls 2) Ambient temperature extremes (heat stress)</p> <p>Natural hazards: 3) Inclement weather 4) Insect/animal bites or stings, poisonous plants, etc.</p> | <p>1) Preview work locations and site lines for uneven and unstable terrain. Clear necessary vegetation; establish temporary means for traversing hazardous terrain (i.e., rope ladders, etc.).</p> <p>2) Wear appropriate clothing for weather conditions. Provide acceptable shelter and liquids for field crews. Additional information regarding heat stress is provided in Section 4 of the Health and Safety Guidance Manual.</p> <p>3) Suspend or terminate operations until directed otherwise by SSO.</p> <p>4) Avoid nesting areas, use repellents. Report potential hazards to the SSO. Follow guidance presented in Section 4 of the Health and Safety Guidance Manual.</p> | <p>Air monitoring is not required given that volatile contaminants are not likely to be present during surveying activities.</p> | <p>Surveying activities shall be performed in Level D protection</p> <p>Level D Protection consists of the following: - Standard field dress including sleeved shirt and long pants. - Safety shoes (Steel toe/shank). - Safety glasses, hard hats (if working near machinery). - Snake chaps for heavily wooded area where encounters are likely. - Tyvek coveralls may be worn to provide additional protection against poisonous plants and insects, particularly ticks. Work gloves may be worn if desired. - Hearing protection.</p> <p>Note: The Safe Work Permit(s) for this task (see Attachment III) will be issued at the beginning of each day to address the tasks planned for that day. As part of this task, additional PPE may be assigned to reflect site-specific conditions or special considerations or conditions associated with any identified task.</p> | <p>Personnel Decontamination - A structured decontamination is not required, as the likelihood of encountering contaminated media is considered remote. However, survey parties should inspect themselves and one another for the presence of ticks when exiting wooded areas, grassy fields, etc. This action will be employed to stop the transfer of these insects into vehicles, homes, and offices.</p> |

5.2 GENERAL DECONTAMINATION ACTIVITIES

- NO eating, drinking, chewing gum or tobacco, taking medication, or smoking in contaminated or potentially contaminated areas or where the possibility for the transfer of contamination exists.
- A thorough shower and washing must be conducted as soon as possible if excessive skin contamination occurs.
- Avoid contact with potentially contaminated substances. Avoid puddles, pools, or other such areas. Avoid, whenever possible, kneeling on the floor or leaning or sitting on equipment. Keep monitoring equipment away from potentially contaminated surfaces.
- Attend briefings on anticipated hazards, equipment requirements, Safe Work Permits, emergency procedures, and communication methods before going on site.
- Plan and mark entrance, exit, and emergency escape routes. See Section 2.0.
- Rehearse unfamiliar operations prior to implementation.
- Buddies should maintain visual or communicative contact with each other and with other on-site team members by remaining in close proximity to assist each other in case of emergency.
- Establish appropriate Safety Zones including Support, Contamination Reduction, and Exclusion Zones.
- Establish appropriate decontamination procedures for leaving the site.
- Immediately report injuries, illnesses, unsafe conditions, unsafe practices, defective equipment, and potential exposure incidents to the SSO.
- Observe coworkers for signs of exposure and heat or cold stress.
- Inform co-workers of potential symptoms of illness, such as headaches, dizziness, nausea, or blurred vision.

6.0 HAZARD ASSESSMENT

The following section provides information regarding the chemical, physical, and natural hazards associated with the site to be investigated and the activities that are to be conducted as part of the scope of work. Table 6-1, which is included as part of this HASP, provides various information, exposure limits, symptoms of exposure, physical properties, and air monitoring and sampling data. Section 6.1 provides general information regarding the contaminants that may be present at the site.

6.1 CHEMICAL HAZARDS

Given the proposed site activities and the absence of any containers of hazardous wastes there are limited potential health hazards associated with the decontamination work to be conducted at Building 1602 at NAVSTA Mayport. Past historical data indicates no past evidence of spills or releases. Site chemicals stored in this facility were general industrial type wastes. Contaminants that may be associated with these types of wastes may include:

- VOCs
- Semi-volatile Organic Compounds (SVOCs)
- Resource Conservation and Recovery Act (RCRA) Metals
- PCBs
- Chlorinated Herbicides
- Organochlorine Pesticides

The above materials are deemed hazardous when present in groundwater and soil.

Table 6-1 provides information on the substances that may be associated with the industrial type wastes that were previously stored in Building 1602. Included is information on the toxicological, chemical, and physical properties of these substances. Certain information on this table (such as glove selection) is based on clinical information regarding pure chemicals. Assessment of hazards and recommended control measures (such as nitrile surgeon's gloves) within this HASP, however, are based on the diluted nature of media to be sampled and the limited anticipated contact. Exposure to these compounds is most likely to occur through inhalation of airborne vapors or through hand-to-mouth contact after handling contaminated media. As a result, air monitoring will be performed to detect potential airborne vapors and the use of PPE and basic hygiene practices (washing face and hands before leaving site) will be required to minimize the potential for exposure to site contaminants.

**TABLE 6-1
CHEMICAL, PHYSICAL, AND TOXICOLOGICAL DATA
NAVAL STATION MAYPORT, MAYPORT FLORIDA**

| Substance | CAS No. | Air Monitoring/Sampling Information | | Exposure Limits | Warning Property Rating | Physical Properties | Health Hazard Information |
|--|--|---|--|--|---|---|--|
| Aroclor-1260 (PCB) It should be noted that this substance is representative of the more common isomers Aroclor - 1242, 1254, which may be encountered. | 11096-82-5 53469-21-9 (42%) 11097-69-1 (54%) | Substance is not volatile (VP=0.00006 mmHg), I.P. is unknown however is anticipated to be elevated, therefore, PID is not anticipated to detect substance. Substance is non combustible and as a result will not be detected by Flame Ionization Detector (FID). | Air sample using a particulate filter, Florisil sorbent tube with glass fiber filter; hexane desorption; gas chromatography-electron capture detector. Sampling and analytical protocol shall proceed in accordance with National Institute for Occupational Safety and Health (NIOSH) Method #5503 (PCBs). | OSHA; American Conference of Governmental Industrial Hygienists (ACGIH): 0.5 mg/m ³ (skin) NIOSH: 0.001 mg/m ³ Immediate Dangerous to Life or Health (IDLH): 5mg/m ³ | Inadequate - However due to the low volatility it is assumed unless agitated this substance does not present a volatile vapor or gas respiratory threat. For dusty conditions where this material may cling to particulates, use a HEPA filter. APRs are approved for escape only when concentrations exceed the exposure limits. Concentrations greater than the exposure limits require PAPR or supplied air respirators. Recommended glove: Butyl rubber >24 hrs; Neoprene rubber >24.00 hrs; Silver shield or Viton (for pure product). | Boiling Pt: distillation range 689-734 Degrees Fahrenheit (°F); 365-390 Degrees Celsius (°C) Melting Pt: -2 to 50°F; -19 to 10°C Solubility: Insoluble Flash Pt: Not applicable LEL/LFL: Not applicable UEL/UFL: Not applicable Nonflammable liquid, however, exposure to fire results in black soot containing PCBs, dibenzofurans, & chlorinated dibenzo-p-dioxins Vapor Density: Not available Vapor Pressure: 0.00006 - 0.001 mmHg Specific Gravity: 1.566 @ 60°F; 15.5°C Incompatibilities: Strong oxidizers Appearance and Odor: Colorless to pale yellow, viscous liquid or solid (Aroclor 54 below 50° F) with a mild, hydrocarbon odor | This substance is irritating to the eyes and skin. Chronic effects of overexposure may include potential to cause liver damage, chloracne, and reproductive effects. Recognized as possessing carcinogenic properties by NIOSH, and National Toxicity Program (NTP). |
| Chlordane | 57-74-9 | Substance is not volatile (VP=.00001 mmHg) I.P. is unknown, therefore detection by PID is unknown. Substance is non-combustible, therefore a FID is not expected to have a response to chlordane. | Air sample using Chromosorb-102 sorbent tube with mixed cellulose-ester filter or a xad-2 sorbent tube with filter. Toluene desorption and analysis by gas chromatography-electron capture detector. Sampling and analytical protocol will proceed in accordance with NIOSH Method #5510 or OSHA Method #67. | OSHA; NIOSH; ACGIH: 0.5 mg/m ³ | Adequate - can use an air-purifying respirator with an organic vapor & high efficiency air filter cartridges. Recommended gloves: PTFE Teflon for pure product. Nitrile acceptable for incidental contact. | Boiling Pt: 347°F; 175°C Melting Pt: Not available Solubility: Insoluble Flash Pt: Not available LEL/LFL: Not available UEL/UFL: Not available Vapor Density: Not available Vapor Pressure: 0.00001 mmHg Specific Gravity: 1.56 @ 60°F; 15.5°C Incompatibilities: Strong oxidizers and alkaline reagents Appearance and Odor: Amber-colored, viscous liquid with a pungent, chlorine like odor. | Earliest signs of overexposure manifest as hypersensitivity of the central nervous system characterized by hyperactive reflexes, muscle twitching, tremors, incoordination, ataxia, and clonic convulsions. Cycles of excitement and depression may be repeated over and over. Chronic health hazard information similar to those for DDT. |

