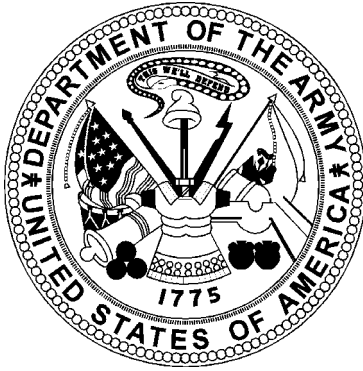


HEALTH AND SAFETY PLAN



Prepared for:

**Camp Stanley Storage Activity
Boerne, Texas**

April 2005

HEALTH AND SAFETY PLAN



Prepared for:

**Camp Stanley Storage Activity
Boerne, Texas**

**AFCEE/ERD QAE
Brooks City-Base, Texas**

**FA8903-04-D-8675
Task Order 0006**

April 2005

Reviewed and approved by:

Name

Date

Brian Vanderglas
Program Health and Safety Manager

21 April 2005

Ken Rice
Environmental Project Health & Safety Officer

21 April 2005

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 CSSA emergency personnel. This emergency contacts 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.

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
Brian Murphy, 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 on CSSA, dial "1" and the last four numbers (except for 911). For toll-free and local calls dial "9".

Medical Emergency

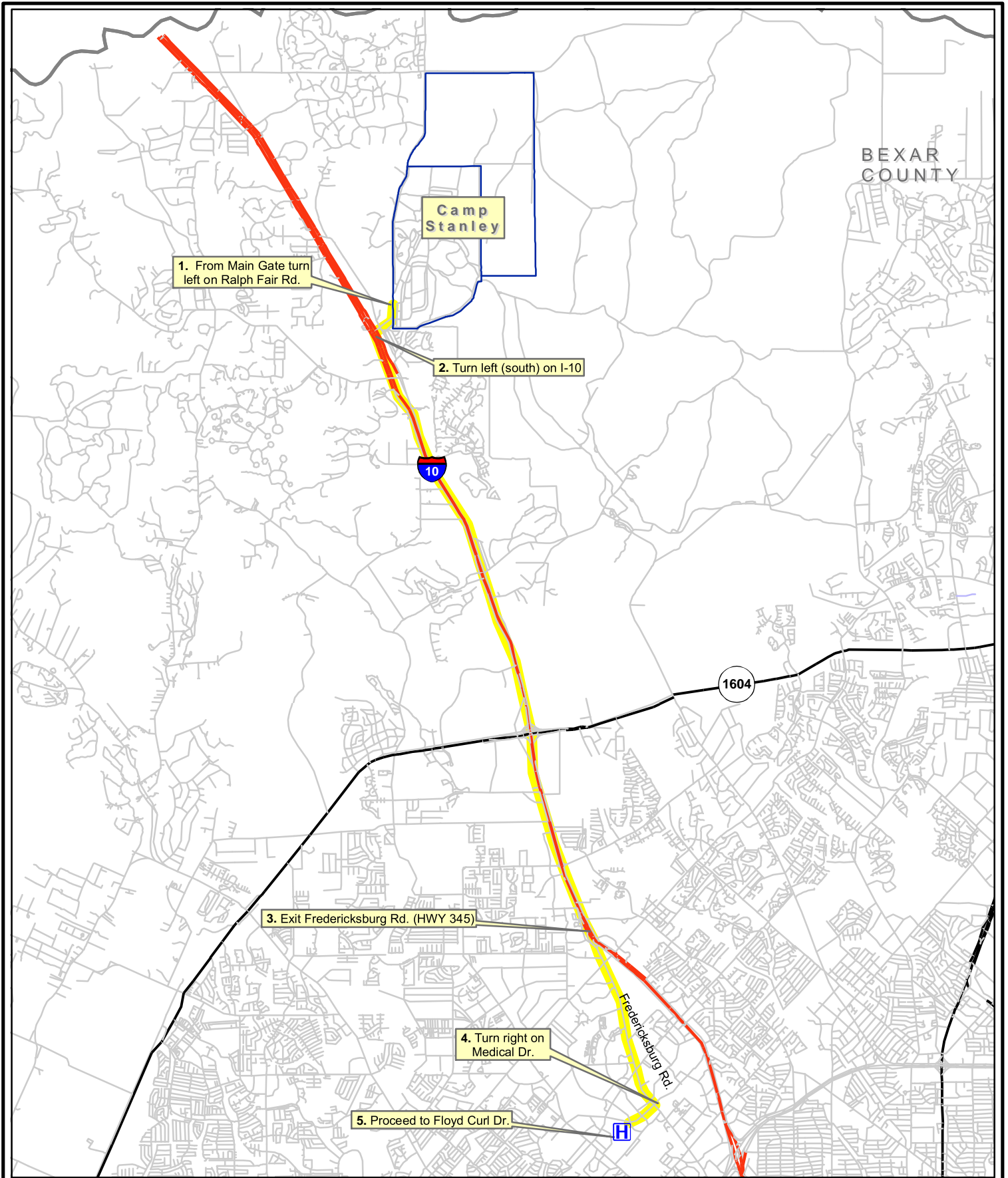
Hospital	Methodist Hospital
Phone number	210/692-4444
CSSA Ambulance service (0730-1600 hrs.)	210/221-7408
Address	7700 Floyd Curl San Antonio, Texas

Travel time from site **15 minutes**

Map to hospital is on next page.

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.

THIS PAGE INTENTIONALLY LEFT BLANK



BEXAR COUNTY

Camp Stanley

1. From Main Gate turn left on Ralph Fair Rd.

2. Turn left (south) on I-10

10

1604

3. Exit Fredericksburg Rd. (HWY 345)

4. Turn right on Medical Dr.

5. Proceed to Floyd Curl Dr.

Fredericksburg Rd.



Route to Hospital

0 2 4 Miles

Figure 1

Route to Methodist Hospital
Camp Stanley Storage Activity

PARSONS

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

SECTION 1	INTRODUCTION	1-1
1.1	Parsons Workplace Health & Safety Policy	1-1
1.2	The Project Safety Plan/Program	1-2
SECTION 2	SCOPE OF WORK.....	2-1
2.1	Scope of Work.....	2-1
2.2	Project Safety Plan Application	2-1
SECTION 3	PROJECT SAFETY MANAGEMENT RESPONSIBILITIES AND AUTHORITY.....	3-1
3.1	Safety Responsibility Matrix.....	3-1
3.2	Safety Reporting Requirements	3-5
3.2.1	On-line Reporting System.....	3-5
3.2.2	Creating or Updating Incidents.....	3-5
3.2.3	Incident Detail Reports	3-6
3.2.4	Monthly Reporting of Hours.....	3-6
SECTION 4	ADMINISTRATIVE PHASE.....	4-1
4.1	Project Safety Committee.....	4-1
4.2	Project Orientation	4-2
4.3	Awareness Campaign	4-3
4.4	Stakeholder PSP Alignment Meeting.....	4-3
4.5	Training	4-3
4.6	Audits and Inspections	4-4
4.7	Meetings	4-4
4.8	Measurement and Reporting	4-4
4.8.1	Emergencies.....	4-4
4.8.2	Measurement.....	4-5
4.8.3	Incident Reporting	4-5
4.9	Incident Investigations	4-8
4.10	Responsibility/Identification of Key Line Personnel	4-9
4.11	Medical Requirements and Workers Compensation	4-9
4.11.1	Functional Capacities Exams (FCEs)	4-9
4.11.2	Substance Abuse and Alcohol Testing	4-9
4.11.3	Medical Services and Panel of Physicians.....	4-9
4.11.4	Emergency Medical Response.....	4-10
4.12	Guidelines for Pre-emergency Planning and Training.....	4-10
4.13	Emergency Recognition and Prevention	4-12
4.14	Decontamination and Emergency Medical Treatment of Personnel During an Emergency	4-13
4.15	Evacuation Procedures	4-14
4.16	Emergency Contacts.....	4-15

4.17	Accident Reporting Requirements	4-15
4.18	PPE and Equipment Decontamination	4-15
4.18.1	Workers Compensation Program	4-17
4.18.2	Medical Monitoring	4-17
SECTION 5	PRE-REMEDATION PHASE	5-1
5.1	Risk Analysis and Safety Specification Development	5-1
5.2	Design and Remedial Action Review	5-2
5.3	Prebid Meeting	5-2
5.4	Subcontractor Prequalification Review	5-2
5.5	Preconstruction meeting	5-2
5.6	Competent Person Submission Review	5-3
5.7	Subcontractor Safety Plan Submission Review	5-10
	Contractor Site-Specific Safety Plans	5-10
5.8	Premobilization Safety Meeting	5-13
SECTION 6	FIELD INVESTIGATION OR REMEDIATION PHASE	6-1
6.1	Site Risk Analysis	6-1
6.2	Chemical And Biological Hazard Evaluation	6-2
6.2.1	Organic Solvents	6-3
6.2.2	Heavy Metals	6-3
6.2.3	Flammable Solvent Storage	6-3
6.2.4	Biological Organisms	6-7
6.2.5	Poison Ivy	6-7
6.3	Physical Hazard Evaluation	6-7
6.3.1	General Vehicle Operations	6-11
6.3.2	Large Motor Vehicles	6-11
6.3.2.1	Backhoes and Excavators	6-12
6.3.2.2	Support Vehicles	6-12
6.3.2.3	Subsurface Hazards	6-12
6.3.2.4	Excavations	6-12
6.3.3	Electrical Hazards	6-17
6.3.4	Electrical Control Procedures	6-19
6.3.4.1	Ordnance Material	6-21
6.3.4.2	Slip, Trip, and Fall Hazards	6-23
6.3.4.3	Noise-Induced Hearing Loss	6-23
6.3.4.4	Fire or Explosion Hazards	6-23
6.3.4.5	Electric Power Line Clearance and Thunderstorms	6-24
6.3.4.6	Other Energy Systems Requiring Control Procedures (Lockout/Tagout)	6-24

6.4	Heat Stress.....	6-29
6.4.1	Effects of Heat Stress.....	6-30
6.4.2	Heat-Related Problems.....	6-30
6.4.3	Heat-stress Monitoring.....	6-31
6.5	Cold Exposure.....	6-32
6.5.1	Evaluation and Control.....	6-32
6.6	Five Hazard Control Measures – Order of Precedence.....	6-37
6.7	Activity Hazards Analysis.....	6-37
6.8	Safety Systems Analysis and determination of PPE.....	6-40
6.9	Site Inspection.....	6-42
6.10	Daily Site Walk Checklist.....	6-43
6.11	Safety and Health Enforcement.....	6-46
6.12	Notice of Violation of Safety and Health Regulations.....	6-46
6.13	Competent First Aid Person.....	6-46
SECTION 7	SAFETY TRAINING.....	7-1
7.1	Project Safety Orientation.....	7-1
7.2	ParsonsU Safety Modules and START Training – Zero Incident Techniques.....	7-1
7.3	Daily Huddle and Safety Planner.....	7-1
7.4	Daily Toolbox Safety Meetings.....	7-7
7.5	Activity Hazards Analysis Training.....	7-7
7.6	Regulatory Training Programs.....	7-7
7.7	OSHA Outreach Programs.....	7-8
7.8	Specialized Training and Orientations.....	7-8
SECTION 8	RECORDKEEPING AND POSTING.....	8-1
SECTION 9	SAFETY AND HEALTH REQUIREMENTS.....	9-1
9.1	Safety and Health Requirements.....	9-1

APPENDICES

- A Plan Acceptance Form
- B Incident Reporting Guidelines
- C Additional Health and Safety Forms
- D Spill Response Plan
- E Subcontractor Selection Forms
- F Standard Operating Procedures for UXO Construction Projects
- G CSSA Environmental, Safety and Security Procedures, OSHA Job Safety, Health and Protection
- H Parsons Safe Health Practices for Various Field Activities

LIST OF FIGURES

Figure 4.1	Incident/Accident Report Form	4-6
Figure 4.2	Hospital Route	4-11
Figure 5.1	Preconstruction Safety Meeting Checklist Camp Stanley Storage Activity Project safety Plan	5-4
Figure 5.2	Project Technical and General Conditions Specification Review Camp Stanley Storage Activity Project Safety Plan	5-5
Figure 5.3	Subcontractor Prequalification Scorecard Camp Stanley Storage Activity Project Safety Plan.....	5-6
Figure 5.4	Premobilization Safety Meeting Form.....	5-8
Figure 5.5	Subcontractor Competent Person Form Camp Stanley Storage Activity Project Safety Plan.....	5-9
Figure 5.6	Subcontractor Safety Plan Review.....	5-12
Figure 5.7	Site-Specific Risk Review Checklist Camp Stanley Storage Activity Project Safety Plan.....	5-14
Figure 6.1	Activity Hazards Analysis Form Activity Hazards Analysis Camp Stanley Storage Activity Project Safety Plan.....	6-5
Figure 6.2	Activity Hazards Analysis Training Record Camp Stanley Storage Activity Project Safety Plan.....	6-6
Figure 6.3	Safety and Health Inspection Checklist	6-45
Figure 6.4	Notice of Subcontractor Violation of Safety and Health Regulations Camp Stanley Storage Activity Project Safety Plan.....	6-47
Figure 6.5	Notice of Noncompliance with Safety and Health Regulations Camp Stanley Storage Activity, Project Safety Plan	6-48
Figure 7-1	Employee/Subcontractor Training Acknowledgement Camp Stanley Storage Activity Project Safety Plan.....	7-3
Figure 7.2	Daily Safety Planner	7-4
Figure 7.3	Safety Meeting Sign-In Sheet	7-5

LIST OF TABLES

Table 3.1	Parsons Personnel Responsibilities.....	3-2
Table 6.1	Health Hazard Qualities of Hazardous Substances of Concern.....	6-9
Table 6.2	Lockout/Tagout Steps	6-27
Table 6.3	Suggested Frequency of Physiological Monitoring For Fit and Acclimatized Workers.....	6-31
Table 6.4	Threshold Limit Values Work/Warm-Up Schedule for Four-Hour Shift*.....	6-35
Table 9.1	Competent Person and Activity Hazards Analysis Requirements.....	9-1

SECTION 1 INTRODUCTION

1.1 PARSONS WORKPLACE HEALTH & SAFETY POLICY

STATEMENT OF POLICY:

As an industry-leading engineering, construction and technical services firm, Parsons is firmly committed to maintaining a safe and healthy working environment at all its offices and project facilities. We share the National Safety Council's Safety and Health Code of Ethics as the principles guiding our commitment to safety.

- We will hold safety and health as our highest core value.
- Executive management will lead the safety improvement process.
- Safety will be a responsibility shared by everyone in our organization.
- Safety performance will be a key indicator of our organizational excellence and will be incorporated into our business processes.
- We will communicate safety performance openly with employees.
- All employees will be given the knowledge and skills necessary to safely perform their jobs.
- We will extend our safety efforts beyond the workplace to include transportation, homes, and communities.
- We will continually strive to improve our safety and health processes.

To meet its health and safety objectives, all Parsons employees are expected to act proactively with regard to health and safety issues. This requires the combined efforts of a concerned management, responsible and knowledgeable supervision, and conscientious, well-trained employees.

Parsons will take all reasonable action to meet or exceed the applicable occupational health and safety requirements, domestically and internationally, and will continuously monitor and improve operations, procedures, technologies and programs that are conducive to maintaining a safe and healthy working environment.

1.2 RESPONSIBILITIES:

Parsons GBU management and supervisory personnel are responsible to:

- Comply with this policy and ensure that the applicable health and safety requirements at each domestic and international office and project facility are effectively implemented and monitored at all times.
- Ensure that the applicable health and safety requirements at each domestic and international project facility are effectively integrated with the preparation of proposals, project planning, and project execution.

- Monitor subcontractor safety performance in accordance with contract specifications as required by the contract with the client.
- Ensure that safety information and statistics are reported to Parsons Corporate Safety Manager on a consistent and regular basis, as shown in Appendix 1, Safety Monthly Report.

Parsons Corporate Safety personnel are responsible to:

- Develop, communicate, and oversee Parsons health and safety programs at all Parsons business units.
- Provide assistance to Parsons business unit managers regarding health and safety regulations, reporting requirements, safety training, and other related issues.
- Monitor the effectiveness of Parsons health and safety programs, conduct investigations, develop OSHA reporting and worker's compensation claim procedures.
- Collect and maintain safety information and statistics for all Parsons business units and operations, as shown in corporate policy Workplace Health and Safety, Appendix 2, OSHA Safety and Health Statistics.
- Keep senior management informed of significant internal and external developments regarding health and safety.

Parsons employees are responsible to:

- Exercise maximum appropriate care and good judgment at all times regarding health and safety, and adhere to safety procedures to prevent accidents and injuries.
- Promptly report all accidents and injuries to supervisory personnel.
- Promptly report any near misses, unsafe conditions, equipment, or practices to supervisory personnel.

REFERENCES:

National Safety Council Safety and Health Code of Ethics

Parsons Construction Health and Safety Manual

Parsons Injury and Illness Prevention Program (Cal-OSHA IIPP)

Parsons Safety Monthly Reports, Workplace Health and Safety – Appendix 1

Parsons Health and Safety Statistics, Workplace Health and Safety – Appendix 2

1.3 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) is to establish protection standards and mandatory safety practices and procedures for Parsons personnel employed in the project field activities at Camp Stanley Storage Activity (CSSA), Boerne, Texas. When implemented, these requirements will help protect site personnel, visitors, and the public from exposure to potential safety and health hazards. 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. Parsons is responsible for the development, implementation, and enforcement of this PSP for all task orders managed by Parsons at CSSA. Parsons will prepare a task order specific addendum to describe activities planned under those contracts, key personnel and contact information, related hazards, and any mitigation efforts that are not expressly addressed in this PSP. 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, Lockout/Tagout Energy control measures and electrical safety procedures. 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.

1.4 SUBCONTRACTOR SAFETY PLANS

Subcontractors must establish a safety program for their work and employees. Contract specifications require all subcontractors to accept the provisions of the Parsons PSP and to prepare their own PSP for presentation to Parsons Project Manager at least 10 days 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, 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.

If subcontractor is performing activities that require specialized training (*i.e.* confined space entry, excavation/trenching, scaffold use, HAZWOPER, etc.), then copies of training certifications must be provided for applicable employees AND the supervisor.

Note that supervisors must possess the following certifications – HAZWOPER 8-hour Supervisor (29 CFR 1910.120(e)(4) - not to be confused with 8-hour annual refresher), confined space entry [29 CFR 1910.146(j)], excavation competent person [29 CFR 1926.651(k)] and scaffold competent person [29 CFR 1926.451(f)].

SECTION 2 SCOPE OF WORK

2.1 SCOPE OF WORK

Parsons, in their contracted role is providing investigation, remediation, compliance, and construction services for the work as specified in task orders awarded under a variety of contracting mechanisms at CSSA.

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 investigation and remediation activities to meet an Administrative Consent Order issued to CSSA on May 5, 1999 pursuant to §3008(h) of the SWDA, as amended by the RCRA, and further amended by the HSWA of 1984. Various Areas of Concern and Solid Waste Management Units identified across CSSA are being investigated and then remediated to meet clean up levels under the TNRCC Risk Reduction Rule (30 TAC §335).

This PSP also covers other environmental and engineering support services that involve a variety of construction and infrastructure support projects. As part of the environmental support and occasionally related to site restoration, Parsons provides support in the clearance of unexploded ordnance (UXO) materials.

2.2 PROJECT SAFETY PLAN APPLICATION

This safety program and referenced documents applies to all locations, facilities, operations, and projects associated with contract work performed by Parsons and its subcontractors. Locations/sites covered under this contract include CSSA in Boerne, Texas and any off-post location that is described in the task order contract documents, such as off-post groundwater sampling wells.

Site:	Camp Stanley Storage Activity
AFCEE COR:	Terri DuPriest
Telephone Number:	(210) 536-4745
Technical Point of Contact:	Brian Murphy
Site Telephone Number:	(210) 698-5208
Proposed Dates of Work:	Anticipated through April 2006
Overall Hazard is:	Moderate to Low

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
Brian Murphy	CSSA Project Manager
Teresa DuPriest	AFCEE COR
Teresa Benavides	CSSA Safety Manager
Brian Vanderglas	Parsons Program Health and Safety Manager
Jim Owen or Tim Mustard	Parsons GBU Safety Manager
Brian Vanderglas	Parsons Senior Project Manager
Julie Burdey	Parsons Senior Project Manager
Kimberly Riley	Parsons Project Manager
Eric North	Parsons Project Manager
Various Personnel	Parsons Technical Director(s)
Ken Rice	Parsons Restoration & Construction Health and Safety Manager
Kyle Caskey	Parsons Site Health and Safety Officer
Various Personnel	Parsons Field Team Leader

Parsons project personnel responsibilities are outlined in Table 3.1 for the CSSA projects. A detailed listing of Parsons roles and responsibilities from the project level to the corporate level is provided in Parsons SHARP (Safety, Health, and Risk Program) Management – The Project Manager’s Best Practices Manual (Parsons Corporation, 2004) and presented in Exhibit 3-1 of Appendix A of that Manual (Model Health and Safety Plans). 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. Kyle Caskey is the senior on-site representative. He has served in the capacity of office health and safety representative in previous assignments with Parsons and has served as field team supervisor on a wide variety of remediation construction projects at CSSA that involved UXO, trenches and excavations, and electricity connections and his primary reporting station is at CSSA. He is designated as the Site Health and Safety Officer and the Senior Field Team Leader for Parsons. Mr. Caskey should be consulted as to specific site safety concerns or issues prior to initiating any activities in the field. Subcontractors report to their own health and safety personnel, but will be encouraged to inform the Parsons site Health & Safety Officer if any potentially dangerous situations are encountered.

Table 3.1 Parsons Personnel Responsibilities

Title	General Description	Responsibilities
Technical Director	Assists project personnel on technical issues.	<ul style="list-style-type: none"> • Provide technical information for field activities. • Advise Project Manager on technical issues and possible safety concerns.
Project Manager	Ensures that the project develops and implements all work elements required by contract award documents. The Project Manager is responsible for implementing a safety program that ensures the safety of all project employees, contractors, visitors, and others involved in the project.	<ul style="list-style-type: none"> • Ensures that the Work Plan(s) and the PSP are in place and functioning from the beginning of the project until the end. • Assigns personnel to their project and/or field team position. • Obtains permission for site access and coordinates activities with appropriate officials. • Ensures that all incidents, if any, are reported and investigated in a timely manner and that appropriate corrective actions are identified and implemented. • Demonstrates a personal commitment to safety at all times. • Ensures that all project employees receive appropriate general and project-specific safety training, and that all safety and health policies and procedures have been clearly communicated and understood by project staff. • Ensures that Activity Hazards Analyses (AHAs) are included on the project schedule and are conducted as planned. • Ensures that a process is in place to review all subcontractor safety programs before construction begins, and ensures that subcontractors comply with safety rules and regulations in accordance with their contractual obligations. • Ensures that all workers participate in appropriate daily and weekly training. • Performs periodic site visits that focus on safety, safe work practices, and safety inspection checklist. • Ensures that routine internal safety inspections are performed, tracks corrective actions to completion, and directs inspections as appropriate. • Implements Safety awareness Campaign.

Title	General Description	Responsibilities
Project Safety Manager	Provides technical expertise, and supports Project Manager in implementing the PSPs.	<ul style="list-style-type: none"> • Participates in team or group implementation efforts, PSP preparation, etc. to ensure that all safety requirements are understood and evaluated. • Establishes internal processes and documentation to show compliance with contractual requirements. • Identifies needs and arranges for project-specific safety training. Verifies that training is relevant, is conducted regularly, and is documented; Maintains project files documenting training contents and participants. • Attends meetings and serves as technical resource. Leads the development of AHAs and identifies primary risk activities or hazards. • Usually leads incident investigations, if any, and supports the Project Manager in reporting and investigating the incidents in a timely manner. • Develops and presents the content of safety meetings held at the site, including pre-construction, daily briefings, and overall project orientation. • Reviews subcontractor safety programs with the Field Supervisor, construction manager, and/or Project Manager. • Develops inspection checklist for project(s), prepares audit protocol, and serves as an internal auditor/inspector. • Acts as developmental leader in preparing safety awareness culture on project.
Site Safety Officer	Enforces the PSP plan requirements on-site. Advises the Project Manager and Project Safety Manager on daily safety issues related to project activities on-site.	<ul style="list-style-type: none"> • Periodically inspects protective clothing and equipment, and ensures that protective clothing and equipment are properly stored and maintained. • Controls entry and exit at the Access Control Points and maintains site security. • Coordinates safety and health program activities with Project Safety Manager. • Monitors the work parties for signs of stress, such as cold exposure, heat stress, and fatigue. • Implements the PSP. Serves as delegate to Project Safety Manager and performs internal inspections and audits of safety compliance. • Notifies, when necessary, local public emergency officials and coordinates emergency medical care when required. • Notifies emergency response personnel in the event of an emergency.

