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HEALTH AND SAFETY PLAN FOR DISASTER RECOVERY DISPOSAL AREA SITE 1 NCBC
GULFPORT MS
4/1/2008
TETRA TECH NUS

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-04-D-0055



Health and Safety Plan for Site 1 – Disaster Recovery Disposal Area

Naval Construction Battalion Center Gulfport
Gulfport, Mississippi

Contract Task Order 0065

April 2008



Southeast

2155 Eagle Drive

North Charleston, South Carolina 29406

**HEALTH AND SAFETY PLAN
FOR
SITE 1 – DISASTER RECOVERY DISPOSAL AREA
AT THE
NAVAL CONSTRUCTION BATTALION CENTER GULFPORT
GULFPORT, MISSISSIPPI**

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

**Submitted to:
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**CONTRACT NUMBER N62467-04-D-0055
CONTRACT TASK ORDER 0065**

APRIL 2008

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1.0 INTRODUCTION

Authorization: This Health and Safety Plan (HASP) and the work described within are completed under the authorization of:

Contract: Comprehensive Long-Term Environmental Action Navy (CLEAN IV)
Contract Number: N62467-04-D-0055
Contract Task Order: 0065

Application: This Health and Safety Plan (HASP) has been written to encompass site activities that are to be conducted at the NCBC located in Gulfport, Mississippi. These activities are defined in Section 4.0.

Compliance: The elements of this HASP are intended to be in compliance with the requirements established by:

- OSHA 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response" (HAZWOPER)
- Tetra Tech NUS Health and Safety Program

This HASP must be accompanied by the Tetra Tech NUS, Inc. Health and Safety Guidance Manual (TtNUS HSGM). The Guidance Manual provides additional information on program support, standard operating procedures, and safe work practices.

Modifications/Changes: The following conditions are considered sufficient basis review and possible changes to this document:

The addition or modification of activities outside of those specified in Section 4.0, Scope of Work. New information becomes available through the course of the investigation or from outside sources.

Changes to this HASP will be requested through the Task Order Manager (TOM) to the Tetra Tech NUS Health and Safety Manager (HSM). It is the responsibility of the TOM to notify affected personnel of changes to this HASP. Changes to the HASP will be documented using a Document Review Record.

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 on-site health and safety. They 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 **Project Health and Safety Officer (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 and tasks to be conducted.
 - ii. Establishing air monitoring and decontamination procedures.
 - iii. Assigning personal protective equipment based on task and potential hazards.
 - iv. Determining emergency action/response procedures and emergency contacts.
 - v. Stipulating training and medical surveillance requirements.
 - 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 **Site Safety Officer (SSO)** supports site activities by advising the FOL on the aspects of health and safety on-site. In this capacity the SSO:
 - i. Coordinates health and safety activities with the FOL.
 - ii. Selects, applies, inspects, and maintains personal protective equipment.
 - iii. Establishes work zones and control points in areas of operation.
 - iv. Implements air monitoring program for on-site activities.
 - v. Verifies training and medical clearance of on-site personnel status in relation to site activities.
 - vi. Implements Hazard Communication, Respiratory Protection Programs, and other associated health and safety programs as they may apply to site activities.
 - vii. Coordinates TtNUS emergency actions with the facilities emergency services.
 - viii. Provides site-specific training for on-site personnel.
 - ix. Investigates accidents and injuries (see Attachment I – Incident Report Form)
 - x. Provides 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 TiNUS CLEAN HSM.

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

1.2 SITE INFORMATION AND PERSONNEL ASSIGNMENTS

Site Name: Naval Construction Battalion Center Gulfport

Site Address: 5200 NCBC 2nd Street
Gulfport, Mississippi 39501-5000

Facility Contacts: John Gallagher **Phone Number:** (228) 822-3134
Kenny Peterman

Purpose of Site Visit: This activity is divided into a multi-task operation (see Section 4.0).

Project Team:

TtNUS Personnel:	Discipline/Tasks Assigned:	Phone Number:
<u>Robert Fisher</u>	<u>Task Order Manager (TOM)</u>	<u>850/385-9866 Ext. 20</u>
<u>Matthew M. Soltis, CIH, CSP</u>	<u>CLEAN Health and Safety Manager (HSM)</u>	<u>412/921-8912</u>
<u>James K. Laffey</u>	<u>Project Health and Safety Officer (PHSO)</u>	<u>412/921-8678</u>
<u>Jason Bourgeois</u>	<u>Field Operations Leader (FOL)</u>	<u>850/385-9866 Ext. 23</u>
<u>TBD</u>	<u>Site Safety Officer (SSO)</u>	<u></u>

Non-TtNUS Personnel	Affiliation/Discipline/Tasks Assigned	
<u>FedEx</u>	<u>Parcel/Sample Shipment</u>	<u>(800) 463-3339</u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

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

James K. Laffey

TBD - To Be Determined

2.0 EMERGENCY ACTION PLAN

2.1 INTRODUCTION

This section has been developed as part of a planning effort to direct and guide field personnel in the event of an emergency. In the event of an emergency that cannot be handled by onsite personnel, site personnel will be evacuated to a safe place of refuge and the appropriate emergency response agencies will be notified. It has been determined that the majority of potential emergency situations would be better supported by outside emergency responders. Workers who are ill or who have suffered a non-serious injury may be transported by site personnel to nearby medical facilities, provided such transport does not aggravate or further endanger the welfare of the injured/ill person. 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 operations, a factor which ensures adequate emergency response time. This emergency action plan conforms to the requirements of OSHA Standard 29 CFR 1910.38(a), as allowed in OSHA 29 CFR 1910.120(l)(1)(ii).

In the event of an emergency, TtNUS personnel will, provide necessary initial response measures for incidents such as:

- Incipient fire-fighting support and prevention
- Incipient 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

Injuries/illnesses resulting from exposure to chemical or physical contact with hazards and fire are the most probable emergencies that could occur during site activities. To minimize or eliminate these potential emergency situations, emergency planning activities will include the following:

- Coordinating response actions with NCBC Gulfport 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 will include the following:
 - Chemical Inventory (for substances used onsite), with Material Safety Data Sheets.
 - Onsite personnel medical records (Medical Data Sheets).
 - A logbook identifying personnel onsite each day.
 - Emergency notification phone numbers in 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

It is anticipated that foreseeable emergency situations that may be encountered during site activities will be recognizable by worker observation or through air monitoring equipment readings. Through site-specific training, site personnel will have knowledge regarding the signs and symptoms of overexposure to contaminants of concern. This knowledge will assist site personnel in identifying potential emergency situations and to alert personnel of potential hazards. Many of the potential hazards and recommended control measures are discussed in Sections 5.0 and 6.0 of this document. Additionally, early recognition will be supported by periodic site surveys to eliminate conditions that may predispose site personnel or property to an emergency. Site surveys will be conducted at least once a week during the initiation of this effort.

The above actions will provide early recognition for potential emergency situations. Should an incident take place, TtNUS will take defensive and offensive measures to control the situation. However, if the FOL and/or the SSO determine that an incident has progressed to a serious situation; TtNUS will withdraw, and notify appropriate response agencies.

2.3.2 Prevention

TtNUS will minimize the potential for emergencies by following the Health and Safety Guidance Manual and ensuring compliance with the HASP and applicable OSHA regulations. In the event that an activity or operation is covered by more than one of these documents, the most stringent requirement shall apply.

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 the TtNUS FOL at the safe refuge area. Safe places of refuge will be determined prior to commencement of site activities and will be conveyed to personnel as part of the daily safety meeting conducted each morning. Upon reporting to the refuge location, personnel will remain there until directed otherwise by the FOL or the on-site Incident Commander of the Emergency Response Team. The FOL or the SSO will take a head count at this location to confirm the location of site personnel. The site logbook will be used to take and record the head count. Ideally, the places of refuge should offer a point for communication.

2.5 EVACUATION ROUTES AND PROCEDURES

An evacuation will be initiated whenever recommended hazard controls are insufficient to protect the health, safety, or welfare of site workers. 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 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.

Evacuation procedures will be discussed prior to the initiation of 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, multiple assembly points will be selected at NCBC Gulfport, 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

TtNUS personnel will be working in close proximity to each other at NCBC Gulfport. As a result, hand signals, voice commands, and line of site communication will be sufficient to alert site personnel of an emergency. When project tasks are performed simultaneously on different sites, vehicle horns will be used to communicate emergency situations.

If an emergency warranting evacuation occurs, the following procedures are to be initiated:

- Initiate the evacuation via hand signals, voice commands, line of site communication, or vehicle horns. The following signals shall be utilized when communication via vehicle horn is necessary:

HELP	three short blasts	■ ■ ■
EVACUATION	three long blasts	■ ■ ■

- Report to the designated refuge point.
- Once non-essential personnel are evacuated, appropriate response procedures will be enacted to control the situation.
- Describe to the FOL (FOL will serve as the Incident Coordinator) pertinent incident details.

In the event that site personnel cannot mitigate the hazardous situation, the FOL and SSO will enact emergency notification procedures to secure additional assistance in the following manner:

Dial 911 and notify other pertinent emergency contacts listed in Table 2-1 and report the incident. Give the emergency operator the location of the emergency, the type of emergency, the number of injured, and a brief description of the incident. Stay on the phone and follow the instructions given by the operator. The operator will then notify and dispatch the proper emergency response agencies.

2.7 EMERGENCY CONTACTS

Prior to performing work at the site, personnel will be briefed on the emergency procedures to be followed in the event of an incident. A mobile phone shall will be available on site. Table 2-1 provides a list of emergency contacts and their corresponding telephone numbers. This table must be posted on site where it is readily available to site personnel.

TABLE 2-1
EMERGENCY REFERENCE
NCBC GULFPORT

AGENCY	TELEPHONE
EMERGENCY	9-1-1
Police	(228) 871-2222
Fire/Hazardous Materials Release	(228) 871-2333
Ambulance Services	(228) 871-2444
Base Contact, Mr. Gordon Crane	(228) 871-2485 (800) 343-3472 – pager
Memorial Hospital at Gulfport 4500 13 th Street Gulfport, Mississippi 39501-2569	(228) 867-4000
Task Order Manager Robert Fisher, P.E.	(850) 510-2743
CLEAN Health and Safety Manager Matthew Soltis, CIH, CSP	(412) 921-8912
Project Health and Safety Officer James K. Laffey	(412) 921-8678
Utilities (On Base) (Utility Clearances and Emergencies) Public Works Maintenance Division	(228) 871-2244
Public Utility Locating Service Mississippi One Call System Inc.	8-1-1
Chemtrec	(800) 424-9300
National Response Center	(800) 424-8802
Mississippi Regional Poison Control Center	(800) 222-1222
Tetra Tech NUS, Tallahassee Office	(850) 359-9899
Tetra Tech NUS, Pittsburgh Office	(412) 921-7090
Tetra Tech NUS, Gulfport, Mississippi Office	(288) 575-6287

2.8 EMERGENCY ROUTE TO HOSPITAL

Directions from NCBC Gulfport are as follows. See Figure 2-1 for a route map.

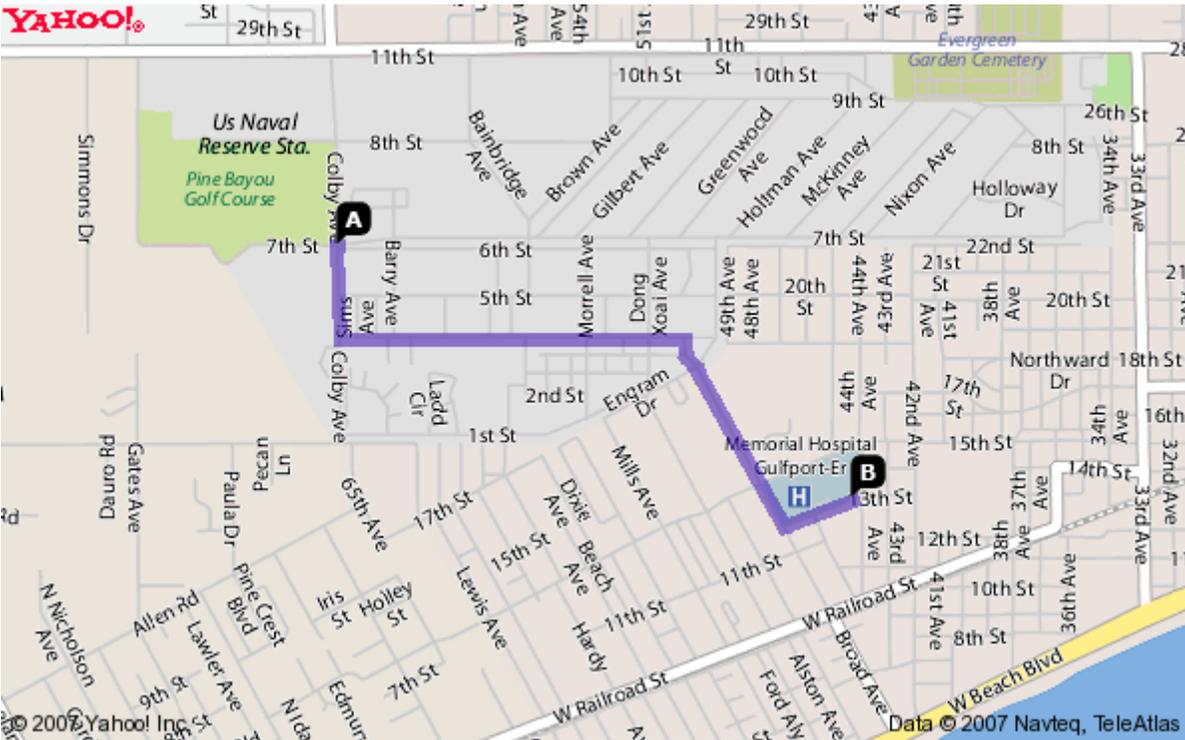
From Site 1 go to the intersection of 7th Street and Colby Avenue go south on Colby.

