Health and Safety Plan Addendum *Revision 1*

Prepared for:

Camp Stanley Storage Activity
Boerne, Texas

AFCEE/ERD QAE
Brooks City-Base, Texas

FA8903-04-D-8675

Task Order 0006

April 2006

Reviewed and approved by:

	Name	Date
Brian Vanderglas Project Manager	Brian Vanderglas	April 2006
Ken Rice Project Health & Safety Officer	K Rice	April 2006

This Health and Safety Plan Addendum *Revision 1* was produced to supplement the *Health and Safety Plan for Closure of Solid Waste Management Units at Camp Stanley Storage Activity, Revision 1 (April 2005).* This Plan addendum covers activities planned under AFCEE WERC, Task Order 0006 (Parsons project number 744223). Most of the sections received no changes. For sections that did not change, the abovementioned safety plan should be referenced.

THIS PAGE INTENTIONALLY LEFT BLANK

Emergency Contacts

In the event of any situation or unplanned occurrence requiring assistance, the appropriate contact(s) will be made from the list below. For emergency situations, contact will first be made with the Field Team Leader (or designee), who will notify Camp Stanley Storage Activity (CSSA) emergency personnel. This emergency contact list must be kept at hand by field members. Access into the north and east pastures must be cleared with Carl Kline in the ammo division @ 210/861-9680 and security must be informed to unlock the gates. Field teams should program in the CSSA Security number listed below into their cell phones for quick reference.

Contact	Phone Number
Emergency Dispatcher	911
Camp Bullis fire department	210/221-7517
Post Security, Building 79	**210/295-7408**
Teresa Benavides, Camp Stanley safety officer, Building 98	210/698-5208
Glaré Sanchez, Camp Stanley environmental officer	210/698-5208
Poison Control Center	800/492-2414
National Response Center	800/424-8802
Parsons Corporate Safety Center	866-PAR-1411

Note: When using CSSA phone system, dial "1" and the last four numbers (except for 911). For toll-free and local calls dial "9". Mobile cell phones need to dial the entire number.

Medical Emergency

Contact	Phone Number
Methodist Hospital	210/692-4444

Route to Hospital: See map on next page identifying hospital location. Hospital is located on corner of Medical and Floyd Curl Drive. The route from the CSSA main gate is south on Ralph Fair Road about 0.75 mile, south on Interstate 10 about 12.5 miles, west on Medical Drive about 0.5 mile, and south on Floyd Curl Drive to hospital.

Hospital Map located on next page.

CSSA Ambulance service (0730-1600 hrs.) 210/221-7408

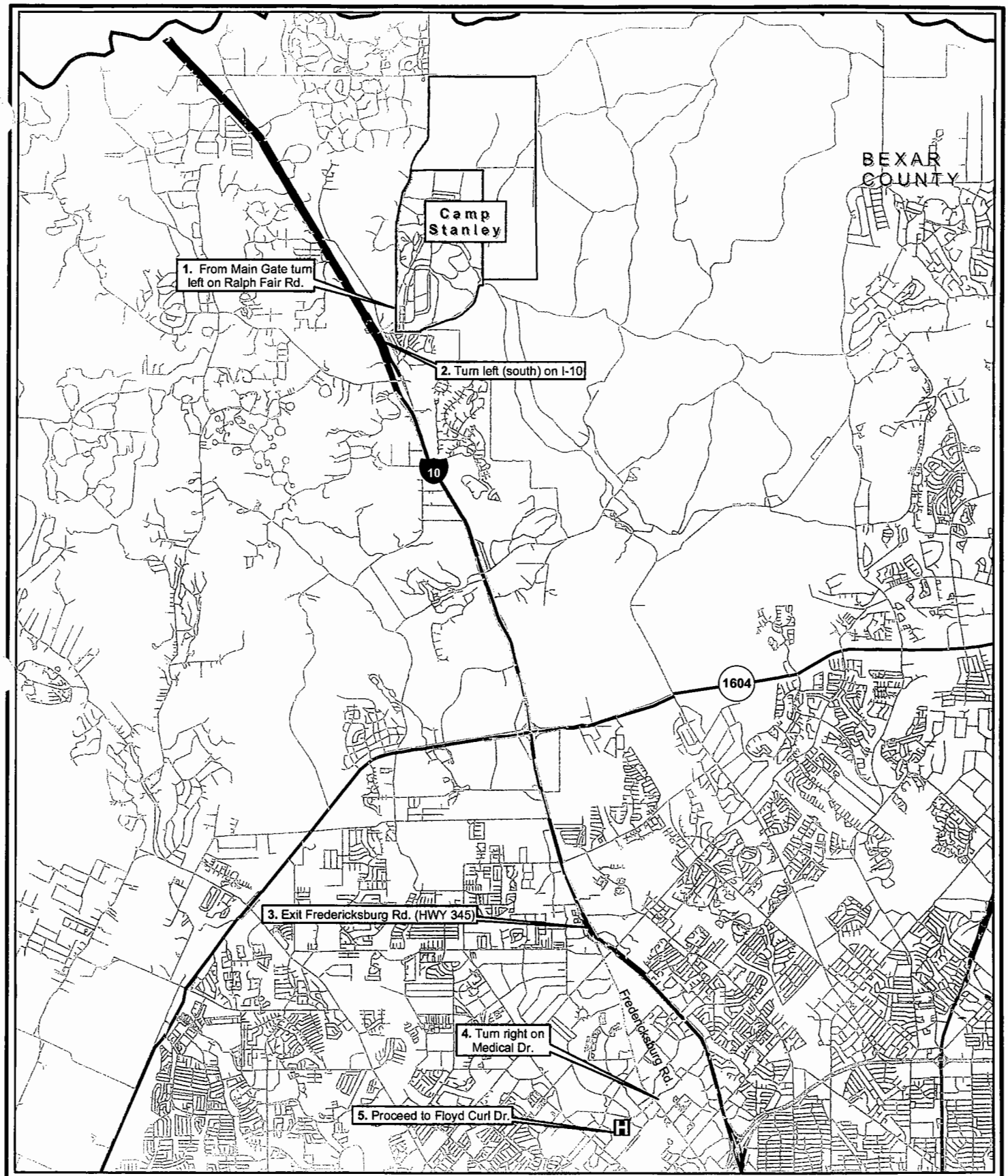
Address:

7700 Floyd Curl
San Antonio, Texas

Travel Time from Site:

15 minutes

THIS PAGE INTENTIONALLY LEFT BLANK



Route to Hospital

Figure 1

Route to Methodist Hospital

Camp Stanley Storage Activity

PARSONS

J:\CSSA\environmental_files\gisdata\mxds\Hospital_route.mxd

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

LIST OF FIGURES

SECTION 1
INTRODUCTION

1.1 PARSONS WORKPLACE HEALTH & SAFETY POLICY

No changes to Parsons Workplace Health & Safety Policy from the policy statement provided in Health and Safety Plan for Closure of Solid Waste Management Units at Camp Stanley Storage Activity, Revision 1 (April 2005).