Title	General Description	Responsibilities
<p>Field Supervisor, Team Leader, or Construction Manager</p>	<p>Responsible for development of implementation plans to meet contractual requirements and to safety perform all project field activities/tasks.</p>	<ul style="list-style-type: none"> • Participates as directed by the Project Manager in implementing the safety awareness campaign for the project. • Provides orientation for all new employees around the work site, pointing out evaluation routes, meeting locations, and other pertinent information. • Assists Project Safety Manager in identifying risks and potential hazards for AHAs. • Serves as primary Projects Subcontractor Manager in the field, an ensures that the subcontractors comply with requirements of PSP. • Assists Project Safety Manager with reviews of Subcontractor safety programs. • Conducts pre-mobilization meeting on or before the first day of subcontractor/Parsons employee mobilization. • Supports risk mitigation planning. • Ensures that site team receives daily and weekly toolbox training and safety briefings, and typically leads these meetings. • Perform daily or weekly walkaround of a project site that focuses on safety if Project Manager is not available. • Documents field activities. • Serves as a liaison with client and public officials.
<p>Work Team</p>	<p>The work party conducts the activities necessary to meet project objectives and consists of Parsons employees and subcontractors.</p>	<ul style="list-style-type: none"> • Safely completes the on-site tasks required to fulfill the Work Plan. • Complies with H&S Plan. • Notifies Site Health and Safety Officer or supervisor of suspected unsafe conditions.
<p>Parsons GBU Safety Manager</p>	<p>Provides oversight, technical guidance, training, and support to Project Safety Managers, and champions implementation of safety initiatives.</p>	<ul style="list-style-type: none"> • Provides oversight for GBU safety policy; receives and approves PSP(s), and supports field and PSP audits. • May play an advisory role depending on the project's risk profile. • Establishes training needs and identifies qualified trainers, and may also serve as a trainer. • Approves tools developed by the project for incident investigations and may participate in investigations of major incidents; Provides incident investigation training and tools. • Establishes project requirements to report and measure safety performance. • Performs audits per GBU policy an upon Project Manager request. • Evaluates content and effectiveness of orientation to address hazards and to develop safety awareness. • Establishes requirements applicable to the project. • Establishes review requirements for subcontractor safety plans.

3.2 SAFETY REPORTING REQUIREMENTS

Corporate policy requires that all employees report safety incidents to their supervisor immediately. Supervisors must report all incidents to the appropriate Project Manager (Department Manager if the incident is not related to a project), who must officially report the incident to the GBU Safety Manager identified in Section 3.1 of this PSP within four hours. This official reporting is done via the PWeb, unless PWeb is unavailable, in which case the incident can be reported by email, fax or telephone. “Incidents” include work related injuries, work related illness, accidents with property damage only and near misses. “Near misses” are any unplanned event that had the potential to (but did not) result in injury or property damage.

Incident reports should reflect the best available information at the time. Where exact information is not known (recordability, days away from work, etc.) the PM’s best judgment should be used when completing the initial incident report. This information can be subsequently revised when the detail incident report is submitted.

Policy Requirements

- Initial incident reports for all incidents, including near misses, shall be reported within 4 hours to the GBU Safety Manager.
- Detail incident reports are required within 24 hours.
- Reporting is done via on-line (PWeb) incident report form.
- Injuries with Days Away from Work require immediate notification of the injured employee’s supervisor, the Project Manager, and the GBU President.
- If directed by GBU Safety Manager, Project Manager(s) must enter hours worked by Parsons employees and subcontractor employees via on-line form by first Friday of each new period during task order (project) period of performance.

3.2.1 On-line Reporting System

The on-line reporting system can be found on the PI&T Safety Page on PWeb. To locate the system, follow these steps:

1. From the Corporate PWeb Homepage, select PI&T from the Org Units menu
2. Locate and select “Safety” from the list of pages in the right hand column
3. Select the “Incident Reporting Form” link

To create and submit a new incident report, select the orange “Add” button from the main page of the reporting system. To update an existing incident report or complete the Detail Incident page, locate and select the appropriate incident from the list.

3.2.2 Creating or Updating Incidents

The Initial Incident page of the report must be completed within four hours of the incident occurring. This page includes basic information needed for the first notification

to Parsons insurance carriers. If possible, all of the fields should be completed in the initial report.

3.2.3 Incident Detail Reports

Within 24 hours of the incident occurring, the Incident Detail page of the on-line report must be completed. This page includes detailed information about the injured party, the nature and extent of injuries, medical treatment provided, corrective actions taken, and witness statements. In the event of property damage, this page also includes descriptive information on the property owner. Finally, the page includes a section to include electronic attachments. These might include photographs, signed witness statements, etc.

3.2.4 Monthly Reporting of Hours

Hours must be entered into the on-line reporting system no later than the first Friday of each new period. If an accurate accounting of hours is not available, estimated hours are submitted into the system. The estimated hours can be revised later in the month, or the following month, when accurate data is available. A summary and description of initial incident report field are provided below in this section.

From the “Hours” page, select the GBU and the period (month and year) that is being reported. The system only allows hours to be entered for the period selected. Year to date (YTD) and Project to date (PTD) figures are calculated totals based on the sum of all monthly entries. To enter or correct a prior period entry, simply select that month from the drop-down box and correct the figures for that month.

Hours must be entered for each (as applicable) of six different labor categories. The categories are as follows:

- Contractor (Field/Craft)
- Contractor (Office/Admin)
- JV Partner (Field/Craft)
- JV Partner (Office/Admin)
- Parsons Employee (Field/Craft)
- Parsons Employee (Office/Admin)

Initial Incident Report Fields

1. GBU – Select the GBU from the drop down box. Incidents are reported primarily by project, and the GBU should reflect the unit responsible for the project. This may be different from the GBU associated with the injured person.
2. Field Project Name, Office Location or Other – If the applicable project is listed in the “Field Project” list, select from that box. If not, and if the incident occurred in a Parsons corporate office, select the office from the drop box. Otherwise, type in the name of the responsible organizational unit in the “Other” field. The GBU must be selected BEFORE attempting to select a Project/Office. Do NOT select

- both a field project AND an Office Location (or Other). If the appropriate Project or Office name can not be found, manually enter it into the “Other” field.
3. Job and WBS Numbers – These fields should reflect the charge number responsible for the incident. In general, that will be the number that the employee was charging at the time of the incident. Projects are responsible for visitors, regardless of what charge number they use while visiting the job. For example, if the Division Manager is injured while visiting Project X, the project number is entered, not the division overhead account.
 4. Near Miss – Check this box if the report is for a near miss only (no injury or property damage occurred).
 5. Emergency Response Notified – Check this box if fire, police or ambulance was called as a result of the incident.
 6. Three or More Employees Hospitalized – Check this box if three or more employees were injured as the result of a single incident. In this case, the GBU or Corporate Safety Manager must also be immediately notified by telephone.
 7. Extent of Injury – Select the appropriate radio button. First aid cases are as defined by OSHA 1904 criteria. All other injuries are considered recordable.
 8. Restricted Duty (# of days) – If the injured person was limited (by a physician) to less than normal work duration or duties, enter the number of days. Estimate the days if unknown, and correct the number later. NOTE: this is the number of CALENDAR days (not scheduled work days), and it does NOT include the day of the injury.
 9. Days Away From Work (# of days) – If the injured person was ordered by a physician not to return to work, enter the number of days missed. Estimate the days if unknown, and correct the number later. NOTE: this is the number of CALENDAR days (not scheduled work days), and it does NOT include the day of the injury. Injuries with Days Away From Work require immediate notification of GBU President and employee’s supervisor.
 10. Fatality (Date of Death) – In the event of a work related fatality, enter the date of death here. NOTE: Fatalities require immediate phone notification of the Division Manager, GBU President, GBU Safety Manager, and Corporate Safety Manager.
 11. Property Damage – Check the appropriate boxes if applicable.
 12. Place – Describe the exact location that incident occurred. For example, “in the north stairwell of building 21, between the second and third floor.”
 13. Date – This field reflects the date the incident occurred, not necessarily the date it was reported. If the exact date is not known, an estimate should be used.
 14. Time – This field reflects the time of day that the incident occurred. If the exact time is not known, an estimate should be used.

15. Incident Description – Provide a detailed description of the incident. This is a memo field and text will scroll down the window as it is entered. Use as much space as needed to accurately describe the incident and the resulting injuries.
16. Reported by – This field defaults to the employee login ID that was used to access PWeb. However, the field can be over-written if needed.
17. Name – First and last name of the injured party.
18. Status – Select the most appropriate category from the drop box (Employee - Field, Subcontractor - Field, Partner - Field, Employee - Office, Subcontractor - Office, Partner - Office or 3rd Party).
19. Trade/Function – Select the most appropriate category from the drop box.

SECTION 4 ADMINISTRATIVE PHASE

4.1 PROJECT SAFETY COMMITTEE

The CSSA program will have a safety committee that includes members from Parsons management and nonexempt workforce as shown in Table 4.1. The safety committee will meet regularly and prepare written records of the meetings. The committee reviews results of periodic scheduled inspections, reviews accident investigations, and makes suggestions to prevent future incidents. The committee reviews investigations of alleged hazardous conditions, submits recommendations to assist in evaluating employee safety suggestions and submits recommendations for safety incentive programs to the GBU Safety Manager.

Project Role	Project Responsibility
Project Manager	Establishes safety committee
Project Safety Manager	Attends meetings and serves as a technical resource
Project Controls Manager	Participates as requested by the Project Manager
Project Human Resources Manager	Acts as technical advisor to the safety committee
GBU Safety Manager	Audits safety committee performance and acts as technical advisor
Sector Division Manager	Ensures that safety committee is established and active
Corporate Safety	Acts as consultant to the project in establishing the safety committee
Safety Committee	Assists the Project Manager in guiding and promoting project safety objectives; addresses employee and subcontractor safety complaints; helps develop project safety programs and procedures; participates in incident investigations and tracks corrective actions
Employees	May serve as members of the safety committee as directed by Project Manager; provide feedback and suggestions to committee members

The Safety Committee will meet semi-annually at times and locations to be determined and posted by the chairperson on the safety billboard at least one week in advance.

For calendar year 2005, safety committee members are as follows:

- Chairperson and Senior Project Manager – Brian Vanderglas, 512-719-6059
- Restoration and Construction Health and Safety Manager- Ken Rice, 512-719-6050

- Facility Administration and Safety Representative- Maria Gage, 512-719-6808
- Field Supervisor & Construction Manager – Kyle Caskey, 210-204-8529
- Employee working on CSSA field activities - Various

Charter of the Safety Committee: The safety committee represents the mutual interests of all project participants in completing the work with zero injuries. The committee will meet periodically to consider incentive programs, recent near misses or injuries, potential unsafe conditions, training programs, safety awareness, audit results, and related issues. The committee advises the task order Project Manager(s), who retains sole decision-making authority.

The chairperson schedules meetings, develops the agenda, and displays meeting minutes on the safety bulletin board. Workers may submit suggestions and topics for discussion to the chairperson at any time.

4.2 PROJECT ORIENTATION

The Safety Manager helps to develop the orientation material and meets with new workers to review site procedures and requirements. Topics covered in the PSP overview include:

- Names of personnel responsible for site safety and health
- Client Environmental, Security and Safety Procedures (Appendix G)
- Reporting emergencies, incidents and unsafe conditions
- Emergency/evacuation plans
- Safety, health and other hazards at the site
- Review of all activities on site and task specific Activity Hazard Analyses (AHAs)
- Proper use of personal protective equipment
- Work practices by which a worker can minimize risk from hazards
- Safe use of engineering controls and equipment on site
- Acute effects of compounds at the site
- Decontamination and waste management procedures

All personnel, including subcontractors and visitors, on a project must attend the orientation program on their first day and sign an acknowledgment form indicating they attended and understood the orientation. Any individual who is unsure of any information presented in the orientation must request clarification. Individuals who do not participate in the orientation or refuse to sign the acknowledgment cannot work on site.

4.3 AWARENESS CAMPAIGN

The project has established an awareness program consistent with the Parsons safety awareness campaign and its various elements (e.g., signs, posters, banners, and focus briefings). This program promotes worker awareness of safety goals and daily risks, hazards, and exposures in the field. In addition to topics selected by corporate safety each month, the project will supplement the awareness program with information specifically applicable to the scope of work.

Safety bulletin boards maintained by the Project Safety Manager are primary information points for the project awareness campaign. Bulletin boards are located at the Parsons office in Austin, Texas and in the Contractors' office at CSSA

The Project Safety Manager may also provide training, presentations, or informational materials as part of the awareness campaign..

4.4 STAKEHOLDER PSP ALIGNMENT MEETING

A stakeholder PSP alignment meeting will be held with CSSA personnel to present the PSP to ensure that all stakeholders concurred with the approach outlined in the plan. The meeting also includes a review of stakeholder roles and responsibilities and elements of control appropriate to project risks.

1. Brian Vanderglas, Senior Project Manager and Safety Officer - Parsons
2. Ken Rice, Restoration and Construction Safety Task Manager - Parsons
3. Brian Murphy, Environmental Officer - CSSA
4. Kyle Caskey, Field Supervisor and Construction Manager - Parsons
5. Teresa Benavides, Safety Officer - CSSA
6. Jeff Aston, Resident Army Engineer – Corps of Engineers, Fort Worth District
7. Teri DuPriest, Contracting Officer's Representative, AFCEE

4.5 TRAINING

The CSSA Program has a comprehensive health and safety training program tailored to the scope of work performed under its task order contracts. All employees receive a general safety orientation as outlined in Section 4.2 upon assignment to the project. Depending on the scope of work of the project, specific training topics may also include:

- 40-hour HAZWOPER and 8-hour annual HAZWOPER refresher
- CPR/First Aid/AED and blood borne pathogens
- Trenching & Shoring - Excavation Competent Person
- Department of Transportation (DOT) - HM126F
- Lockout/Tagout
- Confined Space Entry

- Forklift Operations
- Back Safety – lifting and carrying
- Defensive Driving
- Fall Protection
- Electrical Safety
- Stairs & Ladders

4.6 AUDITS AND INSPECTIONS

The Project Safety Manager will implement an audit and inspection program in conjunction with the corporate safety and quality assurance departments. The Project Manager, together with the Project Safety Manager or their designee, will conduct a safety inspection regularly throughout the performance of the project. Conducting audits of office work areas is not applicable to this project, and will be performed as part of facilities office work area audits.

Additional information on audits and inspections during construction is detailed in Section 6.5 of this PSP.

4.7 MEETINGS

All internal project meetings of three or more people must begin with a safety topic. The meeting chairperson may present the safety topic or ask for a volunteer to open the discussion. In general, the “safety moment” is only one or two minutes long and is directly relevant to the work at hand or applicable to most individuals outside the workplace.

Daily toolbox safety meetings are held at the site with all personnel at the beginning of each shift to review current site conditions, incidents or injuries from the previous shift activities, safe or at-risk observations from the previous shift, activities planned for the current shift, anticipated hazards, engineering controls-work practices-PPE to protect against hazards and any additional safety topic or comments. Toolbox safety meetings and a list of attendees shall be documented either in the field logbook or by using a Safety Meeting Sign-In Sheet which is provided in Figure 5.4.

4.8 MEASUREMENT AND REPORTING

4.8.1 Emergencies

To accurately measure performance and comply with corporate and regulatory requirements, Parsons utilizes an Online Safety Reporting System to report monthly work hours, near-miss incidents, first aid cases, property damage and personal injuries for its employees and subcontractors. A wallet card containing Incident Reporting Guidelines is included as Appendix B. The incident reporting guidelines are provided in section 4.8.3.

4.8.2 Measurement

The Safety Manager and Project Manager establish and post a measurement system to provide indicators of safety performance, including the following metrics for the project:

- Project start date
- Days without a recordable injury – updated every Monday
- Date of last OSHA recordable injury (if applicable)
- Participation and compliance with Project Training Requirements including ParsonsU modules, START training, and project specific training.
- Number and results (scored) of inspections and audit, if any are performed.
- Participation in daily or weekly toolbox meetings.
- Compliance with PSP reporting requirements (hours and incident reporting).

4.8.3 Incident Reporting

Employees involved in or witnessing an incident or near-miss incident must immediately report it to the responsible supervisor or foreman, who in turn immediately relays the report to Parsons Project Manager and Program Safety Officer, *Brian Vanderglas at 512-719-6059*. The incident report form shown in Figure 4.1 will be completed as a part of any incident if on-line reporting is not readily accessible to the field team. Employees should make every attempt to report near-miss incidents that could cause significant injury or damage to property.

Government notification of any incidents will be reported to the AFCEE COR, and the CSSA point of contact and Safety Manager identified in Section 2 of the Plan within 24 hours of the occurrence. A copy of the OSHA Report will be submitted within 3 working days of any OSHA notification to the CSSA POC and AFCEE COR in accordance with CDRL A001B of the AFCEE WERC Contract.

Figure 4.1
PARSONS

Incident/Accident Report Form

Attach all supplemental documentation, including photos, diagrams, witness statements, and field reports

Project Information	Project Title			Location		
	Subcontractor					
	Address					
	City, State, Zip					
	Contact Name			Phone Number		
Incident Type	<input type="checkbox"/> WORKERS COMPENSATION <input type="checkbox"/> Emergency Response Notified (Police, Fire, Medic, etc.) <input type="checkbox"/> First-Aid Only <input type="checkbox"/> Recordable Injury		<input type="checkbox"/> GENERAL LIABILITY <input type="checkbox"/> Bodily Injury/Illness <input type="checkbox"/> Real Property Damage <input type="checkbox"/> Personal Property Damage <input type="checkbox"/> Utility Property Damage		<input type="checkbox"/> BUILDER'S RISK <input type="checkbox"/> Equipment <input type="checkbox"/> Supplies <input type="checkbox"/> Machinery <input type="checkbox"/> Work	
	<input type="checkbox"/> WORKERS COMPENSATION <input type="checkbox"/> Emergency Response Notified (Police, Fire, Medic, etc.) <input type="checkbox"/> First-Aid Only <input type="checkbox"/> Recordable Injury		<input type="checkbox"/> GENERAL LIABILITY <input type="checkbox"/> Bodily Injury/Illness <input type="checkbox"/> Real Property Damage <input type="checkbox"/> Personal Property Damage <input type="checkbox"/> Utility Property Damage		<input type="checkbox"/> BUILDER'S RISK <input type="checkbox"/> Equipment <input type="checkbox"/> Supplies <input type="checkbox"/> Machinery <input type="checkbox"/> Work	
Incident Location	Date of Loss			Time of Loss		
	Place (exact location)					
Incident Description	Detailed Description of Incident					

Incident/Accident Report Form (Contd)

Workers Comp or Personal Injury (circle one)	Injured Name			
	Address			
	City, State, Zip			
	Home Phone		Date of Birth	
	Nature of Injury			
	Medical Facility		Work Status	
	Treatment Received			
Property Damage or Builder's Risk (circle one)	Owner's Name			
	Address			
	City, State, Zip			
	Home Phone		Work Phone	
	Damage Type		Estimated Cost	
	Utility Type		Marked or Unmarked	
	Description of Damage			
Witness Information	Name			
	Address			
	City, State, Zip			
	Home Phone		Work Phone	
	Where to contact		Time to contact	
Contractor Subcontractor Action	Describe actions taken			

Signature _____
 Print Name _____
 Phone No. _____

Employer _____
 Date _____
 Fax Number _____

injury or loss of life must also be immediately reported in the same manner. No supervisor may decline to accept or relay a report of injury or significant near-miss incident from a subordinate.

The Project Manager must ensure that all incidents are reported to the Parsons GBU Safety Manager and other management personnel immediately (usually within initial 4 hours after incident). The Project Manager then prepares and submits the incident information per Parsons reporting requirements and On-line reporting System.

The Parsons GBU Safety Manager must notify the local OSHA office immediately if an accident involves the death of an employee or hospitalization of three or more workers.

Subcontractors must submit a monthly report of exposure hours (hours worked on the project, paid or unpaid) to the Parsons Project Manager within three (3) days after the end of each month. The Project Manager(s) compile the figures and submit them via the online safety reporting system by the first Friday of each month. Estimated figures are acceptable initially, but must be revised upon receipt of more accurate figures.

Corporate policy requires that all employees report safety incidents to their supervisor immediately. Supervisors must report all incidents to the appropriate Project Manager (Department Manager if the incident is not related to a project), who must officially report the incident to the GBU Manager. This official reporting is done via the PWeb, unless PWeb is unavailable, in which case the incident can be reported by email, fax or telephone.

“Incidents” include work related injuries, work related illness, accidents with property damage only and near misses. “Near misses” are any unplanned event that had the potential to (but did not) result in injury or property damage. Incident reports should reflect the best available information at the time. Where exact information is not known (recordability, days away from work, etc.) the PM’s best judgment should be used when completing the initial incident report. This information can be subsequently revised when the detail incident report is submitted.

The on-line reporting system is described in Section 3.2 of this PSP.

4.9 INCIDENT INVESTIGATIONS

All accidents and significant near-miss incidents are investigated by an individual or team with training in accident investigation and root cause analysis. Subcontractors must investigate incidents involving their employees or activities and submit an investigation report to the Parsons Project Manager within 48 hours of an incident.

In Parsons, the GBU Safety Manager investigates or assigns an investigator to each significant incident. The investigator submits a final investigation report using the online safety reporting system within 72 hours of the incident. The Project Safety Manager maintains the investigation file.

4.10 RESPONSIBILITY/IDENTIFICATION OF KEY LINE PERSONNEL

Project/Office:	CSSA – Various Remediation, Construction, and Investigation Activities/Austin, Texas	
Address:	25800 Ralph Fair Road Boerne, Texas 78015	
Telephone	Fax	Email
210-698-5208	210-698-5208	
Company Executive responsible for project		Contact No.
Brain Vanderglas		512-719-6059
Project Manager/Superintendent		Contact No.
Brian Vanderglas		512-719-6059
Remediation and Construction Safety Manager		Contact No.
Ken Rice		512-719-6050
Site Health and Safety Officer		
Kyle Caskey		210-204-8529
Client - Project Management		Contact No.
Brain Murphy		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)

FCEs should be considered for the following positions generally performed by Subcontractor:

- Drill rig operator
- Heavy equipment operator

FCEs are conducted by a qualified occupational medical provider.

4.11.2 Substance Abuse and Alcohol Testing

The Division Safety Manager administers required substance abuse tests, including random drug and alcohol testing. The Parsons corporate policy is available upon request.

4.11.3 Medical Services and Panel of Physicians

There is no on-site medical services available at CSSA. The Project Manager in conjunction with the Parsons Workers Compensation Analyst identifies a list of medical providers and selects medical facilities to treat work-related injuries and illnesses, as follows:

- Clinic for physicals and nonemergencies – Texas Medical Clinic - Loop 410@Broadway – San Antonio, Texas – Phone number is 210-821-5598
- Annual medical monitoring – Qualisys – 4501 Circle 75 Parkway Suite C – 3250 Atlanta, GA 30339 Phone number is 1-800-874-4676 with participating facilities in Austin and San Antonio, Texas.

4.11.4 Emergency Medical Response

Posters/signs with emergency telephone numbers and locations of facilities will be provided in visible locations and at selected phone locations throughout the project area and are provided in this PSP.

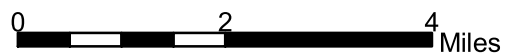
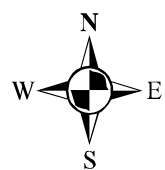
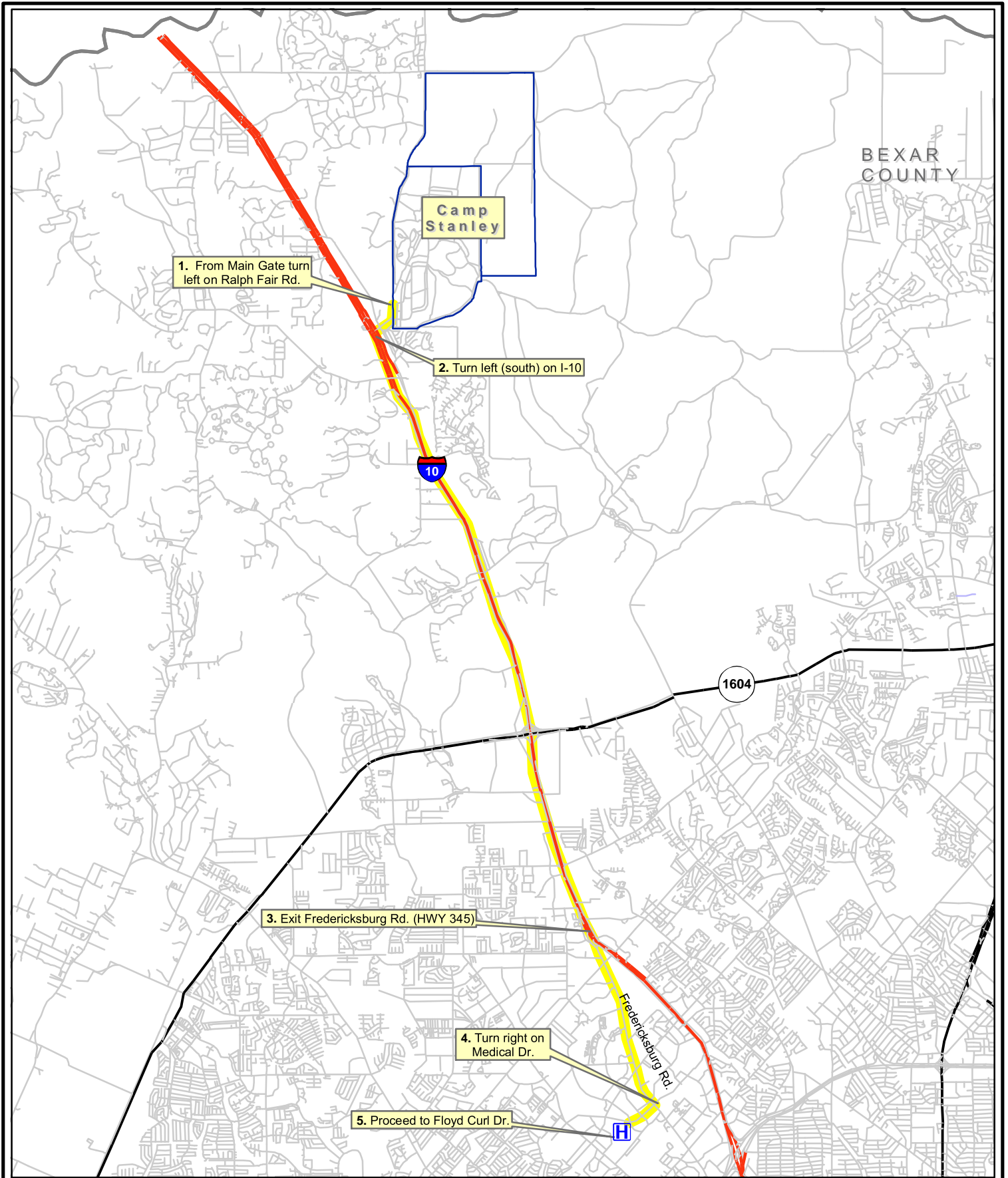
- Emergencies – Methodist Hospital – 7700 Floyd Curl – San Antonio, Texas 78229 Phone number is 210-692-4444. Distance to hospital is about 14.5 miles and travel time is approximately 20 minutes.
- CSSA Ambulance Service (0730h to 1600h) Phone number 210-221-7408

All construction site activities present a degree of risk to on-site personnel. During routine operations, risk is minimized by establishing good work practices, staying alert, and using proper PPE. Unpredictable events such as physical injury, chemical exposure, or fire may occur and must be anticipated. At least one Parsons on-site employee(s) involved with the field activities must participate in Red Cross or equivalent courses and be currently certified in first aid and cardiopulmonary resuscitation (CPR) in order to more effectively handle physical and medical emergencies that may arise in the field.