- Proceed south on Colby Avenue, go 0.2 mi
- Turn Left on Marvin Shields Blvd go 0.9 mi
- Turn Right on Broad Ave go 0.6 mi
- Turn Left on 13th St go 0.2 mi

Arrive:

Memorial Hospital at Gulfport
4500 13th Street
Gulfport, Mississippi 39501-2569

**Figure 2-1
Route to Hospital**



2.9 DECONTAMINATION PROCEDURES/EMERGENCY MEDICAL TREATMENT

During a site evacuation, decontamination procedures will be performed only if doing so does not further jeopardize the welfare of site workers. Decontamination will be postponed if the action that initiates an evacuation would further endanger the lives of workers. However, a situation that would require workers to evacuate without first performing decontamination procedures is unlikely to occur at this site. If the emergency involves personnel to exposures to chemicals, follow the steps provided in Figure 2-2.

2.10 INJURY/ILLNESS REPORTING

If TtNUS personnel are injured or develop an illness as a result of working on site, the TtNUS Incident Report Form (Attachment I) must be followed. Following this procedure is necessary for documenting the information obtained at the time of the incident. Also, as soon as possible the Navy Contact must be informed of incidents or accidents that require medical attention.

Pertinent information regarding allergies to medications or other special conditions will be provided to medical services personnel. 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.

2.11 PPE AND EMERGENCY EQUIPMENT

A first-aid kit, eye wash units (or bottles of disposable eyewash solution) and fire extinguishers (strategically placed) will be maintained onsite and shall be immediately available for use in the event of an emergency. This equipment will be located in the field office as well as in each site vehicle. At least one first aid kit supplied with equipment to protect against blood borne pathogens will also be available on site. Personnel identified within the field crew with blood borne pathogen and first-aid training will be the only personnel permitted to offer first-aid assistance.

FIGURE 2-2 POTENTIAL EXPOSURE PROTOCOL

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

In the event of a personnel injury or accident:

- 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 injured person is a Tetra Tech NUS 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 and enter Extension 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 injury.
 - 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 involved 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 to WorkCare at (714) 456-2154.
- Contact Corporate Health and Safety Department (Matt Soltis) and Human Resources Manager Marilyn Duffy at 1-800-245-2730.
- As data is gathered and the 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. A personalized letter describing the individual findings/results will accompany this generalized summary. A copy of the personal letter will be filed in the continuing medical file maintained by WorkCare.

FIGURE 2-2 (continued)
WORKCARE
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 Chest Tightness / Pressure
Tearing Nausea / Vomiting
Headache Dizziness
Cough Weakness
Shortness of Breath

Delayed Symptoms:

Weakness Loss of Appetite
Nausea / Vomiting Abdominal Pain
Shortness of Breath Headache
Cough Numbness / Tingling

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

Burning of eyes, nose, or throat Nausea / Vomiting
Tearing Dizziness
Headache Weakness
Cough Loss of Appetite
Shortness of Breath Abdominal Pain
Chest Tightness / Pressure Numbness / Tingling
Cyanosis

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 SITE DESCRIPTION

The Naval Construction Battalion Center (NCBC) Gulfport, Mississippi was commissioned as the homeport of the Atlantic Fleet Seabees in 1966. The Base occupies approximately 1,100 acres in the western part of Gulfport in the southeastern coastal area of Mississippi. The Navy previously used the property as a Naval Training Center and Naval Storehouse starting in 1942. Presently, four Naval Mobile Construction Battalions are based at Gulfport.

3.2 SITE LOCATION AND HISTORY

Site 1 is a former landfill approximately nine acres in size located north of 7th Street and east of Colby Avenue. This area was used as a mock disaster recovery training village and is currently used as a training facility. The northern boundary of the site is adjacent to three former borrow pits referred to as the catfish ponds. The landfill was operated from 1942 until 1948. During the time this landfill was operated, it received nearly the entire the chemical waste generated at NCBC Gulfport. Waste fuel, oil, solvents, paint, and paint thinners, reportedly in 55-gallon drums, were transported to the site and buried in trenches.

In 1984, during water line repairs at the southwest portion of Site 1, four or five rusted 55-gallon drums were excavated. The drums were highly deteriorated and the drum contents were tar-like in consistency with a strong odor similar to burnt plastic. The drums were transported to the concrete foundation of former Building 271 (later designated Site 9) for storage pending analytical results of the contents found in the drums.

Topography at Site 1 is relatively flat, and the ground surface is primarily fill dirt and native sand with grass and tree cover. Roads and structures from the disaster recovery training area are present at the site, and several larger buildings used for training have been constructed. Surface water drainage at the site is to the west to the ditch adjacent to Colby Avenue, which drains into Canal No. 1. Canal No. 1 conveys surface water north where it exits the base through a culvert under 28th Street. The depth to groundwater at Site 1 is approximately three feet. The surface material is a fine to medium sand with little silt, allowing infiltration or seepage into the landfill.

NCBC Gulfport is an active facility. It is currently part of the training infrastructure and will continue to be used for training purposes in the future. Access to the Site 1 is open.

4.0 SCOPE OF WORK

This section discusses the specific tasks that are to be conducted as part of this scope of work as identified by CTO 0065. These tasks are the only ones addressed by this HASP. Any tasks to be conducted outside of the elements listed here will be considered a change in scope requiring modification of this document. The TOM or a designated representative will submit the requested modifications to this document to the HSM.

Specific tasks to be conducted include, but are not necessarily limited to, the following:

- Mobilization/demobilization activities
- Installation of Soil Gas Samplers using a hand auger or a powered drill
 - Soil Gas Sampling
- Soil borings using direct push technology (DPT) methods
 - Groundwater
 - Subsurface soil sampling
- Multimedia sampling including:
 - Surface soil
 - Surface water
 - Sediment
- IDW Management and Handling
- Geophysical and Geographical Survey
- Decontamination

For more detailed description of the associated tasks, refer to the Work Plan (WP). Safe Work Permits have been prepared for each of these tasks. See Attachment II.

5.0 TASKS/HAZARDS/ASSOCIATED CONTROL MEASURES

Table 5-1 of this section serves as the primary portion of the site specific HASP. This table is intended to assist project personnel in the recognition of hazards and recommended procedures necessary to minimize potential exposure or injuries related to those hazards. The table also assists field team members in determining which personal protective equipment (PPE) and decontamination procedures to be used as well as appropriate air monitoring techniques and site-specific conditions. The evaluation of each task provides detailed information including anticipated hazards, recommended control measures, air monitoring recommendations, required PPE, and decontamination measures. This table must be updated if the scope of work, contaminants of concern or pertinent conditions change.

Table 5-1 and the HASP are meant to be accompanied by the TtNUS Health and Safety Guidance Manual. This manual is designed to further explain supporting elements for any site specific operations 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's SOPs are also provided in the Guidance Manual.

Safe Work Permits will be issued for the exclusion zone activities (See Section 10.2). The FOL and/or the SSO will use the elements defined in Table 5-1 as the primary reference. The FOL and/or the SSO completing the Safe Work Permit will add additional site-specific information as warranted. 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.

5.1 GENERAL SAFE WORK PRACTICES

In addition to the task-specific work practices identified on Table 5-1, the following general 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 list may be amended as necessary.

- Eating, drinking, chewing gum or tobacco, taking medication, or smoking is prohibited in contaminated or potentially contaminated areas or where the possibility for the transfer of contamination exists.
- Wash hands and face thoroughly upon leaving a contaminated or suspected contaminated area.

- 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.
- Rehearse unfamiliar operations prior to implementation.
- Buddies should maintain visual 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.
- Establish appropriate decontamination procedures for leaving the site.
- Immediately report injuries, illnesses, and unsafe conditions, practices, and equipment to the Site Safety Officer (SSO).
- Observe coworkers for signs heat stress.
- Inform co-workers of potential symptoms of illness, such as headaches, dizziness, nausea, or blurred vision.

5.2 DPT SAFE WORK PRACTICES

The following safe work practices are to be followed when working in or around DPT operations.

- Identify underground utilities and buried structures before drilling. Use the Utility Locating and Excavation Clearance SOP provided in the HSGM in Section 4.0.
- DPT rigs will be inspected by the SSO or designee, prior to the acceptance of the equipment at the site and prior to the use of the equipment.
- Any repairs or deficiencies identified during the inspection will be corrected prior to use.
- The inspection will be documented using the Equipment Inspection Checklist provided in Attachment III.

- Equipment Inspections will be conducted once each shift (either 5 or 10 day) or following repairs.
- Equipment and staging lay down areas will be established keep the work area clear of clutter and slips, trips, and fall hazards.
- The drill operator shall verbally alert employees and visually ensure employees are clear from dangerous parts of equipment before starting or engaging equipment.
- Secure frayed or loose clothing, hair, and jewelry when working with operating equipment.
- Minimize contact to the extent possible with contaminated tooling and environmental media.
- Support functions (sampling and screening stations) will be maintained a minimum distance of 25 feet from the DPT rig point of operation.
- Only qualified operators and knowledgeable ground crew personnel will participate in the operation of the DPT rig.
- Only personnel absolutely essential to the work activity will be allowed in the exclusion zone. Site visitors will be escorted.
- Equipment that comes into direct contact with potentially contaminated media will undergo a complete decontamination prior to moving to the next location, exiting the site, or prior to down time for maintenance.
- Whenever possible, motorized equipment will be fueled prior to the commencement of the day's activities.
- During fueling operations on site, equipment will be shutdown and bonded to the fuel provider to prevent the potential accumulation of static charges.
- When not in use DPT rigs will be shutdown, emergency brakes set, and wheels chocked where hilly terrain is present.

Areas subjected to subsurface investigative methods will be restored to equal or better condition than original to the extent practical to remove contamination brought to the surface and to remove physical

hazards. In situations where these hazards cannot be removed these areas will be barricaded to minimize the impact on field crews working in the area.