1.2 THE PROJECT SAFETY PLAN/PROGRAM

Parsons goal along with their subcontractors is zero accidents and zero injuries with work tasks designed to minimize or eliminate hazards to personnel, process, equipment, and the general public. No employees should ever perform tasks that may endanger their own safety and health or that of others.

The purpose of this Project Safety Plan (PSP) addendum is to establish protection standards and mandatory safety practices and procedures for Parsons personnel employed in the field activities for above ground storage tank (AST) upgrades, outfall reuse activities, CS-MW16-CC pumping test activities, interim remedial actions at SWMU B-3 and AOC-65 at CSSA, Boerne, Texas (AFCEE WERC Task Order 0006). In addition, off-post cleanup of road-paving asphalt debris will be conducted. When implemented, these requirements will help protect site personnel, visitors, and the public from exposure to potential safety and health hazards at the project site. The provisions of this plan are mandatory for all on-site activities. All Parsons' personnel on the site will abide by this plan unless otherwise specified through formal addenda. All Parsons' personnel who engage in field activities for this project will be familiar with this plan and comply with its requirements.

The development, implementation, and enforcement of the PSP is the responsibility of Parsons. The contents of this plan may be revised or modified at any time based on the receipt of new information as the fieldwork progresses. The expertise of personnel from various disciplines will be employed to assist in conducting the field activities safely. This plan complies with requirements of OSHA 29 CFR 1910 and 1926, and other applicable health and safety regulations. All Parsons and subcontractor personnel must understand and implement the PSP and any addenda. Parsons documents this by having employees along with their subcontractors sign an acknowledgement form stating that they understand the plan and its requirements. This form is provided in Appendix A.

A site description and scope of work summary for the project are provided in Section 2. Section 3 presents the project team organization, personnel responsibilities, and lines of authority. Site-specific training, medical monitoring requirements and site emergency response plan and list of emergency contacts are contained in Section 4. Section 5 presents a safety and health risk analysis as part of the Pre-Construction Phase. Section 6 presents the safety program to be implemented during the construction phase including site-specific requirements for levels of protection, excavation and trenching requirements. Section 7 includes a discussion of construction safety training requirements for on-site personnel and safety meetings to be conducted during site activities. Record keeping procedures are provided in Section 8, and Section 9 includes specific health and safety requirements.

1.3 SUBCONTRACTOR SAFETY PLANS

Subcontractors must establish a safety program for their work and employees. Contract specifications require all subcontractors to accept Parsons PSP and prepare their own PSP for presentation to Parsons Project Manager before site mobilization. The PSPs for subcontractors and other project Contractors will comply with the requirements of the Occupational Safety and Health Administration (OSHA) Title 29, Code of Federal Regulations Parts 1920 and 1926 (29 CFR 1920 and 1926), at a minimum. Also at a minimum, subcontractor safety and health plans must meet the requirements of the Parsons' PSP and provide safety equipment and safeguards suitable for the hazards involved. This PSP may not cover all potential hazards on every task order and subcontractors must ensure that appropriate safety and health information is available for all project tasks. All PSP requirements for Parsons personnel (e.g., training, substance abuse screening, and incident reporting) also apply to subcontractor personnel and should be detailed in the subcontractor's safety plan.

Subcontractors that will be performing activities that require specialized training (i.e. confined space entry, excavation/trenching, HAZWOPER, etc.) must provide copies of training certifications for applicable employees AND their supervisor(s). Note that in addition to specialized training, supervisors must possess – HAZWOPER 8-hour Supervisor (29 CFR 1910.120(e)(4) certification- not to be confused with 8-hour annual refresher.

Subcontracted activities to be performed under this task order include:

- Drilling
- Borehole geophysical testing
- Land surveying
- Landfill excavation and removal
- Bioreactor construction
- Outfall-01 reuse system construction
- AST upgrade
- Asphalt removal action (offpost)

SECTION 2
SCOPE OF WORK

2.1 SCOPE OF WORK

Parsons, in their contracted role is providing investigation and remediation services for the work as specified in the Contract #FA8903-04-D-8675 Task Order 0006 (TO0006). The scope of work for TO0006 includes services to conduct AST Upgrades, CS-MW16-CC pumping test, Outfall Reuse, and Interim Remedial Actions at SWMU B-3 and AOC-65 at CSSA, and off-post cleanup of road-paving asphalt debris. The scope of work includes:

Upgrading the CSSA motor pool AST system to include new site gages, overfill valves, and fill connection containment for one diesel and one unleaded fuel (MOGAS) tanks. A vapor recovery system will also be installed on the MOGAS dispenser. Additionally, equipment capable of analog output will be used such that operational data of the AST system can be integrated into the CSSA supervisory control and data acquisition (SCADA) system.

Installation and commencement of operations at Outfall 001 reuse automated irrigation system, including installation of a day storage tank, pumps, and piping to allow application of 10,000 gallons per day of sanitary wastewater effluent from CSSA's wastewater treatment plant (WWTP).

Interim remedial measures at SWMU B-3 and AOC-65 which will be supported with the installation of Westbay® Multi-port monitoring network and eight new vapor extraction wells (VEWs), followed by operation and maintenance (O&M) activities. At SWMU B-3, a push-pull tracer study with monitoring of enhanced natural attenuation of contaminants will also be conducted.

Cleanup of approximately 2,700 cubic yards (CY) of road-paving asphalt debris improperly managed by an independent construction contractor at an off-post location will be characterized, removed, and disposed at a permitted facility.

Removal action of landfill debris and ordnance material at SWMU B-3. Soil will be excavated using a trackhoe. The excavated soils will be spread out and visually inspected by UXO technicians, who will remove any ordnance items. The soils will then be stockpiled and later sifted to verify all ordnance items were removed during the initial visual inspection. Any unexploded ordnance(UXO) items encountered at SWMU B-3 will be addressed by Fort Sam Explosives and Ordnance Disposal (EOD) personnel.

Construction of bioreactor in resulting excavation site at SWMU B-3.

Pumping test of aquifer.

Testing and O&M of bioreactor and injection well to enhance anaerobic degradation of chlorinated solvent residues in formation and groundwater.

The primary mission of CSSA is receipt, storage, and issuance of supplies, as well as quality assurance testing and maintenance of military weapons and ammunition (US Army, 1971). This PSP has been prepared to address the adherence to safety when conducting AST Upgrades, Outfall Reuse, and Interim Remedial Actions at SWMU B-3 and AOC-65 at CSSA, and removal of road-paving debris at an off-post location.

2.2 PROJECT SAFETY PLAN APPLICATION

This safety program and referenced documents applies to the specific activities associated with scope of work items described in section 2.1.