4.12 GUIDELINES FOR PRE-EMERGENCY PLANNING AND TRAINING

Employees must read this health and safety plan and must familiarize themselves with the information in this chapter. Prior to project initiation, the SHSO will conduct a meeting with the field team members to review the provisions of the safety plan and to review the emergency response plan. Employees will be required to have a copy of the emergency contacts and telephone numbers immediately accessible on site and to know the route to the hospital. A map is attached as Figure 4.2.

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.



Route to Hospital

Figure 4.2

Route to Methodist Hospital
Camp Stanley Storage Activity

PARSONS

4.13 EMERGENCY RECOGNITION AND PREVENTION

Emergency conditions are considered to exist if the following situations occur:

- Any member of the field crew (**Parsons or subcontractor**) is involved in an accident, injury causing incident, or experiences any adverse effects or symptoms of exposure while on site.
- A condition is discovered that suggests the existence of a situation more hazardous than anticipated.
- Concentrations of flammable vapors reach or exceed 10 percent of the lower explosive limit (LEL).
- A potential for toxic chemical/gas exposure exists.
- A fire or explosion hazard exists.
- Physical injury and medical emergencies have occurred.
- A vehicle accident occurs.

Some ways of preventing emergency situations are listed below.

- On-site workers will act as safety backup to each other. Off-site personnel will provide emergency assistance.
- Hand signals will be developed for communications when personnel are wearing respiratory protection.
- All field crewmembers should make use of all of their senses to alert themselves to potentially dangerous situations that they should avoid (e.g., the presence of strong and irritating or nauseating odors, identifying unsafe weather, or avoiding potentially dangerous activities).

Personnel will practice unfamiliar operations prior to performing field procedures.

Field crew members will be familiar with the physical characteristics of investigations, including:

- Weather conditions;
- Accessibility to associates, equipment, utilities, and vehicles;
- Communications;
- Areas of known or suspected contamination;
- Site access; and
- Nearest water sources.
- No field vehicles will be allowed off the main roads
- In the event that a member of the field crew experiences any adverse effects or symptoms while on the scene, fellow field crew members in the area will

immediately halt work and act according to instructions provided by the SHSO.

- The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated will result in the evacuation of the field team and reevaluation of the hazard and the level of protection required.
- In the event an accident occurs, the field supervisor or the SHSO will complete the appropriate accident report form, a copy of which is located in Appendix C of this plan. Follow-up action should be taken to correct the situation that caused the accident.
- In the event that a release of potentially dangerous chemicals occurs, the team members and field supervisor will respond appropriately, as described in the Spill Response Plan (Appendix D).

4.14 DECONTAMINATION AND EMERGENCY MEDICAL TREATMENT OF PERSONNEL DURING AN EMERGENCY

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

Procedures For Emergency Medical Treatment and First Aid

In the event that emergency first aid procedures are required, the hospital will provide emergency medical treatment and the CSSA ambulance will provide regular-hour ambulance service. After hour ambulance service can be garnered from the emergency dispatcher by calling 911. The SHSO will prepare an emergency action checklist(s) to be kept readily available to provide appropriate emergency phone calls/actions at the field site for at least the following situations:

- Toxic chemical/vapor exposure;
- Fire/explosion;
- Physical injury/medical emergency (including heat and cold injury, heart attack, electrocution, etc.);
- Security (assault, robbery, theft, etc.); and
- Vehicular accidents

Injury From Chemical Exposure

If it is suspected that a person has suffered from chemical exposure, the following procedures will be undertaken:

- Skin Contact - Flush with water. Remove clothing, if necessary. Wash/rinse affected area for at least 15 minutes. Decontaminate any exposed areas and call 911 for medical attention.
- Inhalation - Move person away from area. Administer cardiopulmonary resuscitation as needed. Decontaminate any exposed areas and call 43768.
- Ingestion - Decontaminate any exposed areas, do not induce vomiting, and contact 911 before taking further action.
- Eye Contact - Irrigate with water for at least 15 minutes, decontaminate any exposed areas, and call 911.

If necessary, the victim will be transported to the hospital (see Figure 6.1). If necessary, an ambulance will be called to transport the victim.

Personal Injury

In the event of personal injury:

- Field team members trained in first aid can administer treatment to an injured worker.
- The victim should be transported to the base hospital. If necessary, an ambulance should be called to transport the victim. In the event of a serious emergency involving Parsons operations or personnel worldwide, you can get in direct contact with executive management by calling the numbers listed on the emergency contact list (**1-866-PAR-1411**). Your call will be answered by an operator at the Parsons Emergency Contact Service. This operator will locate a senior manager and connect you with that manager.
- The SHSO or the employee's field supervisor is responsible for the completion of the appropriate accident report form and electronic incident reporting form. The accident report form is to be submitted to the Parsons Corporate office health and safety representative. Follow-up action will be taken to correct the situation that caused the accident. Safety forms are located in Appendix C. Parsons corporate reporting procedures are detailed in Section 3.2 of this health and safety plan.

4.15 EVACUATION PROCEDURES

If site evacuation is necessary:

- The field team leader will initiate the evacuation procedure by signaling the team.
- All personnel in the work area will evacuate the area and meet in the common area designated during the first on-site health and safety meeting.
- All personnel suspected to be in or near the contract work area will be accounted for and the whereabouts of missing persons determined immediately.

- Further instructions will then be given by the field team leader.

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

- Notify the paramedics and/or fire department, as necessary.
- Evacuate and isolate the area.
- Stay upwind of any fire.
- Keep areas surrounding the problem source clear after the incident occurs.
- Complete accident report form and distribute to appropriate personnel.

4.16 EMERGENCY CONTACTS

In the event of any situation or unplanned occurrence requiring assistance, the appropriate contact(s) should be made from the list below. For emergency situations, contact should be made with the site point of contact or site emergency personnel, who will then contact the appropriate response teams.

Emergency dispatcher.....	911
Camp Bullis fire department.....	210/221-7517
Post police, building 79.....	210/295-7408
Teresa Benavides, Camp Stanley safety officer	210/698-5208
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

4.17 ACCIDENT REPORTING REQUIREMENTS

All accidents, incidents, and injuries must be reported to the Parsons Site Health and Safety Officer (SHSO), employee supervisor, and Project Manager immediately. It will be the responsibility of the SHSO to report these occurrences to the Project Manager and Safety Manager.

4.18 PPE AND EQUIPMENT DECONTAMINATION

Decontamination procedures are required as equipment may come into contact with potentially dangerous chemicals. An exclusion zone (EZ), contamination reduction zone (CRZ), and support zone (SZ) will be established whenever field personnel are using PPE. Most of the activities planned at CSSA will be performed under modified level D protection, and as such, will not require PPE beside leather work boots, nitrile gloves, hard hat, and safety glasses, as appropriate. Defined boundaries (access and egress points) will be established whenever feasible, and personnel will enter and exit only through these points. In addition, all personnel who are involved in daily field investigations will be required to shower as soon as possible after leaving for the day.

- All equipment that requires decontamination will be decontaminated according to the procedures described in the Field Sampling Plan.
- Decontamination procedures will be monitored by the Site Health and Safety Officer (SHSO).
- Decontamination of Equipment

Equipment decontamination will take place on-site and may generate liquids from washing and rinsing procedures. All liquids will be containerized, sampled, and disposed as stated in the approved task order work plan. If substantial contamination is found, liquids will be collected and contained for appropriate disposal. Changes in the equipment used for decontamination may be made at the discretion of the SHSO. Decontamination equipment can include:

Plastic buckets and pails	Plastic garbage bags
Scrub brushes and long-handled brushes	Potable water
Detergent (e.g., Alconox)	Disposal drums
ASTM type II deionized water	Plastic liner material
Isopropyl alcohol	Hand pump sprayer
Paper towels	Eye wash

Air monitoring will be performed during investigation and remediation activities to prevent and minimize exposures to contaminants of concern (COCs). Volatile organic compounds (VOCs) are the primary COCs at several of the project sites. Air monitoring action levels for specific solid waste management units (SWMUs) and areas of concern (AOCs) are presented in the table below. More details related to allowable exposure levels for specific COCs are presented on Table 6.1 in Section 6 of this PSP.

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.

Air Monitoring Action Levels (continued)

Action Level (Concentration of Organic Vapor in Breathing Zone)	Method of Detection	Action
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

The Corporate Risk Management department establishes the appropriate workers compensation carrier. If a workers compensation loss occurs, the Corporate Workers Compensation Analyst (Donna Miller, 661-904-0978) handles all communication with the carrier. All communications should be coordinated with Ms. Miller.

This project does NOT participate in a project-specific insurance program. The workers compensation policy covering Parsons employees on this project is as follows:

AIG
 Dallas Workers Compensation Service Center
 P.O. Box 219-059
 Dallas, TX 75221
 800-486-2422

Policy #: 0007169963

4.18.2 Medical Monitoring

Potential health hazards associated with this project require implementation of the following medical monitoring:

<u>Labor Classification</u>	<u>Monitor For</u>	<u>Comments</u>
Applicable employees	Noise	If noise exposures exceed 85 decibels over an 8-hour time weighted average, an employee must participate in a Hearing Conservation Program.
Applicable employees	Chemical exposures	If an employee is exposed at or above the Permissible Exposure Limit (PEL) of a chemical for more than 30 days in a year, they must participate in a Medical Surveillance Program.
Applicable employees	Respirator use	If an employee wears a respirator more than 30 days per year, they must participate in a Medical Surveillance Program.

Brian Vanderglas, Project Safety Manager, (512) 719-6059 administers the medical monitoring program for the Parsons Austin office and employees associated with the projects at CSSA. Maria Gage, (512) 719-6808, maintains the administrative records in Austin, TX and she coordinates any required safety training.

SECTION 5

PRE-REMEDATION PHASE

5.1 RISK ANALYSIS AND SAFETY SPECIFICATION DEVELOPMENT

A site-specific risk analysis is required to be conducted before issuance of investigation and remediation RFPs. Using the prebid risk analysis checklist (see Figure 5.7), the Project Manager leads this analysis, which documents existing exposures that may impact the work, surrounding facilities, equipment, workers, or the public at large. The analysis includes locating, documenting, and photographing items such as:

- Overhead and underground power lines
- Sewer and water utilities
- Existing building interferences
- Drilling rig and heavy equipment access ways
- Traffic
- Security
- Fences
- Water hazards
- Existing geographical and environmental conditions
- Confined spaces

Upon completion of the site risk analysis, high-risk activities are listed for inclusion in AHAs and in the RFPs (as applicable) for work to be subcontracted. Bidders must describe controls and mitigation strategies in their proposals. The RFP will note that the high-risk activities list is representative and that the selected contractor must identify and control all work-related hazards.

Preconstruction safety activities also include a detailed analysis of the scope of work and safety specifications in the prime contract, Parsons' project schedule and this PSP, draft RFPs, and proposed subcontractor agreements. The Project's standard safety specifications are given below. Some or all of these checklists may be required depending on the scope of work for each specific task order awarded.

- Preconstruction Safety Meeting – Figure 5.1
- Project Technical and General Conditions Specification Review – Figure 5.2
- Subcontractor Prequalification Scorecard – Figure 5.3
- Premobilization Safety Meeting – Figure 5.4
- Subcontractor Competent Person Form – Figure 5.5

- Subcontractor Safety Plan Review Form – Figure 5.6
- Site Specific Risk Review Checklist – Figure 5.7

5.2 DESIGN AND REMEDIAL ACTION REVIEW

Periodic constructability reviews are held in accordance with the project management plan developed for each task order. The Project Safety Manager participates in the review to ensure that safety issues are adequately addressed. During the constructability review, the discussion focuses on how work is sequenced, interferences with continuing operations, and safe work approaches. Specific activity hazards analyses conducted before the scheduled work will be focused to mitigate identified/presumed risks.

5.3 PREBID MEETING

Prebid meetings are required to ensure that bidders understand the RFP, including expectations for safety and health performance. During the prebid meeting, the Project Manager uses the Preconstruction Safety Meeting Checklist (Figure 5.1) to review project safety philosophy, principles, and Parsons requirements with all prospective bidders. Although this information is included in subcontractor procurement packages, the meeting reinforces the message. In addition, the Project Technical and General Conditions Specification Review shown in Figure 5.2 is reviewed with the bidders.

5.4 SUBCONTRACTOR PREQUALIFICATION REVIEW

Project procurement procedures require that all subcontractors submit prequalification documentation for evaluation. The Procurement Manager or Division Safety Manager conducts the safety prequalification evaluation in accordance with the Parsons subcontractor prequalification process and form (shown in Figure 5.3). Additional prequalification forms for evaluating subcontractors are provided in Appendix E.

5.5 PRECONSTRUCTION MEETING

The Project Manager holds a pre-construction meeting prior to construction or remediation task before the subcontractor begins work. The meeting will include subcontractor representatives and key project personnel, including safety. Participants may include the Project Manager, the Project Safety Manager, the procurement or contracts manager, the field supervisor, and any appropriate representatives from technical disciplines related to the planned task. During the safety review, the meeting participants review specific safety site/area, prebid risk analysis, and competent person and site-specific safety plan requirements. In addition, the Project Manager will obtain a safety point of contact and emergency management information from the Subcontractor. The attached Premobilization Safety Meeting (Figure 5.4) can be used by the Project Manager to document this meeting.

5.6 COMPETENT PERSON SUBMISSION REVIEW

Parsons and its subcontractors must identify OSHA-regulated and certified competent persons for work or tasks requiring that level of supervision. The supervisor of the competent person must certify in writing the specific competencies of the named competent person.

If relevant to the planned remediation or construction tasks, the supervisor and competent person will sign and submit the attached Parsons competent person document to the Parsons Project Manager (Figure 5.5).

Figure 5.1
Preconstruction Safety Meeting Checklist
Camp Stanley Storage Activity Project safety Plan

Date:	_____	Project/Task Order No.:	_____
Subcontractor Representative:	_____	Parsons Project Manager:	_____
Phone:	_____	Phone:	_____
Subcontractor Safety Rep:	_____	Parsons Safety Manager:	_____
Phone:	_____	Phone:	_____

The following items were identified and reviewed with the subcontractor.

Health & Safety	Medical
Site-Specific Safety Plans/Model Program _____	Substance Abuse Screening _____
Competent/Qualified Person Documentation _____	Emergency Procedures _____
Safety Audits/Inspections _____	Site Security _____
Subcontractor Responsibilities _____	Smoking Policy _____
Site Orientation Requirements _____	Medical Services Requirements _____
Premobilization Safety Meeting/Date _____	Treatment Locations/Addresses/Phone List _____
Crane Inspection Certification _____	Other _____
Personal Protective Equipment (PPE) _____	
Environmental Hazards _____	
Other _____	

Additional Notes/Comments:

**Figure 5.2
 Project Technical and General Conditions Specification Review
 Camp Stanley Storage Activity Project Safety Plan**

Date: _____ Project/Task
 Order Number: _____
 Project Manager: _____ Safety Manager: _____

The project specification review has revealed the following high-risk activities. Activities checked must be followed up during the construction phase with training, written plans and/or a specific Activity Hazard Analysis. This list should be reviewed with prospective bidders during the pre-bid meeting.

Steel Erection (SENRAC Requirements)		Demolition	
Excavations/Trenching		Marine Work/Liveboating	
Powered Industrial Trucks, Fork Lifts		Heavy Hauling	
Crane Work/Heavy Lifts, Rigging		Concrete	
Work Involving Hazardous Materials		Diving	
Electrical Tie-ins/Lockout-Tagout		Work Adjacent to Production Areas	
Aerial Lift Work – scissor lifts, extendable boom, etc.		Site Security/Visitor Control/Public Exposure	
Underground, Caissons, Cofferdams		Process Safety Management (PSM)	
Scaffold Erection/Work		Permits (Excavation/Scaffolding/Demolition/Traffic/Confined Space/Hot Work/Line breaking, etc.)	

High Risk Activities and Other Project Concerns:

Figure 5.3
Subcontractor Prequalification Scorecard
Camp Stanley Storage Activity Project Safety Plan

Subcontractor _____ Date _____

Project/Task Order No. _____

Representative Signature & Title _____

HEALTH and SAFETY

Please answer the following questions.

1. ___ Yes ___ No Do you have a written safety program? If yes, provide a copy of the table of contents and a copy of your firm's policy statement.
2. ___ Yes ___ No Do your safety procedures comply with government agency requirements? If yes, provide name of agency/agencies.
3. ___ Yes ___ No Do you require and use site-specific safety plans?
4. ___ Yes ___ No Does your worker's compensation carrier provide site audits on a regular basis?
5. ___ Yes ___ No Does your company have a written drug/substance abuse policy?
6. ___ Yes ___ No Do you have an orientation program for new hires?
7. ___ Yes ___ No If you have an orientation program for new hires, does it include subcontractors?
8. ___ Yes ___ No Do you require subcontractors to submit safety plans?
9. ___ Yes ___ No Do you hold site safety meetings for field supervisors?
 How often? Weekly ___ Biweekly ___ Monthly ___ Daily _____
10. ___ Yes ___ No Do you hold craft toolbox safety meetings?
 How often? Weekly ___ Biweekly ___ Monthly ___ Daily ___
11. ___ Yes ___ No Have you been inspected by OSHA or received any OSHA citations in the past 3 years? If yes, provide an attachment describing the outcome of the inspection along with copies of citations received. Provide a description of the actions taken to abate the citations as an attachment to this application. Respond to any open citations shown on the OSHA website (www.osha.gov).
12. Identify below by name, phone number, and title the person in your firm directly responsible for the firm's Safety Program management and attach a copy of his or her resume to this application.

Subcontractor Prequalification Scorecard (Contd)

Date: _____

13. How do you conduct project safety inspections, and how often are they performed?

14. Describe your firm's program to motivate, encourage, and monitor safe work performance.

OSHA INFORMATION:

*Please use your OSHA 200 Log and/or 300 Log to fill in the number of injuries and illnesses for the last 3 years				Total employee hours worked in the last 3 years (do not include any non-work time, even though paid)	
Year	1	2	3	Year	Hours (B)
				1	_____
				2	_____
				3	_____
Number of lost/restricted workday cases (Totals OSHA 200 Log, columns 2 and 9; Totals OSHA 300 Log, columns K and L).	_____	_____	_____	Recordable Injury Frequency Rate	
Number of recordable cases without restricted activity or lost workdays (Totals OSHA 200 Log, columns 6 and 13; Totals OSHA 300 Log, column I and J).	+	_____	_____	Multiply total for each year (A) x 200,000 and divide by total employee hours for that year (B)	
				$\frac{A \times 200,000}{B}$	
				Year	Rate
				1	_____
				2	_____
				3	_____
Number of fatalities (Totals OSHA 200 Log, columns 1 and 8; Totals OSHA 300 Log column G).	+	_____	_____	Experience Modification Rate (EMR)	
Total OSHA Log (A)		_____	_____	Policy Year	EMR
				1	_____
				2	_____
				3	_____

Are the following accident records and accident summaries kept? How often are they recorded?

	No	Yes	Monthly	Annually
Accidents totaled for the entire company	_____	_____	_____	_____
Accidents totaled by project	_____	_____	_____	_____

The Applicant shall maintain records of such evaluations and make them available for review and approval of Parsons representatives at all reasonable times should Applicant be awarded a contract based on this application.

By submitting this application, the Applicant agrees to use the above criteria and this form when selecting lower tier subcontractors.

Subcontractor _____ **Task Order** _____

**Figure 5.4 Premobilization Safety Meeting Checklist
 Camp Stanley Storage Activity Project Safety Plan**

Date: _____ Project/Location: _____

Parsons Representative: _____ Subcontractor Representative: _____

The following project site safety, health and security requirements, procedures, and hazards have been identified and reviewed with the Subcontractor.

SSP/Emergency Planning/Response Plan		Demolition	
Competent/Qualified Person		Personal Protective Equipment	
Hazardous Materials/Waste		Cranes/Hoists/Annual Inspection Certificate	
Vehicle/Heavy Equipment		Overhead Power Lines	
Lockout/Tagout		Confined Spaces (Permit/Non-Permit)	
Electrical		Excavations/Trenching	
Fire Protection		Site Security/Visitor Control/Public Exposure	
Hot Work/Welding/Cutting		Process Safety Management (PSM)	
Fall Protection/Guardrails/ Scaffolding/Ladders		Permits (Excavation/Scaffolding/Demolition/Traffic/ Confined Space/etc.)	

Additional Project Concerns:

Other Attendees:

Name	Title	Company
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Figure 5.5
Subcontractor Competent Person Form
Camp Stanley Storage Activity Project Safety Plan

Definition

A competent person is a person having the ability to recognize existing and predictable hazards and having the authority to correct them.

Responsibility

The designated subcontractor competent person is responsible for recognizing and correcting safety risks/hazards. This person has the authority to stop work in a potential safety concern on the jobsite. This Subcontractor Manager and competent person are considered the contacts for Parsons projects.

This form must be completed by each subcontractor's manager and the subcontractor's designated competent persons. *Where a subcontractor is responsible for multiple crafts, it will be necessary to maintain additional designated competent persons and forms.* Each subcontractor on a Parsons project must submit this completed form to the Parsons Construction Manager before beginning work on the project and must update it any time the designated representative(s) changes.

Acknowledgment

I, _____ representing, _____
Subcontractor Manager **Subcontractor Company Name**
have assigned _____ to be the competent person in the areas indicated and I
_____ acknowledge that this individual has been thoroughly trained
and is experienced in hazard recognition and has the authority to stop work and correct hazards in the event of a
potential hazardous or imminent danger situation.

Subcontractor Manager (Signature)

Date

I, _____ acknowledge that I have been thoroughly trained and have the experience
Competent Person (Signature)
to perform the duties as the _____ competent person in the areas marked below and
Subcontractor Company Name

I understand that I have the responsibility and authority to correct hazards and to stop work in the event of a potential hazardous or imminent danger situation.

_____	Asbestos	_____	Hearing Protection	_____	Welding/Cutting
_____	Respiratory Protection	_____	Scaffolding	_____	Rigging
_____	Cranes/Derricks	_____	Electrical	_____	Lead
_____	Fall Protection	_____	Ladders	_____	Excavations/Trenches
_____	Demolition	_____	Tunnels/Shafts	_____	First Aid/CPR
_____	Underground Const.	_____	Material/Personnel Hoists	_____	Concrete/Forms/Shoring
_____	Marine Work/Diving	_____	Bolting/Riveting/Fitting	_____	Mechanical Demolition

5.7 SUBCONTRACTOR SAFETY PLAN SUBMISSION REVIEW

All subcontractors must submit safety programs to the Parsons Project Manager for review before they begin work on site. The Project Manager reviews the program for adequacy in accordance with the PSP. Parsons will review the subcontractors plan and complete the review form shown in Figure 5.6 for each construction or remediation subcontractor procured by Parsons to implement each task order scope of work requirements.

Contractor Site-Specific Safety Plans

At least 10 days before work begins, each subcontractor must submit two copies of its site safety program (SSP) to the Parsons Project Manager for review. The Project Manager and Project Safety Manager review the SSP to ensure that it meets Parsons' requirements.

If a contractor needs assistance developing an SSP, the Project Safety Manger provides an electronic copy of Parsons' sample SSP from the SHARP Management manual.

The SSP must address the following elements:

- Responsibility
- Compliance
- Communication
- Hazard assessment
- Accident exposure and investigation
- Hazard correction
- Training and instruction
- Recordkeeping

The SSP must include applicable requirements of Parsons PSP and OSHA CFR 1910/1926:

- Scope of work evaluation that describes the sequence of work and associated hazardous activities.
- Specific activity hazards analysis (AHA).
- A project site employee orientation program that addresses location specific issues relative to safety and health.
- A site-specific emergency action plan that includes a list of key management contacts with home office, project site, home, and cellular telephone numbers.

- A site-specific medical emergency plan that lists qualified first aid personnel by name and includes copies of their current certificates.
- Key line management personnel, by name and position, who will enforce the SSP.
- Key competent or qualified personnel by name and copy of current documentation identifying specific certified competency (e.g., scaffolding, excavations, and fall protection).
- Written progressive disciplinary program for violations of safety procedures.
- Trenching and shoring plan (if applicable).
- HAZWOPER training documentation (if applicable).
- Contractor task hazard planning.

Figure 5.6

PARSONS

Subcontractor Safety Plan Review

Date: _____ Project/Task Order No.: _____

Subcontractor: _____ Parsons Safety Manager: _____

The information provided here is based on a review of a subcontractor's safety plan. Areas identified as incomplete are reevaluated and modified based on the standards in the contract specifications and the Project Safety Program manual. Subcontractors resubmit corrected sections of the SSP to the Parsons Construction Manager within one week of receiving review documentation.