**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES
NAVAL CONSTRUCTION BATTALION CENTER, GULFPORT, MISSISSIPPI**

Tasks/Operations/ Location	Anticipated Hazards	Recommended Control Measures	Hazard Monitoring	Personal Protective Equipment <i>(Items in italics are deemed optional as conditions or the FOL/SSO require.)</i>	Decontamination Procedures
Mobilization/ Demobilization	<p>Chemical hazards:</p> <p>1) Site contaminants are unlikely to be encountered during this task. However, the TtNUS Hazard Communication Program will be followed for any chemicals (fuels, sample preservatives, decontamination solvents, etc.) that are brought onsite in support of site activities.</p> <p>Physical hazards:</p> <p>2) Lifting (strain/muscle pulls)</p> <p>3) Slip, trips, and falls</p> <p>4) Ambient temperature extremes (heat stress)</p> <p>5) Clearing brush</p> <p>Natural hazards:</p> <p>6) Insect/animal bites and stings, poisonous plants, etc.</p>	<p>1) Implement the Hazard Communication Program (Section 5.0 TtNUS Health and Safety Guidance Manual) and assure that personnel understand its use. Inventory and obtain MSDSs for materials in use.</p> <ul style="list-style-type: none"> - Chemical inventories and manufacturer Material Safety Data sheets (MSDS) will be maintained on site. - Information contained within MSDS will be used to determine necessary safe work practices and PPE requirements. - Maintain an MSDSs in a location readily accessible by site personnel. <p>2) Use machinery or multiple personnel for heavy lifts.</p> <ul style="list-style-type: none"> - Use proper lifting techniques as defined in Section 4.0 of this Health and Safety Guidance Manual. <p>3) Preview work locations for unstable/uneven terrain.</p> <p>4) Wear appropriate clothing for weather conditions.</p> <ul style="list-style-type: none"> - Provide acceptable shelter and liquids for field crews. - Additional information regarding heat stress concerns is provided in Section 4 of the TtNUS Health and Safety Guidance Manual. <p>5) Ensure that the power equipment in good condition</p> <ul style="list-style-type: none"> - Ensure that cutting tools are maintained. Blades shall be sharp without knicks and gouges in the blade. - Personnel will maintain a 10-foot perimeter around persons clearing brush. <p>6) Avoid nesting areas, use commercially available repellents. Report potential hazards to the SSO.</p>	Not required	<p>Level D - (Minimum Requirements)</p> <ul style="list-style-type: none"> - Standard field attire (sleeved shirt; long pants) - Steel toe work shoes/boots - <i>Cotton or leather work gloves when required</i> - <i>Safety glasses</i> - <i>Hardhat (when overhead hazards exists, or identified as a operation requirement)</i> - <i>Reflective vest for high traffic areas</i> <p>Note: A Safe Work Permit (Attachment II) for this task 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>	Not required
Installation of Soil Gas Samplers using a hand auger or 3/4" drill.	<p>Chemical hazards:</p> <p>1) The potential health hazards associated with this task include inhalation, ingestion, and dermal contact with various contaminants that may be present in shallow and deep soils and groundwater. Based on evidence from past investigations, groundwater samples for volatile organic compounds (VOCs), base/neutral/acid extractable organics (BNA), and selected metals showed concentrations were less than the laboratory detection limits.</p> <p>See Table 6-1 for more information on the chemicals of concern.</p> <p>Physical hazards:</p> <p>2) Contact with utilities</p> <p>3) Slip, trips, and falls</p> <p>4) Ambient temperature extremes (heat stress)</p> <p>Natural hazards:</p> <p>5) Insect/animal bites and stings, poisonous plants, etc.</p> <p>6) Inclement weather</p>	<p>1) Use real-time monitoring instrumentation, action levels, and identified PPE to control exposures to potentially contaminated media.</p> <p>2) Drilling activities will proceed in accordance with the Utility Locating and Excavation Clearance SOP in HSGM Section 7.0 of this HASP. The utility clearances will be obtained in writing, and locations identified and marked, prior to activities. Utility clearance is being provided NCBC Gulfport.</p> <p>3) Preview work locations for unstable/uneven terrain.</p> <p>4) Wear appropriate clothing for weather conditions. Provide acceptable shelter and liquids for field crews. Additional information regarding heat stress concerns is provided in the TtNUS Health and Safety Guidance.</p> <p>5) Avoid nesting areas, use commercially available repellents.</p> <ul style="list-style-type: none"> - Spiders and bees next in well protective casings - Snakes are often found on monitoring well pads - Report potential hazards to the SSO. - Follow guidance presented in Section 4 of the Health and Safety Guidance Manual. <p>6) Suspend or terminate operations until directed otherwise by the SSO.</p>	<p>A Photoionization Detector (PID) w/a 10.6 eV lamp or a Flame ionization Detector (FID) will be used detect any vapors that may have escaped from the landfill through fissures in the landfill cap. The following general guidance applies: Source (borehole) and breathing zone monitoring will be conducted at each sample location. Elevated readings above daily established background levels observed at a source area will require the SSO obtain readings within the breathing zone (BZ) of potentially affected employees.</p> <p>If sustained readings (more than 1 minute in duration) greater than 10 ppm are observed within a workers BZ initiate measures to minimize exposure (retreat to an unaffected area, move personnel to an upwind location, etc.).</p> <p>Work may resume when airborne readings in the worker breathing zone return to background levels.</p> <p>If elevated readings persist, contact the PHSO for additional air monitoring guidance.</p>	<p>Level D protection will be utilized for the initiation of 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/boots - Safety glasses - Work gloves (cotton or leather) when using hand auger or hand tools with surgical style inner gloves if necessary. - <i>Reflective vest for high traffic areas</i> - <i>Hardhat (when overhead hazards exist or identified as a operation requirement)</i> - <i>Tyvek coveralls and disposable boot covers if surface contamination is present, if the potential for soiling work attire exists.</i> <p>Note: The Safe Work Permit(s) for this task (see Attachment II) 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>Decontamination will consist of a removal and disposal of non-reusable PPE (gloves, coveralls, etc., as applicable). The decon function will take place at the end of the shift. This procedure will consist of:</p> <ul style="list-style-type: none"> - Wipe the drill and 3/4" drill bit. - Removal and disposal of gloves. - Clean face and hands with hygienic wipes until access to a decon station or rest room is obtained. - Check body carefully for ticks when exiting wooded or brush areas.

**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES
NAVAL CONSTRUCTION BATTALION CENTER, GULFPORT, MISSISSIPPI**

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>Soil borings using DPT rigs.</p> <p>This task includes subsurface soil sampling</p>	<p>Chemical hazards:</p> <p>1) The potential health hazards associated with this task include inhalation, ingestion, and dermal contact with various contaminants that may be present in shallow and deep soils and groundwater. Based on evidence from past investigations, groundwater samples for volatile organic compounds (VOCs), base/neutral/acid extractable organics (BNA), and selected metals showed concentrations were less than the laboratory detection limits.</p> <p>2) Transfer of contamination into clean areas or onto persons</p> <p>Physical hazards:</p> <p>3) Heavy equipment hazards (pinch/compressions points, rotating equipment, hydraulic lines, etc.)</p> <p>4) Noise in excess of 85 dBA</p> <p>5) Energized systems (contact with underground or overhead utilities)</p> <p>6) Lifting (strain/muscle pulls)</p> <p>7) Slips, trips, and falls</p> <p>8) Vehicular and foot traffic</p> <p>9) Ambient temperature extremes (heat/cold stress)</p> <p>10) Flying projectiles</p> <p>11) Cuts/lacerations</p> <p>Natural hazards:</p> <p>12) Inclement weather</p>	<p>1) Avoid contact with contaminated media (air, water, soils, etc.).</p> <p>2) Restrict the cross use of equipment and supplies between locations and activities without first going through a suitable decontamination. Use a rigid decontamination procedure will be used between locations and ensure materials are not carried and deposited in unaffected areas.</p> <p>3) Equipment will be:</p> <ul style="list-style-type: none"> - Inspected using Equipment Inspection Checklist in Attachment III of this HASP. - Operated and supported by knowledgeable operators, and ground crew. - Used within safe work zones, with routes of approach clearly demarcated. Personnel not directly supporting this operation will remain at least 25 feet from the point of operation. See Section 9.0 of this HASP. - Hydraulic masts or other projecting devices shall be at least 20 feet from overhead power sources and a minimum of 3 feet from underground utilities. - Hand signals will be established prior to the commencement of the operation. - A remote sampling device must be used to sample drill cuttings near rotating or advancing tools - Only manufacturer-approved equipment may be used in conjunction with equipment repair procedures - Work areas will be kept clear of clutter. - Secure loose articles to avoid possible entanglement during coring activities. - Self-propelled equipment shall be equipped with movement warning systems. - Areas will be inspected prior to the movement of the drill rig and support vehicles to eliminate any physical hazards. This will be the responsibility of the FOL and/or SSO. - The drill rig and support vehicles will be moved no closer than 10 feet to unsupported side-walls of embankments. <p>4) Hearing protection will be used during subsurface activities using DPT. When noise levels are > 85 dBA. Establish boundaries to limit noise hazard, a minimum of 25 feet is normal. <i>Excessive noise levels are being approach when you have to raise your voice to be heard by someone within 2 feet of your location.</i></p> <p>5) Boring activities will proceed in accordance with the Utility Locating and Excavation Clearance SOP in the HSGM Section 7.0. Utility clearances will be obtained, in writing, and locations identified and marked prior to activities. Identify overhead utilities.</p> <p>6) Use machinery or multiple personnel for heavy lifts. Use proper lifting techniques.</p> <p>7) Preview work locations for unstable/uneven terrain.</p> <p>8) Use traffic-warning signs, flag persons, and high visibility vests as determined by the SSO when working in or along traffic thoroughfares.</p> <p>9) Wear appropriate clothing for weather conditions. Acceptable shelter and liquids for field crews.</p> <p>10) Wear eye protection and hard hat when the DPT rig is operating. Restrict others from the area.</p> <p>11) Use manufacturer approved devices (macro core holder and cutter) to cut cores. Do not rest cores on knees or near other body parts when cutting.</p> <p>12) Suspend or terminate operations until directed otherwise by SSO.</p>	<p>As a precaution, a direct reading Photoionization Detector (PID) with a 10.6 eV lamp source (or higher) or a Flame ionization Detector (FID) will be used to screen samples and to detect the presence of any potential volatile organics. Source monitoring at the borehole will be conducted at regular intervals to be determined by the SSO. Positive sustained results at a source or downwind location(s) which may impact operations crew will require the following actions:</p> <ul style="list-style-type: none"> - Monitor the breathing zone of at-risk and downwind employees. Any sustained readings (greater than 1 minute in duration) above 10 ppm in the breathing zone of the at-risk employees requires site activities to be suspended and site personnel to report to an unaffected area. - Work may resume when airborne readings in worker breathing zone return background levels. If elevated readings in worker breathing zone persist, the PHSO and HSM will be contacted to determine necessary actions and levels of protection. <p>Site contaminants may adhere to or be part of airborne dusts or particulates generated during site activities. Generation of dusts should be minimized to avoid inhalation of contaminated dusts or particulates. Evaluation of dust concentrations will be performed by observing work conditions for visible dust clouds. Potential exposure to contaminated dust will be controlled using water suppression, by avoiding dust plumes, or evacuating the operation area until dust subsides.</p>	<p>Boring operations will be performed in Level D protection, including the following articles:</p> <p>Sampler / Oversight Personnel:</p> <ul style="list-style-type: none"> - Standard field dress (long pants, Sleeved shirts) - Steel toe safety shoes/boots - Hard hat - Safety eyewear (glasses) - <i>Reflective vest for high traffic areas</i> <p>Driller and Driller Helper</p> <ul style="list-style-type: none"> - Standard field attire including sleeved shirt and long pants - Steel toe safety shoes/boots - Safety glasses - Nitrile inner gloves - Hard hat (when overhead hazard exists) - Hearing protection for high noise areas - <i>Reflective vest for traffic areas</i> <p>Note: The Safe Work Permit(s) for this task (see Attachment II of this HASP) 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. Protective levels may require modification should this activity be required to be conducted within a controlled zone due to an on-going operation.</p>	<p>Personnel Decontamination will consist of a soap/water wash and rinse for reusable protective equipment. Non-reusable protective equipment will be removed and disposed of at the site.</p> <p>If contamination or mud is present that requires the use of modified Level D protection, the following sequential procedure will be used:</p> <p>Stage 1: Equipment drop, remove outer protective wrapping; Decon personnel will wipe down the outer shell.</p> <p>Stage 2: Soap/water wash and rinse of outer boots and gloves</p> <p>Stage 3: Soap/water wash and rinse of the outer splash suit, as applicable. If personnel are wearing cotton coveralls these may be vacuumed at this point.</p> <p>Stage 4: Disposable PPE will be removed and bagged.</p> <p>Stage 5: Wash face and hands</p> <p>Stage 6: Depending on ambient conditions, you may be required to report for medical evaluation. This evaluation consists of pulse, breathing rate, oral temperature, and body weight. This medical screening will be performed when ambient conditions dictate and during periods of acclimatization.</p> <p>Equipment Decontamination - Heavy equipment decontamination will take place at a centralized decontamination pad. Heavy equipment will have the wheels and tires cleaned along with any loose debris removed, prior to transporting to the central decontamination area. 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 onsite 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>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, leaving the site, and between locations. No equipment will be authorized access, exit, or movement to another location without this evaluation.</p>

**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES
NAVAL CONSTRUCTION BATTALION CENTER, GULFPORT, MISSISSIPPI**

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>Multi-media sampling, including:</p> <ul style="list-style-type: none"> • Surface water • Sediment • Surface soil 	<p>Chemical hazards:</p> <p>1) The potential health hazards associated with this task include inhalation, ingestion, and dermal contact with various contaminants that may be present in shallow and deep soils and groundwater. Based on evidence from past investigations, groundwater samples for volatile organic compounds (VOCs), base/neutral/acid extractable organics (BNA), and selected metals showed concentrations were less than the laboratory detection limits.</p> <p>2) Transfer of contamination into clean areas or onto persons. into clean areas</p> <p>Physical hazards:</p> <p>3) Slips, trips, and falls</p> <p>4) Ambient temperature extremes (heat/cold stress)</p> <p>5) Vehicular and foot traffic</p> <p>6) Cuts/lacerations</p> <p>Natural hazards:</p> <p>7) Inclement weather</p>	<p>1) Avoid contact with contaminated media (air, water, soils, etc.).</p> <p>2) Decontaminate equipment and supplies between sampling locations and prior to leaving the site. See decontamination of heavy and sampling equipment for direction in this task.</p> <p>3) Preview work locations for unstable/uneven terrain.</p> <ul style="list-style-type: none"> - Ruts, roots, and other tripping hazards should be eliminated from around the rotating apparatus to minimize trips and falls when approaching the rotating tooling. - Use multiple persons and small loads to pack sampling resources to remote locations. - Construct rope ladders and other engineered assistance for traversing hills and inclines > 45°. <p>4) Wear appropriate clothing for weather conditions. Provide acceptable shelter and liquids for field crews. Additional information regarding heat/cold stress is provided in Section 4.0 of the Health and Safety Guidance Manual.</p> <p>5) Traffic and equipment considerations are to include the following:</p> <ul style="list-style-type: none"> - Establish safe zones of approach. See Section 9 of the HASP for specific safety zones and established clearance recommendations. - Self-propelled equipment shall be equipped with movement warning systems. - When sampling along roadways, use signs to indicate work area and if required, flag persons. Personnel working in and around any established traffic patterns should wear high visibility vests to increase visual recognition. <p>6) Use manufacturer approved devices (macro core holder and cutter) to cut cores. Do not rest cores on knees or near other body parts when cutting.</p> <p>7) Suspend or terminate operations until directed otherwise by the SSO.</p>	<p>As a precaution a direct reading Photoionization Detector (PID) with a 10.6 eV lamp source (or higher) or a Flame ionization Detector (FID) will be used to screen samples and to detect the presence of any potential volatile organics. Source monitoring at the borehole will be conducted at regular intervals to be determined by the SSO. Positive sustained results at a source or downwind location(s) which may impact operations crew will require the following actions:</p> <ul style="list-style-type: none"> - Monitor the breathing zone of at-risk and downwind employees. Any sustained readings (greater than 1 minute in duration) above 10 ppm in the breathing zone of the at-risk employees requires site activities to be suspended and site personnel to report to an unaffected area. - Work may only resume if airborne readings in worker breathing zone return background levels. If elevated readings in worker breathing zone persist, the PHSO and HSM will be contacted to determine necessary actions and levels of protection. <p>Site contaminants may adhere to or be part of airborne dusts or particulates generated during site activities. Generation of dusts should be minimized to avoid inhalation of contaminated dusts or particulates. Evaluation of dust concentrations will be performed by observing work conditions for visible dust clouds. Potential exposure to contaminated dust will be controlled using water suppression, by avoiding dust plumes, or evacuating the operation area until dust subsides.</p>	<p>Level D protection will be utilized for 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/boots - Safety glasses - Surgical style gloves (<i>double-layered if necessary</i>) - <i>Reflective vest for high traffic areas</i> - <i>Hardhat (when overhead hazards exists, or identified as a operation requirement)</i> - <i>Tyvek coveralls and disposable boot covers if surface contamination is present or if the potential for soiling work attire exists.</i> - <i>Hearing protection for high noise areas, or as directed on an operation by operation scenario.</i> <p>Note: The Safe Work Permit(s) for this task (See Attachment II) 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</p> <p>Personal decontamination will vary based on the type of sampling conducted. These are as follows:</p> <p>Supporting subsurface investigations at the drill rig.</p> <ul style="list-style-type: none"> - Decontamination will be the same as prescribed for the soil boring activity <p>Sampling surface water, groundwater, and sediments, the following provisions will apply</p> <ul style="list-style-type: none"> - Upon completion of the sampling dedicated trowels, tubing, etc. will be bagged for transport back to the central decontamination area. - PPE (gloves) will be removed and also bagged for disposal. - Handi-Wipes or similar product will be used to clean hands prior to moving to the next location. <p>Equipment Decontamination</p> <p>Equipment used in remote sampling locations will be brought back to the central decontamination area for decontamination and re-use or decontamination and gross removal of contamination prior to disposal.</p> <p>Note: Field screening instruments will be wrapped to minimize the necessary decontamination except for wiping down parts which are necessary to expose to the external environment. The equipment reference above is largely directed at hand tools.</p> <p>Decontamination of equipment (sampling and hand tools) will proceed as indicated in the Sampling and Analysis Plan and/or Work Plan.</p>