Site:	Camp Stanley Storage Activity
AFCEE COR:	Brian Siegfried
Telephone Number:	(210) 536-5208
Technical Point of Contact:	Glaré Sanchez
Site Telephone Number:	(210) 698-5208
Proposed Dates of Work:	August 2005
Overall Hazard is:	Moderate to High

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 3
PROJECT SAFETY MANAGEMENT RESPONSIBILITIES AND AUTHORITY

3.1 SAFETY RESPONSIBILITY MATRIX

The project team assigned to this project is outlined below:

Name	Task Assigned
Glaré Sanchez	CSSA Program Manager
Jeff Aston	CSSA Project Manager
Brian Siegfried	AFCEE COR
Teresa Benavides	CSSA Safety Manager
Brian Vanderglas	Parsons Project Manager
Doug Downey	Parsons Technical Director
Ken Rice	Parsons Health and Safety Manager
Kyle Caskey	Parsons Field Team Leader/Site Health and Safety Officer
Various Personnel	Parsons Field Team Leader

Parsons project personnel responsibilities are outlined in Table 3.1 in the *Health and Safety Plan for Closure of Solid Waste Management Units at Camp Stanley Storage Activity, Revision 1* (April 2005). The site safety organization is structured such that field team members report to the Site Health and Safety Officer, who, in turn, reports to the Project Health and Safety Manager for safety-related issues. In the case of this project, only one Parsons representative, the construction supervisor, will be on-site for the entire duration of the field activities, so he will be designated as the Field Team Leader for Parsons and the Site Health and Safety Officer. Kyle Caskey is currently scheduled to provide primary field oversight supervision for Parsons, and is therefore assigned primary duties as the Field Team Leader. Mr. Caskey will also serve as the Site Health and Safety Officer and will brief all field team members and any designated alternates as to specific site safety concerns or issues prior to their duty in the field. Subcontractors report to their own health and safety personnel, but will be encouraged to inform the Parsons Site Health & Safety Officers if any potentially dangerous situations are encountered.

3.2 SAFETY REPORTING REQUIREMENTS

No changes made.

3.2.1 On-line Reporting System

No changes made.

3.2.2 Creating or Updating Incidents

No changes made.

3.2.3 Incident Detail Reports

No changes made.

3.2.4 Monthly Reporting of Hours

No changes made.

SECTION 4
ADMINISTRATIVE PHASE

4.1 PROJECT SAFETY COMMITTEE

No changes made.

4.2 PROJECT ORIENTATION

No changes made.

4.3 AWARENESS CAMPAIGN

No changes made.

4.4 STAKEHOLDER PSP ALIGNMENT MEETING

No changes made.

4.5 TRAINING

No changes made.

4.6 AUDITS AND INSPECTIONS

No changes made.

4.7 MEETINGS

No changes made.

4.8 MEASUREMENT AND REPORTING

4.8.1 Emergencies

No changes made.

4.8.2 Measurement

No changes made.

4.8.3 Incident Reporting

No changes made.

4.9 INCIDENT INVESTIGATIONS

No changes made.

4.10 RESPONSIBILITY/IDENTIFICATION OF KEY LINE PERSONNEL

Project: CSSA – Various Remediation and Investigation Activities

Address: 25800 Ralph Fair Road
Boerne, Texas 78015

Telephone: (210) 698-5208

Fax: (210) 395-7386

Parsons Executive Responsible for Project	Contact No.
Ross Miller	(801) 572-5999
Project Manager/Superintendent	
Brian Vanderglas	(512) 719-6059
Safety Manager	
Ken Rice	(512) 719-6050
Site Health and Safety Officer	
Kyle Caskey	(210) 204-8529
Client - Project Management	
Glaré Sanchez	(210) 698-5208

These personnel have the authority and responsibility for implementing the provisions of this program.

4.11 MEDICAL REQUIREMENTS AND WORKERS COMPENSATION

In accordance with corporate requirements the Project Safety Manager has established and implemented the following medical requirements for the project:

4.11.1 Functional Capacities Exams (FCEs)

No changes made.

4.11.2 Substance Abuse and Alcohol Testing

No changes made.

4.11.3 Medical Services and Panel of Physicians

No changes made.

4.11.4 Emergency Medical Response

No changes made.

4.12 GUIDELINES FOR PRE-EMERGENCY PLANNING AND TRAINING

No changes made.

Route to hospital: See map on next page identifying hospital location. Hospital is located on corner of Medical and Floyd Curl Drive. The route from the CSSA main gate is south on Ralph Fair Road about 0.75 mile, south on Interstate 10 about 12.5 miles, west on Medical Drive about 0.5 mile, and south on Floyd Curl Drive to hospital.

4.13 EMERGENCY RECOGNITION AND PREVENTION

No changes made.

4.14 DECONTAMINATION AND EMERGENCY MEDICAL TREATMENT OF PERSONNEL DURING AN EMERGENCY

4.14.1 Procedures during Fire or Explosion or Environmental Incident

Evacuate all personnel to a safe location upwind of the incident and contact the Fire Department. The number on base is:

- Fire Department – 210/221-7517

4.14.2 Procedures for Emergency Medical Treatment and First Aid

No changes made.

4.14.3 Injury from Chemical Exposure

No changes made.

4.14.3.1 Personal Injury

No changes made.

4.15 EVACUATION PROCEDURES

No changes made.

4.15.1 Procedures Implemented in the Event of a Major Fire, Explosion, or On-site Health Emergency Crisis

No changes made.

4.16 EMERGENCY CONTACTS

Contact	Phone Number
Emergency Dispatcher	911
Camp Bullis fire department	210/221-7517
Post Security, Building 79	**210/295-7408**
Teresa Benavides, Camp Stanley safety officer, Building 98	210/698-5208
Glaré Sanchez, Camp Stanley environmental officer	210/698-5208
Poison Control Center	800/492-2414

National Response Center	800/424-8802
Parsons Corporate Safety Center	866-PAR-1411

Note: When using CSSA phone system, dial "1" and the last four numbers (except for 911). For toll-free and local calls dial "9". Mobile cell phones need to dial the entire number.

4.17 ACCIDENT REPORTING REQUIREMENTS

No changes made.

4.18 PPE AND EQUIPMENT DECONTAMINATION

No changes made.