Section	Complete	Incomplete	Section	Complete	Incomplete
Site Specific Safety Plan	_____	_____	Specific Activity Hazard Analysis (AHA)	_____	_____
Responsibilities assigned	_____	_____	Project Site Employees Orientation Program	_____	_____
Compliance	_____	_____	Emergency Action Plan	_____	_____
Hazard Communication	_____	_____	Site Specific Medical Emergency Plan	_____	_____
Hazard Assessment	_____	_____	Identification of Key Line Personnel	_____	_____
Accident Investigation	_____	_____	Identification of Competent & Qualified Personnel	_____	_____
Hazard Correction	_____	_____	Written Progressive Disciplinary Program	_____	_____
Training and Instruction	_____	_____	Written Trenching and Shoring Plan (if applicable)	_____	_____
Recordkeeping	_____	_____	Written 100% Fall Protection Plan (if applicable)	_____	_____
Scope of Work Evaluation	_____	_____	Other	_____	_____

Additional Comments:

Reviewed by:

Name

Title

- Subcontractor weekly safety planning submission.
- Contractor workers daily task safety planning.

5.8 PREMOBILIZATION SAFETY MEETING

Project Managers conduct the Premobilization Safety Meeting on the first day of subcontractor mobilization in the field and at the work site. Figure 5.7 shows the checklist used for the safety portion of this meeting. The meeting includes the completion of a Site-Specific Risk Review Checklist combined with a walkthrough of the work area to locate items on the prebid risk analysis checklist.

**Figure 5.7 Site-Specific Risk Review Checklist
 Camp Stanley Storage Activity Project Safety Plan**

Date: _____ Project or Task Order No.: _____

Risk/Hazard	Detail Present		Risk/Hazard	Detail Present	
Employee Exposure	Hazardous chemicals	_____	Caissons and Cofferdams	Caisson or cofferdam work is required	_____
	Lead	_____			
	Asbestos	_____	Marine or Over Water Work	Work on or over water is required	_____
	UXO	_____		Underwater (diving) work is required	_____
	PCB	_____			_____
	Airborne contaminants (dust, mists, fumes) Other (specify)	_____			_____
Confined Space	Confined space entry is required	_____	Process Safety Management	Work is on or adjacent to operations involving listed highly hazardous chemicals	_____
		_____			_____
Control of Energy	Lockout, blocking, other controls required	_____	Steel Erection	Steel erection work is required	_____
Hazardous Waste	Handling, removal or storage of hazardous is required	_____		Traffic Control	Work is on or near highways, road, or mass transit
		_____			_____
Crane Work	Mobile cranes	_____	Personal Protective Equipment	Work activities or work site requires hearing protection	_____
	Tandem lifts	_____		Work activities or location requires using respirators	_____
	Bridge cranes	_____		Work activities or location requires special protective clothing	_____
	Derricks	_____			_____
Trenching and Excavations	Trenching and excavations required	_____	Public Exposure	Work activities or location requires special precautions to protect the public	_____
Welding and Cutting	Acetylene/gas cutting	_____		Other Exposures	Other exposure or high-risk activities (list)
	Arc welding	_____			_____
	Soldering and brazing	_____		_____	
Powered Industrial Trucks	Forklift training is required	_____		_____	
	Aerial Lifts	Hydraulic booms	_____		_____
Scissor lifts		_____		_____	
Mobile scaffolding		_____		_____	
Scaffolding Ladders	Scaffolding is required	_____		_____	
	Portable ladder use is required	_____		_____	
Notes: _					
Reviewed by: _____					
Date: _____					

SECTION 6 FIELD INVESTIGATION OR REMEDIATION PHASE

6.1 SITE RISK ANALYSIS

Before work begins, Project Managers lead a team that performs a risk analysis to identify hazards that require specific control measures. During weekly progress meetings, the Project Engineer and subcontractors submit written summaries of upcoming work tasks and associated risks and control measures to the Project Manager using Figure 6.1. Figure 6.1 is a sample activity hazards analysis form. Figure 6.2 shows a training record to be completed and kept on file for each activity hazards analysis.

Prior to initiating a scheduled high-risk work activity, an activity hazards analysis (AHA) will be conducted to identify project activities that present potential hazards to personnel and equipment. The AHA will be conducted two weeks prior to the scheduled activity by the project engineer, a superintendent or the project safety manager. An AHA documents the steps for accomplishing a work activity as well as the actual or potential hazards of each step, and describes the measures to eliminate or control the hazards. The Site Safety Officer will review the AHA with all Parsons and subcontractor employees included in the scheduled activity. Additional details associated with the AHA are provided in Section 6.3

The weekly summaries identify upcoming mobilization or demobilizations tasks, audits and inspections, competent person changes, training and new activities requiring an Activity Hazard Analysis (AHA). Subcontractors add activities to these summaries in advance of the work. Potential hazards associated with field activities at CSSA are listed below. Additional hazards can be added to this list as needed. For each newly identified hazard, there will be an explanation on how and where the hazard will exist. An Activity Hazard Analysis (AHA) as described in Section 6.3 will be prepared for each hazard, in order to identify the required controls and/or PPE.

- Biological
- Chemical exposures - industrial hygiene monitoring
- Confined spaces
- Drill rig or large equipment movement;
- Environmental – cold/heat stress, animals, insects, poisonous plants/vegetation
- Excavations and trenches – deeper than 4 feet
- Falls – working at heights greater than six feet
- Fires
- Hazardous material handling

- Heavy equipment operation
- Noise
- Overhead and underground electrical
- Traffic
- Unexploded Ordnance

Currently identified potential hazards associated with field activities at CSSA are described in the remainder of Section 6.1. Hazardous substances that may be present at CSSA include organic compounds and heavy metals. Table 6.2 lists certain physical, chemical, and health hazard characteristics of compounds known or suspected to be present. Because several compounds have low permissible exposure levels (PELs), any concentration of unknown vapors above background levels in the air will require the evacuation from the area, use of respiratory protection, and/or additional air monitoring to determine the specific compounds present at the site. Several of the hazardous substances potentially present on site are skin and eye irritants. Therefore, skin and eye protection will be necessary when there is a chance for exposure.

In addition to the hazardous substances present on the site, some physical hazards or hazardous conditions may be expected at the site. These include heat and cold exposure.

Employees must implement safe work practices while working on site. Protective clothing will reduce many of the on-site risks; however, protective clothing and respirators will increase heat stress. Heat stress monitoring is discussed in detail in Section 6.1.4. The guidelines presented in this section are applicable to all types of equipment that may be used during field activities at CSSA. Individual equipment types or certain specialized equipment may require additional safety considerations or specialized training prior to its use.

On a periodic basis, the Project Manager or Site Safety Officer will conduct internal site safety inspections using the form (or similar form) shown in Figure 6.3 to identify problem areas. The Site Safety Officer may also document performance of an internal site safety inspection in the field logbook, identifying any potentially unsafe situation or hazard and listing mitigation or corrective actions to minimize the risk. Items found to be out of compliance will be corrected and documented.

6.2 CHEMICAL AND BIOLOGICAL HAZARD EVALUATION

Within CSSA, oversight and evaluation personnel may be potentially exposed to numerous groups of chemical toxicants by both the respiratory and skin absorption routes. The risk of exposure and the severity of the resultant physiologic reaction to any of the contaminants is determined chiefly by their inherent toxicity, concentration, physical characteristics, duration of exposure, and individual work susceptibility or hypersensitivity.

6.2.1 Organic Solvents

Several halogenated and non-halogenated solvents are found or suspected at CSSA. Organic solvents can acutely affect the central nervous system. Depending on the degree of exposure and the solvent involved, these effects may range from mild narcosis to death from respiratory failure.

6.2.2 Heavy Metals

Several metals have been identified at possible contaminants of concern. Metals exhibit variable toxicity, depending upon the chemical presentation of the compound. The types of metals likely to be present at lower concentrations are included in Table 6.1.

6.2.3 Flammable Solvent Storage

Small quantities of flammable solvents may be used on site as decontamination solutions. Care should be taken by field team members to properly label all containers in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and the Parsons Hazard Communication Policy.

THIS PAGE INTENTIONALLY LEFT BLANK

Figure 6.1 Activity Hazards Analysis Form
Activity Hazards Analysis
Camp Stanley Storage Activity Project Safety Plan

Page ____ of ____

Project Name & Number:		AHA No.		Date:	New:
Location:		Contractor:			Revised:
Required Equipment	Personal	Protective		Analysis by:	Date:
			Field Supervisor	Reviewed by:	Date:
Work Activity	Potential Hazards		Preventive or Corrective Measures		Inspection Requirements

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.

Figure 6.2
Activity Hazards Analysis Training Record
Camp Stanley Storage Activity Project Safety Plan

JOB NUMBER _____

AHA NUMBER _____

TASK ORDER NUMBER _____

DATE: _____

NAME OF TRAINER: _____

SUBJECTS COVERED: _____

TRAINING AIDS USED: _____

ATTENDEES (PLEASE SIGN NAME LEGIBLY):

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(Use additional sheets if necessary)

All solvents must be contained in approved (UL and FM) safety containers. At a minimum, a 10B fire extinguisher will be maintained within 50 feet of any flammable storage area. If other solvents are required, field team members must obtain a MSDS and approval of the SHSO prior to bringing the solvent to the work site.

6.2.4 Biological Organisms

The potential for contact with biological organisms that may cause injury or disease exists when performing investigative activities at the sites. Snakes may be present in the area and caution should be taken, especially when working in previously undisturbed areas and locations with animal dens. Africanized bees may be encountered at the site. Field team members who are allergic to bee or wasp stings shall notify the Site Health and Safety Officer prior to initial field work. Spiders and scorpions may be present on site. A spider bite may result in severe pain, illness, and possibly death (from complications, but usually not from the bite itself). A scorpion sting is very painful, but usually will not result in death.

Ticks and/or chiggers may be nuisances to field personnel. Chiggers may be repelled using over-the-counter insect repellents. Bites from deer ticks may result in the transmission of Lyme disease. The disease is caused by a spirochete bacterium, which infects deer ticks. The ticks bite humans and transfer the bacterium into the bloodstream. Transmission of the disease occurs mostly in the late spring and early summer, and is characterized by flu-like symptoms, a red ring on the skin, and a localized burning sensation. Personal protective equipment will offer some protection, but the use of insect repellent with DEET on outside clothing also may be warranted.

6.2.5 Poison Ivy

Skin contact with poison ivy can cause swelling, breathing difficulty, blisters, fever, and severe itching. Poison ivy commonly grows along creek banks and is poisonous year-round. To prevent contact with poison ivy, personnel should wear long sleeves, long pants and gloves. If contact is suspected, the affected area shall immediately be washed with soap and water and clothes shall be changed. Poison ivy oils may remain on clothing or equipment until they are washed. The initial health and safety briefing will discuss possible poisonous plants at CSSA.

6.3 PHYSICAL HAZARD EVALUATION

In addition to the hazardous substances potentially present at CSSA, other physical hazards or hazardous conditions may be expected at the sites during the course of performing field activities. These hazards include possible risks from injury while working around motor vehicles including stationary or moving equipment; fire or explosion hazards; slip, trip, and fall hazards; electrical hazards; and excessive noise conditions. Additional physical hazards include heat stress and cold-related exposures.

The guidelines presented in this section are applicable to all types of equipment that may be used during field activities at CSSA. Individual equipment types or certain

THIS PAGE INTENTIONALLY LEFT BLANK

Table 6.1 Health Hazard Qualities of Hazardous Substances of Concern

Compound	PEL ^a /TLV ^b (ppm)	IDLH ^c (ppm)	Odor Threshold ^d (ppm)	Ionization Potential ^e (eV)	Physical Description/Health Effects/Symptoms
Barium	0.5 mg/m ³	NA	NA		Yellowish to white lustrous solid in various forms. Irritates the eyes, skin and respiratory tract. Causes cough and sore throat, skin redness, and redness and pain to eyes.
Cadmium	0.005 mg/m ³ /0.01 mg/m ³ (29 CFR 1910.1027) ^f	9 mg/m ³	NA	NA	Silver-white, blue-tinged, lustrous, odorless, metallic solid. Causes pulmonary edema, shortness of breath, coughing, chest tightness/pain, loss of sense of smell, chills, muscle aches, headaches, nausea, vomiting, diarrhea, mild anemia, and prostatic and lung cancer. Also attacks kidneys. Mutagen, experimental teratogen, and carcinogen.
Chromium	0.5mg/m ³ (TLV)	250 mg/m ³	NA	NA	Eye, skin, and mucous membrane irritant.
Copper	1 mg/m ³	100 mg/m ³	Na	NA	Reddish, lustrous, malleable, and odorless, solid metal. Irritates eyes, nose, skin, and pharynx. Causes a metallic taste, nasal perforation, nausea, vomiting, and dermatitis. In animals, causes anemia and lung, liver, and kidney damage. Experimental teratogen and questionable carcinogen.
Dichloroethylene	200/200	4,000	0.26	9.65	Colorless to faint-yellow, oily liquid with a slight, acrid chloroform-like odor. Irritates eyes, upper respiratory system, and stomach. Causes CNS depression. Mutagen and experimental teratogen.
Lead	0.05 mg/m ³ (29 CFR 1910.1025)	100 mg/m ³	NA	NA	Heavy, ductile, bluish-gray, soft metal. Irritates eyes. Causes weakness, exhaustion, insomnia, facial pallor, anorexia, low-weight, malnutrition, constipation, abdominal pain, gastritis, colic, constipation, gingival lead line, anemia, wrist and ankle paralysis, joint pains, tremors, low blood pressure, and kidney disease. Mutagen, experimental teratogen, and suspected carcinogen.
Limestone dust	NA	10 mg/m ³	NA	NA	Heavy, ductile, gray metal. Irritates eyes and causes brain, kidney, blood, CNS, and digestive tract disorders. Symptoms include weakness, insomnia, abdominal pain, colic, constipation, anemia, wrist and ankle paralysis, and low blood pressure.
Nickel (soluble) (insoluble or metal)	0.1 mg/m ³ - 1 mg/m ³	1 mg/m ³	10 mg/m ³	NA NA	Lustrous, silvery, odorless, hard, malleable, ductile, metallic solid. Causes nausea, vomiting, diarrhea, conjunctivitis, sensitization dermatitis, allergic asthma, pneumonitis, and lung and nasal cancer. Mutagen, experimental teratogen, and carcinogen.

Compound	PEL ^a /TLV ^b (ppm)	IDLH ^c (ppm)	Odor Threshold ^d (ppm)	Ionization Potential ^e (eV)	Physical Description/Health Effects/Symptoms
Tetrachloroethylene (Perchloroethylene)	25 (TLV)	150	5	9.32	Colorless liquid with chloroform odor. Eye, nose, throat irritant. Cumulative liver and CNS damage. Suspected carcinogen and mutagen.
Trichloroethylene	25/50	1,000	20-500	9.45	Colorless liquid with a mild chloroform-like odor. Irritates eyes and skin. Causes headaches, exhaustion, CNS depression, poor equilibrium, dermatitis, liver damage, cardiac arrhythmia, hallucinations or distorted perceptions, motor activity changes, aggression, diarrhea, and nausea or vomiting. Mutagen, experimental teratogen, and questionable carcinogen.
Toluene	50	500	0.036	9.9	Irritates eyes and nose. Causes fatigue, weakness, dizziness, headache, dilated pupils, and nervousness. Targets skin, liver, kidneys, and CNS. Suspected teratogen and mutagen.
Zinc (based on zinc oxide)	5/mg/m ³ -10 mg/m ^{3g} /	500 mg/m ³	NA	NA	Fine, white or yellowish, odorless particulate. Irritates respiratory system. Causes metallic taste, cough, chills, fever, tight chest, headaches, rales, blurred vision, muscle aches, nausea, vomiting, dry throat, weakness, lower back pain, exhaustion, fatigue, vague discomfort, shortness of breath, and decreased pulmonary function. Fumes cause metal fume fever. Mutagen and experimental teratogen.

Notes:

NA = Not available or not applicable

a PEL: Permissible Exposure Limit. OSHA-enforced average air concentration to which a worker may be exposed for an 8-hour workday without harm. PELs are published in 29 CFR 1910.1000. Expressed as parts per million (ppm) unless noted otherwise.

b TLV-TWA: Threshold Limit Value - Time-weight Average. Average air concentration (same definition as PEL) recommended by the American Conference of Governmental and Industrial Hygienists (ACGIH).

c IDLH: Immediately Dangerous to Life or Health. Air concentration at which an unprotected worker can escape without debilitating injury or health effects. Expressed as ppm unless noted otherwise.

Ca NIOSH recommends substance is treated as a human carcinogen.

d When a range is given, use the highest concentration.

e eV = Electron volt.

f Refer to expanded rules for this compound.

g Based on exposure limits for petroleum distillates (naphtha).

CNS Central nervous system

specialized equipment may require additional safety considerations or specialized training prior to its use. Should any specialized equipment be required during the performance of a task, the SHSO will ensure that operators receive appropriate training. The SHSO is also responsible for ensuring that all equipment is routinely inspected and that any piece of equipment considered unsafe is not used until the unsafe conditions are corrected or repaired.

6.3.1 General Vehicle Operations

The following safety procedures will be followed when operating a motor vehicle within CSSA:

- Seat belts will be worn at all times.
- Obey all traffic and speed limit signs.
- Park in designated areas.
- Be aware of construction equipment and other vehicles operating in the area.
- Be aware of pedestrian traffic.
- Acquire eye contact and permission from the vehicle/equipment operator to enter an area around operating vehicles.
- Never crouch down in front of or behind a vehicle.
- Drivers must visually check around the vehicle before moving it.
- Vehicles will never be loaded beyond the designed passenger capacity or beyond the rated load capacity.
- Vehicles will never be loaded in a manner that obscures the driver's front or side views.
- DO NOT USE CELL PHONES WHILE DRIVING VEHICLE.

6.3.2 Large Motor Vehicles

Working with large motor vehicles could be a major hazard at these sites. Injuries can result from equipment dislodging and striking unsuspecting personnel, and impacts from flying objects or overturning of vehicles. Vehicles and heavy equipment design and operation will be in accordance with 29 CFR, Subpart O, 1926.600 through 1926.602. In particular, the following precautions will be used to help prevent injuries and accidents:

- Do not back up large motor vehicles unless the vehicle has backup warning lights and a reverse signal alarm audible above the surrounding noise level, or an observer signals it is safe to do so.
- Motor vehicle cabs will be kept free of all nonessential items and all loose items will be secured.
- Only qualified operators will be allowed to operate heavy equipment.

- When heavy equipment is left unattended, loads must be lowered, controls neutralized, power shut off, and brakes set. Wheels must be chocked if a vehicle is parked on an incline.

6.3.2.1 Backhoes and Excavators

When working near a backhoe or excavator, field personnel will maintain sight contact with the operator. Field personnel shall not work within the swing radius of the backhoe boom while the equipment is operating. The swing radius will be defined by fully extending the boom and defining the radius with traffic cones, barrier tape, or other suitable means, such as inscribing the radius on the soil surface using the bucket. Personnel will not cross the demarcated line without first establishing eye contact with the operator. The operator will lower the bucket to the ground on either side of the trench and remove his hands and feet from the controls and/or turn the backhoe off, before allowing personnel access to the area within the swing radius of the backhoe arm. Backhoe operations will resume only after all personnel have left the area within the swing radius.

6.3.2.2 Support Vehicles

Contractor/subcontractor personnel shall wear seat belts and obey posted speed limits. Personnel shall comply with applicable state, local, and installation traffic regulations. Current or anticipated hazardous road conditions (i.e., ice, construction) will be addressed at the daily safety briefings. No personnel shall ride in the bed of pickup trucks or standing on the side or riding on the fenders of heavy equipment.

Personnel will conduct a "walk-around" inspection of the vehicle before moving it to ensure they do not drive over personnel or equipment.

No personally owned vehicles (POVs) will be driven into contaminated areas, nor will contaminated equipment, personnel, or material be transported in POVs. POVs must be left in support zones on-site. Stunt driving, racing, and horseplay are prohibited and will be subject to disciplinary action, including dismissal.

6.3.2.3 Subsurface Hazards

Before intrusive field activities are performed, efforts must be made to determine if underground installations (i.e., sewers, and telephone, water, fuel, and electrical lines) will be encountered and if so, where such underground installations are located. The remediation, drilling, or construction subcontractor is responsible for ensuring that all underground installations have been identified prior to any intrusive operations.

6.3.2.4 Excavations

Excavation work can pose a number of hazards including cave-ins, engulfment, sudden subsidence of soil, breach of underground utilities, and water accumulation.

In general, Personnel protective systems, barricades, signs, and daily inspections of the excavation are some of the safeguards required for excavation work. Site personnel shall be prohibited from approaching within 3 feet of the excavation. Excavations will not be entered by site personnel at any time. All OSHA requirements concerning

excavation activities must be followed. The SHSO shall have working knowledge of 29 CFR Part 1926.651.

All excavations and trenching performed on construction sites must conform to applicable federal and state regulations, and to the safety policies and procedures in this manual. Excavations anticipated for this project include waste and contaminated removal from SWMU B-3 and associated trenching for utility placement at various locations around CSSA.

6.3.2.4.1 Inspections

Daily inspections of excavations and trenches must be made by a designated competent person. Refer to Figure 5.5 for sample letter designating a competent person. If evidence of potential cave-ins, slides, or water accumulation is found, all work in the excavation or trench must cease until the necessary precautions have been taken to safeguard employees.

All excavations and trenches must be inspected by a designated competent person after every rainstorm or other hazard-increasing occurrence, and safeguards against slides and cave-ins must be increased, if warranted. Refer to the tables in the relevant OSHA regulations as a reference guide to angle of repose and shoring techniques used in excavations and trenches. These tables show the minimum requirements. Added measures must be taken if conditions warrant. Refer to Appendices A through E of OSHA Excavation Standard 1926.652.

6.3.2.4.2 General Requirements

- Excavations 4 ft or more deep must be shored or sloped in an approved manner unless they are made entirely in stable rock.
- Sides of trenches above the 4-ft level may be sloped in lieu of shoring, but the slope may not be steeper than 1-1/2 H:1 V.
- Each trench where employees are working 3 ft deep or more must have ladders to provide safe exits. There must be no more than 25 ft of lateral travel distance to the nearest ladder.
- Excavated or other material must not be stored nearer than 4 ft, if possible, and no closer than 2 ft from the edge of any excavation. Surface encumbrances that create a hazard must be moved or supported, as necessary.
- The locations of any underground installations such as sewer lines, electric lines, etc. are determined before excavation. Appropriate persons from CSSA must be notified of the proposed work to establish the locations of utility installations before the start of an excavation. All such installations must be appropriately identified for the safety of persons working nearby.
- Employees exposed to vehicular traffic must be provided with, and be instructed to wear, warning vests marked with or made of reflecting or high-visibility material.

- When mobile equipment operates adjacent to or approaches the edge of an excavation, a warning system such as barricades, hand or mechanical signals, or stop logs must be used.
- The use of water control and removal equipment must be monitored by a competent person.
- Sloping or benching excavations greater than 20 ft deep must be designed by a registered professional engineer. In general no personnel are allowed in a trench deeper than three feet.

6.3.2.4.3 Hazardous Atmospheres

If the possibility exists in an excavation of an oxygen deficient atmosphere (less than 19.5% oxygen) or an atmosphere in excess of 20% of the lower flammable limit (or lower explosive limit) of a gas, atmospheric testing must be conducted before employees enter the excavation. Refer to Respiratory Protection (Section 4.11.4.7) for additional guidance. Proper respiratory equipment and ventilation must be established for each excavation before employees enter the excavation. Atmospheric monitoring must be conducted to ensure that atmospheres remain safe when controls are being used to reduce the level of contaminants.

6.3.2.4.4 Rescue Equipment

When hazardous atmospheres exist, or are likely to develop, breathing apparatus and a safety harness and line or basket stretcher must be readily available. This equipment must be attended when in use. No Parsons personnel are authorized to enter a confined space without proper training which is not presented in this Health and Safety Plan.

6.3.2.4.5 Stability of Adjacent Structures

Support systems such as shoring or underpinning must be provided for adjacent structures that may be endangered by excavation operations. Excavations below the level of the base or footing are normally not permitted unless:

- A support system is used;
- The excavation is stable;
- A registered engineer has determined that the structure is sufficiently removed from the excavation to avoid cave-ins; and
- A registered engineer has determined that no other hazard exists.

6.3.2.4.6 Personal Protective Equipment

All employees must have personal protective equipment for the head, eyes, ears, respiratory organs, feet, hands, and other parts of the body as outlined below.

- Head protection should be worn at all times around heavy equipment.
- Appropriate eye protection must be worn when the danger exists of eye or face injury from physical, chemical, or radiant agents.

- If it is not feasible to reduce noise levels or noise exposure duration, hearing protective devices must be provided and used. Plain cotton is not an acceptable protective device.
- If engineering controls are inadequate or fail to control exposure to dust, fumes, vapors, and gases, respiratory protection must be provided and used as specified in Section 7.

Mechanical guards or protective devices should be provided and used when hands and feet are exposed to potential injury from mechanical devices or other harmful agents.

6.3.2.4.7 Fall Protection

- Walkways and bridges over excavations must be provided with standard guardrails.
- Adequate barriers must be provided at all excavations.
- All wells, pits, shafts, etc., must be barricaded or covered.
- Upon completion of exploration and similar operations, all wells, pits, trenches, etc., must be backfilled.

6.3.2.4.8 Protective Systems

Employees working in excavations must be protected by shoring, sloping, or benching. Exceptions to this requirement are:

- Excavations made entirely in stable rock; or
- Excavations less than 4 ft deep and where examination of the ground by a competent person provides no indication of potential cave-in.
- All protective systems for excavation sites must be designed by a registered professional engineer when it is not feasible to attain required slope configurations in accordance with 1926.652(b)(1), (2) and (3).
- Sloping or benches greater than 20 ft deep must be approved by a registered engineer.
- The registered professional engineer's recommended protective systems must be documented in sufficient detail to establish compliance with OSHA excavation requirements. The recommendations must be signed by the registered professional engineer, and the report must be maintained at the jobsite.
- When manufactured support systems are used, the manufacturer's written specifications, recommendations, and limitations must be maintained at the jobsite.
- A designated competent person must monitor the construction and maintenance of the recommended protective systems and their use in excavations.