**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES
NAVAL CONSTRUCTION BATTALION CENTER, GULFPORT, MISSISSIPPI**

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>Geophysical and Geographical Surveying</p>	<p>Chemical hazards: Significant exposure to site contaminants is anticipated to be unlikely given the nature of this task.</p> <p>Physical hazards:</p> <p>1) Slips, trips, and falls 2) Struck by 3) Ambient temperature extremes (heat stress)</p> <p>Natural hazards:</p> <p>4) Inclement weather</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) If hand tools (brush hooks, machetes, etc.) are necessary to clear and carry lines and bench marks to the area of operation the following precautions are recommended</p> <ul style="list-style-type: none"> - Ensure handles are of good construction (no cracks, splinters, loose heads/cutting apparatus. - Ensure cutting tools are maintained. Blades shall be sharp. - Hand tools with cutting blades shall be provided with a sheath to protect individuals when not in use. - Personnel will maintain a 10-foot perimeter around persons clearing brush. <p>3) Wear appropriate clothing for weather conditions. Acceptable shelter and liquids for field crews.</p> <p>4) Suspend or terminate operations until directed otherwise by SSO</p> <p>See Section 4.0 of the TINUS Health and Safety Guidance Manual and Section 6.3 of this HASP for additional information concerning natural hazards.</p>	<p>The potential for exposure to site contaminants during this activity is considered minimal. As most of this activity is conducted either before or after the intrusive aspect of this operation, therefore, minimizing potential exposure.</p>	<p>Surveying activities shall be performed in Level D protection</p> <p>Level D Protection consists of the following:</p> <ul style="list-style-type: none"> - Standard field dress including sleeved shirt and long pants - Steel toe safety shoes/boots - Work gloves shall be worn when clearing brush. - <i>Safety glasses, hard hats (if working near machinery, or overhead hazards)</i> - <i>Snake chaps for heavily wooded area where encounters are likely.</i> - <i>Tyvek coveralls may be worn to provide additional protection against poisonous plants and insects, particularly ticks.</i> <p>Note: The Safe Work Permit(s) for this task (See Attachment II) 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. Protective levels may require modification should this activity be required to be conducted within a controlled zone due to an on-going operation.</p>	<p>Personnel Decontamination - Survey parties should inspect themselves and one another for the presence of ticks when exiting wooded areas, grassy fields, etc. This action will be used to stop the transfer of these insects into vehicles, homes, and offices.</p>
<p>IDW Management and Handling</p> <p>This activity includes the following tasks:</p> <ul style="list-style-type: none"> - Containerization - Labelling - Staging - Monitoring 	<p>Chemical hazards:</p> <p>1) The only anticipated chemical hazard associated with IDW management is the potential for a spill. In situations such as that the spill containment program identified in Section 9.0 of this HASP will be employed.</p> <p>Physical hazards:</p> <p>2) Strains and sprains 3) Compressions</p>	<p>1) Chemical hazards will be minimal during this operation. Control measures will be PPE and good work hygiene practices to control potential exposures during the implementation of the Spill Containment Program (See Section 9.0 of this HASP).</p> <p>2) The predominant hazard associated with this activity is the movement of full or partially full 55-gallon drums of soils and/or water. To minimize hazards of this nature the following provisions shall be incorporated as applicable:</p> <ul style="list-style-type: none"> - Use machinery (preferred method) or multiple personnel for heavy lifts - Use proper lifting techniques <ul style="list-style-type: none"> --Lift with legs, bend at the knees and move as close to the load as possible, ensure good hand holds are available. --Minimize turning and twisting when lifting as the lower back is especially vulnerable at this time. --Break lifts into steps if the vertical distance (from the start point to the placement of the lift) is excessive. --Plan each lift – Place heavy items on shelves between the waist and chest; lighter items on higher shelves. <p>3) Another hazard frequently associated with this task is the compression of hands and fingers when placing the containers on pallets. This typically occurs when rolling and lowering the container in its place. To combat this hazard, the following provision shall be employed. Material handling devices shall be used for moving drums within the satellite storage area. This includes drum dollies with pneumatic tires, drum grapplers, etc. to handle drums of IDW. These pieces of equipment are engineered to allow placement of these containers while keeping hands from pinch/compression points.</p>	<p>None 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/boots - Leather or canvas work gloves - <i>Safety glasses (When utilizing cables or slings to move the containers)</i> - <i>Hardhat (when overhead hazards exists, or identified as a operation requirement)</i> 	<p>Not required.</p>

**TABLE 5-1
TASKS/HAZARDS/CONTROL MEASURES
NAVAL CONSTRUCTION BATTALION CENTER, GULFPORT, MISSISSIPPI**

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/SSO require.)</i>	Decontamination Procedures
<p>Decontamination of Sampling and Heavy Equipment</p> <p>It is anticipated that this activity will take place at a centralized location.</p> <p>Gross contamination will be removed to the extent possible at the site.</p> <p>Contaminated tools will be wrapped in polyethylene sheeting for transport to the centralized location for a full decontamination and evaluation.</p>	<p>Chemical hazards:</p> <p>1) The potential health hazards associated with this task include inhalation, ingestion, and dermal contact with various contaminants that may be present in shallow and deep soils and groundwater. Based on evidence from past investigations, groundwater samples for volatile organic compounds (VOCs), base/neutral/acid extractable organics (BNA), and selected metals showed concentrations were less than the laboratory detection limits.</p> <p>2) Decontamination fluids - Liquinox (detergent); isopropanol (decontamination solvent)</p> <p>Physical hazards:</p> <p>3) Lifting (strain/muscle pulls)</p> <p>4) Noise in excess of 85 dBA</p> <p>5) Flying projectiles</p> <p>6) Slips, trips, and falls</p> <p>Natural hazards:</p> <p>7) Inclement weather</p>	<p>1) and 2) Use protective equipment to minimize contact with site contaminants and hazardous decontamination fluids. Use good work hygiene practices (i.e., avoid hand to mouth contact; wash hands and face before breaks and lunch; minimize contact with contaminated media). Obtain manufacturer's MSDS for any decontamination fluids used on-site. Solvents may only be used in well-ventilated areas, such as outdoors. Use appropriate PPE as identified on MSDS or within this HASP. Chemicals used must be listed on the Chemical Inventory for the site, and site activities must be consistent with the Hazard Communication Program provided in Section 5.0 of the TtNUS Health and Safety Guidance Manual.</p> <p>3) Use multiple persons where necessary for lifting and handling heavy equipment, such as auger flights for decontamination purposes.</p> <ul style="list-style-type: none"> - Use proper lifting techniques as described in Table 5-1, Mobilization/Demobilization. <p>4) Wear hearing protection when operating the pressure washer and/or steam cleaner. Sound pressure levels measured during the operation of similar pieces of equipment indicate a range of 87 to 93 dBA.</p> <p>5) Use eye and face protective equipment when operating the pressure washer and/or steam cleaner, due to flying projectiles. Other personnel must be restricted from the area. In addition to minimize hazards (flying projectiles, water lacerations and burns) associated with this operation, the following controls will be implemented</p> <ul style="list-style-type: none"> - A Fan Tip 25° or greater will be used on pressurized systems over 3,000 psi. This will reduce the possibility of water lacerations or punctures. - Thermostat control will be in place and operational to control the temperature levels of the water where applicable. - Visual evaluations of hoses and fittings for structural defects - Construct deflection screens as necessary to control overspray and to guard against dispersion of contaminants driven off by the spray. <p>6) The decontamination pad should be constructed to contain wash water generated during decontamination procedures. Temporary decontamination pads are usually 10-30 mil polyethylene or polyvinyl chloride sheets. These items present a slipping hazard. A light coating of sand spread over the walking surface will provide traction.</p> <ul style="list-style-type: none"> - In addition, adequate slope should be provided to the pad to permit drainage away from the object being cleaned. The collection point for wash waters should be of adequate distance that the decontamination workers do not have to walk through the wash waters while completing their tasks. - Hoses should be gathered when not in use to eliminate potential tripping hazards. <p>7) Suspend or terminate operations until directed otherwise by SSO.</p>	<p>Use visual observation and real-time monitoring instrumentation to ensure that equipment has been properly cleaned of contamination and dried.</p>	<p>Heavy Equipment This applies to pressure washing and/or steam cleaning operations and soap/water wash and rinse procedures.</p> <p>Level D Minimum requirements: - Standard field attire (Long sleeve shirt; long pants) - Steel toe safety shoes/boots - Chemical resistant boot covers - Nitrile outer gloves over nitrile inner gloves - Safety glasses underneath a splash shield - Hearing protection (plugs or muffs) - Hooded PVC Rainsuits or PE or PVC coated Tyvek</p> <p>Sampling Equipment (trowels, Macro-Core 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 over nitrile inner gloves - Safety glasses - Impermeable apron</p> <p>In the event of overspray of chemical decontamination fluids, employ PVC Rainsuits or PE or PVC coated Tyvek as necessary.</p> <p>Note: The Safe Work Permit(s) for this task (See Attachment II) 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 and non-reusable outer protective equipment (boots, gloves, PVC splash suits, as applicable). This decontamination function may be subdivided into two locations.</p> <p>Gross contamination of outer boots and outer gloves will be removed at a satellite location near the operation.</p> <p>Final wash and rinse will take place at the centralized decontamination pad.</p> <p>The sequential procedure is as follows: Stage 1: Equipment drop, remove outer protective wrapping; personnel will wipe down the outer shell and pass hand equipment through as necessary. Stage 2: Soap/water wash and rinse of outer boots and gloves Stage 3: Soap/water wash and rinse of the outer splash suit, as applicable Stage 4: Disposable PPE will be removed and bagged. Stage 5: Wash face and hands Stage 6: Depending on ambient conditions, you may be required to report for medical evaluation. This evaluation consists of pulse, breathing rate, oral temperature, and body weight. This medical screening will be performed when ambient conditions dictate and during periods of acclimatization.</p> <p>Equipment Decontamination - Heavy equipment decontamination will take place at a centralized decontamination pad utilizing a steam cleaner. Heavy equipment will have the wheels and tires cleaned along with any loose debris removed, prior to transporting to the central decontamination area. 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>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, leaving the site, and between locations. No equipment will be authorized access, exit, or movement to another location without this evaluation.</p>

6.0 HAZARD ASSESSMENT

This section provides information regarding the chemical, physical, and natural hazards associated with the sites to be investigated and the activities that are to be conducted as part of the scope of work.

6.1 CHEMICAL HAZARDS

The potential health hazards associated with Site 1 include inhalation, ingestion, and dermal contact with various contaminants that may be present in shallow and deep soils and groundwater. Based on evidence from past investigations, groundwater samples for volatile organic compounds (VOCs), base/neutral/acid extractable organics (BNA), and selected metals showed concentrations were less than the laboratory detection limits.

Exposure to site contaminants is most likely to occur through inhalation or dermal contact of contaminated soil, or through ingestion via hand-to-mouth contact during soil disturbance activities. For this reason, PPE and basic hygiene practices (e.g., washing face and hands before leaving site) will be extremely important. As a pre-cautionary measure, airborne concentrations of detectable site contaminants will be monitored and evaluated using a PID or an FID. Given the nature of planned activities and that work will be conducted outside in the open air, it is unlikely that any appreciable airborne concentrations will be present. Since potential site contaminants have not been thoroughly characterized, conservative action levels for air monitoring have been established. Any sustained elevated readings above 10 ppm in worker breathing zones will require site activities to be suspended.