Air Monitoring Action Levels

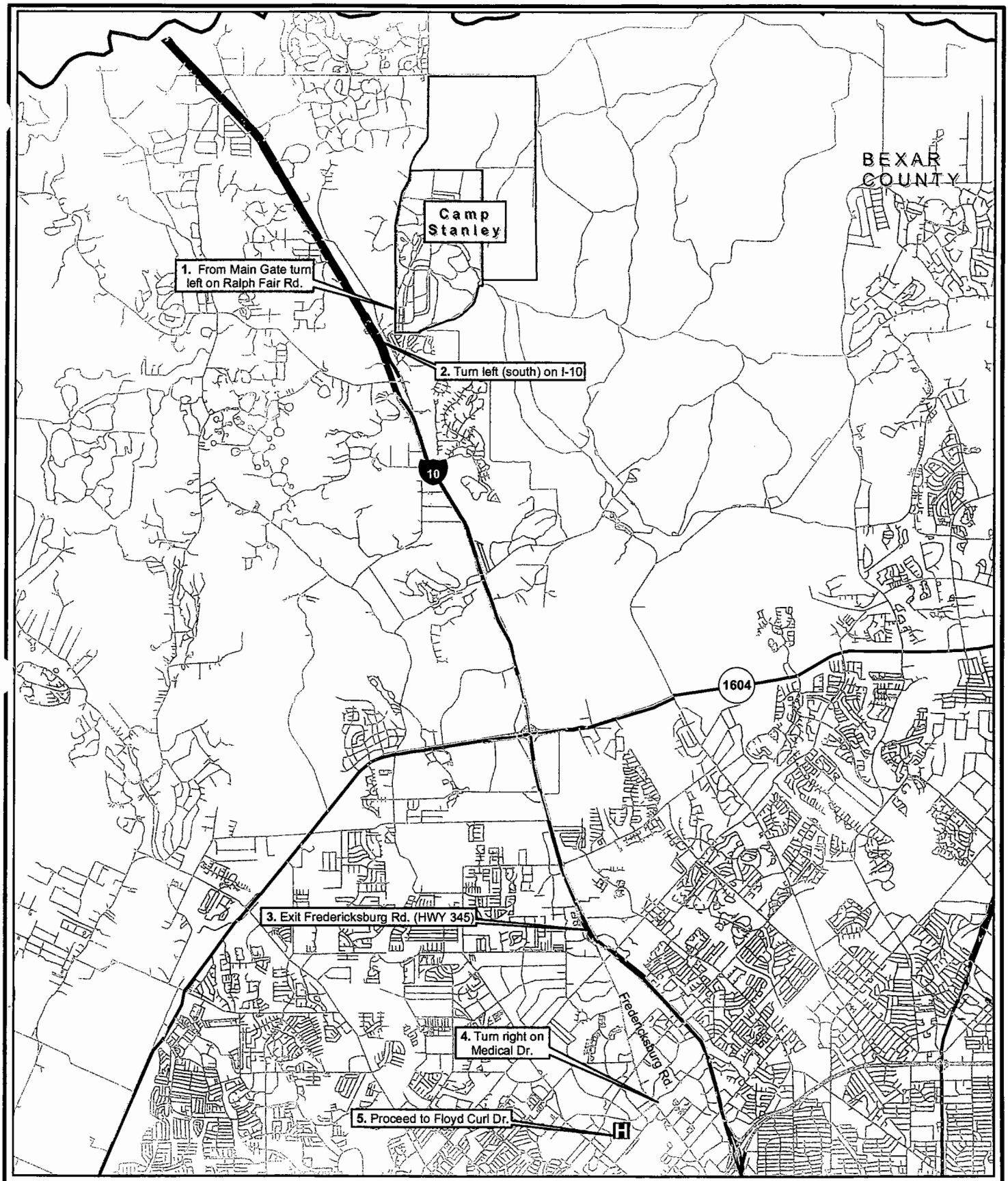
Action Level (Concentration of Organic Vapor in Breathing Zone)	Method of Detection	Action
	Oxidation Pond	
< 25 ppm Total VOC	PID or FID	Downgrade to Level D protection
≥ 250 ppm Total VOC	PID or FID	Stop work. Leave the site until conditions subside.
>10% LEL	Combustible Gas Analyzer	Stop work. Leave the site until conditions subside.
> 10 mg/m^3 limestone particulates	MINIRAM™	Leave area or upgrade to respiratory particulate protection.
	All SWMUs	
25-50 ppm Total VOC < 25 ppm Tetrachloroethylene	PID or FID Colormetric Tubes	Level D PPE
25-50 ppm Total VOC ≥ 25 ppm Tetrachloroethylene	PID or FID Colormetric Tubes	Leave area or upgrade to Level C personal protective equipment.
50-250 ppm Total VOC	PID or FID	Leave area or upgrade to Level C personal protective equipment.
≥ 250 ppm Total VOC	PID or FID	Stop work. Leave the site until conditions subside.
>10% LEL	Combustible Gas Analyzer	Stop work. Leave the site until conditions subside.
> 10 mg/m^3 limestone particulates	MINIRAM™	Leave area or upgrade to respiratory particulate protection.

4.18.1 Workers Compensation Program

No changes made.

4.18.2 Medical Monitoring

No changes made.



Route to Hospital

Figure 2

Route to Methodist Hospital

Camp Stanley Storage Activity

PARSONS

J:\CSSA\environmental_files\gisdata\mxds\Hospital_route.mxd

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 5
PRE-REMEDIATION PHASE

5.1 RISK ANALYSIS AND SAFETY SPECIFICATION DEVELOPMENT

No changes made to this section.

5.2 DESIGN AND REMEDIAL ACTION REVIEW

No changes made to this section.

5.3 PREBID MEETING

No changes made to this section.

5.4 SUBCONTRACTOR PREQUALIFICATION REVIEW

No changes made to this section.

5.5 PRECONSTRUCTION MEETING

No changes made to this section.

5.6 COMPETENT PERSON SUBMISSION REVIEW

No changes made to this section.

5.7 SUBCONTRACTOR SAFETY PLAN SUBMISSION REVIEW

No changes made to this section.

5.8 PREMOBILIZATION SAFETY MEETING

No changes made to this section.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 6
FIELD INVESTIGATION OR REMEDIATION PHASE

6.1 SITE RISK ANALYSIS

Few changes have been made in this addendum to the Master Plan. Emphasis has been placed on those hazards that will likely be encountered on this task order by completing the relevant sections below.

6.2 CHEMICAL AND BIOLOGICAL HAZARD EVALUATION

No changes made.

6.2.1 Organic Solvents

TCE, PCE, and other organic solvents have been identified in the soils and groundwater of sites addressed under this task order. All personnel exposed to soil and groundwater while working at these sites should follow the prescribed decontamination procedures. In addition to soil and groundwater exposure, vapors and airborne particulate should be monitored during all intrusive operations such as drilling and excavation. Air monitoring action levels can be found in Section 4.18.

6.2.2 Heavy Metals

Heavy metals have been identified as COCs in debris scheduled for removal at SWMU B-3. Airborne particulate should be monitored during intrusive activities. Air monitoring action levels can be found in Section 4.18.

6.2.3 Flammable Solvent Storage

No changes made.

6.2.4 Biological Organisms

No changes made.

6.2.5 Poison Ivy

No changes made.

6.3 PHYSICAL HAZARD EVALUATION

No changes made. While working on post, employees must implement safe work practices in accordance with OSHA regulations. Work areas should be kept clear of stockpiled materials except as necessary to perform specific tasks. Persons working around equipment or traffic must be cognizant at all times of where the equipment is operating. Make eye contact with the operator before approaching any operating equipment.

6.3.1 General Vehicle Operations

Vehicle traffic is a significant safety hazard both inside and outside of the work areas. With excavating equipment, waste hauling trucks, graders, drilling rigs, and other construction related equipment used to complete the planned activities, there will be significant traffic in most of these relatively small areas. Prior to initiating any field activities, a general traffic plan will be

prepared and discussed with all field personnel and individuals who are likely to operate vehicles or heavy equipment. The easiest way to avoid an unnecessary accident is to ***stay alert and avoid the area unless accompanied by the Parsons Construction Manager***. All personnel needing to enter this area must obtain authorization to access the area during construction activities by speaking with a CSSA representative, or the Parsons Site Manager. All personnel entering the work zone must comply with all Health and Safety regulations within this area.