6.3.2.4.9 Probing and Exploratory Trenching

This procedure supplements the procedures in subsection 8.1, Excavations, and should be read in conjunction with those procedures. In virgin soil, a probing and exploratory trenching procedure normally is not necessary. However, Parsons may deal with former solid waste management units or Area of Concerns that have a potential for contaminants or unexploded ordnance. Extreme caution must be taken to ensure the safety of employees and the client's property. Underground utilities and other obstructions present a very real danger and every effort must be taken to determine that excavation operations are performed safely. Therefore, where excavations are required to be performed on Parsons construction sites, the following probing and exploratory trenching procedures must be followed.

Responsibilities

The Parsons project Field Supervisor designates a representative to conduct a search for drawings of all areas requiring excavation. This search must be completed during the design phase, so all pertinent drawings are issued with the construction package.

The designated person holds a constructability meeting with the client representative and Parsons personnel as early in the design stage as possible. If required, a registered professional engineer must approve the excavation plan. If subcontractors are used, the subcontractor supervisor and a designated Parsons employee, review in detail any pertinent drawings and as-built drawings that are available to determine the location of the piping or other underground obstacles. The Parsons designated person schedules a task force meeting with the responsible subcontractor personnel, as required.

It is the duty of the Parsons designated person to see that all workers involved in the task receive all known information. This includes subcontractors, if applicable.

Requirements

- All excavations are performed with extreme caution to prevent injury or damage to underground piping, electrical wiring, etc.
- If there are known underground obstacles, the task force meeting defines appropriate protective measures.
- When excavations occur within 2 ft, vertically or horizontally, of a direct buried electrical or communication cable, exploratory hand trenching must be done to authenticate the actual location of the cable.
- Before and during excavations, these additional requirements must also be met.
- The area to be excavated must be swept with a metal detector.
- When excavating with mechanical equipment or other means, probing is required every 4 in. on center over the total area to be excavated.
- Exploratory trenching can be used at the perimeter of an area to be excavated by probing and trenching on 4-in. centers. The depth of the trench is

determined by the depth needed to accommodate the footings, supports, pipe, etc., that will be placed inside the perimeter area.

- Probing may be performed by jetting or dry probing; however, the depth of probing must always exceed the depth of excavating by at least 1 ft. The selected depth of probing must be consistent; that is, if one hole is probed at 3 ft, another hole cannot be probed at 4 ft.

Operations

The Parsons designated person may elect to use either dry probing or a water probing system. Water probing systems must adhere to the following procedures:

- When using water jetting, the Parsons person in charge of work must require all employees to wear safety glasses and face shields. The person actually probing must wear both a face shield and goggles.
- During excavations with a backhoe, there must be an observer at all times to watch the backhoe bucket. This observer should be stationed adjacent to the excavation to avoid the operations of the hoe. The observer is responsible for visually identifying any obstruction while the bucket is excavating, and alerting the operator immediately if any obstructions are observed.
- If the observer leaves the excavation area, excavation efforts must be stopped immediately until an observer returns.
- If pipe or other obstacles are encountered, shoring and hand excavation are required until the obstacles are identified and cleared.
- Air-operated clay spades may be used during hand excavations, provided extreme care is taken.
- During hand excavations, if a person's head is below the top of the excavation or if the trench is greater than 4 ft deep, shoring is required.
- Should any underground obstructions be encountered, the Parsons designated person must immediately notify the designated client representative, who in turn notifies the proper personnel to assist in identification of the obstruction and its possible removal or re-routing.

6.3.3 Electrical Hazards

Some of the equipment used during the fieldwork may be powered by electricity. Maintenance and daily activities require personnel to use, handle, and control this equipment. Safe work practices must be strictly observed to avoid serious injury and death. According to 29 CFR 1910.269(l), only qualified employees may work on or with exposed energized lines or parts of equipment, or in areas containing unguarded, uninsulated, energized lines or parts of equipment operating at 50 volts (V) or more.

Qualified employees must be trained in accordance with 29 CFR 1910.269(a) and certified as such by the employer. Section 9 provides details on Lockout/Tagout and

energy control procedures to be used during remedial or infrastructure construction system installations.

Ordinary 120 V electricity may be fatal. Extensive studies have shown that currents as low as 10 to 15 milliamps (mA) can cause loss of muscle control and that 12 V may, on good contact, cause injury. Therefore, all voltages should be considered dangerous.

Electricity can paralyze the nervous system and stop muscular action. Frequently, electricity may affect the breathing center at the base of the brain and interrupt the transmission of the nerve impulses to the muscles responsible for breathing. In other cases, the electrical current directly affects the heart, causing it to cease pumping blood. Death follows due to a lack of oxygen in the body. Therefore, a victim must be freed from the live conductor promptly by use of a nonconducting implement, such as a piece of wood, or by turning off the electricity to at least this point of contact. Bare hands should never be used to remove a live wire from a victim or a victim from an electrical source. Artificial respiration or CPR should be applied immediately and continuously until breathing is restored, or until a physician or emergency medical technician arrives.

General rules for recognizing electrical safety are provided below,.

- Only authorized and qualified personnel will perform electrical installations or repairs.
- All electrical wires and circuits will be assumed to be "live," unless it can be positively determined they are not.
- Appropriate protective clothing will be worn by personnel performing electrical work.
- All electrical equipment will be properly grounded and class-approved for the location.
- Ground fault circuit interrupter receptacles and circuit breakers will be installed where required by the National Electric Code and 29 CFR 1926.404.
- Electrical control panels will not be opened unless necessary.
- No safety device will be made inoperative by removing guards, using oversized fuses, or by blocking or bypassing protective devices, unless it is absolutely essential to the repair or maintenance activity, and then only after alerting operating personnel and the maintenance supervisor.
- All power tools will have insulated handles, be electrically grounded, or be double insulated.
- Fuse pullers will be used to change fuses.
- Metal ladders, metal tape measures, and other metal tools will not be used around electrical equipment or overhead electrical lines.
- Wires and extension cords will be placed or arranged so as to not pose a tripping hazard.

6.3.4 Electrical Control Procedures

This section defines the minimum requirements to ensure compliance with OSHA regulations.

General

- All 120-volt, single phase, 15- and 20-ampere receptacles must be of a grounding type. Their grounding contacts must be grounded through conduction to the equipment grounding conductor of the circuit supplying the receptacles in accordance with applicable OSHA requirements.
- All 120-volt flexible extension cords must have an equipment grounding conductor connected to the grounding contact of the connector(s) on each end of the cord.
- Any exposed noncurrent-carrying metal parts of 120-volt cord and plug-connected tools and equipment that are likely to become energized must be grounded in accordance with applicable OSHA requirements.

Visual Inspection

Before beginning work using electrical equipment, employees must be instructed that each user must visually inspect each cord set and any equipment connected by cord and plug at the beginning of each shift. The exception is cord sets and receptacles that are fixed and not exposed to damage. Inspection should cover external defects such as deformed or missing pins or insulation damage, and any indication of possible internal damage. Damaged or defective equipment may not be used until it is repaired.

Ground Conductor Testing

All 120-volt, single phase, 15- and 20-ampere receptacles, 120-volt flexible cord sets, and 120-volt equipment connected by cord and plug which are not a part of the permanent wiring of a building or structures must be tested to ensure that electrical continuity is maintained through all required equipment grounding conductors and their connectors. Tests must be conducted as follows:

- All equipment grounding conductors must be tested for electrical continuity.
- Receptacles of cord sets must be tested for correct attachment of equipment grounding conductors. Equipment grounding conductors must be connected to the proper terminals during testing.

Ground Conductor Test Intervals

All required ground tests are performed:

- Before the first time of use
- Before equipment is returned to service following any repairs
- Before equipment is used after any incident that can be reasonably expected to have caused damage (for example, when a cord set is run over by a truck or other heavy vehicle).

- At intervals not to exceed 3 months, except that cord sets and receptacles that are fixed and not exposed to damage are to be tested at intervals not to exceed 6 months.
- Equipment that has not passed the required tests should not be made available for use by employees until it has passed all required tests.

Ground Conductor Test Equipment

All receptacles, attachment caps, and plug receptacles of cord sets must be tested in the following manner:

- While in service with receptacle circuit tester
- When not in service with a continuity tester

All equipment connected by cord and plug must be tested for ground wire continuity with a volt-ohm meter or a continuity tester.

Ground Conductor Test Verification

- Test intervals should be documented using color coding. The color coding system in the following table is suggested to verify that testing is current and that all receptacles, portable cords, and tools have been inspected and tested as required.
- All receptacles, cords, and tools must be marked with colored tape to designate the period in which the inspections and tests are conducted.
- Because all receptacles, cord sets, and cord and plug connected equipment cannot be tested overnight, such tests may begin one month before the end of a quarter and continue for one month into the following quarter. During this interval, the use of either quarter's color is acceptable.

Equipment Test Interval Color Codes

Period	Color
Quarterly	
January – March	White
April – June	Green
July – September	Yellow
October – December	Black
Six Months	
January – June	Red
July – December	Orange

Required Equipment

An adequate supply of waterproof tape in white, green, yellow, black, red, and orange should be on hand at all times.

GFCI Alternative

In lieu of an assured grounding program, ground fault circuit interrupters (GFCIs) may be used. When GFCIs are used, they must be used exclusively (on 100% of all electrical equipment). If a jobsite uses both an assured grounding program and GFCIs, both systems must be used 100% and be in compliance with applicable OSHA standards.

6.3.4.1 Ordnance Material

In the event that a Parsons team encounters any Ordnance related items or actual Unexploded Ordnance (UXO), all work at the site will immediately cease and the CSSA Environmental Officer and the Parsons Project Manager will be notified. Ordnance and Explosive (OE) scrap items may be encountered during the excavation activities at any site on CSSA. OE scrap items have been found in numerous SWMUs and **only qualified U.S. Army Explosives Ordnance Detachment (EOD) personnel may remove any item of concern. A set of standard operating procedures for UXO construction activities is provided in Appendix F.**

The UXO team will make a determination and recommend to the PM and proper CSSA personnel on appropriate measures for disposition of the item. In the event a potentially live, fuzed UXO item is discovered, EOD will be notified. The Parsons UXO team will clearly mark the item for the Army EOD disposal.

The UXO team will physically preview the construction footprint with the equipment operator and discuss visual observations and any area of concern. In the event that surface UXO is discovered, the UXO team will place flagging adjacent to the discovery for visual reference, select a course safely around the item and cease operations in the immediate area. If appropriate, cease all operations. The UXO team will assess the condition of the UXO to determine what action is appropriate and the U.S. Army EOD will be notified for any live fired and fuzed ordnance that is discovered. The UXO team shall monitor excavation activities. One member of the team should be positioned to the rear and upwind of the excavation equipment for continuous visual observations whenever possible. If the excavator unearths or otherwise encounters suspect UXO, all excavation activities in the immediate area will cease.

The UXO team will assess the condition of the UXO to determine if disposal action is required. Once UXO has been encountered in an excavation, no further excavation is allowed at that location until a four foot UXO removal action has been conducted of the area.

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.

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 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 OE 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 OE 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. 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 the UXO Escort 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 the UXO Escort. The UXO Escort 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

Existing site conditions may pose a number of slip, trip, and fall hazards, such as:

- Slippery surfaces;
- Steep or uneven grades;
- Surface obstructions; and
- Equipment or debris.

The extension cords connecting pumps to power supplies also provide a trip and fall hazard. Caution must be exercised and unnecessary personnel should avoid the area of the cord.

All field team members will be instructed to be cognizant of potential safety hazards and immediately inform the SHSO or the site manager about any new hazards. If the hazard cannot be immediately removed, actions must be taken to warn site workers about the hazard. The site will be kept in a neat, organized, and orderly fashion. Rubbish, trash, or debris generated by the project team shall be picked up and properly disposed of on a daily basis. Items such as tools, equipment, and hoses will be properly stored when not in use.

6.3.4.3 Noise-Induced Hearing Loss

The exposure of unprotected site workers to heavy equipment and jet aircraft noise during site activities can result in noise-induced hearing loss. Heavy equipment can emit noise levels exceeding the federal OSHA time-weighted average (TWA) limit of 85 decibels (dB). Noise levels in the area of the drilling rig will be presumed in exceedance of the OSHA TWA, and hearing protection will be required. Foam earplugs will generally provide adequate protection. The SHSO will ensure that either ear muffs or disposable foam earplugs are made available to, and are used by, all personnel in the vicinity of the operation of equipment or other sources of high intensity noise.

6.3.4.4 Fire or Explosion Hazards

Solvents may have been released into the soil at the site and vapors may be flammable or explosive. Therefore, precautions will be taken when performing ground-intrusive field activities to ensure that combustible or explosive vapors have not accumulated, or that an ignition source is not introduced into a flammable atmosphere.

OSHA standards for fire protection and prevention are included in 29 CFR Subpart F, 1926.150 through 1926.154. Of particular concern on these sites are:

- Proper storage of flammables;
- Adequate numbers and types of 20 lb A:B:C fire extinguishers;
- Use of intrinsically safe (explosion-proof) equipment where appropriate; and
- Monitoring for development of an explosive atmosphere.

6.3.4.5 Electric Power Line Clearance and Thunderstorms

Extra precautions will be exercised when working near overhead electrical lines. As stated in 29 CFR 1926.550, the minimum clearance between overhead electrical lines of 50 kilovolts (kV) or less and the any piece of equipment is 10 feet. For lines rated over 50 kV, the minimum clearance between the lines and any part of an underlying vehicle is 10 feet plus 0.4 inches for each kV over 50 kV. Parsons personnel must seek shelter during thunderstorms, and he will recommend that all Construction operations cease for the duration of any thunderstorms.

The SHSO will provide onsite surveillance of any subcontractor to ensure that personnel meet these requirements. If deficiencies are noted, Parsons will notify the CSSA Project Manager immediately.

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

To perform work on industrial equipment safely, all employees must understand the importance of energy control and the requirements of the *OSHA Lockout and Tagout Standard*. They must also know how to apply energy isolation and lockout/tagout procedures. The following procedures must be followed on all Parsons sites, except in those cases where client procedures supersede the Parsons requirements.

All lockout/tagout materials are supplied by Parsons unless client procedures or requirements supersede Parsons requirements. If Parsons requirements are more stringent than the Client/Owner, a meeting will be held with appropriate client representatives to obtain approval of Parsons requirements.

6.3.4.6.1 Definitions

- **Energy Source.** Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other source of energy.
- **Lockout.** A lockout is a method of keeping equipment from being set in motion and endangering workers.
- **Tagout.** The energy isolation device is placed in the safe position and a written warning is attached to it.

6.3.4.6.2 Lockout Steps

The following steps must be used to ensure that lockout is performed safely and effectively.

1. Ensure that a disconnect switch, circuit breaker, valve, or other energy isolating mechanism is in the *SAFE* or *OFF* position.
2. Ensure that any protective device placed over the energy isolating mechanism is in the *OFF* position.
3. Attach a lock to ensure that the equipment cannot be energized or actuated.

6.3.4.6.3 Tagout Tag Properties

Tagout tags must have the following characteristics to ensure compliance with applicable OSHA and Parsons standards.

- Durable, to withstand wear.
- Substantial, so it cannot easily come off.
- Contains identifying information about the person who applies it.

Tagout/lockout should be used when an employee is performing service or maintenance around any machine which, if suddenly set in operation or motion, could cause injury. For example, unexpected startup of equipment or release of stored energy could cause injury to any person in close proximity to that machinery.

6.3.4.6.4 Lockout/Tagout Situations

Situations that are most likely to need lockout/tagout include:

- When a guard or other safety device must be removed or bypassed.
- When someone working in close proximity to moving machinery risks catching a body part in that machinery.
- During repair/upgrades of electrical circuits.
- When cleaning or oiling machinery having moving parts.
- When clearing jammed mechanisms.

6.3.4.6.5 Parsons Lockout/Tagout

Parsons uses lockout/tagout in combination on all equipment. The single use of a tag without a lock, or a lock without a tag, is not permitted. In addition, locks and tags by themselves do not de-energize equipment. They must be attached only after a machine has been isolated from its sources.

Parsons uses two methods to determine that its lockout/tagout procedures are properly understood.

- Documentation: a written statement of Parsons' energy control program.

Employee training: to help employees understand how to use the energy control program.

6.3.4.6.6 Energy

For purposes of this manual, energy is defined as movement or the possibility of movement. Whether a power switch is *ON* or *OFF*, energy of some sort is always present in any powered equipment. The two most common types of energy are:

- Kinetic energy: the force caused by the motion of an object.
- Potential energy: the force in an object that is not moving.

6.3.4.6.7 Protective Engineering

Examples of protective engineering include:

- Machine guards.
- Electrical disconnects.
- Mechanical stops such as pins and valves.
- Point-of-operation guards, which provide automatic protection against human error.

Engineering guards and engineering safety features can be defeated. Engineering guards are designed specifically to provide automatic protection against human error. Never bypass a point-of-operation guard or let a coworker do so, and never rely solely on engineering safety features.

6.3.4.6.8 Applying and Enforcing Energy Control

Procedures for applying an energy control program include:

- Ensuring that energy isolation and lockout/tagout are applied only by trained employees authorized to perform service or maintenance.
- Notifying all employees who work in an affected area before lockout/tagout is applied.

Procedures for enforcing compliance with an energy control program include:

- Inspections at least once each month to determine that energy control procedures are being carried out.
- Fair and uniform enforcement of safety rules.
- Penalties for failure to follow written procedures.

The OSHA regulation requires that control of hazardous energy be done according to a 6-step procedure. Components of the 6-step procedure and guidelines for successfully completing each step are shown in Table 6.2.

Table 6.2 Lockout/Tagout Steps

OSHA Lockout/Tagout Procedure	Precautions
1. Preparation for Shutdown	Know the types and amounts of energy that power the equipment being shut down Know the hazards of that energy Know how the energy can be controlled
2. Equipment Shutdown	Shut the system down using its operating controls
	Follow the correct procedure for the equipment to avoid endangering anyone during shutdown
3. Equipment Isolation	Operate all energy isolating devices so that the equipment is isolated from its energy source Be sure to isolate all energy sources; secondary power supplies as well as the main one Never pull an electrical switch while it is under load Never remove a fuse instead of disconnecting it
4. Applying Lockout/Tagout Devices	Ensure that all energy isolating devices are locked and tagged Use only standard devices supplied by Parsons (or, in some cases, by the client) for lockout/tagout. Do not use such devices for any other purpose Use a lockout device if a lock cannot be placed directly on the energy control When using lockout, each employee working on a system must attach his or her personal lock to that system More than one employee can lock out a single energy isolating device by using a multiple-lock hasp Attach tags at the same point as the lock Tags must be filled out completely and correctly
5. Control of Stored Energy	Inspect each system to ensure all parts have stopped moving Install ground wires Relieve trapped pressure Release the tension on springs or block the movement of spring-driven parts Block or brace parts that could fall Block parts in hydraulic and pneumatic systems that could move from loss of pressure. Bleed lines and leave vent valves open.

**Table 6.2 (Continued)
 Lockout/Tagout Steps**

OSHA Lockout/Tagout Procedure	Precautions
	Drain process piping systems and close valves to prevent hazardous material flow If a line must be blocked where there is no valve, use a blank flange Purge reactor tanks and process lines Allow dissipation of extreme cold or heat. If time does not allow full dissipation, wear protective clothing to perform this step If stored energy can reaccumulate, monitor it to make sure it stays below hazardous levels
6. Verifying Isolation	Ensure that all dangerous areas are clear of personnel of equipment Verify that the main disconnect switch or circuit breaker cannot be moved to the <i>ON</i> position Use a voltmeter or other equipment to check that the switch is not hot Press all start buttons and other activating controls on the equipment to ensure that equipment has been isolated from its energy sources Shut down all machine controls when the testing is finished

6.3.4.6.9 Basic Work Rules

Basic common sense should govern work around potentially hazardous power operated equipment. Fundamentals include:

- Look ahead, and avoid doing anything that could re-activate the equipment.
- Do not bypass the lockout when installing new pipe or wiring.

6.3.4.6.10 Lockout/Tagout Removal

This procedure must be followed when removing lockout/tagout.

- Determine that the equipment is safe to operate by removing all tools from the work area and verifying that the system is fully assembled.
- Safeguard all employees by conducting a headcount to make sure everyone is clear of the equipment; also, notify everyone in the area that lockout/tagout is being removed.
- Remove the lockout/tagout devices. Except in emergencies each device must be removed by the person who attached it.

- In some workplaces, the last person to remove a lock may have extra duties, such as removing the hasp and lockout device, and removing tags, signing them, and turning them in. In addition, the Parsons supervisor in charge of the work generally the last one to remove his or her tag and lock. The exception to this is the case where the client's designated personnel remove their locks and tags last.
- Develop and follow a checklist of required steps to re-energize the system.

6.3.4.6.11 Service, Maintenance and Temporary Reactivation

In certain cases where service or maintenance must be performed by others during lockout/tagout, the outside contractor and the onsite employer must exchange lockout/tagout information. On-site employees must understand the rules used in other companies' energy control programs. Field personnel should be alert for new types and styles of lockout/tagout devices.

If equipment must be temporarily re-activated, remove unnecessary tools from the work area and make sure everyone is clear of the equipment. Then remove all lockout/tagout devices and re-energize the system. As soon as the energy is no longer needed, isolate the equipment and re-apply lockout/tagout, using the OSHA 6-step procedure shown in Table 6.2. If servicing equipment requires more than one work shift, lockout/tagout protection must not be interrupted. Employees leaving work must not remove their locks until the next shift arrives and is ready to lock out.

6.3.4.6.12 Special Lockout Precautions

When the person who installed a lock is not available to remove it:

- The lock can be removed only in an emergency, and only under the direction of the Parsons SHPO.
- The lock may not be removed until the person removing it makes sure it is absolutely safe. These procedures give onsite employees the tools needed to work safely around hazardous energy sources. It is essential that these rules be followed to guard lives and health.

6.4 HEAT STRESS

Adverse weather conditions are important considerations in planning and conducting site operations. Hot or cold weather can cause physical discomfort, loss of efficiency, and personal injury. Of particular importance is heat stress resulting when protective clothing decreases natural body ventilation. Heat stress can occur even when temperatures are moderate if employees are wearing impermeable protective clothing. One or more of the following recommendations will help reduce heat stress:

- Provide plenty of liquids to replace body fluids. Both water and commercial electrolyte mixes should be available on site.

- Provide cooling devices to aid natural body ventilation. These devices, however, add weight, and their use should be balanced against worker efficiency.
- Wear long cotton underwear, which acts as a wick to help absorb moisture and protect the skin from direct contact with heat-absorbing protective clothing.
- Install mobile showers and/or hose-down facilities to reduce body temperature and cool protective clothing.
- In extremely hot weather, conduct non-emergency response operations in the early morning or evening.
- Ensure that adequate shelter is available to protect personnel against heat, sun, or other adverse weather conditions that decrease physical efficiency and increase the probability of accidents.
- In hot weather, rotate workers wearing protective clothing.
- Maintain good hygienic standards, frequently changing clothing and showering daily. Clothing should be permitted to dry during rest periods. Workers who notice skin problems should immediately consult medical personnel.

6.4.1 Effects of Heat Stress

If the body's physiological processes fail to maintain a normal body temperature because of excessive heat, a number of physical reactions can occur. They can range from mild symptoms such as fatigue, irritability, anxiety, and decreased concentration, dexterity, or movement, to death. The location of a first aid manual detailing specific first-aid treatment for mild cases of heat stress should be known at all times by the SHSO to ensure that it is readily available for reference in the field. Medical help must be obtained for the more serious cases of heat stress.

6.4.2 Heat-Related Problems

Heat rash: Caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreases ability to tolerate heat and is a nuisance.

Heat cramps: Caused by profuse perspiration with inadequate fluid intake and chemical replacement, especially salts. Signs include muscle spasms and pain in the extremities and abdomen.

Heat exhaustion: Caused by increased stress on various organs to meet increased demands to cool the body. Signs include shortness of breath; increased pulse rate (120-200 beats per min.); pale, cool, moist skin; profuse sweating; and dizziness and lassitude.

Heat stroke: The most severe form of heat stress. Body must be cooled immediately to prevent severe injury and/or death. Signs include red, hot, dry skin; no perspiration; nausea; dizziness and confusion; strong, rapid pulse; and possibly coma. Medical help must be obtained immediately.

6.4.3 Heat-stress Monitoring

Monitoring of personnel wearing impervious clothing will begin when the ambient temperature is 70°F or above. Table 6.3 presents the suggested frequency for such monitoring. Monitoring frequency will increase as the ambient temperature increases or as slow recovery rates are observed. Heat-stress monitoring will be performed by a person with a current first aid certification who is trained to recognize heat-stress symptoms. For monitoring the body's recuperative abilities from excess heat, one or more of the techniques listed below will be used. Other methods for determining heat-stress monitoring, such as the wet bulb globe temperature index from the American Conference of Governmental and Industrial Hygienists (ACGIH) Threshold Limit Values (TLV) Booklet, may be used.

Table 6.3 Suggested Frequency of Physiological Monitoring For Fit and Acclimatized Workers

Adjusted Temperature	Normal Work Ensemble	Impermeable Ensemble
90°F (32.2°C) or above	After each 45 minutes of work	After each 15 minutes of work
87.5° - 90°F (30.8° - 32.2°C)	After each 60 minutes of work	After each 60 minutes of work
82.5° - 87.5°F (28.1° - 30.8°C)	After each 90 minutes of work	After each 90 minutes of work
77.5° - 82.5°F (25.3° - 28.1°C)	After each 120 minutes of work	After each 90 minutes of work
77.5° - 77.5°F (22.5° - 25.3°C)	After each 150 minutes of work	After each 120 minutes of work

To monitor the worker, measure:

- Heart rate: Count the radial pulse during a 30-second period as early as possible during the rest period.
- If the heart rate exceeds 110 beats per minute at the beginning of the rest period, the next work cycle will be shortened by one-third and the rest period will remain the same.
- If the heart rate still exceeds 110 beats per minute at the next rest period, the following work cycle will be reduced by one-third.
- Oral temperature: Use a clinical thermometer (3 minutes under the tongue) or similar device to measure the oral temperature at the end of the work period (before drinking).
- If oral temperature exceeds 99.6°F (37.6°C), the next work cycle will be reduced by one-third without changing the rest period.
- If oral temperature still exceeds 99.6°F (37.6°C) at the beginning of the next rest period, the following cycle will be reduced by one-third.