Other sources of potential chemical exposure are decontamination fluids (e.g., Liquinox, isopropanol), and analytical preservatives. For any substances brought onto the site, the SSO is responsible for instituting a site-specific Hazard Communication Program (see Section 5.0 of the TtNUS Health and Safety Guidance Manual) and for collecting the appropriate Material Safety Data Sheets (MSDS) from the chemical manufacturers/suppliers. The SSO is also responsible for completing the Safe Work Permit for the decontamination task using the appropriate MSDS and for reviewing the contents of the MSDSs and Safe Work Permit with anyone who will use these substances.

6.2 PHYSICAL HAZARDS

In addition to the chemical hazards discussed above, the following physical hazards may be present during the performance of the site activities.

- Slips, trips, and falls

- Cuts (or other injuries associated with hand tool use)
- Lifting (strain/muscle pulls)
- Ambient temperature extremes (heat stress)
- Pinches and compressions
- Heavy equipment hazards (rotating equipment, hydraulic lines, etc.)
- Energized systems (contact with underground or overhead utilities)
- Vehicular and foot traffic
- Noise in excess of 85 dBA
- Flying projectiles

Each of these physical hazards is discussed in greater detail in Section 4.0 of the TtNUS health and Safety Guidance Manual. Additionally, information on the associated control measures for these hazards are discussed in Table 5-1 of this HASP. Some of these hazards and the associated control measures are discussed below due to the emphasis on incident and injury history.

6.2.1 Hand Augering Hazards

Operating a hand auger can be physically demanding depending on factors such as the conditions of the soil, the conditions of the auger tooling, and the physical capabilities of the operator. Potential injuries such as muscle strains, tendon or ligament sprains, or back or other soft-tissue injuries, as well as bruises, abrasions or cuts from handling or operating the hand auger tooling.

Other potential injuries that could be presented from physical threats during this task include foot injuries, eye injuries, and injury from unintentional contact with underground utilities.

As part of the site-specific training, site personnel shall be advised of the hazards associated with working this equipment. Prior to beginning any soil-disturbance activities, the FOL/SSO shall be responsible for assuring that the intended location is clear of any underground utilities by following the TtNUS Utility Locating And Excavation Clearance SOP attached to this HASP.

Additional safety measures used to prevent injury during this task include: assuring that only persons who are confident that they can physically perform this activity without injuring themselves participate in operating a hand auger, performing simple stretches prior to beginning the task, ensuring that the hand auger tooling is maintained in effective working order, avoiding injury by stopping if strong resistance is encountered (such as if impassable rocky conditions are encountered), getting assistance if needed, and wearing appropriate PPE (work gloves, steel toe shoes, and safety impact eye protection).

6.2.2 Slips, Trips, and Falls

Conditions such as steep terrain and/or heavy vegetation may create an increased potential for slip, trip, and fall hazards.

- The safest approach to sample points will be identified and cleared to permit field crew access to sample locations.
- Footwear with an adequate traction.
- Prepare work areas by removing tripping hazards (ruts, roots, debris).

6.2.3 Hand Tool Hazards

The following control measures will help minimize the potential for physical and cutting hazards.

- Wear leather or heavy cotton work gloves when using tools to protect against blisters, cuts, or other hand injuries.
- Wear eye protection (safety glasses with side shields) to protect the eyes from twigs, sticks, or flying debris.
- Clear the immediate cutting area of personnel (radius of the tool swing area).
- Wear long pants and long-sleeved shirts to protect against abrasions.
- Wear hard hats if work will involve areas with overhead hazards (e.g., overhanging branches).

6.2.4 Energized Systems (Contact with Underground or Overhead Utilities)

Underground utilities such as pressurized lines, water, telephone, buried utility, and high voltage power lines may be present throughout the facility. Subsurface activities must be conducted following the requirements of the Tetra Tech NUS SOP for "Utility Locating and Excavation Clearance (HS-1.0)". A copy of this SOP is provided in the HSGM Section 7.0. Clearance of underground and overhead utilities for each location will be coordinated with the NCBC Gulfport Public Works Department – Maintenance Division through Mr. Gordon Crane. A10-day advanced notification is required.

6.3 NATURAL HAZARDS

Insect/animal bites and stings, poisonous plants, and inclement weather are natural hazards that may be present given the location of activities to be conducted. As previously discussed, some portions of the site include vegetated areas which increases the potential for field crews to encounter ticks, bees, mosquitoes/insects, snakes, and poisonous vegetation.

6.3.1 Inclement Weather

Project tasks under this Scope of Work will be performed outdoors. 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.

A 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.

7.0 HAZARD MONITORING

Direct reading instruments will be used at the sites to evaluate the presence of detectable 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 INSTRUMENTS AND USE

Instruments will be used primarily to monitor source points 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 or Flame Ionization Detector

In order to accurately monitor for substances (specifically VOCs) which may present an exposure potential to site personnel, a Photoionization Detector (PID) using a 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 the suspected organic vapors of concern. (NOTE: A flame Ionization Detector [FID] may be used as an alternative to the PID).

Prior to the commencement of field activities, the background levels of the site must be determined and noted. Daily background readings will be taken away from areas of potential contamination. These readings, 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 rental agent. Operational checks and field calibration will be performed on the instruments each day prior to their use. Field calibration will be performed on instruments according to manufacturer's recommendations (for example, the PID must be field calibrated daily and an additional field calibration must be performed at the end of each day to determine significant instrument drift). 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 standard operating procedure (copies of which can be found in the Health & Safety Guidance Manual which will be maintained on-site for reference). 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
- Relevant instrument settings and resultant readings (before and after) calibration
- Identification of the calibration standard (lot no., source concentration, supplier)
- Relevant comments or remarks

7.3 DOCUMENTING INSTRUMENT READINGS

The SSO is responsible for ensuring that monitoring instruments are used in accordance with the specifications of this HASP and with manufacturer's specifications/recommendations. In addition, the SSO is also responsible for ensuring that the instrument use is documented. This requirement can be satisfied either by recording instrument readings on pre-printed sampling log sheets or in a field log book. This includes the requirement for documenting instrument readings that indicate no elevated readings above noted daily background levels (i.e., no-exposure readings). At a minimum, the SSO must document the following information for each use of an air monitoring device:

- Date, time, and duration of the reading
- Site location where the reading was obtained
- Instrument used
- Personnel present at the area where the reading was noted
- Other conditions considered relevant to the SSO (such as possible instrument interferences, etc.).

8.0 TRAINING/MEDICAL SURVEILLANCE REQUIREMENTS

8.1 INTRODUCTORY/REFRESHER/SUPERVISORY TRAINING

This section specifies health and safety training and medical surveillance requirements for both Tetra Tech NUS and subcontractor personnel participating in on site activities. Tetra Tech NUS and subcontractor personnel who will engage in field associated activities as described in this HASP must have:

- Completed 40 hours of introductory hazardous waste site training or equivalent work experience as defined in OSHA Standard 29 CFR 1910.120(e).
- Completed 8-Hour Refresher Training, if the identified persons had introductory training more than 12 months prior to site work.
- Completed 8-hour Supervisory training in accordance with 29 CFR 1910.120(e)(4), if their assigned function will involve the supervision of subordinate personnel.

Documentation of introductory training or equivalent work experience, 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.

8.2 SITE-SPECIFIC TRAINING

Tetra Tech NUS will provide site-specific training to Tetra Tech NUS employees and subcontractor personnel who will perform work on this project.

Figure 8-1 will be used to document the provision and content of the project-specific and associated training. Site personnel will be required to sign this form prior to commencement of site activities.

TtNUS will conduct a pre-activities training session prior to initiating site work. Additionally, a brief meeting will be held daily to discuss operations planned for that day. At the end of the workday, a short meeting may be held to discuss the operations completed and any problems encountered. This activity will be supported through the use of a Safe Work Permit System (See Section 10.2).

8.3 MEDICAL SURVEILLANCE

Tetra Tech NUS and subcontractor personnel participating in project field activities will have had a physical examination. Physical examinations shall meet the minimum requirements of paragraph (f) of OSHA 29 CFR 1910.120.

Documentation for medical clearances will be maintained at the job site and made available, as necessary. Subcontractor personnel may use an alternative documentation for this purpose. The "Subcontractor Medical Approval Form" can be used to satisfy this requirement, or a letter from an officer of the company. The letter should state that the persons listed in the letter 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." The letter should further state the following:

- The persons listed have had physical examinations under this program within the frequency as determined sufficient by their occupational health care provider
- Date of the exam
- The persons identified have been cleared, by a licensed physician, to perform hazardous waste site work.

A sample Subcontractor Medical Approval Form and form letter have been provided to eligible subcontractors in the Bid Specification package.

8.3.1 Medical Data Sheets

Each field team member, including subcontractors and visitors, entering the exclusion zone(s) shall be required to complete and submit a copy of the Medical Data Sheet that is available in Attachment IV of this HASP. 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 EXCEPTION

If through the execution of their contract elements the subcontractor will not enter the exclusion zone and there is no potential for exposure to site contaminants, subcontractor personnel may be exempt from the training and medical surveillance requirements with the exception of Section 8.2. Examples of

subcontractors who may qualify as exempt from training and medical surveillance requirements may include surveyors who perform surveying activities in site perimeter areas or areas where there is no potential for exposure to site contaminants and support or restoration services. Use of this Subcontractor Exception is strictly limited to the authority of the CLEAN Health and Safety Manager.

9.0 SPILL PREVENTION AND CONTAINMENT PROGRAM

9.1 SCOPE AND APPLICATION

It is not anticipated that bulk hazardous materials (over 55-gallons) will be handled at any given time as part of this scope of work. It is also not anticipated that such spillage would constitute a danger to human health or the environment. However, as the job progresses, the potential may exist for accumulating IDW such as decontamination fluids, limited soil cuttings, and purge and well development waters, in a central staging area. As needed, 55-gallon drums will be used to contain purge water, decon fluids, and soil cuttings generated during field activities. Once the fluids and other materials have been characterized, they can be removed from this area and properly disposed. Because these fluids and soils remained uncharacterized while in the staging area, a spill containment program will be developed and instituted as part of this HASP.

9.2 POTENTIAL SPILL AREAS

Potential spill areas will be periodically monitored in an ongoing attempt to prevent and control further potential contamination of the environment. Currently, limited areas are vulnerable to this hazard including:

- Resource deployment
- Waste transfer
- Central staging

It is anticipated that the IDW generated as a result of this scope of work will be containerized, labeled, and staged to await further analyses. The results of this analysis will determine the method of disposal.

9.3 LEAK AND SPILL DETECTION

To establish an early detection of potential spills or leaks, a periodic walk-around by the personnel staging or disposing of drums or in the staging area will be conducted during working hours to visually determine that storage vessels are not leaking. If a liquid leak is detected, the contents will be transferred, using a hand pump, into a new vessel. The leak will be collected and contained using absorbents such as Oil-Dry, or sand, which are stored at the vulnerable areas in a conspicuously marked drum. Leaks of solid substances will be shoveled into an appropriate container. These materials will be containerized and secured for disposal pending analysis. The inspections will be documented in the project logbook.

9.4 PERSONNEL TRAINING AND SPILL PREVENTION

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

9.5 PREVENTION AND CONTAINMENT EQUIPMENT

The following represents the minimum equipment that will be maintained at the staging areas for the purpose of supporting this Spill Prevention/Containment Program.

- Sand, clean fill, vermiculite, or other non combustible absorbent (Oil-dry)
- Drums [55-gallon U.S. Department of Transportation (DOT) 1A1 or 1A2]
- Shovels, rakes, and brooms
- Container labels

9.6 SPILL CONTROL PLAN

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

- Notify the FOL or SSO immediately upon detection of a leak or spill.
- Use available personal protective equipment. Take immediate actions to stop the leak or spill by plugging or patching the container or raising the leak to the highest point in the vessel. Spread the absorbent material in the area of the spill, covering it completely.
- Transfer the material to a new vessel; collect and containerize the absorbent material. Label the new container appropriately. Await analyses for treatment and disposal options.
- Re-containerize spills, including 2-inch of top cover (if over soils) impacted by the spill. Await test results for treatment or disposal options.

It is not anticipated that a spill will occur that the field crew cannot handle. Should this occur, however, notification of the appropriate Emergency Response agencies will be carried out by the FOL or SSO in accordance with the procedures discussed in Section 2.0 of this HASP.

10.0 SITE OPERATIONS AND CONTROL

Site operations and control will be facilitated through the use of established work zones and security and control of those zones. These activities will minimize the impact and spread of contaminants brought to the surface through subsurface investigative methods as well as protect personnel and visitors within these zones during ongoing operations.

10.1 WORK ZONES

Tetra Tech NUS will delineate and use work zones in conjunction with decontamination procedures to prevent the spread of contaminants to other areas of the site. A three-zone approach will be used for work at this site; an Exclusion Zone, a Contamination Reduction Zone, and a Support Zone. These will be used to control access to the work areas, restricting the general public, avoiding potentials to spread any contaminants, and to protect individuals who are not cleared to enter by way of training and/or medical surveillance qualifications.