6.3.2 Large Motor Vehicles

Working around large motor vehicles and heavy equipment will be a hazard on these projects. Injuries can result from equipment hitting or running over personnel, impacts from flying objects or overturning of vehicles. All personnel on-post will be familiar with work rules to minimize physical hazards. Vehicle and heavy equipment design and operation will be in accordance with all applicable federal, state, local and CSSA regulations and guidance. In particular, the following precautions will be utilized to help avoid injuries/accidents:

- Brakes, hydraulic lines, light signals, fire extinguishers, fluid levels, steering, tires, horn, and other safety devices will be checked at the beginning of each shift;
- Large construction motor vehicles will not be backed up unless:

The vehicle has a reverse signal alarm audible over the surrounding noise level, or

The vehicle is backed up only when an observer signals it is safely to do so.

- Heavy equipment or motor vehicle cabs will be kept free of all non-essential items and all loose items will be secured;
- Large, construction motor vehicles and heavy equipment will be provided with necessary safety equipment (seat belts, roll-over protection, emergency shut-off in case of roll-over, and backup warning lights and audible alarms); and

Blades and buckets will be lowered to the ground and parking brakes will be set before shutting off any heavy equipment or vehicle.

Drilling rigs often drive off-road to access investigation locations. Prior to driving off-road, walk the planned rout on foot to ensure that the ground is dry, level, and capable of supporting the weight of the drilling rig. Make sure loose debris and items capable of puncturing a tire or providing a tripping hazard are removed. Because drilling rigs have various pieces of equipment protruding from the rear that the driver is unable to see, at least one "spotter" should be positioned behind it at all times while it is in reverse.

6.3.2.1 Backhoes and Excavators

Excavations will be conducted utilizing trackhoe and backhoe equipment, which is anticipated to generate excavations less than ten feet deep. Restoration of paved areas, if necessary, will begin after excavation activities are complete, but open holes or depressions are likely during the construction activities. All work will be completed in compliance with health and safety precautions discussed in Section 2.2.7 and with construction rules outlined in 29 CFR Part 1926.

6.3.2.2 Support Vehicles

Support vehicles will provide the majority of transportation of personnel working on this task order. Support vehicles will follow the established traffic patterns designed by the site supervisor. Support vehicles will be parked in areas that do not interfere with the ongoing operations at the site or in areas that can pose a hazard to other traffic or individuals.

6.3.2.3 Subsurface Hazards

Injuries and deaths resulting from shock, electrocution, thermal burns, and other utility hazards can be avoided through proper attention to, and knowledge of, overhead and underground utilities. Risk assessment can be accomplished during the planning stages of a project by developing a task/risk analysis for the hazards associated with specific utilities. The Site Health and Safety (of field supervisors) officer must make a careful determination of risk. The entire team must be alert to the different hazards that may exist and must reserve time to notice and adequately address the risks posed by the anticipated hazards.

Much of the responsibility for protection from utility hazards falls on the Site Health and Safety Officer (SHSO). The SHSO is responsible for ensuring a safe work environment when working around electrical devices, pressurized utilities, gas, steam, water, sewer, and pipeline utilities. However, it is imperative that all site personnel understand their obligation to recognize and avoid unsafe conditions. Whenever possible, electrical lines and equipment will be de-energized prior to commencement of work activities. Only licensed electricians will be used to perform hook-ups, maintenance, or repair work on live electrical lines or boxes.

Prior to beginning intrusive work on post, buildings, or other structures that could be served by, or connected to utilities, a search must be conducted by the SHSO to identify any overhead, underground, and in-workplace utilities. This search will ideally be performed in association with someone familiar with the facility. Examples of utilities to be identified include:

- Electrical lines and appliances;
- Gas lines;
- Pipelines;
- Steam lines;
- Water lines;
- Sewer lines; and
- Pressured air-lines.

The location of any utility that could pose a risk to workers must be communicated to all workers during a site safety meeting. Utilities should be clearly marked or the utility access restricted to avoid chance of accidental contact.

6.3.2.4 Excavations

Excavation of impacted soils from this task order will be accomplished during the initial investigation for delineating site conditions and during remedial activities. Soil samples from the excavation will be collected directly from the excavation if less than three feet deep

or from the trackhoe or backhoe bucket if the excavation is greater than three feet deep. Depending on the excavation depth and slope stability, soil stability requirements may apply for personnel entering the excavation. If field personnel are required to enter excavations greater than five feet in depth, proper sloping, shoring or shielding of the will be conducted in compliance with 29 CFR 1926, Subpart P.

Restoration of the ditches and paved areas will begin after excavation activities are complete. Restoration of the site will be completed in compliance with construction rules outlined in 29 CFR Part 1926.

6.3.2.4.1 Inspections

No changes made.

6.3.2.4.2 General Requirements

No changes made.

6.3.2.4.3 Hazardous Atmospheres

No changes made.

6.3.2.4.4 Rescue Equipment

No changes made.

6.3.2.4.5 Stability of Adjacent Structures

No changes made.

6.3.2.4.6 Personal Protective Equipment

No changes made.

6.3.2.4.7 Fall Protection

No changes made.

6.3.2.4.8 Protective Systems

No changes made.

6.3.2.4.9 Probing and Exploratory Trenching

No changes made.

Responsibilities

No changes made.

Requirements

No changes made.

Operations

No changes made.

6.3.3 Electrical Hazards

Construction during this task order will include the installation of electrically charged equipment. The AST upgrade, the outfall reuse system, SVE blowers, and the recirculation pumping system for the SWMU B-3 bioreactor will all require electrical support and pose possible electrical hazards.

Transmission and distribution lines carried on towers and poles normally provide safe clearance over roadways and structures. Clearances must be verified and deemed adequate for the movement of vehicles and for the operation of construction equipment. Overhead or aboveground electric lines shall be considered "live" or active until a reliable source has documented them to be otherwise.

Elevated work platforms, ladders, scaffolding, man-lifts, drill or vehicle superstructures shall be erected a minimum of 20 feet (the actual distance is dependent upon the voltage of the line) from overhead electrical lines until the line is either de-energized and grounded or shielded, and a competent electrician has certified that arcing cannot occur between the workplace or superstructure. For other overhead or in-workplace utilities, workers must be instructed to use care in working under or around utilities to avoid hot surfaces, pressured gases, leaking pipelines, discharges of steam or hot liquids, and must work to prevent accidental contact or breakage.

6.3.4 Electrical Control Procedures

General

No changes made.

Visual Inspection

No changes made.

Ground Conductor Testing

No changes made.

Ground Conductor Test Intervals

No changes made.

Ground Conductor Test Equipment

No changes made.

Ground Conductor Test Verification

No changes made.

Required Equipment

No changes made.

GFCI Alternative

No changes made.