- No worker will be permitted to wear a semi permeable or impermeable garment when oral temperature exceeds 100.6°F (38.1°C).

6.5 COLD EXPOSURE

Persons working outdoors in temperatures at or below freezing may suffer from cold exposure. During prolonged outdoor periods with inadequate clothing, effects of cold exposure may even occur at temperatures well above freezing. Cold exposure may cause severe injury by freezing exposed body surfaces (frostbite) or result in profound generalized cooling (hypothermia), possibly causing death. Areas of the body that have high surface-area-to-volume ratios, such as fingers, toes, and ears, are the most susceptible to frostbite.

Local injury resulting from cold is included in the generic term frostbite. There are several degrees of damage. Frostbite of the extremities can be categorized into:

- Frost nip or incipient frostbite: characterized by sudden blanching or whitening of skin.
- Superficial frostbite: skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- Deep frostbite: tissues are cold, pale, and solid; extremely serious injury.
-

Systematic hypothermia is caused by exposure to freezing or rapidly dropping temperature. Its symptoms are usually exhibited in five stages: (1) shivering and uncoordination; (2) apathy, listlessness, sleepiness, and (sometimes) rapid cooling of the body to less than 95°F; (3) unconsciousness, glassy stare, slow pulse, and slow respiratory rate; (4) freezing of the extremities; and (5) death.

If work is conducted at ambient temperatures below 39°F (4°C), workers should wear cold protective clothing appropriate for the level of cold and physical activity. If the available clothing does not give adequate protection to prevent hypothermia or frostbite, work shall be modified or suspended until adequate clothing is made available or until weather conditions improve.

If work is to be performed at temperatures below 20°F, heated shelters should be made available, and employees will break to seek warmth at regular intervals, the frequency depending on the severity of exposure. The onset of shivering will require immediate return to the warm shelter for a period of time necessary for the employee to warm up.

6.5.1 Evaluation and Control

For exposed skin, continuous exposure should not be permitted when the air speed and temperature result in an equivalent chill temperature of -32°C (-25.6°F). Superficial or deep local tissue freezing will occur only at temperatures below -1°C (30.2°F) regardless of wind speed.

TLVs recommended for properly clothed workers for periods of work at temperatures below freezing are shown in Table 6.4. Special protection of the hands is required to maintain manual dexterity for the prevention of accidents:

- If fine work is to be performed with bare hands for more than 10 to 20 minutes in an environment below 16°C (60.8°F), special provisions should be established for keeping the workers' hands warm. Metal handles of tools and control bars should be covered by thermal insulating material at temperatures below -1°C (30.2°F).
- If the air temperature falls below 16°C (60.8°F) for sedentary, 4°C (39.2°F) for light, or -7°C (19.4°F) for moderate work, and fine manual dexterity is not required, then gloves should be used by the workers.
- To prevent contact frostbite, the workers should wear anti-contact gloves.
- When cold surfaces below -7°C (19.4°F) are within reach, a warning should be given to each worker by the supervisor to prevent inadvertent contact by bare skin.
- If the air temperature is -17.5°C (0°F) or less, the hands should be protected by mittens. Machine controls and tools for use in cold conditions should be designed so that they can be handled without removing the mittens.

Provisions for additional total body protection are required if work is performed in an environment at or below 4°C (39.2°F). The workers should wear cold protective clothing appropriate for the level of cold and physical activity:

- If the air velocity at the job site is increased by wind, draft, or artificial ventilating equipment, the cooling effect of the wind should be reduced by shielding the work area or by wearing an easily removable windbreak garment. If only light work is involved and if the clothing on the worker may become wet on the job site, the outer layer of the clothing in use may be of a type impermeable to water. With more severe work under such conditions, the outer layer should be water repellent, and the outerwear should be changed as it becomes wetted. The outer garments should include provisions for easy ventilation in order to prevent wetting of inner layers by sweat. If work is done at normal temperatures or in a hot environment before entering the cold area, the employee should make sure that clothing is not wet as a consequence of sweating. If clothing is wet, the employee should change into dry clothes before entering the cold area. The workers should change socks and any removable felt insoles at regular daily intervals or use vapor barrier boots. The optimal frequency of change should be determined empirically and will vary individually and according to the type of shoe worn and how much the individual's feet sweat.
- If exposed areas of the body cannot be protected sufficiently to prevent sensation of excessive cold or frostbite, protective items should be supplied in auxiliary heated versions.

- If the available clothing does not give adequate protection to prevent hypothermia or frostbite, work should be modified or suspended until adequate clothing is made available or until weather conditions improve.
- Workers handling evaporative liquid (i.e., decontamination solvents) at air temperatures below 4°C (39.2°F) should take special precautions to avoid soaking of clothes or gloves with the liquids because of the added danger of cold injury due to evaporative cooling.

Table 6.4 Threshold Limit Values Work/Warm-Up Schedule for Four-Hour Shift*

Air Temperature		No Noticeable Wind		5 mph Wind		10 mph wind		15 mph wind		20 mph wind	
Sunny Sky		Max		Max		Max		Max		Max	
°C (Approx.)	°F (Approx.)	Work Period	No. of Breaks	Work Period	No. of Breaks	Work Period	No. of Breaks	Work Period	No. of Breaks	Work Period	No. of Breaks
-26 to -28	-15 to -19	(Norm. Breaks)	1	(Norm. Breaks)	1	75 min	2	55 min	3	40 min	4
-29 to -31	-20 to -24	(Norm. Breaks)	1	75 min	2	55 min	3	40 min	4	30 min	5
-32 to -34	-25 to -29	75 min	2			40 min	4	30 min	5	Non-emergency work should cease	
-35 to -37	-30 to -34	55 min	3	40 min	4	30 min	5	Non-emergency work should cease		Non-emergency work should cease	
-38 to -39	-35 to -39	40 min	4	30 min	5	Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease	
-40 to -42	-40 to -44	30 min	5	Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease	
-43 and below	-45 and below	Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease	

Notes:

- Schedule applies to moderate to heavy work activity with warm-up breaks of ten (10) minutes in a warm location. For light to moderate work (limited physical movement): apply the schedule one step lower. For example, at -35°C (-30°F) with no noticeable wind (step 4), a worker at a job with little physical movement should have a maximum work period of 40 minutes with four breaks in a 4-hour period (step 5).
- The following is suggested as a guide for estimating wind velocity if accurate information is not available: 5 mph: light flag moves; 10 mph: light flag fully extended; 15 mph: raises newspaper sheet; 20 mph: blowing and drifting snow.
- If only the wind chill cooling rate is available, a rough rule of thumb for applying it rather than the temperature and wind velocity factors given above would be: (1) special warm-up breaks should be initiated at a wind chill cooling rate of about 1,750 W/m²; (2) all non-emergency work should have ceased at or below a wind chill of 2,250 W/m². In general, the warm-up schedule provided above slightly under-compensates for the wind at the warmer temperatures, assuming acclimatization and clothing appropriate for winter work. On the other hand, the chart slightly over-compensates for the actual temperatures in the colder ranges, since windy conditions rarely prevail at extremely low temperatures.
- TLVs apply only for workers in dry clothing.

THIS PAGE INTENTIONALLY LEFT BLANK

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

Prior to initiating a scheduled high-risk work activity, an activity hazards analysis (AHA) will be conducted to identify project activities that present potential hazards to personnel and equipment. The AHA will be conducted prior to the scheduled activity by the project engineer, a superintendent or the project safety manager. An AHA documents the steps for accomplishing a work activity as well as the actual or potential hazards of each step, and describes the measures to eliminate or control the hazards. The Site Safety Officer will review the AHA with all Parsons and subcontractor employees included in the scheduled activity.

The project engineer, a superintendent or the project safety manager will complete the AHA using the following guidelines for each work activity involving high-risk hazards that could result in injury to workers.

1. Identify the principal steps involved and the sequence of work activities.
2. Analyze each principal step for potential hazards.
3. Develop specific controls for each potential hazard.
4. List equipment (including PPE) to be used in the work activity.

5. List inspection requirements for the work activity.
6. List training requirements, including hazard communication.

The Parsons PWeb should be checked for sample AHAs that may be useful for developing an AHA for a task order. The Project Managers may use the following list as a guide in determining the investigation and remediation activity hazards analyses for various high-hazard operations and critical tasks.

- **Premobilization inspection.** Conduct an initial site inspection for prejob planning. The inspection should cover potential exposures such as the location of electrical lines, underground utilities, nearby structures, traffic conditions, site security needs, public exposures general liability, and other potential exposures.
- **Water and wastewater.** Analyze work adjacent to, in, or over water (including ponds, water tanks, clarifiers, and reservoirs) for hazards.
- **Traffic controls.** Plan the traffic controls for delivery of equipment or materials as well as any equipment operations. Control measures include warning signs, flagmen, traffic stoppage and control, and unloading procedures.
- **Material storage.** Consider where materials and equipment will be stored on site. Implement measures to protect against chemical spills/releases, fire, vandalism and theft of tools, equipment, or materials. Also consider the hazards that may exist for workers when they are storing or retrieving those materials.
- **Material handling.** Consider the size and weight of loads, the equipment to be used, how the equipment is set up and protected, and safety and maintenance inspections of material handling and rigging equipment. Also consider to employee training in the use of the equipment or personal body mechanics when engaged in manual material handling activities.
- **Heavy equipment controls.** Evaluate the use of heavy equipment in operations such as site clearing, grading, drilling and excavation or lifting. Controls should include equipment alarms, use of qualified operators, preuse inspections, and any specific OSHA regulatory requirements.
- **Fall protection.** Use fall protection when employees are working above the normal work surface level. Consider how and where ladders, scaffold, work platforms, or lifts (including scissors lifts or bucket lifts), roofing work and leading edges are used. Evaluate protective measures such as fall protection plans, use of personal fall arrest systems, and the work surfaces for slip and fall hazards and protection.
- **Personal protective equipment (PPE).** Consider operations where PPE is required and the type of PPE required (e.g. eye, head, foot, respiratory,

hearing and hand protection, and types of special protective clothing – Tyvek and Nomex coveralls).

- **Portable hand and power tools.** Evaluate the tools to be used and the ways that workers are protected from the hazards associated with the use of tools. Consider tool maintenance requirements; electrical requirements; the use of ground fault circuit interrupters, grounding, extension cords, and tool inspection procedures; and employee training and PPE requirements.
- **On-site traffic.** Internal traffic control plans should include ways to restrict the number of vehicles on site, the flow of vehicles through the site, haul roads, speed controls, subcontractor employee parking areas, merging of site traffic with local vehicle traffic, pedestrian controls in traffic zones, access by emergency and rescue vehicles and operator controls.
- **Employee training.** Always review the safety training needs of employees. Training should include initial site safety orientations. Some operations (e.g., HAZWOPER activities, excavation, blasting, scaffold erection, tunneling, confined space, and operating heavy equipment and working in highly hazardous plant process operations) may require special training that must be checked and evaluated.
- **Confined spaces.** Confined space work requires special consideration, evaluation, controls and applicable training. Each space should be reviewed for regulatory compliance..
- **Excavations and trenching.** These activities require complete analysis of existing underground exposures, soils, sloping and shoring methods, equipment, and engineering if depth of trench or excavations exceeds four feet. An activity hazards analysis is required for all trenching operations greater than four feet in depth.
- **Drilling operations.** Consider underground utilities and limitations when working around overhead obstructions. **An activity hazards analysis is required for all drilling operations.**
- **Concrete formwork and placement.** Adequate access and egress to elevated concrete work is essential to the safe and quality placement of concrete work. Work involving concrete should consider protective measures such as staging, platforms, handrails, and other passive forms of employee protection.
- **Process safety management.** At process sites where highly hazardous chemicals are stored or used, comply with special considerations and process safety management OSHA regulations.
- **Mechanical, electrical, and piping.** Evaluate all work associated with the installation, repair and maintenance of mechanical, piping and electrical work for interferences, lockout/tagout, line break procedures, and applicable customer requirements.

- **Unexploded ordnance (UXO).** For all projects where UXO may exist, work cannot start until UXO issues are integrated into safety plan and trained all personnel to the requirements of the plan. The project must also have a UXO safety officer on site at all times when work is being performed in and around areas known to be contaminated with UXO.

6.8 SAFETY SYSTEMS ANALYSIS AND DETERMINATION OF PPE

GBU Safety Managers use the safety systems analysis for field staff and subcontractors whose work requires that they be on site for over six months. The analysis provides management with a rating that reflects the safety and health program effectiveness. Appendix B1 of the Parsons SHARP Management manual provides the program, protocol, and methodology.

Personal Protective Equipment

The personal protection level prescribed for remedial construction activities is modified Level D. Work activities performed directly around CSSA will be performed initially in modified Level D. Based upon air monitoring results, an upgrade to Level C or higher may be required by the SHSO. Level C respiratory protection cannot be used in the presence of unknown vapors and in the presence of volatile or semivolatile compounds with odor thresholds higher than the exposure limits. Therefore, unless all air contaminants can be identified using air monitoring, Level C respiratory protection cannot be used. Level B respiratory protection must be used for unknown compounds if they are detected. Level B is not anticipated for this remedial installation effort. Actions will be conducted to minimize emissions to warrant only level C requirements.

The levels of respiratory protection specified for this project are as follow:

1. **D - OSHA Level D-modified. For use where exposure to chemical vapors or particulates is not anticipated at or above exposure limits. For the excavation areas, this must be demonstrated and documented with site monitoring data.**
2. **C - OSHA Level C - Full-face air-purifying respirator (APR) equipped with combination organic vapor/acid gas/HEPA cartridges.**
3. **B - OSHA Level B - Positive-pressure demand, full-face piece, self-contained breathing apparatus (SCBA) or supplied air respirator equipped (National Institute for Occupational Safety and Health [NIOSH]/Mine Safety and Health Administration [MSHA]-approved).**

The PPE needed to comply with the various levels of protection is detailed below.

Levels of Protection

Level D Modified

Level D (modified) may be used when the workplace atmosphere contains no potential respiratory hazard and when work functions do not involve splashes,

immersion, or the potential for unexpected inhalation of or contact with hazardous levels of any chemicals.

All remediation fieldwork conducted outdoors at CSSA will be conducted in Level D-modified, unless air monitoring results require a greater level of protection. That is, some protective clothing will be worn. Depending on the nature of the work being performed, protective clothing may consist of Tyvek suits, protective gloves, and other protective clothing as described below. Level D-modified may consist of:

- Tyvek or similar disposable coverall when necessary;
- Inner gloves (latex or nitrile) when sampling or contacting waste;
- Outer gloves (nitrile or neoprene) when sampling;
- Chemical-resistant, steel-toe, steel-shank boots (optional);
- Steel-toe, steel-shank boots;
- Safety glasses with side shields;
- Hard hat when working around heavy equipment and overhead hazards;
- Hearing protection when working near operating equipment and in high noise areas; and
- Additional items that may be required in specific locations or tasks.

6.8.2.2 Level C

Level C may be worn only when the criteria for using APR are met and a minimal level of skin protection is needed. Level C generally includes:

- APR, full-face, cartridge (NIOSH/MSHA-approved)
- Tyvek or similar disposable coverall;
- Saranex or similar coverall (for areas with the potential for contact with hazardous liquids);
- Steel-toe, steel-shank boots with disposable latex boot covers or chemical-resistant boots with steel toe and shank;
- Inner chemical-resistant disposable gloves (latex or nitrile);
- Outer chemical-resistant gloves (neoprene or nitrile);
- Hard hat when working around heavy equipment and overhead hazards;
- Hearing protection when working near operating equipment and in high noise areas; and

Additional items that may be required for specific locations or tasks.

6.8.2.3 Level B

Level B should be worn when the highest level of respiratory protection is needed, and a moderate level of skin protection is required. Level B generally consists of:

- Positive-pressure demand, full-face piece SCBA or supplied-air respirator (NIOSH/MSHA-approved);
- Tyvek or Saranex (or similar) outer coveralls with hood - for areas with potential contact with hazardous materials;
- Inner chemical-resistant disposable gloves (nitrile or latex);
- Outer chemical-resistant gloves (neoprene or nitrile);
- Steel-toe, steel-shank boots with disposable latex boot covers or chemical-resistant boots with steel toe and shank;
- Hard hat when working around heavy equipment and overhead hazards;
- Hearing protection when working near operating equipment and in high noise areas; and

Additional items that may be required in specific locations or tasks.

6.8.3 Equipment Needs

Each field team should have the following items readily available:

- Copy of site health and safety plan;
- Air monitoring instruments;
- First aid kit;
- Adequate supply of personal protective equipment;
- Decontamination supplies;
- Potable water; and
- Fire extinguishers (12-ABC type).
- Hard hat;
- Hearing protection.

Note that respiration protection and air monitoring requirements were identified in the Air Monitoring Action Levels table in Section 4.11.4.7.

6.9 SITE INSPECTION

A site inspection of a construction or remediation site is designed to identify and correct unsafe acts and conditions, as well as recognize safe work practices and accomplishments, in Parsons or subcontractors' scope of work. The Project Manager or Project Safety Manager should develop standard safety checklists appropriate to the work being performed. Figure 6.3 is a checklist to evaluate a project's status. The Project

Manager can revise the checklist based on questions from the audit programs in Appendix B of the Parsons SHARP Manual.

Inspections involve a daily or weekly walkaround of a project site that focuses on safety. The Project Manager or Project Engineer responsible for the work conducts inspections, accompanied by the Project Safety Manager as necessary. Daily walkarounds do not have to be documented, but once a week the Project Manager prepares an inspection report using Figure 6.3 and forwards it to the Project Safety Manager for maintaining in the project file. Items found to be out of compliance must be assigned to the responsible party for corrective action and the corrective action tracked to completion. Subcontractors shall be advised of noncompliance items using a Notice of Subcontractor Violation, included as Figure 6.4.

6.10 DAILY SITE WALK CHECKLIST

The Project Manager, Project Engineer or Project Safety Manager will conduct periodic site walks using the Safety and Health Inspection Checklist in Figure 6.3 to identify problem areas. Items found to be out of compliance must be assigned corrective action and the corrective action tracked to completion.

THIS PAGE INTENTIONALLY LEFT BLANK

Figure 6.3 Safety and Health Inspection Checklist

Project: _____ **Date:** _
Inspector: _____ **Time:** _

**Any items that have been found deficient must be corrected before work or use.
This checklist includes, but is not limited to, the following:**

	Yes	No
Safe Access and Workspace		
Are safe access and adequate space for movement available for:		
 Emergencies		
 Work area		
 Walkways and passageways		
Are ladders, stairways, and elevators properly located and functioning?		
 Is protection provided for excavations and trenches?		
 Is overhead protection provided for all areas of exposure?		
 Is lighting adequate?		
Planning Work for Safety		
Are employees provided with all required personal protective equipment (PPE)?		
Have other contractors and trades been coordinated with to prevent congestion and avoid hazards?		
Is air monitoring necessary to determine whether any chemical exposure exists?		
Utilities and Services Identification		
Has the Parsons Drilling Protocol been followed?		
Have all utilities been identified by signs/markout?		
Have high voltage lines been moved or de-energized, or barriers erected to prevent employee contact?		
Sanitary Facilities		
Is drinking water available?		
Are toilet facilities adequate?		
Work Procedures – Materials Handling		
Is material handling space adequate?		
Is material handling equipment adequate and proper?		
Is material handling equipment in good condition?		
Are workers properly trained to operate equipment and handle hazardous materials?		

Comments:

6.11 SAFETY AND HEALTH ENFORCEMENT

Parsons and its subcontractors enforce all applicable requirements of OSHA 1910 and 1926 as well as EM 385.1, where applicable. In addition, subcontractors must comply with and enforce Parsons PSP requirements.

Parsons has a written progressive disciplinary systems available for review in the Parsons Human Resources departments.

6.12 NOTICE OF VIOLATION OF SAFETY AND HEALTH REGULATIONS

The project has a formal notice of subcontractor violation of safety and health regulations program to ensure that violations are issued in an immediately dangerous to life and health (IDLH) situation or when the subcontractor repeatedly fails to comply with safety and health requirements.

The notice (Figure 6.4) documents poor performance and requires a response from subcontractor senior management. The notice contains five distinct levels of discipline, from submission of a recovery plan to contract termination.

6.13 COMPETENT FIRST AID PERSON

The OSHA Regulations (29 CFR 1910.151 and 1926.50) state the employer shall ensure the ready availability of medical personnel for advice and consultation on matters of occupational health. In the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite (i.e., 4 minutes for activities that can be expected to result in an accident involving suffocation, severe bleeding, or other life threatening or permanently disabling injury or illness and 15 minutes for other types of injuries), which is available for the treatment of injured employees, a person who has a valid certificate in first-aid training from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid. First-aid supplies must be accessible for immediate use and be of sufficient size and number to handle common first aid incidents.

The response time and distance to the nearest clinic, hospital or physician identified in Section 4.11.3 has been determined to be 20 minutes. Since the response time for Emergency Medical Services (EMS) based on the activities for this project is reasonably accessible, the project will require at least one individual on site at all times that work is being performed to have a valid certificate in CPR and first aid. A current list of training for Parsons employee(s) can be obtained from the Austin, Texas records maintained by Maria Gage (Health and Safety Administrator), and at least one of these individuals will be on site at all times when work is being performed and will have a valid certificate in CPR and first aid.

**Figure 6.4 Notice of Subcontractor Violation
of Safety and Health Regulations
Camp Stanley Storage Activity Project Safety Plan**

Date: _____

Contractor Name: _____

Address: _____

Attention: _____

This letter officially notifies you that you have been found to be in violation of the following Safety Regulations:

_____ on (date) _____, by _____.

Confined Space	___	Lockout/Tagout	___	Hot Work	___	Personal Protective	___
Entry	___	Awareness	___	of	___	Equipment	___
Knowledge of the	___	warning alarms	___	Evacuation routes	___	Back-up Alarms	___
environment	___		___		___	Environmental/Hazardous	___
Assembly locations	___	Fall Protection	___	Scaffolding	___	Material Storage	___
Trenching	___	Safe Work Practices	___	Security Practices	___		___

Other: _____

This/These violations occurred at the following locations: _____

at the following times _____ and dates _____

The name of the employees was/were _____
under the supervision of _____.

Figure 6.5
Notice of Noncompliance with Safety and Health Regulations
Camp Stanley Storage Activity, Project Safety Plan

Under conditions of this enforcement procedure check all items that apply:

- _____ 1. You are being notified of this violation and should take corrective action to prevent a reoccurrence. The corrective action shall be documented to the Parsons Construction Management representative immediately.
- _____ 2. You must submit a plan for compliance to your Parsons Construction Management representative and the Construction Safety Manager within two days of receipt of this letter. The compliance plan must include the means or methods of compliance and the date that the requirements for compliance will be completed. Once compliance has been achieved, a follow up letter must be sent to the Parsons Construction Management representative and Construction Safety Manager. Failure to comply will result in disciplinary action against your Company.
- _____ 3. You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and the Subcontractor responds formally that the procedure is understood and will comply.
- _____ 4. You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and you **must** confirm formally the disciplinary action to be taken against the supervisor and employees.
- _____ 5. All work on the site will stop until the Parsons Construction Management representative reviews all the facts with the Subcontractor and determines if the contract between the parties will be terminated.

Sincerely,

Parsons Representative

cc: Issuing Construction Manager Representative
Job File
GBU Safety Manager
Project Manager

SECTION 7 SAFETY TRAINING

7.1 PROJECT SAFETY ORIENTATION

The Parsons Project Manager, Project Engineer, or Project Safety Manager conducts the site-specific orientation for all new Parsons staff and subcontractor management personnel.

The Orientation may takes up to *one hour to complete* and should include an applicable owner's representative, Parsons field personnel, and regulatory reference material, including:

- Owner – Contractor Safety Program and Manual of Safety Regulations Handbook and security requirements (Appendix G);
- Applicable OSHA 1910 General Industry and 1926 Construction Regulations and others as required;
- Parsons applicable requirements, including items covered in Section 4.2; and
- Subcontractor requirements.

All visitors must receive a brief orientation as described in Section 4.2, and be escorted by the Project Manager, Project Engineer, Project Safety Manager or a designee familiar with the potential hazards on the project.

Subcontractors must conduct similar orientations for their staff and craft employees or participate in Parsons orientations and must document all orientations using the Employee/Subcontractor Training Acknowledgement shown in Figure 7.1. The orientation documents and acknowledgement forms will be maintained with the PSP addendum that is prepared for specific task order scope of work activities.

7.2 PARSONSU SAFETY MODULES AND START TRAINING – ZERO INCIDENT TECHNIQUES

Consistent with Parsons corporate initiatives in safety training, the Project Manager will identify all applicable personnel (i.e. managers, engineers and supervisors, including subcontractor personnel), that shall be current in the completion of safety modules on ParsonsU and that should receive START training to further Parsons' goal of zero incidents.

7.3 DAILY HUDDLE AND SAFETY PLANNER

Project Managers, Project Engineers and Supervisors in the field may conduct daily safety huddles with craft employees to review each day's work and to remind employees of the safe work procedures established for the day's tasks. Safety huddles are informal and brief, usually 5 minutes long, and all workers must participate. Supervisors should always ask whether any workers have questions before they resume field activities.