**TABLE 6-1
CHEMICAL, PHYSICAL, AND TOXICOLOGICAL DATA
NAVAL STATION MAYPORT, MAYPORT FLORIDA**

| Substance | CAS No. | Air Monitoring/Sampling Information | | Exposure Limits | Warning Property Rating | Physical Properties | Health Hazard Information |
|--|---|--|--|--|--|---|--|
| General PAHs / Coal Tar Pitch Volatiles / Creosote / cresol (Fluoranthene, pyrene, benzo(a) anthracene, benzo(a) pyrene, benzo(f)fluoranthene, benzo(k)fluoranthene, etc.) | (CAS Numbers vary depending on specific compound) | PID: I.P. of 8.97 eV, relative response ratio unknown. FID: Response factor unknown but given the substances flammability, detection by FID can be anticipated. | Refer to NIOSH methods for each specific compound for appropriate air sampling protocols. Many PAHs can be sampled using <u>NIOSH Method 5506 or 5515</u> - Teflon filter with support ring - High pressure liquid chromatography with ultraviolet (UV)detector. For cresol (a major constituent of creosote) by silica gel or xad-7 sorbent tube; Acetone desorption and analysis by gas chromatography - flame ionization detector or high-pressure liquid chromatography. (NIOSH Method #2001, or OSHA Method #32) | General PAHs: Most PAHs have no established exposure limits. Other Coal Tar Pitch Volatiles / PAHs such as chrysene and benzo(a)pyrene have an exposure limit of 0.2 mg/m ³ (OSHA and ACGIH). 0.1 mg/m ³ - (NIOSH) Creosote / Cresol: OSHA; ACGIH: 5 ppm NIOSH: 2.3 ppm IDLH: 80 mg/m ³ | Adequate - use a full-face air-purifying respirator with organic vapor / dust/mist cartridge up to 250 ppm. Cresol has an Odor Threshold of 0.00005-0.0079 ppm. Recommended gloves: Viton >96.00 hrs; butyl rubber >90.00 hrs; neoprene >4.50 hrs | Properties of various PAHs/Coal Tar Pitch Volatiles vary depending upon the specific compound. <u>For Creosote/Cresol:</u> Boiling Pt: 376-397°F; 191-203°C Melting Pt: 52-96°F; 10.9-35.5°C Solubility: Insoluble Flash Pt: 178°F; 81°C LEL/LFL: Not available UEL/UFL: Not available Vapor Density: 3.72 Vapor Pressure: 1 mmHg @ 100-127°F; 38-53°C Specific Gravity: 1.030-1.038 Incompatibilities: Nitric acid, oleum, chlorosulfonic acid, oxidizers Appearance and Odor: Yellowish or colorless, flammable, oily liquid (often brownish because of impurities or oxidation) | Regulated based on effects on respiratory tract and skin irritation Other effects may include eye irritation and central nervous system, disturbances. Acute exposures may result in difficulty breathing, respiratory failure and skin and eye irritation and burns. Chronic exposure may damage the liver, kidneys, lungs and skin and cause photosensitivity. IARC, NTP, NIOSH, ACGIH, and the EPA list some PAHs such as benzo(a)pyrene as a potential carcinogen (ARC 2A, NTP-2, ACGIH TLV-A2, NIOSH-X, EPA-B2). |
| Waste Oils All information is based on mineral oil | N.E. 8012-95-1 for mineral oil | Varies between fractions however waste oils tend to be less volatile. The FID tends to handle the longer chained aliphatic hydrocarbons more efficiently than its PID counterpart and would be selected as the instrument of choice. | Sampling and analytical protocol shall be in accordance with NIOSH Method #5026 is the recommended method for mineral oil mist. | ACGIH; NIOSH: 5 mg/m ³ (Oil mists); 10 mg/m ³ STEL OSHA: 5 mg/m ³ (Oil mists) | Non-volatile substance, therefore no respiratory protection is required. In an aerosol form dust and mist respirator would be considered acceptable for up to 500 mg/m ³ . Recommended gloves: Any glove suitable to prevent skin contact (Nitrile has been the one most widely used for the other substances, and will be acceptable). | Boiling Pt: 680°F; 360°C Melting Pt: Not available Solubility: Insoluble Flash Pt: 275-500°F; 135-260°C depends on the distillation fraction LEL/LFL: Not available UEL/UFL: Not available Vapor Density: Not available Vapor Pressure: <0.5 mmHg Specific Gravity: 0.90 Incompatibilities: None reported Appearance and odor: Colorless, oily, with an odor of burned lubricating oil. | Minor irritation to the eyes, skin, and respiratory system. |

**TABLE 6-1
CHEMICAL, PHYSICAL, AND TOXICOLOGICAL DATA
NAVAL STATION MAYPORT, MAYPORT FLORIDA**

| Substance | CAS No. | Air Monitoring/Sampling Information | | Exposure Limits | Warning Property Rating | Physical Properties | Health Hazard Information |
|-----------|----------|--|---|---|---|--|---|
| Aldrin | 309-00-2 | PID: I.P. Unknown FID: FID will not detect this substance. | Sample using a glass fiber, binder free filter with a midjet impinger. Analyze with Gas Chromatography - electrolytic conductivity detector in accordance with NIOSH Method #5502 | OSHA: 0.25 mg/m ³ NIOSH: 0.25 mg/m ³ (skin) ACGIH: 0.25 mg/m ³ (skin) | An air-purifying respirator equipped with a combination filter for organic vapors, pesticides, and High Efficiency Particulate Air (HEPA) filter is acceptable. Recommended glove: Nitrile or neoprene gloves are adequate for protection against contact with the skin. | Boiling Pt: Decomposes Melting Pt: 219°F; 104°C Solubility: 0.003% Flash Pt: Not available LEL/LFL: Not available UEL/UFL: Not available Vapor Density: Not available Vapor Pressure: 0.00008 mmHg Specific Gravity: 1.60 Incompatibilities: Concentrated mineral acids, active metals, acid catalysts, acid oxidizing agents, phenol. Appearance and Odor: Colorless to dark-brown crystalline solid with a mild chemical odor. | Exposure to aldrin may result in the following symptoms: headache, dizziness, nausea, vomiting, tonic convulsions, myoclonic jerks of the limbs, malaise (vague feeling of discomfort), hematuria (blood in the urine), and coma. Aldrin also is known to have carcinogenic properties. Target organs include: Central Nervous System (CNS), liver, kidneys, and skin. |

6.2 PHYSICAL HAZARDS

The following is a list of physical hazards that may be encountered at the site or may present during the performance of site activities associated with the scope of work.

- Slip, trip, and fall hazards
- Strain/muscle pulls from manual lifting
- Contact with moving or operating equipment/machinery
- Contact with energized sources (aboveground and underground)
- Contact with pressurized water
- Heat Stress
- Cuts and lacerations

6.2.1 Cuts and Lacerations

The potential exists for workers to suffer cuts or lacerations given the use of heavy equipment, hand tools, knives, etc. Keeping hands, fingers, and other body parts away from pinch points, moving parts and other sharp surfaces is the primary control method to prevent cuts and lacerations. Leather work gloves and other protective equipment can also be used to prevent injuries. Cuts or lacerations often occur while using knives when opening or sealing boxes and sampling coolers. In order to minimize injury, use the following precautions:

- Always cut away from the body and others.
- Never use your thumb to put pressure on a cutting surface while cutting from the opposite side.
- Change the knife blades frequently. Many accidents result from struggling with dull cutting edge.

6.2.2 Inclement Weather

Project tasks under this Scope of Work will be performed outdoors and near water. As a result, inclement weather may be encountered. In the event that adverse weather conditions arise (electrical storms, hurricanes, etc.), the FOL and/or the SSO will be responsible for temporarily suspending or terminating activities until hazardous conditions no longer exist.

Tropical Storms and Hurricanes

NAVSTA Mayport is located in an area that may receive tropical storms and hurricane activity. The following information is supplied to explain the potential severity of these natural hazards. The decision to curtail operations and evacuate the area should be made by the FOL, TOM, and the HSM.

During the early summer to late fall months, typically from the first of June through the end of November, disturbances migrating off the West Coast of Africa move into the Atlantic Ocean and develop into tropical cyclones known as tropical storms and hurricanes. Many of these cyclones become strong enough to threaten life and property along the Eastern Seaboard and Gulf Coast. There are three main threats associated with tropical storms and hurricanes:

- High winds
- Excessive rainfall
- Storm surge

The impacts of high winds and excessive rainfall occur hours, maybe days, before the tropical storm or hurricane makes landfall. However, the storm surge accompanies the storm or hurricane at the time that landfall occurs.

High Winds

Sustained winds vary greatly from storm to storm, but can range from 39 to 73 miles per hour (wind speeds associated with a tropical storm) to greater than 74 miles per hour (minimal wind speed for a Category 1 hurricane). Table 6-2 compares the type of storm or hurricane and the corresponding wind speed.