6.3.4.1 Ordnance Material

1. ***General Information:***

   a. *The cardinal principle to be observed involving explosives, ammunition, severe fire hazards or toxic materials is to limit the exposure to a minimum number of personnel, for the minimum amount of time, to a minimum amount of hazardous material consistent with a safe and efficient operation.*

   b. *Consider ordnance that has been exposed to fire as extremely hazardous. Chemical and physical changes may have occurred to the contents that render it more sensitive than it was in its original state.*

   c. *If a suspected or known chemical weapons material (CWM) item is encountered, evacuate the area immediately upwind, have two UXO technicians cover the item or hole with plastic and secure the plastic in place. Post two UXO technicians as security on the item upwind but in line of sight of the item. Notify CSSA and secure the area until relieved by military EOD personnel.*

2. ***On-Site Instructions***

   a. ***DO NOT*** *touch or move any ordnance items regardless of the marking or apparent condition.*

   b. ***DO NOT*** *visit an ordnance site if an electrical storm is occurring or approaching. If a storm approaches leave the site immediately and seek shelter in a building or vehicle well away from the project site but a minimum of a distance outside the minimum safe distance (MSD).*

   c. ***DO NOT*** *use radio or cellular telephones near suspected ordnance items unless approved to do so by the senior UXO technician on site.*

   d. ***DO NOT*** *walk across an area where the ground cannot be seen. If dead vegetation or animals are observed, leave the area immediately due to the potential contamination of chemical agent.*

   e. ***DO NOT*** *drive vehicles into a suspected ordnance and explosives (OE)-contaminated area; use clearly marked lanes.*

   f. ***DO NOT*** *carry matches, cigarettes, lighters or other flame producing devices into an OE site. During operations, these materials may be stored in a central location for use during breaks conducted in authorized smoking areas.*

   g. *Always assume ordnance items contain a live charge until it can be determined otherwise.*

3. ***Specific Action Upon Locating Ordnance:*** *In the event an ordnance item is located by an individual other than a UXO technician the individual will mark its location without approaching the item any further and notify a UXO technician of the items location. This instance should not occur, as no one will be allowed to enter an area without it first being cleared and visibly marked by UXO technicians.*

4. ***Exclusion Zone****: During the initial phase of excavation, UXO personnel will clear the first two feet of material for OE related items. All roads that access SWMU-B3*

will be closed in a 1,500-foot radius, as shown in ***Figure 3****. Only necessary personnel will be allowed in the area during the anticipated removal action. As stated previously this 1,500 foot exclusion zone (EZ) is the initial EZ and may have to be extended based on OE recovered.*

5. ***Other:*** *Foul weather gear may be worn as appropriate. Water, safety equipment, first aid kit, and a cellular phone will be used while on site. Personnel using medication will inform a UXO technician prior to beginning work at the site. Physical conditions that may impact performance and safety (blisters on feet, weak knees, twisted ankle, colds, fever, etc.) will be reported to a UXO technician. The UXO technician will monitor personnel physical condition and determine if the individual is capable of participating in an activity.*

6.3.4.2 Slip, Trip, and Fall Hazards

No changes made.

6.3.4.3 Noise-Induced Hearing Loss

Hearing protection should be utilized around operating SVE blowers and drilling rigs.

6.3.4.4 Fire or Explosion Hazards

No changes made.

6.3.4.5 Electric Power Line Clearance and Thunderstorms

Ensure that the drilling Rig has adequate power line clearance prior for raising the derrick and that the derrick is a safe distance from any overhead power lines when erected. All drilling activities should stop at the first sign of inclement weather. If thunder can be heard, the possibility of a lightning strike exists.

Transmission and distribution lines carried on towers and poles normally provide safe clearance over roadways and structures. Clearances must be verified and deemed adequate for the movement of vehicles and for the operation of construction equipment. Overhead or aboveground electric lines shall be considered "live" or active until a reliable source has documented them to be otherwise.

Elevated work platforms, ladders, scaffolding, man-lifts, drill or vehicle superstructures shall be erected a minimum of 20 feet (the actual distance is dependent upon the voltage of the line) from overhead electrical lines until the line is either de-energized and grounded or shielded, and a competent electrician has certified that arcing cannot occur between the workplace or superstructure. For other overhead or in-workplace utilities, workers must be instructed to use care in working under or around utilities to avoid hot surfaces, pressured gases, leaking pipelines, discharges of steam or hot liquids, and must work to prevent accidental contact or breakage.

6.3.4.6 Other Energy Systems Requiring Control Procedures (Lockout/Tagout)

No changes made.