Daily Safety Planners like the one shown in Figure 7.2 enable supervisors and employees to formally document safety huddle participation as well as the day's activities, associated risks, and relevant control measures. The field logbook is also an acceptable location to document content and participation of daily safety briefings. The Field Supervisor or SHSO should engage employees to improve the effectiveness of the safety huddle meeting.

If field supervisors choose to use daily safety planners, employees must carry the planner completed for each day and show it to any manager on a project for signature. This review becomes an audit of field supervisors and can be the basis of an incentive program, with signed cards being eligible for weekly prizes.

Figure 7-1
Employee/Subcontractor Training Acknowledgement
Camp Stanley Storage Activity Project Safety Plan

Name of Trainer: _____

Training Subject: _____

Training materials used: _____

Name of employee: _____

Date of hire/assignment: _____

I, _____, hereby certify that I have received training as described above in the following areas:

- Names of personnel responsible for site safety and health.
- Safety, health or other hazards at the site.
- The proper use of personal protective equipment.
- The potential occupational hazards in general in the work area and associated with my job assignment.
- Work practices by which a worker can minimize risks from hazards.
- Safe use of engineering controls and equipment on the site.
- Acute effects of compounds on the site.
- Decontamination procedures.
- General safety requirements indicate the safe work conditions, safe work practices and personal protective equipment required for my work.
- The hazards of any chemicals to which I may be exposed and my right to information contained on material safety data sheets for those chemicals, and how to understand this information.
- My right to ask questions, or provide any information to the employer on safety either directly or anonymously without any fear of reprisal.
- Disciplinary procedures the employer will use to enforce compliance with general safety requirements.

I understand this training and agree to comply with general safety requirements for my work area.

Employee Signature

Date

Figure 7.2 Daily Safety Planner

<p>Employee Planning Checklist</p> <p>Complete the checklist for each new work operation. Check the "YES" box for those items needed to safely perform your work. All boxes marked "YES" should be properly addressed before the work operation begins.</p>	<p style="text-align: center;">Supervisor's Safety & Health Audit</p> <p>Times: _____</p> <p>Initials: _____</p> <p style="text-align: center;">Safety and Health Suggestions</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Immediately report all accidents, injuries, fires, hazardous material spills and near miss incidents, no matter how slight, to your supervisor.</p>	<p style="text-align: center;">Personal Safety & Health Planner for Your Daily Safety Huddle</p> <p>Employee Name: _____</p> <p>Date: _____</p> <p>Employee Number: _____</p> <p>Craft: _____</p> <p>Supervisor: _____</p> <p>Location of Work: _____</p> <p>Work Description: _____</p> <div style="text-align: center;">  </div>
<p>Employee Daily Work Area Assessment</p> <p>All conditions must be satisfied in order to start or continue working. Formally check your work area at least four times a day and at the start of each new work operation. Report all problems to your supervisor</p>		

<p>Employee Preplanning Checklist</p> <p>Yes N/A Personal Protective Equipment</p> <p><input type="checkbox"/> <input type="checkbox"/> Hard Hat/Safety Glasses</p> <p><input type="checkbox"/> <input type="checkbox"/> Face Shield</p> <p><input type="checkbox"/> <input type="checkbox"/> Goggles – Cutting, Chemical, Dust</p> <p><input type="checkbox"/> <input type="checkbox"/> Hearing Protection _____</p> <p><input type="checkbox"/> <input type="checkbox"/> Respirator – Type _____</p> <p><input type="checkbox"/> <input type="checkbox"/> Gloves – Type _____</p> <p><input type="checkbox"/> <input type="checkbox"/> Clothing – Type _____</p> <p><input type="checkbox"/> <input type="checkbox"/> Foot Protection _____</p> <p><input type="checkbox"/> <input type="checkbox"/> Other _____</p>	<p>Yes N/A Special Equipment:</p> <p><input type="checkbox"/> <input type="checkbox"/> Harness/Double Lanyards/Decelerator Device</p> <p><input type="checkbox"/> <input type="checkbox"/> Life Line – Horizontal, Vertical, Retractable</p> <p><input type="checkbox"/> <input type="checkbox"/> Air Monitor</p> <p><input type="checkbox"/> <input type="checkbox"/> Tripod/Rescue Devices</p> <p><input type="checkbox"/> <input type="checkbox"/> Barricades/Flagging</p> <p><input type="checkbox"/> <input type="checkbox"/> Fire Extinguishers</p> <p><input type="checkbox"/> <input type="checkbox"/> Signs</p> <p><input type="checkbox"/> <input type="checkbox"/> Electrical Insulating Materials, Blankets, Tools, Gloves</p> <p><input type="checkbox"/> <input type="checkbox"/> Chemical/Oil Spill Kits</p> <p><input type="checkbox"/> <input type="checkbox"/> Communication Devices – Radios, Horns</p> <p><input type="checkbox"/> <input type="checkbox"/> Other _____</p>	<p>Yes N/A Work Permits:</p> <p><input type="checkbox"/> <input type="checkbox"/> Activity Hazards Analysis</p> <p><input type="checkbox"/> <input type="checkbox"/> Trench and Excavation Notice</p> <p><input type="checkbox"/> <input type="checkbox"/> Confined Space Permit</p> <p><input type="checkbox"/> <input type="checkbox"/> Welding and Cutting Permit</p> <p><input type="checkbox"/> <input type="checkbox"/> Crane and Hoist Lift Plan</p> <p><input type="checkbox"/> <input type="checkbox"/> Crane Suspended Work Platform</p> <p><input type="checkbox"/> <input type="checkbox"/> Other _____</p> <p>Tagging Procedure:</p> <p><input type="checkbox"/> <input type="checkbox"/> Scaffolding</p> <p><input type="checkbox"/> <input type="checkbox"/> Lockout/Tagout</p> <p><input type="checkbox"/> <input type="checkbox"/> Other _____</p>
<p>Employee Daily Work Area Assessment</p> <p>Times: _____</p> <p>Initials: _____</p> <p>A means of safe access and egress is provided to my work area. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>My work area is clean and organized <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I have the tools and equipment necessary to perform my work. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>My work area has adequate lighting. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I know how to, and have the means available, to summon emergency assistance. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I have a copy of or have been trained on the MSDS for the hazardous material I am working with. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>The equipment I am working on, or working in, has been properly tagged out/locked out, cleaned, vented, and drained, as well as stored energy released as required. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>My work operation is properly controlled so that other workers will not be adversely affected by dust, fumes, sparks, slag, welding flash, floor holes, fall hazards, falling objects, overhead loads, slippery surfaces, etc. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I have performed an act of safety. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>I have the necessary training to safely perform my work <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>

Figure 7.3 Safety Meeting Sign-In Sheet

Safety Meeting Presenter: _____ Date: _____

Current Weather Conditions:

Temperature (°F) = _____ Wind Direction = _____ Wind Speed = _____

Clear - Sunny – Cloudy – Rain - Snow Forecast = _____

Current Site Conditions (circle as appropriate):

Dry - Wet - Muddy - Frozen - Snow Covered - Other (describe) _____

1. Incidents or Injuries to report from Previous Day Activities: No Yes - explain below:

2. Safe and/or At-Risk Observations from Previous Day Activities: _____

3. Activities Taking Place Today:

3. Anticipated Hazards:

4. Engineering Controls-Work Practices-PPE to Protect Against Hazards:

5. Additional Safety Topic or Comments:

Figure 7.3 Safety Meeting Sign-In Sheet (continued)

PRINTED NAME	SIGNATURE	COMPANY	LAST 4 DIGITS OF SS #

7.4 DAILY TOOLBOX SAFETY MEETINGS

Parsons and its subcontractors conduct daily toolbox safety meetings at the beginning of each week. These meetings include topics relevant to upcoming work and may include reviews of recent incidents on the project. The Field Supervisor or SHSO is responsible for the toolbox safety training content and documenting and retaining attendance records using Figure 7.3.

7.5 ACTIVITY HAZARDS ANALYSIS TRAINING

When the activity hazards analysis is complete, the Parsons Project Manager/Engineer/Supervisor or subcontractor conducts a training session with all employees involved with the analyzed task. 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 using Figure 6.2.

7.6 REGULATORY TRAINING PROGRAMS

OSHA regulations require specific training in certain circumstances. Based on the scope of work and meetings with regulatory officials, the following training topics can be provided on the project:

- General – all workers engaged in activities which are potentially exposed to hazardous substances and health hazards must be trained to meet 1910.120(e)(1). Annual 8-hour refresher training as per 29 CFR 1910.120(e)(3) is required for workers and supervisors must be trained to meet 29 CFR 1910.120(e)(4).
- CPR/AED/First aid – provided to personnel based on project activities identified in the Scope of Work (i.e. life threatening) and EMS response time (i.e. less than 15 minutes). See Section 6.9.
- Emergency response – only applicable to workers engaged in emergency response as per 29 CFR 1910.120(q).
- Respiratory protection – must meet 29 CFR 1910.134. Medical qualification by a physician is required to wear a respirator. Annual fit testing and training is also required.
- Signaling
- Process safety management – must meet 29 CFR 1910.119.
- Power-operated hand tools
- Gas welding and cutting
- Confined space entry – Supervisor must be trained to meet 29 CFR 1926.651(j).

- Lockout/tagout – must meet 29 CFR 1910.147.
- Asbestos abatement – must meet 29 CFR 1926.1101.
- Scaffold use – must meet 29 CFR 1926.451.
- Excavation/trenching – must meet 29 CFR 1926.651.

The Project Manager determines the necessary training and coordinates the training with the Project Safety Manager.

7.7 OSHA OUTREACH PROGRAMS

When applicable, the project may use qualified instructors and online courses to conduct OSHA 10-hour construction safety training. If applicable, supervisory staff must complete the 30-hour course. Depending on the scope of work, similar requirements may be included in all subcontracts. Participants successfully completing the course receive a certificate of completion from OSHA.

7.8 SPECIALIZED TRAINING AND ORIENTATIONS

Project personnel receive specialized training on client rules and requirements as well as the unique tools, equipment, and procedures used to perform the work. The individual task order budgets include funding for the following training:

Description	Attendees	Schedule
<i>General rules and safety requirements</i>	<i>All workers assigned to the site</i>	<i>Half-hour training session, provided to new employee on the first day of work at the site.</i>
<i>Controlled substance and alcohol awareness training</i>	<i>Supervisors</i>	<i>When assigned to a client that requires substance abuse and alcohol testing.</i>

Other training, such as 40-hour HAZWOPER, 8-hour refresher training, supervisory training, and first aid/CPR are a part of the regularly scheduled training conducted by Parsons and its Subcontractors for employees who participate in environmental and construction work activities at facilities such as CSSA.

SECTION 8 RECORDKEEPING AND POSTING

Parsons and its subcontractors must comply with the recordkeeping requirements of OSHA, CSSA, Parsons Corporation, and this safety program, including:

- OSHA 300 logs
- Medical treatment and follow-up
- Drilling rigs
- Heavy equipment inspection logs
- Fall protection
- Training
- Inspections
- Audits
- Others as required

The Project Manager is the official record keeper for files relating to Parsons employees. Each subcontractor maintains their own files.

The CSSA environmental, safety, and security procedures for visitors (provided in Appendix G) are displayed at the CSSA office along with other project displays. In addition, an OSHA job safety health and protection poster (provided in Appendix G) will also be displayed at the CSSA office as required by OSHA. The OSHA 300 log for the project or the GBU shall be posted from February 1 – April 30 of each calendar year on a bulletin board at CSSA and in Parsons office in Austin, Texas.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 9 SAFETY AND HEALTH REQUIREMENTS

9.1 SAFETY AND HEALTH REQUIREMENTS

Table 9.1 represents OSHA, owner, and Parsons corporate regulations and requirements applicable to the project. Based on the most recent risk assessments, Parsons Project Manager and Project Safety Manager update the listed topics periodically. Training and other requirements are updated in this PSP as required by changes to Table 9.1. The *Parsons Safe Health Practices for Various Field Activities* is provided in Appendix H.

Parsons and its subcontractors are individually responsible for training their respective employees and for complying with all project requirements. Failure to comply could lead to disciplinary actions against Parsons employees and subcontractors or their employees.

Table 9.1 Competent Person and Activity Hazards Analysis Requirements

Safety and Health Requirement	OSHA Regulation	EM 385-1-1 Regulation	Competent Qualified Person-Supv	Training Required	Written Plan and AHA Required
1. General Safety & Health	1926.20	01.A	Yes	Yes	Yes
2. Safety Training	1926.21	01.B.01	Yes	Yes	Yes
3. Confined Spaces	1910.146; 1926.21	06.01	Yes; Supv	Yes	Yes
4. Confined Space Permit System	1910.146	06.01	Yes	Yes	Yes
5. First Aid and Medical	1926.23, 50	03.A	Yes	Yes	Yes
6. Fire Protection and prevention	1926.24, 150-155, 352	09.A	Yes	Yes	Yes
7. Housekeeping	1926.25	14.C	N/A	N/A	N/A
8. Illumination	1926.26, 56	07.A	Recommended	N/A	N/A
9. Sanitation	1926.27, 51	02.A	N/A	N/A	N/A
10. Personal Protective Equipment	1926.28, 95-98, 100-107	05.A	Yes	Yes	Yes
11. Acceptable Certifications	1926.29		Yes	Yes	Yes
12. Incorporation by Reference	1926.31	Preamble	N/A	N/A	N/A
13. Emergency Employee Action Plans	1926.35	01.E	Recommended	Yes	Yes
14. Noise Exposure	1910.95; 1926.52	05.C	Yes	Yes	Yes

Safety and Health Requirement	OSHA Regulation	EM 385-1-1 Regulation	Competent Qualified Person-Supv	Training Required	Written Plan and AHA Required
15. Radiation Protection	1926.53, 54		Yes	Yes	Yes
16. Gases, Vapors, Dusts and Mists	1926.1926.55		Yes	Yes	Yes
17. Ventilation	1926.57, 353		Recommended	Yes	Yes
18. Hazard Communication	1926.59	1.B.06	Yes	Yes	Yes
19. Process Safety Management	1910.119; 1926.64		Yes	Yes	Yes
20. Hazardous Waste Operations and Emergency Response	1910.120; 1926.65	28.A	Yes Supv – 8 hr	Yes	Yes
21. Accident prevention signs and tags	1926.200	08.A	N/A	N/A	N/A
22. Signaling	1926.201	08.B	Recommended	N/A	Yes
23. Barricades	1926.202		N/A	N/A	N/A
24. Material Storage	1926.250	14.B	N/A	Yes	Yes
25. Rigging	1926.251	15.A	Yes	Yes	Yes
26. Waste Disposal	1926.252	14.D	Yes	Yes	Yes
27. Tools	1926.300-307	13.A	N/A	N/A	Yes
28. Gas Welding and Cutting	1926.350	10.A	Recommended	Yes	Yes
29. Arc Welding	1926.351	10.E	Recommended	Yes	Yes
30. Electrical	1926.400-415	11.E	Yes	Yes	Yes
31. General Electrical	1926.416	11.A	Yes	Yes	Yes
32. Lockout Tagout	1910.147; 1926.417	12.A	Yes	Yes	Yes
33. Lockout Tagout Permit System	1910.147	12.A	Yes	Yes	Yes
34. Maintenance of Electrical Equipment	1926.431	11A	Yes	Yes	Yes
35. Environmental Deterioration of Electrical Equipment	1926.432		Yes	Yes	Yes
36. Batteries/Battery Charging Equipment	1926.441	11.E	N/A	Yes	Yes
37. Scaffolding	1926.450-454	22.A	Yes	Yes	Yes
38. Aerial Lifts	1926.453	22.J and K	Yes	Yes	Yes
39. Fall Protection	1926.500-503	21.A	Yes	Yes	Yes

Safety and Health Requirement	OSHA Regulation	EM 385-1-1 Regulation	Competent Qualified Person-Supv	Training Required	Written Plan and AHA Required
40. Cranes, Derricks, Hoists, Elevators and Conveyors	1926.550	16.A	Yes	Yes	Yes
41. Motor Vehicles, Mechanized Equipment	1926.600-603	18.A	Yes	Yes	Yes
42. Powered Industrial Trucks (forklifts)	1910.178		Yes	Yes	Yes
43. Site Clearing	1926.604	31.A	N/A	Yes	Yes
44. Marine Operations and Equipment	1926.606	16.F	Yes	Yes	Yes
45. Excavations	1926.650-652	25.A	Yes	Yes	Yes
46. Excavation Permit	N/A	N/A	Yes	Yes	Yes
47. Concrete and Masonry Construction	1926.700-706	27.A	Yes	Yes	Yes
48. Steel Erection	1926.750-761 and SENRAC		Yes	Yes	Yes
49. Underground Construction	1926.800	26.A	Yes	Yes	Yes
50. Caissons	1926.801	26.H	Yes	Yes	Yes
51. Cofferdams	1926.802		Yes	Yes	Yes
52. Compressed Air	1926.803	26.I	Yes	Yes	Yes
53. Demolition	1926.850-860 inclusive	23.A	Yes	Yes	Yes
54. Power Transmission and Distribution	1926.950-960 inclusive	11.H	Yes	Yes	Yes
55. Rollover Protective Structures; Overhead Protection	1926.1000-1003 inclusive		N/A	N/A	Yes
56. Stairways and Ladders Scope	1926.1050	21.A	N/A	Yes	Yes
57. S/L General Requirements	1926.1051		Yes	Yes	Yes
58. Stairways	1926.1052	21.E	Recommended	Yes	N/A
59. Ladders	1926.1053	21.D	Yes	Yes	Yes
60. Ladder/Stair Training	1926.1060		Yes	Yes	Yes
61. Diving Scope	1926.1071-1072	30.A	Yes	Yes	Yes
62. Dive Team Quals	1926.1076	30.A.08	Yes	Yes	Yes
63. Dive Safe Practices Manual	1926.1080	30.A.16	Yes	Yes	Yes
64. Pre-dive Procedures	1926.1081		Yes	Yes	Yes

Safety and Health Requirement	OSHA Regulation	EM 385-1-1 Regulation	Competent Qualified Person-Supv	Training Required	Written Plan and AHA Required
65. Procedures During Dive	1926.1082	30.A.15	Yes	Yes	Yes
66. Post Dive Procedures	1926.1083	30.A.22	Yes	Yes	Yes
67. SCUBA Diving	1926.1084	30.B	Yes	Yes	Yes
68. Surface-Supplied Air Diving	1926.1085	30.A.04	Yes	Yes	Yes
69. Mixed-gas Diving	1926.1086	30.D	Yes	Yes	Yes
70. Liveboating	1926.1087	30.A.05	Yes	Yes	Yes
71. Diving Equipment	1926.1090	30.E	Yes	Yes	Yes
72. Diving Recordkeeping Requirements	1926.1092	30.A.06	Yes	Yes	Yes
73. Internal Traffic Control	N/A	8.D	N/A	Yes	Yes
74. Traffic Movement Restriction Times	N/A	8.C	N/A	Yes	Yes
75. Line Breaking	1910.119 and 1926.54		Yes	Yes	Yes
76. Major Material Movements	N/A	N/A	N/A	Yes	Yes
77. Right-of-way Restrictions	N/A	N/A	N/A	Yes	Yes
78. Bicycles/Golf Carts	N/A	18.D	N/A	Yes	N/A
79. IIPP/SSPP	Cal 3203	Cal 3203	Yes	Yes	Yes

APPENDIX A
PLAN ACCEPTANCE FORM

PLAN ACCEPTANCE FORM

1. SUMMARY OF ACTIVITIES

Activities to be performed at CSSA may include soil gas sampling, groundwater sampling, air monitoring, surface soil and sediment sampling, remediation construction, general construction, drilling and subsurface soil sampling.

2. ACCEPTANCE

I have read the health and safety plan for CSSA 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
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
INCIDENT REPORTING GUIDELINES

INCIDENT REPORTING GUIDELINES

On-Line Safety Reporting System

Policy Requirements

- Initial incident reports for all incidents, including near misses, shall be reported within 4 hours.
- Detail incident reports are required within 24 hours.
- Reporting is done via on-line (PWeb) incident report form.
- Injuries with Days Away from Work - immediate supervisor and PM must teleconference with GBU President within 4 hours.
- Projects enter hours via on-line form by FIRST Friday of new period.

Reporting Incidents

Corporate policy requires that all employees report safety incidents to their supervisor immediately. Supervisors must report all incidents to the appropriate Project Manager (Department Manager if the incident is not related to a project), who must officially report the incident to the GBU within four hours. This official reporting is done via the PWeb, unless PWeb is unavailable, in which case the incident can be reported by email, fax or telephone.

“Incidents” include work related injuries, work related illness, accidents with property damage only and near misses. “Near misses” are any unplanned event that had the potential to (but did not) result in injury or property damage.

Incident reports should reflect the best available information at the time. Where exact information is not known (recordability, days away from work, etc.) the PM’s best judgment should be used when completing the initial incident report. This information can be subsequently revised when the detail incident report is submitted.

When in doubt, submit an initial report or contact the GBU Safety Manager.

On-line Safety Reporting System

The on-line reporting system can be found on the PI&T Safety Page on PWeb. To locate the system, follow these steps:

1. From the Corporate PWeb Homepage, select PI&T from the Org Units menu
2. Locate and select “Safety” from the list of pages in the right hand column
3. Select the “Incident Reporting Form” link

To create and submit a new incident report, select the orange “Add” button from the main page of the reporting system. To update an existing incident report or complete the Detail Incident page, locate and select the appropriate incident from the list.

Creating or Updating Incidents

The Initial Incident page of the report must be completed within four hours of the incident occurring. This page includes basic information needed for the first notification to our insurance carriers. If possible, all of the fields should be completed in the initial report. A list is provided at the end of this document describing all fields contained on the initial incident page.

Incident Detail Reports

Within 24 hours of the incident occurring, the Incident Detail page of the on-line report must be completed. This page includes detailed information about the injured party, the nature and extent of injuries, medical treatment provided, corrective actions taken, and witness statements. In the event of property damage, this page also includes descriptive information on the property owner. Finally, the page includes a section to include electronic attachments. These might include photographs, signed witness statements, etc.

Monthly Reporting of Hours

Hours must be entered into the on-line reporting system no later than the first Friday of the new period. If an accurate accounting of hours is not available, estimated hours are submitted into the system. The estimated hours can be revised later in the month, or the following month, when accurate data is available.

From the “Hours” page, select the GBU and the period (month and year) that is being reported. The system only allows hours to be entered for the period selected. MTD and PTD figures are calculated totals based on the sum of all monthly entries. To enter or correct a prior period entry, simply select that month from the drop-down box and correct the figures for that month.

Be sure to select the correct month and year when entering hours.

Hours must be entered for each (as applicable) of six different labor categories. The categories are as follows:

1. Contractor (Field/Craft)
2. Contractor (Office/Admin)
3. JV Partner (Field/Craft)
4. JV Partner (Office/Admin)
5. Parsons Employee (Field/Craft)
6. Parsons Employee (Office/Admin)

Monthly Statistics Summary Reports

The on-line reporting system automatically calculates incident rates based on incidents and hours entered into the system. To view the statistics, select the “Reports” page from the on-line system. Select “Parsons Safety Statistics Summary”, the appropriate GBU, and the appropriate period. (NOTE: The system does not yet provide

reports at the Division and Sector level. That enhancement is pending.) Use the checkboxes to select the labor categories desired.

Contact Rick McAlpin Or Jim Owen for Assistance

Initial Incident Report Fields

1. GBU – Select the GBU from the drop down box. Incidents are reported primarily by project, and the GBU should reflect the unit responsible for the project. This may be different from the GBU that employees the person injured.
2. Field Project Name, Office Location or Other – If the applicable project is listed in the “Field Project” list, select from that box. If not, and if the incident occurred in a Parsons corporate office, select the office from the drop box. Otherwise, type in the name of the responsible organizational unit in the “Other” field. The GBU must be selected BEFORE attempting to select a Project/Office. Do NOT select both a field project AND an Office Location (or Other). If the appropriate Project or Office name can not be found, manually enter it into the “Other” field.
3. Job and WBS Numbers – These fields should reflect the charge number responsible for the incident. In general, that will be the number that the employee was charging at the time of the incident. Projects are responsible for visitors, regardless of what charge number they use while visiting the job. For example, if the Division Manager is injured while visiting Project X, the project number is entered, not the division overhead account.
4. Near Miss – Check this box if the report is for a near miss only (no injury or property damage occurred).
5. Emergency Response Notified – Check this box if fire, police or ambulance was called as a result of the incident.
6. Three or More Employees Hospitalized – Check this box if three or more employees were injured as the result of a single incident. In this case, the GBU or Corporate Safety Manager must also be immediately notified by telephone.
7. Extent of Injury – Select the appropriate radio button. First aid cases are as defined by OSHA 1904 criteria. All other injuries are considered recordable.
8. Restricted Duty (# of days) – If the injured person was limited (by a physician) to less than normal work duration or duties, enter the number of days. Estimate the days if unknown, and correct the number later. NOTE: this is the number of CALENDAR days (not scheduled work days), and it does NOT include the day of the injury.
9. Days Away From Work (# of days) – If the injured person was ordered by a physician not to return to work, enter the number of days missed. Estimate the days if unknown, and correct the number later. NOTE: this is the number of CALENDAR days (not scheduled work days), and it does NOT include the day of the injury. Injuries with Days Away From Work require a phone call to the GBU President within 4 hours.

10. Fatality (Date of Death) – In the event of a work related fatality, enter the date of death here. NOTE: Fatalities require immediate phone notification of the Division Manager, GBU President, GBU Safety Manager, and Corporate Safety Manager.
11. Property Damage – Check the appropriate boxes if applicable.
12. Place – Describe the exact location that incident occurred. For example, “in the north stairwell of building 21, between the second and third floor.”
13. Date – This field reflects the date the incident occurred, not necessarily the date it was reported. If the exact date is not known, an estimate should be used.
14. Time – This field reflects the time of day that the incident occurred. If the exact time is not known, an estimate should be used.
15. Incident Description – Provide a detailed description of the incident. This is a memo field and text will scroll down the window as it is entered. Use as much space as needed to accurately describe the incident and the resulting injuries.
16. Reported by – This field defaults to the employee login ID that was used to access PWeb. However, the field can be over-written if needed.
17. Name – First and last name of the injured party.
18. Status – Select the most appropriate category from the drop box (Employee - Field, Subcontractor - Field, Partner - Field, Employee - Office, Subcontractor - Office, Partner - Office or 3rd Party).
19. Trade/Function – Select the most appropriate category from the drop box.