TABLE 6-2
TROPICAL STORM/HURRICANE RATING SCALE

| TYPE | CATEGORY* | WINDS (MPH) |
|---------------------|-----------|-------------|
| Tropical Depression | NA | >35-38 |
| Tropical Storm | NA | 39 – 73 |
| Hurricane | 1 | 74 – 95 |
| Hurricane | 2 | 96 – 110 |
| Hurricane | 3 | 111 – 130 |
| Hurricane | 4 | 131 – 155 |
| Hurricane | 5 | >155 |

Based on the Saffir-Simpson scale

NA – Not Applicable

In addition to strong winds, there is the threat of debris (i.e. building material, trees, etc.) becoming airborne projectiles as they are carried by the high winds. Thunderstorms and tornadoes embedded within the tropical storm or hurricane can further increase the wind speeds on a localized level.

Excessive Rainfall

Heavy rains associated with tropical storms and hurricanes also vary greatly from storm to storm. On average, an inch of rainfall an hour is not uncommon with major hurricanes, somewhat lesser amounts with tropical storms. However, the primary threat is not the intensity of rain, but the duration of rainfall. Since many tropical storms and hurricanes are slow-movers, they are capable of producing sustained heavy rainfall over a long period of time. It is not uncommon for an area to receive nearly 20 inches of rain in 24 hours. Under these conditions, street, stream and creek flooding is inevitable only to be exacerbated by locally heavier rains from thunderstorms.

Storm Surge

The storm surge is an abnormal rise in sea level accompanying a hurricane or tropical storm. The height of the storm surge (usually measured in feet) is the difference in sea level from the observed level (during the storm) and the level that would have occurred in the absence of the storm or hurricane. The more intense the storm or hurricane the higher the storm surge. Storm surges become even higher if they occur during periods of high tide. Table 6-3 defines some of the terminology and possible calls to action regarding tropical cyclones:

**TABLE 6-3
TROPICAL STORM/HURRICANE
WATCH AND WARNING**

| STORM DESCRIPTION | DEFINITION | CALL TO ACTION |
|------------------------|---|---|
| Tropical Storm Watch | Tropical storm conditions are possible in the specified area of the watch, usually within 36 hours. | Weather conditions should be monitored for further advisories. Prepare for possible evacuation by local officials. |
| Tropical Storm Warning | Tropical storm conditions are expected in the specified area of the warning, usually within 24 hours. | Work should be suspended in areas where lightning, high winds and rainfall could pose a threat to life. Local officials may enforce mandatory evacuations. |
| Hurricane Watch | Hurricane conditions are possible in the specified area of the watch, usually within 36 hours. | Weather conditions should be monitored for further advisories. Prepare for possible evacuation by local officials |
| Hurricane Warning | Hurricane conditions are expected in the specified area of the warning, usually within 24 hours. | Local officials will most likely enforce mandatory evacuations. |

A National Oceanic and Atmospheric Administration (NOAA) Weather Radio is the best means to receive watches and warnings from the National Weather Service. The National Weather Service continuously broadcasts updated hurricane advisories that can be received by widely available NOAA Weather Radios.

6.2.3 Heat Stress

Given the geographic location of the site, the project schedule, and the use of PPE, overexposure to high ambient temperatures (heat stress) may exist during performance of this work depending on the project schedule. (Extremely cold temperatures are not expected to be encountered due to project location). Work performed when ambient temperatures exceed 70 degrees °F may result in varying levels of heat stress (heat rash, heat cramps, heat exhaustion, and/or heat stroke) depending on variables such as wind speed, humidity, and percent sunshine, as well as physiological factors such as metabolic rate and skin moisture content. Additionally, workload and level of protective equipment will affect the degree of exposure. Site personnel will be encouraged to drink plenty of fluids to replace those lost through perspiration. Additional information such as Work-Rest Regimens and personnel monitoring may be found in Section 4.0 of the Health & Safety Guidance Manual.

Many of these physical hazards are discussed in detail in Section 4.0 of the Health and Safety Guidance Manual. Additional information regarding physical hazards associated with the site is provided in Table 5-1 of this HASP.

7.0 AIR MONITORING

Direct reading instruments will be used at the site to detect and evaluate the presence of site contaminants and other potentially hazardous conditions. As a result, specific air monitoring measures and requirements are established in Table 5-1 pertaining to the specific hazards and tasks of an identified operation. Additionally, the Health and Safety Guidance Manual, Section 1.0, contains detailed information regarding direct reading instrumentation, as well as general calibration procedures of various instruments.

7.1 INSTRUMENT AND USE

A direct reading instrument will be used primarily to monitor source points (soil borings, sumps, etc.) and worker breathing zone areas, while observing instrument action levels. Action levels are discussed in Table 5-1 as they may apply to a specific task or location.

7.1.1 Photoionization Detector (PID)

In order to accurately monitor for any substances that may present an exposure potential to site personnel, a PID using lamp energy of 10.6 eV or higher will be used. This instrument will be used to monitor potential source areas and to screen the breathing zones of employees during site activities. The PID with this lamp strength has been selected because it is capable of detecting many organic vapors.

Prior to the commencement of any field activities, the background levels of the site must be determined and noted. Daily background readings will be taken away from any areas of potential contamination. These readings, any influencing conditions (i.e., weather, temperature, humidity) and site location must be documented in the field operations logbook or other site documentation (e.g., sample log sheet).

7.1.2 Hazard Monitoring Frequency

Table 5-1 presents the frequencies that hazard monitoring will be performed as well as the action levels that will initiate the use of elevated levels of protection. The SSO may decide to increase these frequencies based on instrument responses and site observations. The frequency at which monitoring is performed will not be reduced without the prior consent of the PHSO or HSM.

7.2 INSTRUMENT MAINTENANCE AND CALIBRATION

Hazard monitoring instruments will be maintained and pre-field calibrated by the TtNUS Equipment Manager. Operational checks and field calibration will be performed on the instruments each day prior to and after their use. Field calibration will be performed on instruments according to manufacturer's recommendations. These operational checks and calibration efforts will be performed in a manner that complies with the employees health and safety training, the manufacturer's recommendations, and with the applicable manufacturer SOPs (copies of which can be found in the Health & Safety Guidance Manual which will be maintained on site for reference). The calibration efforts must be documented. Figure 7-1 is provided for documenting these calibration efforts. This information may instead be recorded in a field operations logbook, provided that the information specified in Figure 7-1 is recorded. This required information includes the following:

- Date calibration was performed
- Individual calibrating the instrument
- Instrument name, model, and serial number
- Any relevant instrument settings and resultant readings (before and after) calibration
- Identification of the calibration standard (lot no., source concentration, supplier)
- Any relevant comments or remarks

8.0 TRAINING/MEDICAL SURVEILLANCE REQUIREMENTS

8.1 INTRODUCTORY/REFRESHER/SUPERVISORY TRAINING

This section is included to specify health and safety training and medical surveillance requirements for TtNUS personnel participating in on-site activities. TtNUS personnel must complete 40 hours of introductory hazardous waste site training prior to performing work at the NAVSTA Mayport. TtNUS personnel who have had introductory training more than 12 months prior to site work must have completed 8 hours of refresher training within the past 12 months before being cleared for site work. In addition, 8-hour supervisory training in accordance with 29 CFR 1910.120(e)(4) will be required for site supervisory personnel.

Documentation of TtNUS introductory, supervisory, and refresher training as well as site-specific training will be maintained at the site. Copies of certificates or other official documentation will be used to fulfill this requirement.

8.1.1 Requirements for Subcontractors

Identified TtNUS subcontractor personnel must have completed introductory hazardous waste site training or equivalent work experience as defined in OSHA Standard 29 CFR 1910.120(e) and 8 hours of refresher training meeting the requirements of 29 CFR 1910.120(e)(8) prior to performing field work at the NAVSTA Mayport. TtNUS subcontractors must certify that each employee has had such training by sending TtNUS a letter, on company letterhead, containing the information in the example letter provided in Figure 8-1. This letter will be accompanied by training certificates or some other form of official documentation for subcontractor personnel participating in site activities.

FIGURE 8-1

EXAMPLE TRAINING LETTER

The following statements must be typed on company letterhead and signed by an officer of the company and accompanied by copies of personnel training certificates:

LOGO
XYZ CORPORATION
555 E. 5th Street
Nowheresville, Kansas 55555

Month, day, year

Mr. Terry Hansen, P.G.
Task Order Manager
Tetra Tech NUS, Inc.
1401 Oven Park Drive Suite 201
Tallahassee, Florida 32308

Subject: HAZWOPER Training for Naval Air Station Mayport, Florida

Dear Mr. Hansen:

As an officer of XYZ Corporation, I hereby state that I am aware of the potential hazardous nature of the subject project. I also understand that it is our responsibility to comply with applicable occupational safety and health regulations, including those stipulated in Title 29 of the Code of Federal Regulations (CFR), Parts 1900 through 1910 and Part 126.

I also understand that Title 29 CFR 1910.120, entitled "Hazardous Waste Operations and Emergency Response," requires an appropriate level of training for certain employees engaged in hazardous waste operations. In this regard, I hereby state that the following employees have had 40 hours of introductory hazardous waste site training or equivalent work experience as requested by 29 CFR 1910.120(e) and have had 8 hours of refresher training as applicable and as required by 29 CFR 1910.120(e)(8) and that site supervisory personnel have had training in accordance with 29 CFR 1910.120(e)(4).

LIST FULL NAMES OF EMPLOYEES AND THEIR SOCIAL SECURITY NUMBERS HERE.