THIS PAGE INTENTIONALLY LEFT BLANK

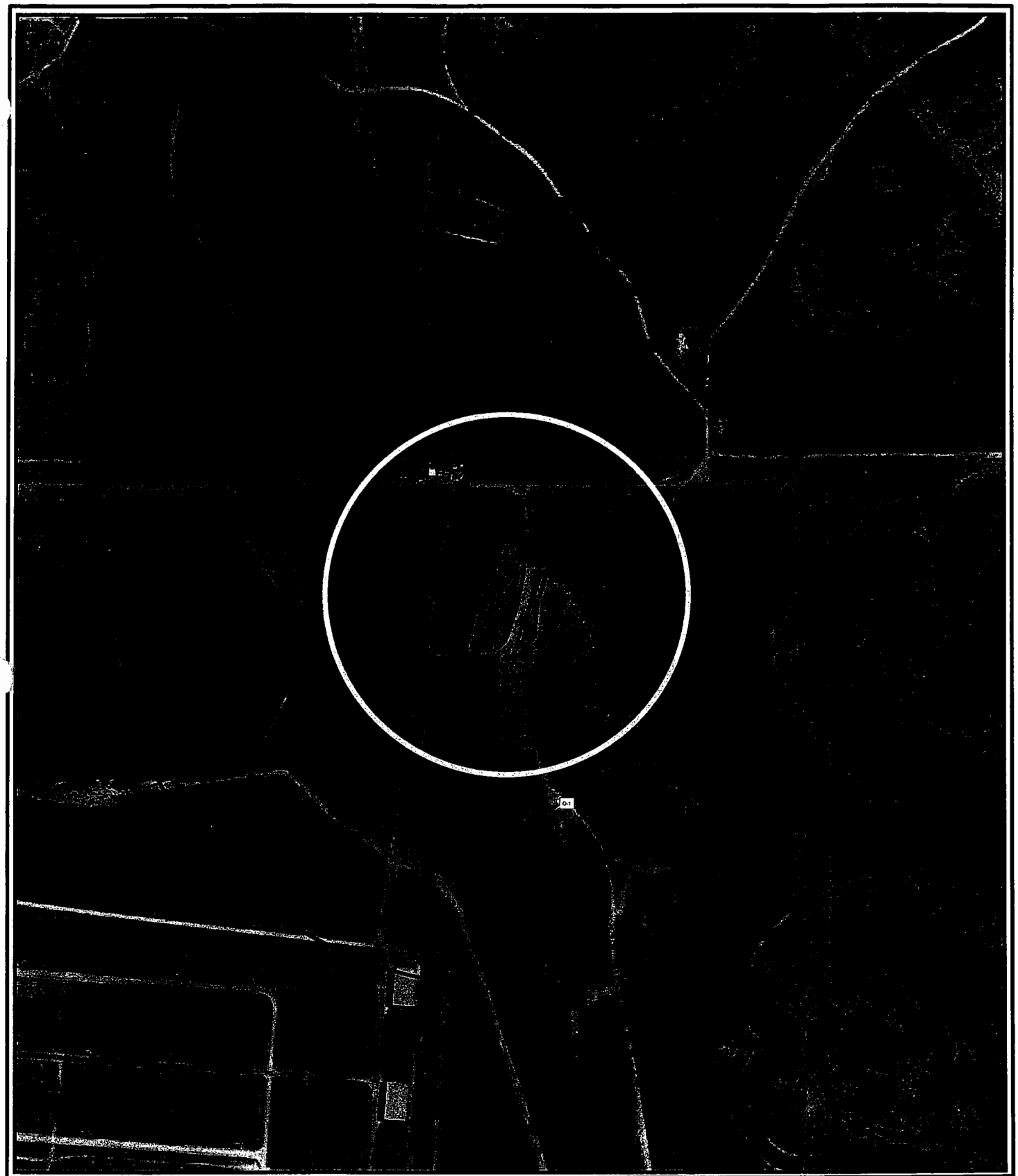


Figure 3

SWMU B-3 UXO Exclusion Zone

Camp Stanley Storage Activity

PARSONS

J:\CSSA\environmental_files\gis_data\mxds\B3_trenches.mxd

THIS PAGE INTENTIONALLY LEFT BLANK

6.3.4.6.1 Definitions

No changes made.

6.3.4.6.2 Lockout Steps

No changes made.

6.3.4.6.3 Tagout Tag Properties

No changes made.

6.3.4.6.4 Lockout/Tagout Situations

No changes made.

6.3.4.6.5 Parsons Lockout/Tagout

No changes made.

6.3.4.6.6 Energy

No changes made.

6.3.4.6.7 Protective Engineering

No changes made.

6.3.4.6.8 Applying and Enforcing Energy Control

No changes made.

6.3.4.6.9 Basic Work Rules

No changes made.

6.3.4.6.10 Lockout/Tagout Removal

No changes made.

6.3.4.6.11 Service, Maintenance and Temporary Reactivation

No changes made.

6.3.4.6.12 Special Lockout Precautions

No changes made.

6.4 HEAT STRESS

The location of CSSA ensures mild winters and very hot summers with temperatures often exceeding 100 degrees Fahrenheit. For this reason, heat stress is a concern for nearly all field activities and all procedures related to working in high temperature environments should be strictly adhered to.

6.4.1 Effects of Heat Stress

No changes made.

6.4.2 Heat-Related Problems

No changes made.

6.4.3 Heat-stress Monitoring

No changes made.

6.5 COLD EXPOSURE

No changes made.

6.5.1 Evaluation and Control

No changes made.

6.6 FIVE HAZARD CONTROL MEASURES – ORDER OF PRECEDENCE

Site hazards and hazards resulting from investigation and remediation activities are controlled using one or more of the control measures listed below. The order of precedence is as follows:

1. **Engineer/design to eliminate or minimize hazards.** A major component of the design phase is to select appropriate safety features to eliminate a hazard and render it fail-safe or provide redundancy using backup components.

2. **Guard the hazard.** Hazards that cannot be eliminated by design must be reduced to an acceptable risk level by safety guards or isolation devices that render them inactive.

3. **Provide warnings.** Hazards that cannot be totally eliminated by design or guarding are controlled through using a warning or alarm device.

4. **Provide special procedures or training.** When design, guarding, or warnings cannot eliminate hazards, subcontractors must develop procedures, training, and audits to ensure safe completion of work. Training cannot be a substitute for hazard elimination when life-threatening hazards are present.

5. **Provide personal protective equipment.** To protect workers from injury, the last method in the order of precedence is the use of personal protective equipment, such as hard hats, gloves, eye protection, life jackets, and other protective equipment with the understanding that bulky, cumbersome, and heavy personal protective equipment is often discarded or not used, rendering this method ineffective without proper controls.

6.7 ACTIVITY HAZARDS ANALYSIS

No changes made with regard to AHA Process. Appendix B will contain all AHAs that pertain to this task order.

6.8 SAFETY SYSTEMS ANALYSIS AND DETERMINATION OF PPE

No changes made.

6.8.1 Personal Protective Equipment

No changes made.

6.8.2 Levels of Protection

No changes made.

6.8.2.1 Level D Modified

No changes made.

6.8.2.2 Level C

No changes made.

6.8.2.3 Level B

No changes made.

6.8.3 Equipment Needs

No changes made.

6.9 SITE INSPECTION

No changes made.

6.10 DAILY SITE WALK CHECKLIST

Daily site walks and inspections are planned only when field activities are ongoing.

6.11 SAFETY AND HEALTH ENFORCEMENT

No changes made.

6.12 NOTICE OF VIOLATION OF SAFETY AND HEALTH REGULATIONS

No changes made.

6.13 COMPETENT FIRST AID PERSON

No changes made.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 7
SAFETY TRAINING

7.1 PROJECT SAFETY ORIENTATION

Under this delivery order, numerous unrelated tasks will be performed by several subcontractors. Because of this, each task must conduct an individual Project Safety Orientation with the subcontractors and any personnel involved with the project. Individual tasks under this delivery order include; AST work, pumping test, outfall construction, SWMU B-3 remedial action, push-pull dye tracer study, SVE construction, and bioreactor O&M.

7.2 PARSONS U SAFETY MODULES AND START TRAINING – ZERO INCIDENT TECHNIQUES

No changes made.

7.3 DAILY HUDDLE AND SAFETY PLANNER

No changes made.

7.4 DAILY TOOLBOX SAFETY MEETINGS

No changes made.

7.5 ACTIVITY HAZARDS ANALYSIS TRAINING

When the activity hazards analysis is complete, the Parsons Project Manager or Field Team Leader conducts a training session with all employees and subcontractors involved with the analyzed task(s). The training may be informal and at the site where the task is performed. Employees should be given an opportunity to provide input regarding task steps, hazards identified, and appropriate control measures.

The Project Manager documents and maintains the activity hazards analyses forms in Appendix B of this addendum or in the field logbook if potentially dangerous situations are identified in the field.

Appendix B of this document includes the AHAs prepared for tasks to be performed under this delivery order. These include, but are not limited to, AHAs for AST upgrades, construction of the Outfall Reuse system, Interim Remedial Actions at SWMU B-3 and AOC-65, and the removal of weathered asphalt from an off-site location.

7.6 REGULATORY TRAINING PROGRAMS

No changes made.

7.7 OSHA OUTREACH PROGRAMS

No changes made.

7.8 SPECIALIZED TRAINING AND ORIENTATIONS

No changes made.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 8
RECORDKEEPING AND POSTING

No changes made to this section.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 9
SAFETY AND HEALTH REQUIREMENTS

No changes made to this section.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A

THIS PAGE INTENTIONALLY LEFT BLANK

PLAN ACCEPTANCE FORM

1. SUMMARY OF ACTIVITIES

Activities to be performed include AST Upgrades, Outfall Reuse, and Interim Removal Actions at SWMU B-3 and AOC-65.