10.2 SAFE WORK PERMITS

Exclusion Zone work conducted in support of this project will be performed using Safe Work Permits to guide and direct field crews on a task by task basis. An example of the Safe Work Permit is included in Figure 10-1. The daily meetings conducted by the FOL/SSO will further support these work permits. The use of these permits will ensure that site-specific considerations and changing conditions are incorporated into the planning effort. Safe Work Permits will require the signatures of either the FOL or the SSO. Personnel engaged in on-site activities must be made aware of the elements indicating levels of protection and precautionary measures to be used.

The use of these permits will establish and provide for reviewing protective measures and hazards associated with each operation. This HASP will be used as the primary reference for selecting levels of protection and control measures. The Safe Work Permit will take precedence over the HASP when more conservative measures are required based on specific site conditions.

Upon completion of the work for which the Safe Work Permit was assigned, the Safe Work Permit will be turned into the FOL or the SSO. Concerns, complaints, and suggestions may be made on the reverse of the Safe Work Permit for consideration by the FOL and/or the SSO. Permits turned in with suggestions, difficulties, or complaints will be forwarded to the PHSO for review.

**FIGURE 10-1
SAFE WORK PERMIT**

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

I. Work limited to the following (description, area, equipment used): _____

II. Primary Hazards: Potential hazards associated with this task include _____

III. Field Crew: _____

IV. On-site Inspection conducted Yes No Initials of Inspector _____ TtNUS
Equipment Inspection required Yes No Initials of Inspector _____ TtNUS

V. Protective equipment required Level D Level B
Level C Level A
Respiratory equipment required Yes Specify on the reverse
No

Modifications/Exceptions: _____

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
_____	_____	_____	_____
_____	_____	_____	_____

Primary Route(s) of Exposure/Hazard: _____

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

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 type="checkbox"/> Yes <input type="checkbox"/> No	Safety belt/harness	<input type="checkbox"/> Yes <input type="checkbox"/> No
Chemical/splash goggles	<input type="checkbox"/> Yes <input type="checkbox"/> No	Radio/Cellular Phone	<input type="checkbox"/> Yes <input type="checkbox"/> No
Splash Shield	<input type="checkbox"/> Yes <input type="checkbox"/> No	Barricades.....	<input type="checkbox"/> Yes <input type="checkbox"/> No
Splash suits/coveralls	<input type="checkbox"/> Yes <input type="checkbox"/> No	Gloves (Type - _____)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Impermeable apron.....	<input type="checkbox"/> Yes <input type="checkbox"/> No	Work/rest regimen.....	<input type="checkbox"/> Yes <input type="checkbox"/> No
Steel toe Work shoes or boots ...	<input type="checkbox"/> Yes <input type="checkbox"/> No	Chemical Resistant Boot Covers	<input type="checkbox"/> Yes <input type="checkbox"/> No
High Visibility vest	<input type="checkbox"/> Yes <input type="checkbox"/> No	Tape up/use insect repellent	<input type="checkbox"/> Yes <input type="checkbox"/> No
First Aid Kit.....	<input type="checkbox"/> Yes <input type="checkbox"/> No	Fire Extinguisher	<input type="checkbox"/> Yes <input type="checkbox"/> No
Safety Shower/Eyewash	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other.....	<input type="checkbox"/> Yes <input type="checkbox"/> No

Modifications/Exceptions: _____

VIII. Site Preparation

	Yes	No	NA
Utility Locating and Excavation Clearance completed.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Hazards Identified and Isolated (Splash and containment barriers).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IX. Additional Permits required (Hot work, confined space entry, excavation etc.)..... Yes No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

X. Special instructions, precautions: _____

Permit Issued by: _____ Permit Accepted by: _____

The Safe Work Permit and the HASP will serve as the primary reference for work place evaluations and audits conducted to determine if the task is being conducted under the direction conveyed by the HASP and the Safe Work Permit.

10.3 SITE MAP

Once the areas of contamination, access routes, topography, dispersion routes are determined, a site map will be generated and adjusted as site conditions change. This map will be posted to illustrate up-to-date information of contaminants and adjustment of zones and access points. This map will be posted at the field support trailer.

10.4 BUDDY SYSTEM

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

10.5 MATERIAL SAFETY DATA SHEET (MSDS) REQUIREMENTS

Tetra Tech NUS personnel will provide MSDSs for 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. The MSDSs will be maintained in a central location (i.e., temporary office) and will be available for anyone to review upon request. The SSO will be responsible for implementing a site-specific Hazard Communication Program (See Section 5.0 of the TtNUS Health and Safety Guidance Manual). This includes collection of MSDSs, creation and maintenance of an accurate Chemical Inventory Listing, addressing container labeling and personnel training issues, and other aspects of Hazard Communication.

10.6 COMMUNICATION

It is anticipated that site personnel will be working in close proximity during proposed field activities. In the event that site personnel are in isolated areas or are separated by significant distances, a supported means of communication between field crews will be utilized. Two-way radio communication devices, if needed, will be used only with NCBC Gulfport approval.

External communications will be accomplished utilizing telephones at predetermined and approved locations or through cellular phones. External communication will primarily be used for the purpose of resource and emergency resource communications. Prior to the commencement of site activities, the

FOL will determine and arrange for telephone communications, if it is determined a cellular means will not be used.

10.7 SITE VISITORS

Potential site visitors that may be encountered during the performance of the field work could include the following:

- Personnel invited to observe or participate in operations by Tetra Tech NUS.
- Regulatory personnel (i.e., DOD, MDEQ, EPA, OSHA, etc.)
- NAVFAC Southeast personnel

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

Once access to the base is obtained, personnel who require access to Tetra Tech NUS work sites (areas of ongoing operations) will be required to obtain permission from the FOL and the Base Contact. Upon gaining access to the work site, site visitors wishing to observe operations in progress will be required to meet the minimum requirements as stipulated 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 individuals name (proper identification required), who they represent, and the purpose for the visit. The FOL is responsible for ensuring that site visitors are always escorted while on site.
- Site visitors will be required to produce the necessary information supporting clearance on to the site. This includes information attesting to applicable training (40-hours of HAZWOPER training required for NAVFAC Southeast Personnel), and medical surveillance as stipulated in Section 8.3, of this document. In addition, to enter the sites 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 site and applicable operational areas. Visitors are required to observe the protective equipment and site restrictions in effect at the work areas visited. Any 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 on-site activities to be terminated until

that visitor can be removed. Removal of unauthorized visitors will be accomplished with support from the Base Contact, if necessary. At a minimum, the Base Contact will be notified of any unauthorized visitors.

10.8 SITE SECURITY

As this activity will take place at a Navy facility, the first line of security will be provided by the base gate restricting the general public. The second line of security will take place at the work site referring interested parties to the FOL and Base Contact.

Security at the work areas will be accomplished using field personnel. This is a multiple person operation, involving multiple operational zones. Tetra Tech NUS personnel will retain complete control over active operational zones. The Base Contact will serve as the focal point for base personnel and interested parties and will serve as the primary enforcement contact.

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 confined spaces.** A confined space is defined as an area which has 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, and the HSM will have to be notified.

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
- Material Safety Data Sheets for chemicals brought on site, including decontamination solutions, fuels, sample preservatives, calibration gases, etc.
- A full-size OSHA Job Safety and Health Poster (posted in the site trailers)
- Training/Medical Surveillance Documentation Form (Blank)
- Emergency Reference Information (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 chemicals brought on-site, including decontamination solutions, sample preservations, fuel, etc.. This list should be posted in a central area.

MSDSs (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 substances used 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 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. (See Attachment V)

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 list indicates not only clearance but also status. If personnel do not meet these requirements, they do not enter the site while site 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. (See Section 6.0 of the Health and Safety Guidance Manual)

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 Department of Transportation (DOT) placards and acceptable labels.

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

13.0 GLOSSARY

CFR	Code of Federal Regulations
CNS	Central Nervous System
CRZ	Contamination Reduction Zone
CTO	Contract Task Order
DOD	Department of Defense
DOT	Department of Transportation
DPT	Direct-Push Technology
EPA	Environmental Protection Agency
eV	Electron Volts
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
MSDS	Material Safety Data Sheet
N/A	Not Available
NAVFAC SE	Naval Facilities Engineering Command Southeast
NCBC	Naval Construction Battalion Center
NIOSH	National Institute Occupational Safety and Health
OSHA	Occupational Safety and Health Administration (U.S. Department of Labor)
PEL	Permissible Exposure Limit
PHSO	Project Health and Safety Officer
PID	Photo Ionization Detector
PPE	Personal Protective Equipment
SOPs	Standard Operating Procedures
SSO	Site Safety Officer
TOM	Task Order Manager
TtNUS	Tetra Tech NUS, Inc.
TWA	Time Weighted Average
VOCs	Volatile Organic Compounds

ATTACHMENT I
INCIDENT REPORT FORM



Report Date		Report Prepared By		Incident Report Number	
INSTRUCTIONS:					
All incidents (including those involving subcontractors under direct supervision of Tetra Tech personnel) must be documented on the IR Form.					
Complete any additional parts to this form as indicated below for the type of incident selected.					
TYPE OF INCIDENT (Check all that apply)			Additional Form(s) Required for this type of incident		
Near Miss (No losses, but could have resulted in injury, illness, or damage)			<input type="checkbox"/> Complete IR Form Only		
Injury or Illness			<input type="checkbox"/> Complete Form IR-A; Injury or Illness		
Property or Equipment Damage, Fire, Spill or Release			<input type="checkbox"/> Complete Form IR-B; Damage, Fire, Spill or Release		
Motor Vehicle			<input type="checkbox"/> Complete Form IR-C; Motor Vehicle		
INFORMATION ABOUT THE INCIDENT					
Description of Incident					

Date of Incident			Time of Incident		
_____			_____ AM <input type="checkbox"/> PM <input type="checkbox"/> OR Cannot be determined <input type="checkbox"/>		
Weather conditions at the time of the incident			Was there adequate lighting?		
_____			_____ Yes <input type="checkbox"/> No <input type="checkbox"/>		
Location of Incident					
_____ Was location of incident within the employer's work environment? Yes <input type="checkbox"/> No <input type="checkbox"/>					
Street Address			City, State, Zip Code and Country		
_____			_____		
Project Name			Client:		
_____			_____		
Tt Supervisor or Project Manager			Was supervisor on the scene?		
_____			Yes <input type="checkbox"/> No <input type="checkbox"/>		
WITNESS INFORMATION (attach additional sheets if necessary)					
Name			Company		
_____			_____		
Street Address			City, State and Zip Code		
_____			_____		
Telephone Number(s)					



CORRECTIVE ACTIONS

Corrective action(s) immediately taken by unit reporting the incident:

Corrective action(s) still to be taken (by whom and when):

ROOT CAUSE ANALYSIS LEVEL REQUIRED

Root Cause Analysis Level Required: Level - 1 Level - 2 None

Root Cause Analysis Level Definitions

Level - 1	<p>Definition: A Level 1 RCA is conducted by an individual(s) with experience or training in root cause analysis techniques and will conduct or direct documentation reviews, site investigation, witness and affected employee interviews, and identify corrective actions. Activating a Level 1 RCA and identifying RCA team members will be at the discretion of the Corporate Administration office.</p> <p>The following events may trigger a Level 1 RCA:</p> <ul style="list-style-type: none"> ▪ Work related fatality ▪ Hospitalization of one or more employee where injuries result in total or partial permanent disability ▪ Property damage in excess of \$75,000 ▪ When requested by senior management
Level - 2	<p>Definition: A Level 2 RCA is self performed within the operating unit by supervisory personnel with assistance of the operating unit HSR. Level 2 RCA will utilize the 5 Why RCA methodology and document the findings on the tools provided.</p> <p>The following events will require a Level 2 RCA:</p> <ul style="list-style-type: none"> ▪ OSHA recordable lost time incident ▪ Near miss incident that could have triggered a Level 1 RCA ▪ When requested by senior management

Complete the Root Cause Analysis Worksheet and Corrective Action form. Identify a corrective action(s) for each root cause identified within each area of inquiry.

NOTIFICATIONS

Title	Printed Name	Signature	Telephone Number	Date
Project Manager or Supervisor				
Site Safety Coordinator or Office H&S Representative				
Operating Unit H&S Representative				
Other: _____				

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



INSTRUCTIONS:

Complete all sections below for incidents involving injury or illness.
Do NOT leave any blanks.
Attach this form to the IR FORM completed for this incident.

Incident Report Number: (From the IR Form)

EMPLOYEE INFORMATION

Company Affiliation

Tetra Tech Employee? TetraTech subcontractor employee (directly supervised by Tt personnel)?

Full Name **Company (if not Tt employee)**

Street Address, City, State and Zip Code **Address Type**

Home address (for Tt employees)

Business address (for subcontractors)

Telephone Numbers

Work: _____ Home: _____ Cell: _____

Occupation (regular job title) **Department**

Was the individual performing regular job duties? Yes No **Time individual began work** _____ AM PM OR Cannot be determined

Safety equipment

Provided? Yes No Type(s) provided: Hard hat Protective clothing
Used? Yes No If no, explain why Gloves High visibility vest
 Eye protection Fall protection
 Safety shoes Machine guarding
 Respirator Other (list)

NOTIFICATIONS

Name of Tt employee to whom the injury or illness was first reported **Was H&S notified within one hour of injury or illness?** Yes No

Date of report **H&S Personnel Notified**

Time of report **Time of Report**

If subcontractor injury, did subcontractor's firm perform their own incident investigation?
Yes No If yes, request a copy of their completed investigation form/report and attach it to this report.