Should you have any questions, please contact me at (555) 555-5555.

Sincerely,

(Name and Title of Company Officer)

8.2 SITE-SPECIFIC TRAINING

TtNUS will provide site-specific training to TtNUS personnel who will perform work on this project. Site-specific training will include:

- Names of designated personnel and alternates responsible for site safety and health
- Safety, health, and other hazards present on site
- Use of PPE
- Work practices to minimize risks from hazards
- Medical surveillance requirements
- Signs and symptoms of overexposure to site contaminants
- Contents of the HASP
- Emergency response procedures (evacuation and assembly points)
- Spill response procedures
- Review of the contents of relevant MSDS
- Review of the uses of Safe Work Permits

Site-specific training documentation will be established through the use of Figure 8-2.

8.3 MEDICAL SURVEILLANCE

TtNUS personnel participating in project field activities will have had a physical examination meeting the requirements of TtNUS's medical surveillance program. Documentation for medical clearances will be maintained in the TtNUS Pittsburgh office and made available, as necessary.

8.3.1 Medical Surveillance Requirements for Subcontractors

Identified subcontractors are required to obtain a certificate of their ability to perform hazardous waste site work and to wear respiratory protection. The "Subcontractor Medical Approval Form" provided in Figure 8-3 shall be used to satisfy this requirement, providing it is properly completed and signed by a licensed physician.

Subcontractors who have a company medical surveillance program meeting the requirements of paragraph (f) of OSHA 29 CFR 1910.120 can substitute "Subcontractor Medical Approval Form" with a letter, on company letterhead, containing the information in the example letter presented in Figure 8-4 of this HASP.

FIGURE 8-3
SUBCONTRACTOR MEDICAL APPROVAL FORM

For employees of _____
Company Name

Participant Name: _____ Date of Exam: _____

Part A

The above-named individual has:

1. Undergone a physical examination in accordance with OSHA Standard 29 CFR 1910.120, paragraph (f) and found to be medically -

 qualified to perform work at the NAVSTA Mayport work site
 not qualified to perform work at the NAVSTA Mayport work site

and,
2. Undergone a physical examination as per OSHA 29 CFR 1910.134(b)(10) and found to be medically -

 qualified to wear respiratory protection
 not qualified to wear respiratory protection

My evaluation has been based on the following information, as provided to me by the employer.

- A copy of OSHA Standard 29 CFR 1910.120 and appendices.
- A description of the employee's duties as they relate to the employee's exposures.
- A list of known/suspected contaminants and their concentrations (if known).
- A description of any personal protective equipment used or to be used.
- Information from previous medical examinations of the employee which is not readily available to the examining physician.

Part B

I, _____, have examined _____
Physician's Name (print) Participant's Name (print)

and have determined the following information:

FIGURE 8-3
SUBCONTRACTOR MEDICAL APPROVAL FORM
PAGE TWO

1. Results of the medical examination and tests (excluding finding or diagnoses unrelated to occupational exposure):

2. Any detected medical conditions that would place the employee at increased risk of material impairment of the employee's health:

3. Recommended limitations upon the employee's assigned work:

I have informed this participant of the results of this medical examination and any medical conditions, which require further examination or treatment.

Based on the information provided to me, and in view of the activities and hazard potentials involved at the NAVSTA Mayport work site, this participant

- may
 may not

perform his/her assigned task.

Physician's Signature _____

Address _____

Phone Number _____

NOTE: Copies of test results are maintained and available at:

FIGURE 8-4
EXAMPLE
MEDICAL SURVEILLANCE LETTER

The following statements must be typed on company letterhead and signed by an officer of the company:

LOGO
XYZ CORPORATION
555 E. 5th Street
Nowheresville, Kansas 55555

Month, day, year

Mr. Terry Hansen, P.G.
Task Order Manager
Tetra Tech NUS, Inc.
1401 Oven Park Drive Suite 201
Tallahassee, Florida 32308

Subject: HAZWOPER Training for NAVSTA Mayport, Florida

Dear Mr. Hansen:

As an officer of XYZ Corporation, I hereby state that the persons listed below participate in a medical surveillance program meeting the requirements contained in paragraph (f) of Title 29 of the Code of Federal Regulations (CFR) Part 1910.120, entitled "Hazardous Waste Operations and Emergency Response. I further state that the persons listed below have had physical examinations under this program within the past 12 months and that they have been cleared, by a license physician, to perform hazardous waste site work and to wear positive- and negative-pressure respiratory protection. I also state that, to my knowledge, no person listed below has any medical restriction that would preclude him/her from working for NAVSTA Mayport.

LIST OF FULL NAMES OF EMPLOYEES AND THEIR SOCIAL SECURITY NUMBERS HERE.

Should you have any questions, please contact me at (555) 555-5555

Sincerely,

(Name and Title of Company Officer)

8.3.2 Requirements for Field Personnel

Each field team member (including subcontractors) and visitors entering the Exclusion Zone(s) shall be required to complete and submit a copy of Medical Data Sheet found in the TtNUS Health and Safety Guidance Manual. This shall be provided to the SSO, prior to participating in site activities. The purpose of this document is to provide site personnel and emergency responders with additional information that may be necessary in order to administer medical attention.

8.4 SUBCONTRACTOR EXCEPTIONS

In situations in which the exclusion zone is not entered or when there is no potential for exposure to site contaminants, subcontractor personnel may be exempt from some of the training and medical surveillance requirements. Subcontractors and visiting personnel are required to receive site-specific training (as discussed in Section 8.2) regarding information provided in this HASP. Examples of subcontractors who may be exempt from training and medical surveillance requirements may include surveyors who perform surveying activities at the site perimeters or in areas where there is no potential for exposure to site contaminants, and in this case the subcontractor providing concrete coring services.

The use of the subcontractor exception is strictly limited to the authority of the CLEAN HSM.

9.0 SITE CONTROL

This section outlines the means by which TtNUS will delineate work zones and use these work zones in conjunction with decontamination procedures to prevent the spread of contaminants into previously unaffected areas of the site. It is anticipated that a three-zone approach will be used during work at this site: Exclusion Zone, Contamination Reduction Zone, and Support Zone. It is also anticipated that this control measure will be used to control access to site work areas. Use of such controls will restrict the general public, minimize potentials for the spread of contaminants and to protect individuals who are not cleared to enter the work areas.

9.1 EXCLUSION ZONE

The exclusion zone will be considered those areas of the site of known or suspected contamination. The exclusion zone for this decontamination project and associated sampling activities will be 10 feet from the external walls of Building 1602 and shall include the entire interior of the building.

9.2 CONTAMINATION REDUCTION ZONE

The Contamination Reduction Zone (CRZ) will be a buffer area between the exclusion zone and any area of the site where contamination is not suspected. This area will also serve as a focal point in supporting exclusion zone activities. This area may be delineated using barrier tape, cones, and postings to inform and direct facility personnel. Personnel and equipment decontamination will be conducted at a central location. Equipment potentially contaminated will be bagged and taken to that location for decontamination.

9.3 SUPPORT ZONE

The support zone for this project will include a staging area where site vehicles will be parked, equipment will be unloaded, and where food and drink containers will be maintained. The support zones will be established at areas of the site where exposure to site contaminants would not be expected during normal working conditions or foreseeable emergencies.

9.4 SAFE WORK PERMITS

Exclusion zone activities conducted in support of this project will be done so using this HASP as a reference guide and Safe Work Permits to incorporate site-specific information to guide and direct field crews on a task by task basis. An example of the Safe Work Permit to be used during site activities is

illustrated in Figure 9-1. Permits will be issued by the SSO prior to the beginning of on-site activities. Partially completed Safe Work Permits are included in Attachment III of this HASP.

Safe Work Permits are to be completed in accordance with the specifications contained in Table 5-1, and the other sections of the HASP as appropriate.

9.5 SITE VISITORS

Site visitors for the purpose of this document are identified as representing the following groups of individuals:

- Personnel invited to observe or participate in operations by TtNUS
- Regulatory personnel [i.e., Department of Defense (DOD), EPA, OSHA, Florida Department of Environmental Protection (FDEP), etc.]
- SOUTHNAVFACENGCOM Navy personnel
- Other authorized visitors

Non-DOD personnel working on this project are required to gain initial access to the base by coordinating with the TtNUS FOL or designee and following established base access procedures.

Once access to the base is obtained, personnel who require site access into areas of ongoing operations will be required to obtain permission from the FOL and the Base Contact. Upon gaining access to the site, site visitors wishing to observe operations in progress will be escorted by TtNUS representative and shall be required to meet the minimum requirements discussed below:

- Site visitors will be routed to the FOL, who will sign them into the field logbook. Information to be recorded in the logbook will include the individual's name (proper identification required), the entity which they represent, and the purpose of the visit.
- Site visitors will be required to produce the necessary information supporting clearance to the site. This shall include information attesting to applicable training and medical surveillance as stipulated in Section 8.0 of this document. In addition, to enter the site operational zones during planned activities, visitors will be required to first go through site-specific training covering the topics stipulated in Section 8.2 of this HASP.