2. ACCEPTANCE

I have read the health and safety plan for CSSA TO0006 fieldwork and agree to abide by the rules and guidelines contained therein.

Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date

3. DISTRIBUTION

Original signatures are to go in the Parsons project file, and copies will be retained by the Parsons project manager and by the office health and safety representative.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B

THIS PAGE INTENTIONALLY LEFT BLANK

Activity Hazards Analysis Form

Parsons
Activity Hazards Analysis
Page 1 of 1

Project Name & Number: AST Upgrades, Outfall Reuse, Interim Remedial Actions at SWMU B-3 and AOC-65 (TO0006)		**AHA No.: 744223-02**	**Date Prepared: 6/7/05**	
Location: CSSA, Boerne, Texas		**Contractor:** Parsons/GeoProjects	**Analysis by:** Julie Spencer	**Date:** 6/7/05
Required Personal Protective Equipment: Level D		Field Team Leader: Kyle Caskey	**Reviewed by:** Brian Vanderglas	**Date:** 6/10/05
Work Activity	**Potential Hazards**	**Preventive or Corrective Measures**		**Inspection Requirements**
AST Upgrades				
Installation of gages, valves, SCADA, and vapor recovery systems	Strains Slips, Trips, and Falls Electrocution	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Use proper lock-out/tag-out procedures when working with electrical power sources.		At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.
Asphalt removal and concrete installation	Strains Slips, Trips, and Falls Skin irritation and dust from concrete	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials and asphalt wastes. Practice good housekeeping in work areas. Utilize safety glasses w/side shields and dust masks if concrete dust is generated. Utilize appropriate gloves to prevent skin irritation from concrete.		At a minimum, a competent person will inspect the work area and materials handling equipment daily.

Work Activity	Potential Hazards	Preventive or Corrective Measures	Inspection Requirements
Outfall Reuse			
Installation of 2500 to 5000 gal. HDPE tank	Workers "struck by" Strains Slips, Trips, and Falls Electrocution	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials and HDPE tank. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Use proper lock-out/tag-out procedures when working with electrical power sources.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.
Pump Installation	Strains Slips, Trips, and Falls Inhalation of Chlorine Fumes Electrocution	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials and pump. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Use proper lock-out/tag-out procedures when working with electrical power sources. Monitor indoor areas for chlorine gas accumulations	At a minimum, a competent person will inspect the work area, materials handling equipment, tools, and air monitoring equipment daily.
Sprinkler System Installation	Strains Slips, Trips, and Falls Skin irritation from PVC glue	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Utilize appropriate gloves to prevent skin irritation from PVC glue.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.

Work Activity	Potential Hazards	Preventive or Corrective Measures	Inspection Requirements
Interim Remedial Actions at SWMU B-3 and AOC-65			
Drilling Westbay and SVE wells	Workers "struck-by" Strains Slips, Trips, and Falls Weather Noise Dust resulting from Air Coring	Be aware of all site workers and equipment. Ensure all subcontractors follow the Subcontractor PSP. Do not assist subcontractors with drilling operations. Maintain a safe distance from the drilling rig while in operation. Follow proper lifting and handling techniques when working with split spoons. Practice good housekeeping in work areas. Be aware of weather conditions that may affect the health and safety of the field team. At a minimum, wear hard-hats, safety glasses, steel-toed boots, and hearing protection, as necessary, when near the operating drill rig. Utilize safety glasses w/side shields and dust masks if excessive dust is generated.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.
SVE System Installation	Strains Slips, Trips, and Falls Skin irritation from PVC glue Electrocution	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Use proper lock-out/tag-out procedures when working with electrical power sources. Utilize appropriate gloves to prevent skin irritation from PVC glue.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.

Work Activity	Potential Hazards	Preventive or Corrective Measures	Inspection Requirements
Groundwater pumping test	Strains Slips, Trips, and Falls Electrocution Animal bites	Predetermine path of materials to work areas. Ensure area is well lit during night-time operations Follow proper lifting and handling techniques. Use mechanical means to move heavy materials. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Use proper lock-out/tag-out procedures when working with electrical power sources. Be careful when picking up objects that may contain or conceal spiders, scorpions, or snakes.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.
SWMU B-3 Removal actions	Strains Slips, Trips, and Falls Dermal exposure to contaminants	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Utilize appropriate gloves to prevent dermal exposure to contaminants.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.
Bioreactor Construction	Strains Slips, Trips, and Falls Electrocution Animal bites	Predetermine path of materials to work areas. Ensure area is well lit during night-time operations Follow proper lifting and handling techniques. Use mechanical means to move heavy materials. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Use proper lock-out/tag-out procedures when working with electrical power sources. Be careful when picking up objects that may contain or conceal spiders, scorpions, or snakes.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.

Work Activity	Potential Hazards	Preventive or Corrective Measures	Inspection Requirements
O&M Activities	Strains Slips, Trips, and Falls Dermal exposure to contaminants	Predetermine path of materials to work areas. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials. Practice good housekeeping in work areas. Inspect power and hand tools prior to use. Utilize appropriate gloves to prevent dermal exposure to contaminants.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.
Weathered Asphalt Removal			
Removal of ~2700 CY from off-site location	Strains Slips, Trips, and Falls	Be aware of all site workers and equipment. Follow proper lifting and handling techniques. Use mechanical means to move heavy materials and asphalt wastes. Practice good housekeeping in work areas.	At a minimum, a competent person will inspect the work area, materials handling equipment, and tools daily.
Ordnance Removal Actions			
Ordnance Excavation Activities	*Encountering white phosphorous (WP) material, detonating a UXO item*	*Allow construction subcontractor to perform controlled scraping to release any WP material in a controlled manner; perform anomaly digs in a safe manner so that any potential UXO items are not struck violently during digging*	*Logbook documentation of significant items.*
Ordnance Removal Activities	*Possible detonation of UXO during removal and staging of UXO items*	*UXO personnel will perform all actions necessary to ensure that hazards associated with removing UXO from clearance areas and staging UXO items are mitigated.*	*Logbook documentation of significant items.*
Soil Pile Spreading and Inspection	*Possible detonation of UXO during spreading action or handling of UXO during inspection*	*UXO personnel will be the only handlers of the materials and will take all necessary steps to ensure safety.*	*Logbook documentation of significant items.*

Work Activity	Potential Hazards	Preventive or Corrective Measures	Inspection Requirements
Soil Sifting Activities	*Possible detonation of UXO during sifting activity*	*UXO personnel will be the only handlers of the materials and will take all necessary steps to ensure safety.*	*Logbook documentation of significant items.*
Soil Pile Sampling and Disposal	*Potential UXO, driving hazards associated with trucks picking up soil from site*	*UXO personnel should inspect any soil pile that is to be sampled or disposed; coordinate with truck drivers to establish a safe routine for traveling in and around the site.*	*Logbook documentation of significant items.*

Note: Any additional hazards noted during the project that are not included in this AHA will be logged in the project field book.

Training Requirements:

All assigned employees are required to familiarize themselves with the contents of this AHA before starting a work activity and review it with their Supervisor during their Daily Safety Huddle.