INJURY / ILLNESS DETAILS

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

Three horizontal lines for text entry.

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

Four horizontal lines for text entry.

Describe the object or substance that directly harmed the individual: Examples: "Concrete floor"; "Chlorine"; "Radial Arm Saw". If this question does not apply to the incident, write "Not Applicable".

Two horizontal lines for text entry.

MEDICAL CARE PROVIDED

Was first aid provided at the site: Yes No If yes, describe the type of first aid administered and by whom?

One horizontal line for text entry.

Was treatment provided away from the site: Yes No If yes, provide the information below.

Name of physician or health care professional		Facility Name	
Street Address, City State and Zip Code		Type of Care?	
Telephone Number		Was individual treated in emergency room? Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Was individual hospitalized overnight as an in-patient? Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Did the individual die? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, date: _____	
		Will a worker's compensation claim be filed? Yes <input type="checkbox"/> No <input type="checkbox"/>	

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

SIGNATURES

I have reviewed this report and agree that all the supplied information is accurate

Affected individual (print)	Affected individual (signature)	Telephone Number	Date

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.



INSTRUCTIONS:

Complete all sections below for incidents involving property/equipment damage, fire, spill or release. Do NOT leave any blanks. Attach this form to the IR FORM completed for this incident.

Incident Report Number: (From the IR Form)

TYPE OF INCIDENT (Check all that apply)

Property Damage Equipment Damage Fire or Explosion Spill or Release

INCIDENT DETAILS

Results of Incident: Fully describe damages, losses, etc.

Response Actions Taken:

Responding Agency(s) (i.e. police, fire department, etc.)

Agency(s) Contact Name(s)

DAMAGED ITEMS (List all damaged items, extent of damage and estimated repair cost)

Item:	Extent of damage:	Estimated repair cost

SPILLS / RELEASES (Provide information for spilled/released materials)

Substance	Estimated quantity and duration	Specify Reportable Quantity (RQ)
		_____ Exceeded? Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>

FIRES / EXPLOSIONS (Provide information related to fires/explosions)

Fire fighting equipment used? Yes No If yes, type of equipment: _____

NOTIFICATIONS

Required notifications	Name of person notified	By whom	Date / Time
Client: _____ Yes <input type="checkbox"/> No <input type="checkbox"/>			
Agency: _____ Yes <input type="checkbox"/> No <input type="checkbox"/>			
Other: _____ Yes <input type="checkbox"/> No <input type="checkbox"/>			

Who is responsible for reporting incident to outside agency(s)? Tt Client Other Name: _____

Was an additional written report on this incident generated? Yes No If yes, place in project file.



INSTRUCTIONS:

Complete all sections below for incidents involving motor vehicle accidents. Do NOT leave any blanks. Attach this form to the IR FORM completed for this incident.

Incident Report Number: (From the IR Form)

INCIDENT DETAILS

Name of road, street, highway or location where accident occurred Name of intersecting road, street or highway if applicable

County

City

State

Did police respond to the accident?

Did ambulance respond to the accident?

Yes No

Yes No

Name and location of responding police department

Ambulance company name and location

Officer's name/badge #

Did police complete an incident report? Yes No If yes, police report number: _____
Request a copy of completed investigation report and attach to this form.

VEHICLE INFORMATION

How many vehicles were involved in the accident? _____ (Attach additional sheets as applicable for accidents involving more than 2 vehicles.)

Vehicle Number 1 – Tetra Tech Vehicle

Vehicle Number 2 – Other Vehicle

Vehicle Owner / Contact Information

Vehicle Owner / Contact Information

Color

Color

Make

Make

Model

Model

Year

Year

License Plate #

License Plate #

Identification #

Identification #

Describe damage to vehicle number 1

Describe damage to vehicle number 2

Insurance Company Name and Address

Insurance Company Name and Address

Agent Name

Agent Name

Agent Phone No.

Agent Phone No.

Policy Number

Policy Number



DRIVER INFORMATION						
Vehicle Number 1 – Tetra Tech Vehicle				Vehicle Number 2 – Other Vehicle		
Driver's Name				Driver's Name		
Driver's Address				Driver's Address		
Phone Number				Phone Number		
Date of Birth				Date of Birth		
Driver's License #				Driver's License #		
Licensing State				Licensing State		
Gender		Male <input type="checkbox"/> Female <input type="checkbox"/>		Gender		Male <input type="checkbox"/> Female <input type="checkbox"/>
Was traffic citation issued to Tetra Tech driver? Yes <input type="checkbox"/> No <input type="checkbox"/>				Was traffic citation issued to driver of other vehicle? Yes <input type="checkbox"/> No <input type="checkbox"/>		
Citation #				Citation #		
Citation Description				Citation Description		
PASSENGERS IN VEHICLES (NON-INJURED)						
List all non-injured passengers (excluding driver) in each vehicle. Driver information is captured in the preceding section. Information related to persons injured in the accident (non-Tt employees) is captured in the section below on this form. Injured Tt employee information is captured on FORM IR-A						
Vehicle Number 1 – Tetra Tech Vehicle				Vehicle Number 2 – Other Vehicle		
How many passengers (excluding driver) in the vehicle? ____				How many passengers (excluding driver) in the vehicle? ____		
Non-Injured Passenger Name and Address				Non-Injured Passenger Name and Address		
Non-Injured Passenger Name and Address				Non-Injured Passenger Name and Address		
Non-Injured Passenger Name and Address				Non-Injured Passenger Name and Address		
INJURIES TO NON-TETRATECH EMPLOYEES						
Name of injured person 1				Address of injured person 1		
Age	Gender	Car No.	Location in Car	Seat Belt Used?	Ejected from car?	Injury or Fatality?
	Male <input type="checkbox"/> Female <input type="checkbox"/>			Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Injured <input type="checkbox"/> Died <input type="checkbox"/>
Name of injured person 2				Address of injured person 2		
Age	Gender	Car No.	Location in Car	Seat Belt Used?	Ejected from car?	Injury or Fatality?
	Male <input type="checkbox"/> Female <input type="checkbox"/>			Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Injured <input type="checkbox"/> Died <input type="checkbox"/>
OTHER PROPERTY DAMAGE						
Describe damage to property other than motor vehicles						
Property Owner's Name				Property Owner's Address		



COMPLETE AND SUBMIT DIAGRAM DEPICTING WHAT HAPPENED

A large, empty rectangular area with a thin black border, intended for the user to draw a diagram depicting the incident.

ATTACHMENT II

SAFE WORK PERMITS

**SAFE WORK PERMIT
MOBILIZATION AND DEMOBILIZATION
NCBC GULFPORT
GULFPORT, LOUISIANA**

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

- I. Work limited to the following (description, area, equipment used):** Mob/Demob
- II. Primary Hazards:** lifting; cuts and lacerations; pinches and compressions; slip, trip and falls; ambient temperature extremes; insect and animal bites; and inclement weather
- III. Field Crew:** _____
- IV. On-site Inspection conducted** Yes No Initials of Inspector TtNUS
Equipment Inspection required Yes No Initials of Inspector TtNUS

- V. Protective equipment required** Level D Level B
 Level C Level A
 Modifications/Exceptions: _____
- Respiratory equipment required**
 Yes Specify on the reverse
 No

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
<u>None expected during this task</u>	_____	_____	_____
_____	_____	_____	_____

Primary Route(s) of Exposure/Hazard: NA

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

- 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 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/Cellular Phone | <input type="checkbox"/> Yes <input 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 – Work)..... | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Impermeable apron..... | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Work/rest regimen..... | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Steel toe work shoes or boots.... | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Chemical resistant boot covers | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| High visibility vest..... | <input type="checkbox"/> Yes <input type="checkbox"/> No | Tape up/use insect repellent | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| First Aid Kit..... | <input type="checkbox"/> Yes <input type="checkbox"/> No | Fire extinguisher | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Safety Shower/Eyewash | <input type="checkbox"/> Yes <input type="checkbox"/> No | Other..... | <input type="checkbox"/> Yes <input type="checkbox"/> No |
- Modifications/Exceptions: hard hat when overhead hazards present; safety glasses wen potential for flying debris; hearing protection when in high noise areas.

- VIII. Site Preparation**
- | | Yes | No | NA |
|---|--------------------------|--------------------------|--------------------------|
| Utility Locating and Excavation Clearance completed..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Physical Hazards Identified and Isolated (Splash and containment barriers)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- IX. Additional Permits required** (Hot work, confined space entry, excavation etc.)..... Yes No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

- X. Special instructions, precautions:** Use safe lifting/carrying techniques. Use additional PPE based on the hazards that are associated with each task. Use work gloves when cutting boxes or handling sharp tools/cutting devices. Safety glasses will be required.

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT
SOIL BORING
NCBC GULFPORT
GULFPORT, LOUISIANA**

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

- I. Work limited to the following (description, area, equipment used):** Soil Boring and Monitoring well installation using DPT and MacroCore sampling
- II. Primary Hazards:** Chemical exposure; contamination transfer; heavy equipment hazards; noise; energized systems; lifting; slip, trip and fall; cuts and lacerations; vehicular and foot traffic; insect/animal bites, inclement weather
- III. Field Crew:** _____
- IV. On-site Inspection conducted** Yes No Initials of Inspector TtNUS
Equipment Inspection required Yes No Initials of Inspector TtNUS

- V. Protective equipment required** Level D Level B Level C Level A
- Respiratory equipment required** Yes Specify on the reverse
No
- Modifications/Exceptions: _____

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
<u>VOCs, base/neurtal/acid extractable organics and metals</u>	<u>PID w/ 10.6 eV lamp</u>	<u>sustained readings(> 1 minute) above 10 ppm</u>	<u>evacuate area until readings return to background</u>
_____	_____	_____	_____

Primary Route(s) of Exposure/Hazard: inhalation

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

- VII. 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 checked="" type="checkbox"/> No | Radio/Cellular Phone | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Splash shield | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Barricades | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Splash suits/coveralls | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Gloves (Type – nitrile/work) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Impermeable apron | <input type="checkbox"/> Yes <input type="checkbox"/> No | Work/rest regimen | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Steel toe work shoes or boots | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Chemical resistant boot covers | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| High visibility vest | <input type="checkbox"/> Yes <input type="checkbox"/> No | Tape up/use insect repellent | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| First Aid Kit | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Fire extinguisher | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Safety Shower/Eyewash | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Other | <input type="checkbox"/> Yes <input type="checkbox"/> No |
- Modifications/Exceptions: Driller and helper will wear impermeable apron when handling drill augers. Wear high visibility vests in traffic areas.

- VIII. Site Preparation**
- | | Yes | No | NA |
|---|--------------------------|--------------------------|--------------------------|
| Utility Locating and Excavation Clearance completed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Physical Hazards Identified and Isolated (Splash and containment barriers) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- IX. Additional Permits required** (Hot work, confined space entry, excavation etc.) Yes No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

- X. Special instructions, precautions:** Use safe lifting/carrying techniques. Inspect equipment prior to use. Use the Geoprobe® sampling kit to protect against cuts when opening the acetate sampling tubes.

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT
MULTI MEDIA SAMPLING
NCBC GULFPORT
GULFPORT, LOUISIANA**

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

- I. Work limited to the following (description, area, equipment used):** Surface water, surface soil and sediment
- II. Primary Hazards:** Chemicals; transfer of contamination; slips, trips and falls; lifting; strains and muscle pulls from manual lifting; animal and insect bites, and inclement weather
- III. Field Crew:** _____
- IV. On-site Inspection conducted** Yes No Initials of Inspector _____ TtNUS
Equipment Inspection required Yes No Initials of Inspector _____ TtNUS

- V. Protective equipment required**
 Level D Level B
 Level C Level A
 Modifications/Exceptions: _____
- Respiratory equipment required**
 Yes Specify on the reverse
 No

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
<u>VOCs, base/neurtal/acid extractable organics and metals</u>	<u>PID w/ 10.6 eV lamp</u>	<u>sustained readings(> 1 minute) above 10 ppm</u>	<u>evacuate area until readings return to background</u>
_____	_____	_____	_____

Primary Route(s) of Exposure/Hazard: absorption

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

- 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/Cellular Phone <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Splash Shield..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Barricades..... <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Splash Suits/Coveralls..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Gloves (Type – Nitrile)..... <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Impermeable Apron..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Work/rest regimen..... <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Steel Toe Work Shoes or Boots..... <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Chemical Resistant Boot Covers <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| High Visibility Vest..... <input type="checkbox"/> Yes <input type="checkbox"/> No | Tape/Insect Repellent <input type="checkbox"/> Yes <input type="checkbox"/> No |
| First Aid Kit..... <input type="checkbox"/> Yes <input type="checkbox"/> No | Fire Extinguisher..... <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Safety Shower/Eyewash <input type="checkbox"/> Yes <input type="checkbox"/> No | Other..... <input type="checkbox"/> Yes <input type="checkbox"/> No |
- Modifications/Exceptions: hard hat when overhead hazards present; high visibility vests in traffic areas; high visibility vests in traffic areas

- VIII. Site Preparation**
- | | Yes | No | NA |
|---|--------------------------|--------------------------|--------------------------|
| Utility Locating and Excavation Clearance completed..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Physical Hazards Identified and Isolated (Splash and containment barriers)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc.)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- IX. Additional Permits required** (Hot work, confined space entry, excavation etc.)..... Yes No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

- X. Special instructions, precautions:** Use safe lifting/carrying techniques. Assume all media is contaminated and avoid contact through the use of safe work practices, PPE and decontamination.