Once the site visitors have completed the above items, they will be permitted to enter the operational zone. Visitors are required to observe the protective equipment and site restrictions in effect at the site at the time of their visit. A TtNUS representative will accompany visitors entering the exclusion zones during ongoing operations. Visitors not meeting the requirements, as stipulated in this plan, for site clearance will not be permitted to enter the site operational zones during planned activities. Any incidence of unauthorized site visitation will cause the termination of on-site activities until the unauthorized visitor is removed from the premises. Removal of unauthorized visitors will be accomplished with support from the Base Contact. If necessary, the Base Contact will be notified of any unauthorized visitors.

9.6 SITE SECURITY

Site security will be accomplished using TtNUS field personnel. TtNUS will retain complete control over active operational areas. As this activity takes place at a Navy facility open to public access, the first line of security will take place using exclusion zone barriers, site work permits, and any existing barriers at the sites to restrict the general public. The second line of security will take place at the work site referring interested parties to the Base Contact. The Base Contact will serve as a focal point for base personnel, interested parties, and serve as the final line of security and the primary enforcement contact.

9.7 SITE MAP

Once the areas of contamination, access routes, topography, and dispersion routes are determined, a site map will be generated and adjusted as site conditions change. These maps will be posted to illustrate up-to-date collection of contaminants and adjustment of zones and access points.

9.8 BUDDY SYSTEM

Personnel engaged in on-site activities will practice the "buddy system" to ensure the safety of personnel involved in this operation.

9.9 MSDS REQUIREMENTS

TtNUS and subcontractor personnel will provide MSDSs for the chemicals brought on site. The contents of these documents will be reviewed by the SSO with the user(s) of the chemical substances prior to any actual use or application of the substances on site. A chemical inventory of the chemicals used on site will be developed using the Health and Safety Guidance Manual. The MSDSs will then be maintained in a central location (i.e., temporary office) and will be available for anyone to review upon request.

9.10 COMMUNICATION

As personnel will be working in proximity to one another during field activities, a supported means of communication between field crews members will not be necessary.

External communication will be accomplished by using cellular telephones. External communication will primarily be used for the purpose of resource and emergency resource communications. Prior to the commencement of activities at NAVSTA Mayport, the FOL will determine and arrange for telephone communications.

10.0 SPILL CONTAINMENT PROGRAM

10.1 SCOPE AND APPLICATION

Quantities of bulk potentially hazardous decontamination waters (greater than 55-gallons) will be handled during the site activities. It is possible, that as the job progresses, disposable PPE and other non-reusable items may be generated. As needed, 55-gallon drums will be used to contain unwanted items generated during sampling activities. The drum(s) will be labeled with the site name and address, the type of contents, and the date the container was filled as well as an identified contact person. As warranted, samples will be collected and analyzed to characterize the material and determine appropriate disposal measures. Once characterized the drum(s) will be removed from the staging area and disposed of in accordance with Federal, State and local regulations. Given the likely liquid nature of most drum contents, a comprehensive Spill Containment Program including the following information will be necessary.

10.2 POTENTIAL SPILL AREAS

Drums that contain liquid wastes and potential spill areas will be monitored in an ongoing attempt to prevent and control further potential contamination of the environment. Areas designated for handling, loading, and unloading of potentially contaminated waters and debris present limited potential for leaks or spills.

The drums/containers used for containing liquids will be sealed, labeled, and staged within a centralized area awaiting shipment or disposal.

10.3 LEAK AND SPILL DETECTION

To establish an early detection of potential spills or leaks, periodic inspections by the SSO will be conducted during working hours to visually determine that containers are not leaking. If a leak is detected, the first approach will be to transfer the container contents using a hand pump into a new container. Other provisions for the transfer of container contents will be made and appropriate emergency contacts will be notified, if necessary. In most instances, leaks will be collected and contained using absorbents such as Oil-dry, vermiculite, and/or sand, which may be stored at the staging area in a conspicuously marked drum. This material too, will be containerized for disposal pending analyses. The inspections will be documented in the Project Logbook.

10.4 PERSONNEL TRAINING AND SPILL PREVENTION

Personnel will be instructed on the procedures for spill prevention, containment, and collection of hazardous materials in the site-specific training. The FOL and/or the SSO will serve as the Spill Response Coordinator for this operation should the need arise.

10.5 SPILL PREVENTION AND CONTAINMENT EQUIPMENT

The following represents the types of equipment that may be maintained at the staging area for the purpose of supporting this Spill Containment Program (depending on the likelihood that drums and/or liquid wastes are generated).

- Sand, clean fill, vermiculite, or other noncombustible absorbent (oil-dry);
- Drums [55-gallon U.S. Department of Transportation (DOT) 17-E or 17-H]
- Shovels, rakes, and brooms
- Labels

10.6 SPILL CONTROL PLAN

This section describes the procedures the TtNUS field crewmembers will employ upon the detection of a spill or leak.

- 1) Notify the SSO or FOL immediately.

- 2) Take immediate actions to stop the leak or spill by plugging or patching the drum or raising the leak to the highest point. Avoid contacting drum contents. Spread the absorbent material in the area of the spill covering completely.

It is not anticipated that a spill will occur in which the field crews cannot handle. However, should this occur, the FOL or SSO will notify appropriate emergency response agencies.

11.0 CONFINED-SPACE ENTRY

It is not anticipated, under the proposed scope of work, that confined space and permit-required confined space activities will be conducted. Therefore, personnel under the provisions of this HASP are not allowed, under any circumstances, to enter any confined spaces. A confined space is defined as an area, which has one or more of the following characteristics:

- Is large enough and so configured that an employee can bodily enter and perform assigned work.
- Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry).
- Is not designed for continuous employee occupancy.
- A Permit-Required Confined Space is one that
 - Contains or has a potential to contain a hazardous atmosphere.
 - Contains a material that has the potential to engulf an entrant.
 - Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section.
 - Contains any other recognized, serious, safety or health hazard.

For further information on confined space, consult the Health and Safety Guidance Manual or call the PHSO. If confined space operations are to be performed as part of the scope of work, detailed procedures and training requirements will have to be addressed.

12.0 MATERIALS AND DOCUMENTATION

The TtNUS FOL shall ensure the following materials/documents are taken to the project site and used when required.

- A complete copy of this HASP
- Health and Safety Guidance Manual
- Incident Reports
- Medical Data Sheets
- MSDS for the chemicals brought on site, including decon solution, fuels, sample preservations, calibration gases, etc.
- A full size OSHA Job Safety and Health Poster
- Training/Medical Surveillance Documentation Form (blank)
- Emergency Reference Form (Section 2.0, extra copy for posting)

12.1 MATERIALS TO BE POSTED OR MAINTAINED AT THE SITE

The following documentation is to be posted or maintained at the site for quick reference purposes. In situations where posting these documents is not feasible, (such as no office trailer), these documents should be separated and immediately accessible.

Chemical Inventory Listing (posted) - This list represents the chemicals brought on site, including decontamination solutions, sample preservations, fuel, etc. This list should be posted in a central area.

MSDS (maintained) - The MSDSs should also be in a central area accessible to site personnel. These documents should match the listings on the chemical inventory list for the substances employed on-site. It is acceptable to have these documents within a central folder and the chemical inventory as the table of contents.

The OSHA Job Safety & Health Protection Poster (posted) - This poster, as directed by 29 CFR 1903.2 (a)(1), should be conspicuously posted in places where notices to employees are normally posted. Each FOL shall ensure that this poster is not defaced, altered, or covered by other material.

Site Clearance (maintained) - This list is found within the training section of the HASP (See Figure 8-1). This list identifies site personnel, dates of training (including site-specific training), and medical surveillance. The lists indicate not only clearance but also status. If personnel do not meet these requirements, they do not enter the site while personnel are engaged in activities.

Emergency Phone Numbers and Directions to the Hospital(s) (posted) - This list of numbers and directions will be maintained at the phone communications points and in each site vehicle.

Medical Data Sheets/Cards (maintained) - Medical Data Sheets will be filled out by on-site personnel and filed in a central location. The Medical Data Sheet will accompany any injury or illness requiring medical attention to the medical facility. A copy of this sheet or a wallet card will be given to personnel to be carried on their person.

Hearing Conservation Standard (29 CFR 1910.95) (posted) - This standard will be posted anytime hearing protection or other noise abatement procedures are employed.

Personnel Monitoring (maintained) - The results generated through personnel sampling (levels of airborne toxins, noise levels, etc.) will be posted to inform individuals of the results of that effort.

Placards and Labels (maintained) - Where chemical inventories have been separated because of quantities and incompatibilities, these areas will be conspicuously marked using DOT placards and acceptable (Hazard Communication 29 CFR 1910.1200(f)) labels.

The purpose, as stated above, is to allow site personnel quick access to this information. Variations concerning location and methods of presentation are acceptable, providing the objection is accomplished.

13.0 GLOSSARY

| | |
|----------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| CFR | Code of Federal Regulations |
| CLEAN | Comprehensive Long-term Environmental Action - Navy |
| CTO | Contract Task Order |
| CZR | Contamination Reduction Zone |
| °C | Degrees Celsius |
| °F | Degrees Fahrenheit |
| dBA | Decibels |
| DOD | Department of Defense |
| DOT | Department of Transportation |
| DPT | Direct Push Technology |
| EPA | Environmental Protection Agency |
| eV | Electron Volts |
| FDEP | Florida Department of Environmental Protection |
| FID | Flame Ionization Detector |
| FOL | Field Operations Leader |
| HASP | Health and Safety Plan |
| HAZWOPER | Hazardous Waste Operations and Emergency Response |
| HSM | Health and Safety Manager |
| IDLH | Immediate Dangerous to Life or Health |
| IDW | Investigative-Derived Wastes |
| LEL/LFL | Lower Explosive Limit / Lower Flammable Limit |
| MSDS | Material Safety Data Sheets |
| NA | Not Applicable |
| NAVSTA | Naval Station |
| Navy | United States Navy |
| NIOSH | National Institute for Occupational Safety and Health |
| NOAA | National Oceanic and Atmospheric Administration |
| NTP | National Toxicity Program |
| OSHA | Occupational Safety and Health Administration |
| PAHs | Polynuclear Aromatic Hydrocarbons |
| PCBs | Polychlorinated Biphenyls |
| PE | Polyethylene |

| | |
|-------------------|---|
| PEL | Permissible Exposure Limit |
| PHSO | Project Health and Safety Officer |
| PID | Photoionization Detector |
| PPE | Personal Protective Equipment |
| ppm | Parts-per-Million |
| psi | pounds-per-square-inch |
| PVC | Polyvinyl Chloride |
| RCRA | Resource Conservation and Recovery Act |
| SAP | Sampling and Analyses Plan |
| SCTLs | Soil Cleanup Target Levels |
| SOPs | Standard Operating Procedures |
| SOUTHNAVFACENGCOM | Southern Division, Naval Facilities Engineering Command |
| SSO | Site Safety Officer |
| SVOC | Semivolatile Organic Compounds |
| TBD | To Be Determined |
| TLV | Threshold Limit Value |
| TOM | Task Order Manager |
| TtNUS | Tetra Tech NUS, Inc. |
| TWA | Time-Weighted Average |
| UEL/UFL | Upper Exposure Limit/Upper Flammable Limit |
| UST | Underground Storage Tank |
| UV | Ultraviolet |
| VOCs | Volatile Organic Compounds |

ATTACHMENT I

**INJURY/ILLNESS PROCEDURE
AND REPORT FORM**

**TETRA TECH NUS, INC.****INJURY/ILLNESS PROCEDURE
WORKER'S COMPENSATION PROGRAM**

WHAT YOU SHOULD DO IF YOU ARE INJURED OR DEVELOP AN ILLNESS AS A RESULT OF YOUR EMPLOYMENT:

- If injury is minor, obtain appropriate first aid treatment.
- If injury or illness is severe or life threatening, obtain professional medical treatment at the nearest hospital emergency room.
- If incident involves a chemical exposure on a project work site, follow instructions in the Health & Safety Plan.
- Immediately report any injury or illness to your supervisor or office manager. In addition, you must contact your Human Resources representative, Marilyn Duffy at (412) 921-8475, and the Corporate Health and Safety Manager, Matt Soltis at (412) 921-8912 within 24 hours. You will be required to complete an Injury/Illness Report (attached). You may also be required to participate in a more detailed investigation from the Health Sciences Department.
- If further medical treatment is needed, The Hartford Network Referral Unit will furnish a list of network providers customized to the location of the injured employee. These providers are to be used for treatment of Worker's Compensation injuries subject to the laws of the state in which you work. Please call Marilyn Duffy at (412) 921-8475 for the number of the Referral Unit.

ADDITIONAL QUESTIONS REGARDING WORKER'S COMPENSATION:

Contact your local human resources representative, corporate health and safety coordinator, or Corporate Administration in Pasadena, California, at (626) 351-4664.

Worker's compensation is a state-mandated program that provides medical and disability benefits to employees who become disabled due to job related injury or illness. Tetra Tech, Inc. and its subsidiaries (Tetra Tech or Company) pay premiums on behalf of their employees. The type of injuries or illnesses covered and the amount of benefits paid are regulated by the state worker's compensation boards and vary from state to state. Corporate Administration in Pasadena is responsible for administering the Company's worker's compensation program. The following is a general explanation of worker's compensation provided in the event that you become injured or develop an illness as a result of your employment with Tetra Tech or any of its subsidiaries. Please be aware that the term used for worker's compensation varies from state to state.



CASE NO. _____

WHO IS COVERED:

All employees of Tetra Tech, whether they are on a full-time, part-time or temporary status, working in an office or in the field, are entitled to worker's compensation benefits. All employees must follow the above injury/illness reporting procedures. Consultants, independent contractors, and employees of subcontractors are not covered by Tetra Tech's Worker's Compensation plan.

WHAT IS COVERED:

If you are injured or develop an illness caused by your employment, worker's compensation benefits are available to you subject to the laws of the state you work in. Injuries do not have to be serious; even injuries treated by first aid practices are covered and must be reported. Please note that if you are working out-of-state and away from your home office, you are still eligible for worker's compensation benefits.



TETRA TECH, INC.

ACCIDENT AND ILLNESS INVESTIGATION REPORT

To: _____
Subsidiary Health and Safety Representative

Prepared by: _____

Position: _____

cc: _____
Workers Compensation Administrator

Office: _____

Project name: _____

Telephone number: _____

Project number: _____

Fax number: _____

Information Regarding Injured or Ill Employee

Name: _____

Office: _____

Home address: _____

Gender: M F No. of dependents: _____

Marital status: _____

Home telephone number: _____

Date of birth: _____

Occupation (regular job title): _____

Social security number: _____

Department: _____

Date of Accident: _____

Time of Accident: _____ a.m. p.m.

Time Employee Began Work: _____

Check if time cannot be determined

Location of Incident

Street address: _____

City, state, and zip code: _____

County: _____

Was place of accident or exposure on employer's premises? Yes No

Information About the Incident

What was the employee doing just before the incident occurred? Describe the activity as well as the tools, equipment, or material the employee was using. Be specific. Examples: "Climbing a ladder while carrying roofing materials"; "Spraying chlorine from hand sprayer"; "Daily computer key-entry"

What Happened? Describe how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time"

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.



TETRA TECH, INC.

ACCIDENT AND ILLNESS INVESTIGATION REPORT (Continued)

Information About the Incident (Continued)

What was the injury or illness? Describe the part(s) of the body affected and how it was affected. Be more specific than "hurt," "pain," or "sore." Examples "Strained back"; "Chemical burn, right hand"; "Carpal tunnel syndrome, left wrist"

Describe the Object or Substance that Directly Harmed the Employee: Examples: "Concrete floor"; "Chlorine"; "Radial arm saw." If this question does not apply to the incident, write "Not applicable."

Did the employee die? Yes [] No [] Date of death: _____

Was employee performing regular job duties? Yes [] No []

Was safety equipment provided? Yes [] No [] Was safety equipment used? Yes [] No []

Note: Attach any police reports or related diagrams to this report.

Witness (Attach additional sheets for other witnesses.)

Name: _____

Company: _____

Street address: _____

City: _____ State: _____ Zip code: _____

Telephone number: _____

Medical Treatment Required? [] Yes [] No [] First aid only

Name of physician or health care professional: _____

If treatment was provided away from the work site, provide the information below.

Facility name: _____

Street address: _____

City: _____ State: _____ Zip code: _____

Telephone number: _____

Was the employee treated in an emergency room? [] Yes [] No

Was the employee hospitalized over night as an in-patient? [] Yes [] No

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.



TETRA TECH, INC.

ACCIDENT AND ILLNESS INVESTIGATION REPORT (Continued)

Corrective Action(s) Taken by Unit Reporting the Accident:

Corrective Action Still to be Taken (by whom and when):

Name of Tetra Tech employee the injury or illness was first reported to: _____

Date of Report: _____ **Time of Report:** _____

I have reviewed this investigation report and agree, to the best of my recollection, with its contents.

Printed Name of Injured Employee

Telephone Number

Signature of Injured Employee

Date

The signatures provided below indicate that appropriate personnel have been notified of the incident.

| Title | Printed Name | Signature | Telephone Number | Date |
|--|--------------|-----------|------------------|------|
| Office Manager | | | | |
| Project Manager | | | | |
| Site Safety Coordinator or Office Health and Safety Representative | | | | |

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.



TETRA TECH, INC.

ACCIDENT AND ILLNESS INVESTIGATION REPORT (Continued)

To Be Completed by the Subsidiary Health and Safety Representative

Classification of Incident:
 Injury Illness

Result of Incident:
 First aid only
 Days away from work
 Remained at work but incident resulted in job transfer or work restriction
 Incident involved days away and job transfer or work restriction
 Medical treatment only

No. of days away from work _____
 Date employee left work _____
 Date employee returned to work _____
 No. of days placed on restriction or job transfer: _____

OSHA Recordable Case Number _____

To Be Completed by Human Resources

Social security number: _____
 Date of hire: _____ Hire date for current job: _____
 Wage information: \$ _____ per Hour Day Week Month
 Position at time of hire: _____
 Current position: _____ Shift hours: _____
 State in which employee was hired: _____
 Status: Full-time Part-time Hours per week: _____ Days per week: _____
 Temporary job end date: _____

To Be Completed during Report to Workers Compensation Carrier

Date reported: _____ Reported by: _____
 Confirmation number: _____
 Name of contact: _____
 Field office of claims adjuster: _____

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

ATTACHMENT II

MEDICAL DATA SHEET

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by all on-site personnel and kept in the command post during the conduct of site operations. This data sheet will accompany any personnel when medical assistance is needed or if transport to hospital facilities is required.