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT
DECONTAMINATION
NCBC GULFPORT
GULFPORT, LOUISIANA**

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

- I. Work limited to the following (description, area, equipment used):** Decontamination of the sampling and heavy equipment
- II. Primary Hazards:** Chemical exposure including decon fluids; lifting; noise; flying projectiles; vehicle and foot traffic; falling hazards; slip, trip and fall; and inclement weather
- III. Field Crew:** _____
- IV. On-site Inspection conducted** Yes No Initials of Inspector TtNUS
Equipment Inspection required Yes No Initials of Inspector TtNUS

- V. Protective equipment required**
 Level D Level B
 Level C Level A
 Modifications/Exceptions: _____
- Respiratory equipment required**
 Yes Specify on the reverse
 No

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
<u>VOCs, base/neurtal/acid extractable organics and metals</u>	<u>PID w/ 10.6 eV lamp</u>	<u>sustained readings(> 1 minute) above 10 ppm</u>	<u>evacuate area until readings return to background</u>
_____	_____	_____	_____

Primary Route(s) of Exposure/Hazard: absorption

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

VII. 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 checked="" type="checkbox"/> No | Radio/Cellular Phone | <input type="checkbox"/> Yes <input 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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Gloves (Type – Nitrile) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Impermeable apron | <input type="checkbox"/> Yes <input type="checkbox"/> No | Work/rest Regimen | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Steel Toe Work Shoes or Boots | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Chemical Resistant Boot Covers | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| High Visibility Vest | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Tape/Insect Repellent | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| First Aid Kit | <input type="checkbox"/> Yes <input type="checkbox"/> No | Fire Extinguisher | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Safety Shower/Eyewash | <input type="checkbox"/> Yes <input type="checkbox"/> No | Other | <input type="checkbox"/> Yes <input type="checkbox"/> No |

Modifications/Exceptions: See Table 5-1 for modification of PPE.

VIII. Site Preparation

- | | Yes | No | NA |
|---|--------------------------|--------------------------|--------------------------|
| Utility Locating and Excavation Clearance completed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Physical Hazards Identified and Isolated (Splash and containment barriers) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- IX. Additional Permits required** (Hot work, confined space entry, excavation etc.) Yes No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

- X. Special instructions, precautions:** Review and follow the instructions on the MSDS for the decontamination fluids. Follow guidance in Table 5-1 for PPE for different decontamination tasks.

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT
GEOPHYSICAL AND LAND SURVEYING
NCBC GULFPORT
GULFPORT, LOUISIANA**

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

I. Work limited to the following (description, area, equipment used): Geophysical and land survey

II. Primary Hazards: Slip, trip and fall; vehicular and foot traffic hazards inclement weather; insect /animal bites or stings, poisonous plants, etc.

III. Field Crew: _____

IV. On-site Inspection conducted Yes No Initials of Inspector _____ TtNUS
Equipment Inspection required Yes No Initials of Inspector _____ TtNUS

V. Protective equipment required

Level D Level B
 Level C Level A

Modifications/Exceptions: _____

Respiratory equipment required

Yes Specify on the reverse
 No

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
<u>None expected during this task</u>	_____	_____	_____
_____	_____	_____	_____

Primary Route(s) of Exposure/Hazard: NA

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

VII. 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 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/Cellular Phone.....	<input type="checkbox"/> Yes <input 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 type="checkbox"/> No	Gloves (Type - Work).....	<input type="checkbox"/> Yes <input type="checkbox"/> No
Impermeable apron.....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Work/rest regimen.....	<input type="checkbox"/> Yes <input type="checkbox"/> No
Steel toe work shoes or boots.....	<input type="checkbox"/> Yes <input type="checkbox"/> No	Chemical Resistant Boot Covers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
High Visibility vest.....	<input type="checkbox"/> Yes <input type="checkbox"/> No	Tape up/use insect repellent	<input type="checkbox"/> Yes <input type="checkbox"/> No
First Aid Kit.....	<input type="checkbox"/> Yes <input type="checkbox"/> No	Fire Extinguisher.....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Safety Shower/Eyewash.....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Other.....	<input type="checkbox"/> Yes <input type="checkbox"/> No

Modifications/Exceptions: Snake chaps in high brush areas. Tape up pant legs. Use commercially available insect repellents such as DEET and Permanone. Apply and re-apply according to manufactures instructions. Safety glasses when in areas of flying debris; High visibility vests in traffic areas

VIII. Site Preparation

	Yes	No	NA
Utility Locating and Excavation Clearance completed.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Hazards Identified and Isolated (Splash and containment barriers).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc.).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IX. Additional Permits required (Hot work, confined space entry, excavation etc.)..... Yes No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

X. Special instructions, precautions: _____

Permit Issued by: _____ Permit Accepted by: _____

**SAFE WORK PERMIT
IDW MANAGEMENT
NCBC GULFPORT
GULFPORT, LOUISIANA**

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

I. Work limited to the following (description, area, equipment used): IDW management, moving and storage

II. Primary Hazards: Slip, trip and fall; vehicular and foot traffic; insect/ animal bites or stings, poisonous plants; and inclement weather.

III. Field Crew: _____

IV. On-site Inspection conducted Yes No Initials of Inspector _____ TtNUS
Equipment Inspection required Yes No Initials of Inspector _____ TtNUS

V. Protective equipment required **Respiratory equipment required**
 Level D Level B Yes Specify on the reverse
 Level C Level A No
 Modifications/Exceptions: _____

VI. Chemicals of Concern	Hazard Monitoring	Action Level(s)	Response Measures
<u>None expected during this task</u>	_____	_____	_____
_____	_____	_____	_____

Primary Route(s) of Exposure/Hazard: NA

(Note to FOL and/or SSO: Each item in Sections VII, VIII, and IX must be checked Yes, No, or NA)

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/Cellular Phone.....	<input type="checkbox"/> Yes <input 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 type="checkbox"/> No	Gloves (Type – work)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Impermeable apron	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Work/rest regimen	<input type="checkbox"/> Yes <input type="checkbox"/> No
Steel toe work shoes or boots	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Chemical Resistant Boot Covers	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
High Visibility vest.....	<input type="checkbox"/> Yes <input type="checkbox"/> No	Tape up/use insect repellent	<input type="checkbox"/> Yes <input type="checkbox"/> No
First Aid Kit	<input type="checkbox"/> Yes <input type="checkbox"/> No	Fire Extinguisher.....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Safety Shower/Eyewash	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Other	<input type="checkbox"/> Yes <input type="checkbox"/> No

Modifications/Exceptions: hard hat in overhead hazard areas; safety glasses in areas of flying debris

VIII. Site Preparation

	Yes	No	NA
Utility Locating and Excavation Clearance completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle and Foot Traffic Routes Established/Traffic Control Barricades/Signs in Place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Hazards Identified and Isolated (Splash and containment barriers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Equipment Staged (Spill control, fire extinguishers, first aid kits, etc).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IX. Additional Permits required (Hot work, confined space entry, excavation etc.)..... Yes No
If yes, SSO to complete or contact Health Sciences, Pittsburgh Office (412)921-7090

X. Special instructions, precautions: Inspect roll off boxes and drums used to store IDW prior to use. Cover IDW containers and roll off boxes to prevent unauthorized entry and filling with rain water. Do not over load. Disperse IDW evenly. Use proper lifting practices and obtain assistance when handling heavy drums.

Permit Issued by: _____ Permit Accepted by: _____

ATTACHMENT III

EQUIPMENT INSPECTION CHECKLIST

Equipment Inspection Checklist for Drill Rigs

Company: _____

Unit/Serial No#: _____

Inspection Date: ____ / ____ / ____ Time: ____ :

Equipment Type: _____

(e.g, Drill Rigs Hollow Stem, Mud Rotary, Direct Push, HDD)

Project Name: _____

Project No#: _____

Yes	No	NA	Requirement	Comments
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Emergency Stop Devices <ul style="list-style-type: none"> • Emergency Stop Devices (At points of operation) • Have emergency shut offs been pointed out to the field crew? • Has a person been designated as Emergency Stop Device Operator? 	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	Highway Use <ul style="list-style-type: none"> • Cab, mirrors, safety glass? • Turn signals, lights, brake lights, etc. (front/rear) for equipment approved for highway use? • Seat Belts? • Is the equipment equipped with audible back-up alarms and back-up lights? • Horn and gauges • Brake condition (dynamic, park, etc.) • Tires (Tread) or tracks • Windshield wipers • Exhaust system • Steering (standard and emergency) • Wheel Chocks? • Are tools and material secured to prevent movement during transport? Especially those within the cab? • Are there flammables or solvents or other prohibited substances stored within the cab? • Are tools or debris in the cab that may adversely influence operation of the vehicle (in and around brakes, clutch, gas pedals) 	

Yes	No	NA	Requirement	Comments
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Fluid Levels:</p> <ul style="list-style-type: none"> • Engine oil • Transmission fluid • Brake fluid • Cooling system fluid • Hoses and belts • Hydraulic oil 	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>High Pressure Hydraulic Lines</p> <ul style="list-style-type: none"> • Obvious damage • Operator protected from accidental release • Coupling devices, connectors, retention cables/pins are in good condition and in place 	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Mast Condition</p> <ul style="list-style-type: none"> • Structural components/tubing • Connection points • Pins • Welds • Outriggers • Operational • Plumb (when raised) 	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Hooks</p> <ul style="list-style-type: none"> • Are the hooks equipped with Safety Latches? • Does it appear that the hook is showing signs of wear in excess of 10% original dimension? • Is there a bend or twist exceeding 10% from the plane of an unbent hook? • Increase in throat opening exceeding 15% from new condition • Excessive nicks and/or gouges • Clips • Number of U-Type (Crosby) Clips (cable size 5/16 – 5/8 = 3 clips minimum) (cable size 3/4 – 1 inch = 4 clips minimum) (cable size 1 1/8 – 1 3/8 inch = 5 clips minimum) 	

Yes	No	NA	Requirement	Comments
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	PPE Required for Drill Rig Exclusion Zone <ul style="list-style-type: none"> • Hardhat • Safety glasses • Work gloves • Chemical resistant gloves _____ • Steel toed Work Boots • Chemical resistant Boot Covers • Apron • Coveralls Tyvek, Saranex, cotton) _____ 	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Other Hazards <ul style="list-style-type: none"> • Excessive Noise Levels? _____ dBA • Chemical hazards (Drilling supplies - Sand, bentonite, grout, fuel, etc.) <ul style="list-style-type: none"> - MSDSs available? • Will On-site fueling occur <ul style="list-style-type: none"> - Safety cans available? - Fire extinguisher (Type/Rating - _____ - _____) 	

Approved for Use Yes No See Comments

Site Health and Safety Officer

Operator

ATTACHMENT IV
MEDICAL DATA SHEET

MEDICAL DATA SHEET

This Medical Data Sheet must be completed by 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 NCBC Gulfport, CTO 0065, Site 1

Name _____ Home Telephone _____

Address _____

Age _____ Height _____ Weight _____

Person to notify in the event of an emergency: Name: _____

Phone: _____

Drug or other Allergies: _____

Particular Sensitivities : _____

Do You Wear Contacts? _____

What medications are you presently using? _____

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

Note: Health Insurance Portability and Accountability Act (HIPAA) Requirements

HIPAA took effect April 14, 2003. Loosely interpreted, HIPAA regulates the disclosure of Protected Health Information (PHI) by the entity collecting that information. PHI is any information about health status (such as that you may report on this Medical Data Sheet), provision of health care, or other information. HIPAA also requires TtNUS to ensure the confidentiality of PHI. This Act can affect the ability of the Medical Data Sheet to contain and convey information you would want a Doctor to know if you were incapacitated. So before you complete the Medical Data Sheet understand that this form will not be maintained in a secure location. It will be maintained in a file box or binder accessible to other members of the field crew so that they can accompany an injured party to the hospital.

DO NOT include information that you do not wish others to know, only information that may be pertinent in an emergency situation or treatment.

Name (Print clearly)

Signature

Date

ATTACHMENT V

OSHA POSTER

Job Safety and Health

It's the law!

OSHA
Occupational Safety
and Health Administration
U.S. Department of Labor

EMPLOYEES:

- You have the right to notify your employer or OSHA about workplace hazards. You may ask OSHA to keep your name confidential.
- You have the right to request an OSHA inspection if you believe that there are unsafe and unhealthful conditions in your workplace. You or your representative may participate in that inspection.
- You can file a complaint with OSHA within 30 days of retaliation or discrimination by your employer for making safety and health complaints or for exercising your rights under the *OSH Act*.
- You have the right to see OSHA citations issued to your employer. Your employer must post the citations at or near the place of the alleged violations.
- Your employer must correct workplace hazards by the date indicated on the citation and must certify that these hazards have been reduced or eliminated.
- You have the right to copies of your medical records and records of your exposures to toxic and harmful substances or conditions.
- Your employer must post this notice in your workplace.
- You must comply with all occupational safety and health standards issued under the *OSH Act* that apply to your own actions and conduct on the job.

EMPLOYERS:

- You must furnish your employees a place of employment free from recognized hazards.
- You must comply with the occupational safety and health standards issued under the *OSH Act*.

This free poster available from OSHA –
The Best Resource for Safety and Health



Free assistance in identifying and correcting hazards or complying with standards is available to employers, without citation or penalty, through OSHA-supported consultation programs in each state.

1-800-321-OSHA
www.osha.gov

OSHA 3165-12-06R