Project _____

Name _____ Home Telephone _____

Address _____

Age _____ Height _____ Weight _____

Name of Next Kin _____

Drug or other Allergies _____

Particular Sensitivities _____

Do You Wear Contacts? _____

Provide a Checklist of Previous Illnesses or Exposure to Hazardous Chemicals _____

What medications are you presently using? _____

Do you have any medical restrictions? _____

Name, Address, and Phone Number of personal physician: _____

=====

I am the individual described above. I have read and understand this HASP.

Signature

Date

ATTACHMENT III

SAFE WORK PERMITS

**SAFE WORK PERMIT
MOBILIZATION AND DEMOBILIZATION ACTIVITIES
NAVSTA MAYPORT, FLORIDA**

Permit No. _____ Date: _____ Time: From _____ to _____

SECTION I: General Job Scope

- I. Work limited to the following (description, area, equipment used): Mobilization and demobilization activities.
- II. Required Monitoring Instruments: None
- III. Field Crew: _____
- IV. On-site Inspection conducted Yes No Initials of Inspector TtNUS

SECTION II: General Safety Requirements (To be filled in by permit issuer)

- | | | |
|--|--|--|
| V. Protective equipment required | Respiratory equipment required | |
| Level D <input checked="" type="checkbox"/> Level B <input type="checkbox"/> | Full face APR <input type="checkbox"/> | Escape Pack <input type="checkbox"/> |
| Level C <input type="checkbox"/> Level A <input type="checkbox"/> | Half face APR <input type="checkbox"/> | SCBA <input type="checkbox"/> |
| Detailed on Reverse | PAPR <input type="checkbox"/> | Bottle Trailer <input type="checkbox"/> |
| | Skid Rig <input type="checkbox"/> | None <input checked="" type="checkbox"/> |

Modifications/Exceptions: Minimum requirements include sleeved shirt and long pants, or coveralls, safety glasses and safety footwear. Hard hats and hearing protection will be worn when working near operating equipment

| VI. Chemicals of Concern | Action Level(s) | Response Measures |
|--|-----------------|-------------------|
| <u>None anticipated given the nature of activities and limited contact w/ media.</u> | _____ | _____ |

- VII. Additional Safety Equipment/Procedures
- | | |
|---|--|
| Hard-hat <input type="checkbox"/> Yes <input type="checkbox"/> No | Hearing Protection (Plugs/Muffs) <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Safety Glasses <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Safety belt/harness <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Chemical/splash goggles <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Radio <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash Shield <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Barricades <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash suits/coveralls <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Gloves (Type - <u>Work</u>) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Steel toe Work shoes or boots <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Work/rest regimen <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

Modifications/Exceptions: Tyvek coverall to protect against natural hazards (e.g., ticks). If working in areas where snakes are a threat, wear snake chaps to protect against bites.

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------|--|
| VII. Procedure review with permit acceptors | Yes | NA | Yes | NA |
| Safety shower/eyewash (Location & Use)..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Emergency alarms | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Procedure for safe job completion | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Evacuation routes | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Contractor tools/equipment/PPE inspected | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Assembly points | <input checked="" type="checkbox"/> <input type="checkbox"/> |

- | | | | |
|--|--------------------------|--------------------------|-------------------------------------|
| IX. Site Preparation | Yes | No | NA |
| Utility Locating and Excavation Clearance completed | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Vehicle and Foot Traffic Routes Cleared and Established..... | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Physical Hazards Barricaded and Isolated | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Emergency Equipment Staged | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- X. Additional Permits required (Hot work, confined space entry, excavation etc.) Yes No
If yes, complete permit required or contact Health Sciences, Pittsburgh Office

XI. Special instructions, precautions: Preview work locations to identify potential hazards (slips, trips, and falls, natural hazards, etc.) Avoid potential nesting areas. If work in high grass or vegetated areas, wear light colored clothing so that ticks and other biting insects can be easily visible and can be removed. Inspect clothing and body for ticks. Minimize contact with potentially contaminated media. Suspend site activities in the event of inclement weather.

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT
SURVEYING ACTIVITIES
NAVSTA MAYPORT, FLORIDA**

Permit No. _____ Date: _____ Time: From _____ to _____

SECTION I: General Job Scope

- I. Work limited to the following (description, area, equipment used): Geographical surveys
- II. Required Monitoring Instruments: None
- III. Field Crew: _____
- IV. On-site Inspection conducted Yes No Initials of Inspector TtNUS

SECTION II: General Safety Requirements (To be filled in by permit issuer)

- | | |
|--|--|
| V. Protective equipment required Level D <input checked="" type="checkbox"/> Level B <input type="checkbox"/> Level C <input type="checkbox"/> Level A <input type="checkbox"/> Detailed on Reverse | Respiratory equipment required Full face APR <input type="checkbox"/> Escape Pack <input type="checkbox"/> Half face APR <input type="checkbox"/> SCBA <input type="checkbox"/> PAPR <input type="checkbox"/> Bottle Trailer <input type="checkbox"/> Skid Rig <input type="checkbox"/> None <input checked="" type="checkbox"/> |
|--|--|

Modifications/Exceptions: Minimum requirements include sleeved shirt and long pants and safety footwear. Safety glasses, hard hats, and hearing protection will be worn when working near operating equipment.

| | | |
|--|-----------------|-------------------|
| VI. Chemicals of Concern | Action Level(s) | Response Measures |
| <u>None anticipated given the nature of surveying activities and limited contact w/ media.</u> | <u>None</u> | |

- | | |
|--|---|
| VII. Additional Safety Equipment/Procedures | |
| Hard-hat..... <input type="checkbox"/> Yes <input type="checkbox"/> No | Hearing Protection (Plugs/Muffs) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Safety Glasses <input type="checkbox"/> Yes <input type="checkbox"/> No | Safety belt/harness <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Chemical/splash goggles..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Radio..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash Shield..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Barricades..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash suits/coveralls..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Gloves (Type - <u>Work</u>)..... <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Steel toe Work shoes or boots..... <input type="checkbox"/> Yes <input type="checkbox"/> No | Work/rest regimen..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

Modifications/Exceptions: Tyvek coverall to protect against natural hazards (e.g., ticks). If working in areas where snakes are a threat, wear snake chaps to protect against bites. In high traffic areas wear high visibility vests.

- | | | |
|--|--------------------------|-------------------------------------|
| VIII. Procedure review with permit acceptors | Yes | NA |
| Safety shower/eyewash (Location & Use) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Procedure for safe job completion | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Contractor tools/equipment/PPE inspected | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| | Emergency alarms | <input checked="" type="checkbox"/> |
| | Evacuation routes | <input checked="" type="checkbox"/> |
| | Assembly points..... | <input checked="" type="checkbox"/> |

- | | | | |
|---|--------------------------|--------------------------|-------------------------------------|
| IX. Site Preparation | Yes | No | NA |
| Utility Locating and Excavation Clearance completed | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Vehicle and Foot Traffic Routes Cleared and Established | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Physical Hazards Barricaded and Isolated | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Emergency Equipment Staged | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- X. Additional Permits required (Hot work, confined space entry, excavation etc.) Yes No
If yes, complete permit required or contact Health Sciences, Pittsburgh Office

XI. Special instructions, precautions: Preview work locations to identify potential hazards (slips, trips, and falls, natural hazards, etc.) Avoid potential nesting areas. If working in high grass or vegetated areas, wear light colored clothing so that ticks and other biting insects can be easily visible and can be removed. Inspect clothing and body for ticks. Minimize contact with potentially contaminated media. Suspend site activities in the event of inclement weather.

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT FOR
MULTI-MEDIA SAMPLING
NAVSTA MAYPORT, FLORIDA**

Permit No. _____ Date: _____ Time: From _____ to _____

SECTION I: General Job Scope

- I. Work limited to the following (description, area, equipment used): Multi-media sampling including surface soils, decon waters and IDW sampling..
- II. Required Monitoring Instrument(s): PID with 10.6 eV lamp (or higher) lamp source
- III. Field Crew: _____
- IV. On-site Inspection conducted Yes No Initials of Inspector TtNUS

SECTION II: General Safety Requirements (To be filled in by permit issuer)

- | | | |
|--|--|--|
| IV. Protective equipment required | Respiratory equipment required | |
| Level D <input checked="" type="checkbox"/> Level B <input type="checkbox"/> | Full face APR <input type="checkbox"/> | Escape Pack <input type="checkbox"/> |
| Level C <input type="checkbox"/> Level A <input type="checkbox"/> | Half face APR <input type="checkbox"/> | SCBA <input type="checkbox"/> |
| Detailed on Reverse | PAPR <input type="checkbox"/> | Bottle Trailer <input type="checkbox"/> |
| | Skid Rig <input type="checkbox"/> | None <input checked="" type="checkbox"/> |

Modifications/Exceptions: Minimum requirement include sleeved shirt and long pants, safety shoes, surgical style gloves, and safety glasses. Hard hats and hearing protection will be worn when working near operating equipment or when required by the SSO.

- | | | |
|---|--|---|
| V. Chemicals of Concern | Action Level(s) | Response Measures |
| <u>PCB'S, Pesticides, Waste Oils and SVOCs (PAHs)</u> | <u>Any sustained readings above >10 ppm in worker breathing zones</u> | <u>Suspend site activities and report to an unaffected area until levels return to normal</u> |

- VI. Additional Safety Equipment/Procedures
- | | | | |
|------------------------------------|---|--------------------------------------|---|
| Hard-hat | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Hearing Protection (Plugs/Muffs).... | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Safety Glasses | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Safety belt/harness | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Chemical/splash goggles | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Radio | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash Shield | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Barricades | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash suits/coveralls | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Gloves (Type – Surgical Style) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Steel toe Work shoes or boots..... | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Work/rest regimen | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
- Modifications/Exceptions: Reflective vests for high traffic areas. Tyvek coverall if there is a potential for soiling work clothes.

- | | | | | | |
|--|-------------------------------------|-------------------------------------|-------------------------|-------------------------------------|--------------------------|
| VII. Procedure review with permit acceptors | Yes | NA | Emergency alarms | Yes | NA |
| Safety shower/eyewash (Location & Use)..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Evacuation routes | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Procedure for safe job completion | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Assembly points | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Contractor tools/equipment/PPE inspected | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | |

- | | | | |
|--|--------------------------|--------------------------|-------------------------------------|
| VIII. Site Preparation | Yes | No | NA |
| Utility Locating and Excavation Clearance completed | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Vehicle and Foot Traffic Routes Cleared and Established..... | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Physical Hazards Barricaded and Isolated | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Emergency Equipment Staged | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- IX. Additional Permits required (Hot work, confined space entry, excavation etc.)
- If yes, complete permit required or contact Health Sciences, Pittsburgh Office*
- X. Special instructions, precautions: NA

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT
DECONTAMINATION ACTIVITIES
NAVSTA MAYPORT, FLORIDA**

Permit No. _____ Date: _____ Time: From _____ to _____

SECTION I: General Job Scope

- I. Work limited to the following (description, area, equipment used): Decontamination of Building 1602 walls and floors. Pressure washers using cold water and a detergent solution will be used to decon the building.
- II. Required Monitoring Instrument(s): PID with 10.6 eV or higher lamp source (used to screen area)
- III. Field Crew: _____
- IV. On-site Inspection conducted Yes No Initials of Inspector TtNUS

SECTION II: General Safety Requirements (To be filled in by permit issuer)

- | | | |
|--|--|--|
| IV. Protective equipment required | Respiratory equipment required | |
| Level D <input checked="" type="checkbox"/> Level B <input type="checkbox"/> | Full face APR <input type="checkbox"/> | Escape Pack <input type="checkbox"/> |
| Level C <input type="checkbox"/> Level A <input type="checkbox"/> | Half face APR <input type="checkbox"/> | SCBA <input type="checkbox"/> |
| Detailed on Reverse | PAPR <input type="checkbox"/> | Bottle Trailer <input type="checkbox"/> |
| | Skid Rig <input type="checkbox"/> | None <input checked="" type="checkbox"/> |

Modifications/Exceptions: Minimum requirement include sleeved shirt and long pants, safety glasses, safety footwear, and nitrile gloves. When using pressure washers field crews will wear hearing protection, PVC rain suits, and face shields.

- | | | |
|---|--|---|
| V. Chemicals of Concern | Action Level(s) | Response Measures |
| <u>PCB'S, Pesticides, Waste Oils and SVOCs (PAHs)</u> | <u>Any sustained readings above >10 ppm in worker breathing zones</u> | <u>Suspend site activities and report to an unaffected area until levels return to normal</u> |

- | | |
|---|--|
| VI. Additional Safety Equipment/Procedures | |
| Hard-hat <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Hearing Protection (Plugs/Muffs) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Safety Glasses <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Safety belt/harness <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Chemical/splash goggles <input type="checkbox"/> Yes <input type="checkbox"/> No | Radio <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash Shield <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Barricades <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Splash suits/coveralls <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Gloves (Type - Nitrile) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Steel toe Work shoes or boots <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Work/rest regimen <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

Modifications/Exceptions: PVC rain suits or PE or PVC coated Tyvek for protection against splashes and overspray. Chemical slip resistant boot covers if excessive liquids are generated or to protect footwear.

- | | | | | |
|--|-------------------------------------|-------------------------------------|-------------------------|--|
| VII. Procedure review with permit acceptors | Yes | NA | Yes | NA |
| Safety shower/eyewash (Location & Use) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Emergency alarms | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Procedure for safe job completion | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Evacuation routes | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Contractor tools/equipment/PPE inspected | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Assembly points | <input checked="" type="checkbox"/> <input type="checkbox"/> |

- | | | | |
|---|-------------------------------------|--------------------------|-------------------------------------|
| VIII. Site Preparation | Yes | No | NA |
| Utility Locating and Excavation Clearance completed | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Vehicle and Foot Traffic Routes Cleared and Established | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Physical Hazards Barricaded and Isolated | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Emergency Equipment Staged | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- IX. Additional Permits required (Hot work, confined space entry, excavation etc.) Yes No

If yes, complete permit required or contact Health Sciences, Pittsburgh Office

- X. Special instructions, precautions: Chemical hazards with decontamination because of use of fluids and a water pressure. To minimize the potential for exposure, site personnel will use PPE and prevent contact with pressurized water and potentially contaminated equipment. Refer to the manufacturer's MSDS regarding PPE, handling, storage, and first-aid measures related to decontamination fluids.

Permit Issued by: _____ Permit Accepted by: _____

ATTACHMENT IV

EQUIPMENT INSPECTION CHECKLIST

EQUIPMENT INSPECTION

COMPANY: _____ **UNIT NO.** _____

FREQUENCY: Inspect daily, document prior to use and as repairs are needed.

Inspection Date: ____/____/____ Time: _____ Equipment Type: _____

| | (e.g., bulldozer) | | |
|---|--------------------------|--------------------------|--------------------------|
| | Good | Need Repair | N/A |
| Tires or tracks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hoses and belts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cab, mirrors, safety glass | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Turn signals, lights, brake lights, etc. (front/rear) for equipment approved for highway use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Is the equipment equipped with audible back-up alarms and back-up lights? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Horn and gauges | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Brake condition (dynamic, park, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fire extinguisher (Type/Rating - _____) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Fluid Levels: | | | |
| - Engine oil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Transmission fluid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Brake fluid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Cooling system fluid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Windshield wipers | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| - Hydraulic oil | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Oil leak/lube | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Coupling devices and connectors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Exhaust system | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Blade/boom/ripper condition | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Accessways: Frame, hand holds, ladders, walkways (non-slip surfaces), guardrails? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Power cable and/or hoist cable | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Steering (standard and emergency) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Safety Guards:

| | Yes | No |
|---|--------------------------|--------------------------|
| - Around rotating apparatus (belts, pulleys, sprockets, spindles, drums, flywheels, chains) all points of operations protected from accidental contact? _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| - Hot pipes and surfaces exposed to accidental contact? _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| - All emergency shut offs have been identified and communicated to the field crew? _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| - Have emergency shutoffs been field-tested? _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| - Results? _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| - Are any structural members bent, rusted, or otherwise show signs of damage? _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| - Are fueling cans used with this equipment approved type safety cans? _____ | <input type="checkbox"/> | <input type="checkbox"/> |
| - Have the attachments designed for use (as per manufacturer's recommendation) with this equipment been inspected and are considered suitable for use? _____ | <input type="checkbox"/> | <input type="checkbox"/> |

Portable Power Tools:

- Tools and Equipment in Safe Condition? _____
- Saw blades, grinding wheels free from recognizable defects (grinding wheels have been sounded)? _____
- Portable electric tools properly grounded? _____
- Damage to electrical power cords? _____
- Blade guards in place? _____
- Components adjusted as per manufacturers recommendation? _____

Cleanliness:

- Overall condition (is the decontamination performed prior to arrival on-site considered acceptable)? _____
- Where was this equipment used prior to its arrival on site? _____
- Site Contaminants of concern at the previous site? _____
- Inside debris (coffee cups, soda cans, tools and equipment) blocking free access to foot controls? _____

Operator Qualifications (as applicable for all heavy equipment):

- Does the operator have proper licensing where applicable, (e.g., CDL)? _____
- Does the operator, understand the equipments operating instructions? _____
- Is the operator experienced with this equipment? _____
- Does the operator have emotional and/or physical limitations that would prevent him/her from performing this task in a safe manner? _____
- Is the operator 21 years of age or more? _____

Identification:

- Is a tagging system available, for positive identification, for tools removed from service? _____

Additional Inspection Required Prior to Use On-Site

- | | Yes | No |
|---|--------------------------|--------------------------|
| - Does equipment emit noise levels above 90 decibels? | <input type="checkbox"/> | <input type="checkbox"/> |
| - If so, has an 8-hour noise dosimetry test been performed? | <input type="checkbox"/> | <input type="checkbox"/> |
| - Results of noise dosimetry: _____ | | |
| - Defects and repairs needed: _____ | | |
| - General Safety Condition: _____ | | |
| - Operator or mechanic signature: _____ | | |
- Approved for Use: Yes No

Site Safety Officer Signature