THIS PAGE INTENTIONALLY LEFT BLANK

Figure B-1 Parsons incident/Accident Report Form

Project Information	Project Title		Location
	Subcontractor		
	Address		
	City, State, Zip		
	Contact name		Phone Number

Incident Type	<input type="checkbox"/> Workers Compensation	<input type="checkbox"/> General Liability	<input type="checkbox"/> Builder's Risk
	<input type="checkbox"/> Emergency Response Notified (Police, fire, Medic, etc.)	<input type="checkbox"/> Bodily Injury/Illness	<input type="checkbox"/> Equipment
	<input type="checkbox"/> First-Aid Only	<input type="checkbox"/> Real Property Damage	<input type="checkbox"/> Supplies
	<input type="checkbox"/> Recordable Injury	<input type="checkbox"/> Personal Property Damage	<input type="checkbox"/> Machinery
		<input type="checkbox"/> Utility Property Damage	<input type="checkbox"/> Work

Incident Location	Date of Loss		Time of Loss	
	Place (exact location)			

Incident Description	4. Detailed Description of Incident
	5.

Incident/Accident Report Form (Contd)

Workers Comp or Personal Injury (circle one)	Injured Name			
	Address			
	City, State, Zip			
	Home Phone		Date of Birth	
	Nature of Injury			
	Medical Facility		Work Status	
	Treatment Received			

Property Damage or Builder's Risk (circle one)	Owner's Name			
	Address			
	City, State, Zip			
	Home Phone		Work Phone	
	Damage Type		Estimated Cost	
	Utility Type		Marked or Unmarked	
	Description of Damage			

Witness Information	Name			
	Address			
	City, State, Zip			
	Home Phone		Work Phone	
	Where to contact		Time to contact	

Contractor Subcontractor Action	Describe actions taken

Signature _____
Print Name _____
Phone No. _____

Employer _____
Date _____
Fax Number _____

PARSONS – Camp Stanley PROGRAM

Procedures following a Parsons/Subcontractor Incident

Incident Definition: any unexpected or unplanned event that results in a personal injury requiring medical treatment beyond first aid, or property damage over \$1,000.

Near Miss Definition: near misses are incidents where no property was damaged and no personal injury sustained, but where damage and/or injury easily could have occurred.

At the Scene:

- Provide necessary medical attention to injured worker
- Properly secure the scene for an effective investigation

Within two (2) hours of an incident, notify the following:

- Project Manager, Program Safety Manager and Program Manager

If the incident results in a lost work day case or worse, the GBU President and GBU Safety Manager must be notified. 4/05

PARSONS – Camp Stanley PROGRAM

For all First Aid cases or Near Miss incidents, notify the Program Safety Manager and Program Manager within 24 hours.

By the Close of Business after an incident/near miss:

- Submit an Accident Report Form
<https://pwebtools.parsons.com/safety>

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C
ADDITIONAL HEALTH AND SAFETY FORMS

THIS PAGE INTENTIONALLY LEFT BLANK

Task Order Addendum Requirement Checklist

Requirement	What is Required?	Performed When?	Who is Involved?	How is it documented?		
				Form #	Logbook	Other
Plan Acceptance Form	Employees acknowledge understanding and acceptance of PSP rules and guidelines.	Prior to employee participation on project	SHSO, Proj Safety Manager, employees & subcontractors	Appendix A	no	NA
On-line Incident Reporting	Report injury, damage to property, or near miss incident per Section 4 of PSP	Immediately after incident	SHSO contacts PM & Safety Manager, & others per guidance.	On-line	no	NA
On-line Monthly Reporting	Input hours for task order projects that qualify based on Safety Approval.	1st 5 days of each reporting period.	Project Manager or designee	On-line	no	NA
Safety Committee Member Task Force	Semi-annual meetings to review results of program and make recommendations for improvements.	Twice per year. Check on timing of last meeting for all new TOs.	Project Safety Committee	no	no	Agenda one week in advance. Meeting minutes posted on Bulletin Board.
Project Orientation for all new employees on project or task order	All new Visitors to job site, plus Parsons and subcontractor employees must receive orientation before initiating work.	During Pre-mobilization meeting, or as new personnel arrive on-post.	SHSO, Proj Safety Manager, Field Supervisor with all new employees	Figure 5.4 (pre-mobilization), Figure 7.1, and Figure 6.2 (AHAs)	Acceptable for orientation of visitors and new personnel after project has started.	NA

Requirement	What is Required?	Performed When?	Who is Involved?	How is it documented?		
				Form #	Logbook	Other
Implement Safety Awareness Campaign	Update Bulletin Boards with Safety information specific to CSSA environmental program	Weekly, or as needed.	SHSO, Proj. Safety Manager	no	no	Information Material, safety performance metrics, OSHA 300 logs, Safety Committee Meeting minutes
Stakeholder PSP Alignment Meeting	Meeting held to present PSP to CSSA and AFCEE COR to ensure concurrence with approach outlined in the plan.	After major updates or TO addenda with activities not covered in PSP	AFCEE COR, CSSA Safety and Environmental personnel, Parson project team.	no	no	Meeting minutes posted on Bulletin Board
Audits and Inspections	Daily and Weekly site walk internal inspections. Scheduled audits are Task Order Specific.	Internal inspections performed during field tasks. Audits scheduled with PM	Field Supervisor, SHSO, PM, Project Safety Manager, and GBU Safety Manager	Figure 6.3 in PSP	Acceptable to record observations in field logbook	Safety Audit Checklist and Audit Report
Tool-box Safety Meetings	Review current site conditions, incidents, near misses, safe or at-risk observations, activities planned, anticipated hazards, and other safety topics.	Performed daily at the beginning of work shift.	All site personnel, led by SHSO, Field Supervisor, or volunteer from work crew	Figure 7.3 in PSP	Acceptable to document in field logbook. Include topics covered and attendee list.	NA

Requirement	What is Required?	Performed When?	Who is Involved?	How is it documented?		
				Form #	Logbook	Other
Pre-construction Safety Meeting	To ensure bidders understand parsons expectations for Safety performance. Reinforces project safety principles.	At pre-bid meeting with prospective vendors	Vendors interested in bidding on specific scope of work at CSSA.	Figure 5.1	no	NA
Project Technical and General Conditions Specification Review	Provide overview to prospective bidders of the high risk activities that are involved in the scoped tasks.	At pre-bid meeting	Vendors interested in bidding on specific scope of work at CSSA	Figure 5.2	no	NA
Pre-mobilization Safety Meeting	Review specific safety , PSP requirements, and points of contact.	Prior to beginning construction or remediation task.	PM, Proj Safety Manager, Field Supervisor, Technical Leads, and/or Subcontractor Representatives.	Figure 5.4 (combine with Project Orientation Meeting, if appropriate)	no	NA
Subcontractor Competent Person Form	Identify OSHA-regulated and certified competent persons for work	If determined to be relevant to planned tasks.	Supervisor of subcontractor competent person	Figure 5.5	no	NA
Site Specific Risk Review Checklist	Completion of checklist and review with Parsons and subcontractor personnel	During Pre-mobilization Meeting	All individuals attending the Pre-mobilization meeting	Figure 5.7 (combine with Project Orientation Meeting)	no	NA

Requirement	What is Required?	Performed When?	Who is Involved?	How is it documented?		
				Form #	Logbook	Other
Subcontractor Safety Plan Review Checklist	Review Subcontractor PSP to ensure it meets project safety requirements	Prior to beginning work (preferably at least 10 days prior)	PM and Project Safety Manager	Figure 5.6	no	NA
Activity Hazard Analysis	Identify project activities that present potential hazards to personnel or equipment.	Prior to beginning work (preferably at least 10 days prior)	Project Safety Manager, SHSO, Field Supervisor, and field team.	Figure 6.1	Acceptable if hazard identified in field and addressed by field team.	NA
Activity Hazard Analysis Training Record	Document participation in Activity Hazard Analysis Training	Pre-mobilization meeting, daily tool-box, or as appropriate.	Project Safety Manager, SHSO, Field Supervisor, and field team.	Figure 6.2	no	NA
Notice of Subcontractor Violation	Issue notification to Subcontractors in situations where they repeatedly fail to comply with PSP requirements.	When subcontractor has violations that are deemed immediately dangerous to life and health.	PM, Project Safety Manager, and Contracts Manager	Figure 6.4	no	NA

Requirement	What is Required?	Performed When?	Who is Involved?	How is it documented?		
				Form #	Logbook	Other
CPR & First Aid Requirement What Training is required for this Task Order?	At least one person on field team must be trained in CPR and First Aid since nearest infirmary or clinic is more than 15 minutes from work site. <p style="text-align: center;"><u>Training</u></p> 40-hour HAZWOPER 8-hour refresher First Aid/CPR Respiratory Protection Signaling Power Operated Hand Tools Confined Space Entry Lock-out/tag-out Asbestos Awareness Scaffold Use Excavation/Trenching Other	Prior to start-up, and requires updating to remain current. <p style="text-align: center;"><u>YES</u></p>	Parsons and Subcontractor personnel working at the site. <p style="text-align: center;"><u>NO</u></p>	no	no	Copy of CPR and First Aid Training Certificate maintained in task order files and Parsons HR Safety Records.
				Specify:		

THIS PAGE INTENTIONALLY LEFT BLANK

PARSONS

Preconstruction Safety Meeting

Date: _____	Project/ Location _____
Subcontractor _____	Parsons Project _____
Representative: _____	Manager: _____
Phone: _____	Phone: _____
Subcontractor _____	Parsons Safety _____
Safety _____	Manager _____
Rep. _____	_____
Phone: _____	Phone: _____

The following items were identified and reviewed with the subcontractor.

Health & Safety	Medical
Site-Specific Safety Plans/Model Program _____	Substance Abuse Screening _____
Competent/Qualified Person Documentation _____	Emergency Procedures _____
Safety Audits/Inspections _____	Site Security _____
Subcontractor Responsibilities _____	Smoking Policy _____
Site Orientation Requirements _____	Medical Services Requirement _____
Premobilization Safety Meeting/Date _____	Treatment Locations/Addresses/Phone List _____
Crane Inspection Certification _____	Other _____
Personal Protective Equipment (PPE) _____	
Environmental Hazards _____	
Other _____	

Additional Notes/Comments:

PARSONS

Project Technical and General Conditions Specification Review

Date:

Project/Location:

Project Manager:

Safety Manager:

The project specification review has revealed the following high-risk activities. Activities checked must be followed up during the construction phase with training, written plans, and/or a specific Activity Hazard Analysis. This list should be reviewed with prospective bidders during the pre-bid meeting.

Steel Erection (SENRAC Requirements)		Demolition	
Excavations/Trenching		Marine Work/Liveboating	
Powered Industrial Trucks, Fork Lifts		Heavy Hauling	
Crane Work/Heavy Lifts, Rigging		Concrete	
Work Involving Hazardous Materials		Diving	
Electrical Tie-ins/Lockout-Tagout		Work Adjacent to Production Areas	
Aerial Lift Work – scissor lifts, extendable boom, etc.		Site Security/Visitor Control/Public Exposure	
Underground, Caissons, Cofferdams		Process Safety Management (PSM)	
Scaffold Erection/Work		Permits (Excavation/Scaffolding/Demolition/Traffic/Confined Space/Hot Work/Line breaking, etc.)	

High Risk Activities and Other Project Concerns:

PARSONS
Premobilization Safety Meeting

Date: _____ Project/Location: _____

Parsons Representative: _____ Subcontractor Representative: _____

The following project site safety, health and security requirements, procedures, and hazards have been identified and reviewed with the Subcontractor.

SSP/Emergency Planning/Response Plan			Demolition	
Competent/Qualified Person			Personal Protective Equipment	
Hazardous Materials/Waste			Cranes/Hoists/Annual Inspection Certificate	
Vehicle/Heavy Equipment			Overhead Power Lines	
Lockout/Tagout			Confined Spaces (Permit/Non-Permit)	
Electrical			Excavations/Trenching	
Fire Protection			Site Security/Visitor Control/Public Exposure	
Hot Work/Welding/Cutting			Process Safety Management (PSM)	
Fall Protection/Guardrails/ Scaffolding/Ladders			Permits (Excavation/Scaffolding/Demolition/Traffic/ Confined Space/etc.)	

Additional Project Concerns:

Other Attendees:

Name	Title	Company

PARSONS

Site-Specific Risk Review Checklist

Date: _____ Project or Task Order No.: _____

Risk/Hazard	Detail		Risk/Hazard	Detail		
Employee Exposure	Present		Caissons and Cofferdams	Caisson or cofferdam work is required		
	Hazardous chemicals	_____				
	Lead	_____	Marine or Over Water Work	Work on or over water is required		
	Asbestos	_____				
	UXO	_____				
	PCB	_____				
	Airborne contaminants (dust, mists, fumes)	_____				
Other (specify)	_____					
Confined Space	Confined space entry is required	_____	Process Safety Management	Work is on or adjacent to operations involving listed highly hazardous chemicals	_____	

Control of Energy	Lockout, blocking, other controls required	_____	Steel Erection	Steel erection work is required	_____	
Hazardous Waste	Handling, removal or storage of hazardous is required	_____			Traffic Control	Work is on or near highways, road, or mass transit

Crane Work	Mobile cranes	_____	Personal Protective Equipment	Work activities or work site requires hearing protection	_____	
	Tandem lifts	_____				
	Bridge cranes	_____				
	Derricks	_____				
Trenching and Excavations	Trenching and excavations required	_____	Public Exposure	Work activities or location requires using respirators	_____	
Welding and Cutting	Acetylene/gas cutting	_____			Work activities or location requires special protective clothing	_____
	Arc welding	_____				
	Soldering and brazing	_____				
Powered Industrial Trucks	Forklift training is required	_____	Other Exposures	Other exposure or high-risk activities (list)	_____	
Aerial Lifts	Hydraulic booms	_____				
	Scissor lifts	_____				
	Mobile scaffolding	_____				
Scaffolding Ladders	Scaffolding is required	_____			_____	
	Portable ladder use is required	_____			_____	

Notes: _____

Reviewed by: _____
 Date: _____

PARSONS

Supervisor, Resident Engineer, Inspector Daily Checklist

Project: _____ Date: _____
Name: _____ Time: _____

Any items that have been found deficient must be corrected before work or use.
This checklist includes, but is not limited to, the following:

<i>Safe Access and Workspace</i>	Yes	No
Are safe access and adequate space for movement available for: Emergencies	_____	_____
Work area	_____	_____
Walkways and passageways	_____	_____
Are ladders, stairways, and elevators properly located and functioning?	_____	_____
Is protection provided for floor and roof openings?	_____	_____
Is overhead protection provided for all areas of exposure?	_____	_____
Is lighting adequate?	_____	_____
<i>Planning Work for Safety</i>	_____	_____
Are employees provide with all required protective equipment?	_____	_____
Have other contractors and trades been coordinated with to prevent congestion and avoid hazards?	_____	_____
Is all temporary flooring, safety nets, and scaffolding provided where required?	_____	_____
<i>Utilities and Services Identification</i>	_____	_____
High voltage lines	_____	_____
Have all been identified by signs?	_____	_____
Have high voltage lines been moved or de-energized, or barriers erected to prevent employee contact?	_____	_____
<i>Sanitary Facilities</i>	_____	_____
Drinking water	_____	_____
Are toilet facilities adequate?	_____	_____
<i>Work Procedures – Materials Handling</i>	_____	_____
Is material handling space adequate?	_____	_____
Is material handing equipment adequate and proper?	_____	_____
Is material handling equipment in good condition?	_____	_____
<i>Other (e.g., tunnels, excavations, shafts)</i>	_____	_____

Comments:

PARSONS

Supervisor, Resident Engineer, Inspector Daily Checklist

Project Name & Number:		AHA No.		Date:		New:	
Location:		Contractor:				Revised:	
Required Equipment		Personal Protective		Analysis by:		Date:	
		Field Supervisor		Reviewed by:		Date:	
Work Activity	Potential Hazards		Preventive or Corrective Measures		Inspection Requirements		

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.

PARSONS

Activity Hazard Analysis Training Record

JOB NUMBER _____	
AHA NUMBER _____	
TASK ORDER NUMBER _____	
DATE: _____	
NAME OF TRAINER: _____	
SUBJECTS COVERED: _____	

TRAINING AIDS USED: _____	

ATTENDEES (PLEASE SIGN NAME LEGIBLY):	
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(Use additional sheets if necessary)

PARSONS

Safety Meeting Agenda/Minutes

Date & Location:
Meeting Start Time:
Meeting End Time:

Agenda:

Review of minutes of last safety meeting: Approved? Yes No
Corrections:

Unfinished business from last meeting:

Any hazards or safety concerns reported since the last meeting? Describe identification of the cause and corrective action(s).

Any accident investigations conducted since the last meeting? Describe identification of the cause and corrective action(s).

Is your accident and illness prevention program working? Yes No
If no, describe any recommendations to improve it.

What other safety-related topics were covered in this meeting?

Safety related concerns for the next period?

Who attended this meeting?

Minutes prepared by:

Next meeting date and location:

APPENDIX D
SPILL RESPONSE PLAN

THIS PAGE INTENTIONALLY LEFT BLANK

D1 INTRODUCTION

Every effort will be made to minimize the potential for spills or releases associated with the proposed field investigations. The risk of spills or release to the environment can be managed through the development and implementation of a site-specific Spill Response Plan. The Spill Response Plan identifies the potential for spills or release to the environment and immediate actions that will be taken in response to a spill or release. In addition, the spill response plan developed by CSSA site personnel will reviewed and incorporated, as appropriate, during site investigations.

D2 POTENTIAL SPILL OR RELEASE CONDITIONS

The greatest potential for spills or releases occurs during subsurface investigations and during the handling of drummed wastes generated by drilling activities. For this reason, the spill response plan lists procedures that must be followed during the proposed subsurface investigation to minimize the potential for releases and to minimize the impact to human health or the environment during an emergency spill or release. In addition, the responsibilities of personnel during a spill or release are summarized.

D3 DRILLING SAFETY PRECAUTIONS

Before any drilling or augering operations are performed, Parsons field team will determine from existing utility diagrams and site interviews whether underground installations (i.e., sewers, telephone, water, fuel, electrical lines, process lines, waste transfer lines, or liners) are anticipated in the vicinity of the proposed drilling location(s). All drilling, augering, and excavation locations must be cleared by CSSA personnel before any drilling, augering, or excavation can be performed. Drilling, augering, or excavation will not commence until an excavation permit has been issued by the appropriate CSSA authorities.

Prior to drilling, the locations of all underground installations will be investigated, as described above. In addition, drilling or augering will be performed in a cautious manner, slowly, with frequent checks for obstructions. A metal rod may be pushed into the soil and used to probe for obstructions at each drilling location.

D4 DRUM HANDLING PRACTICES

The wastes generated through site investigations (decontamination fluids, soil cuttings, soiled PPE, etc.) will be appropriately handled prior to disposal. The generated wastes will be placed in properly labeled 55-gallon drums that will be staged to minimize interference with site investigation activities. Drum labels will contain information concerning drum contents, date of collection, generator name, and characterization of waste materials, as described in Section 7 of the Site Investigation Plan.

Accidents may occur during handling of drums that may result in spillage from drums or physical injury. To improve the safety of drum handling activities, the following procedures will be followed.

The drums will initially be staged near the point of generation; however, drum placement will not interfere with site activities. Following generation and labeling, the drums will be moved to a specially designated area for staging prior to disposal. Prior to

handling, drums will be inspected visually to identify contents (as described by drum labels) and verify drum integrity. Incompatible wastes will be segregated during storage. Adequate aisle space will be maintained between drums. To minimize the potential for accidents, drums will only be handled when necessary. Before moving any drums, the appropriate sequence for moving drums and other containers will be determined. Personnel will be trained in proper lifting and drum moving techniques to minimize the potential for injuries. Equipment with sufficient rated load capacity will be selected to handle anticipated loads during drum staging.

Injuries associated with improper drum handling activities will be reported to the site health and safety officer and first aid or appropriate medical attention will be given to the injured worker. An accident report form will be completed as described by the Health and Safety Plan and notifications will follow standard procedures.

D5 Emergency Spill Response Actions

In the event that a release occurs during or caused by remediation activities, emergency spill response actions will be initiated. Generally appropriate spill response actions are to stabilize and contain the release to the extent possible with available equipment (shovels or drilling materials bags) without endangering field personnel, determining the nature of the release materials, and immediately reporting to the Parsons field team field team leader.

Important release or spill information the Parsons field team field team leader will request includes:

- Where the release occurred;
- What was released;
- What caused the release;
- Approximately how much was released;
- What is known about the release materials (for example, if the spill or release materials are odoriferous);
- Environmental or human health impacts caused by the release;
- Efforts made to contain the release; and
- An estimate of necessary equipment or personnel that will be required to contain or control the release.

The Parsons field team field team leader will be responsible for reporting release or spill information to base personnel and Parsons management.

APPENDIX E
ADDITIONAL SUBCONTRACTOR SELECTION FORMS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX E

CONTRACTOR SELECTION PROCESS

PURPOSE

The following information and illustrations summarize the process for contractor selection.

SUMMARY

The process of selecting contractors consists of four steps:

- Gathering information on contractors for a specific region
- Faxing preliminary contractor qualifications for initial screening
- Final qualification questionnaire for final screening
- Personal survey at short-listed contractor sites

INFORMATION GATHERING

The initial step is the use of Parsons and local resources to gather information on potential contractors prior to any direct contact. To minimize costs, the maximum amount of information is collected from within Parsons resources. Additional data unavailable in-house is gathered from outside resources. Sources for information include:

Parsons Internal

- Parsons subsidiaries
- Parsons procurement department
- Parsons experience with contractor
- Parsons business development department

External information

- U.S. resources including personal references
- Foreign country resources

PRELIMINARY QUESTIONNAIRE AND SCREENING

The first screening process involves a broad and general questionnaire that will be faxed to contractors. This will help indicate whether or not the contractor fulfills fundamental requirements for the project. (see Figure A-1) This questionnaire will go out to contractors selected in the initial gathering process.

APPENDIX A
CONTRACTOR SELECTION PROCESS (Contd)

CONTRACTOR QUALIFICATION SURVEY	
<p>Parsons is an engineering and construction organization located in Pasadena, California. The Corporation has been awarded the contract for engineering and construction of <u>project name</u>. The location of the project is <u>country, state, city</u>.</p> <p>Mobilization of this project will begin <u>start date</u>. The duration of the project will be <u>duration</u>, and, therefore, completion is scheduled for <u>completion date</u>. The ROM of man-hours required for the project is estimated at <u>man-hours</u>.</p> <p>A brief scope of work includes <u>scope</u>.</p> <p>Parsons is in the process of collecting data on contractors and their qualifications for work in this region. The following questions will assist Parsons in the selection of contractors.</p>	
Years in business	
Annual gross dollar volume	
Work presently under contract (project name, location, and cost)	
Projects in place last year (name, location, and cost)	
Construction Services	
<u> </u> Civil	<u> </u> Instrumentation
<u> </u> Structural (fabrication erection)	<u> </u> Coatings
<u> </u> Mechanical	<u> </u> Environmental
<u> </u> Piping (fabrication erection)	<u> </u> Insulation
<u> </u> Electrical	<u> </u> Other (please specify)
Labor affiliations	
<u> </u>	<u> </u> Union
<u> </u>	<u> </u> Nonunion
<u> </u>	<u> </u> Open shop
Is your company interested in a partnership program with another contractor for the project?	

Figure E-1 – Contractor Qualification Survey

APPENDIX E

CONTRACTOR SELECTION PROCESS (Contd)

The screening of this general questionnaire will filter the list of contractors, reducing the list to only those who fit the selection criteria for the project.

FINAL QUESTIONNAIRE AND SCREENING

The final screening includes an extensive questionnaire that will provide information on safety, risk management, quality control programs, experience, financial status, performance, and other similar elements (see Figure A-2) When selecting a contractor for a specific project, the questionnaire can be modified to satisfy project and client criteria for selecting the most appropriate contractor.

This information is consolidated on summary sheets where it can be evaluated and analyzed. A weighted value is applied to each contractor selection summary item to provide a total weighted score for each potential contractor (see Figure A-3) The weight for each category may vary from project to project, depending on specific needs. Final screening results in a short list of the most qualified candidates. Figure A-4 shows the safety selection criteria.

PERSONAL SURVEY AT SHORT-LISTED CONTRACTOR SITES

Short-listed contractors and their jobsites are visited in the final phase of the selection process. In addition, their references are thoroughly checked to verify past performance and reputation, and final decisions are based on all the factors considered during the entire selection process (see Figure A-5.)

SELECTION OF CONTRACTOR

The final contractor selection involves a panel to evaluate the questionnaires and selection summaries. The panel will discuss the strengths and weaknesses of each contractor in all categories. The final selection of this group will facilitate an accurate selection of the best and most appropriate contractor for the project.

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

CONTRACTOR QUALIFICATION SURVEY			
Provide as much information on this form as is applicable to your company. Additional information may be attached to this form. Your completed Qualifications Survey will be confidential and retained at the Parsons office in Pasadena, California, as a basis for contractor selection. Please attach to this form a copy of your current certificate of insurance; indicate current limits.			Date
Company name, address, and telephone and fax numbers		<input type="checkbox"/> Civil <input type="checkbox"/> Structural (<input type="checkbox"/> fabrication <input type="checkbox"/> erection) <input type="checkbox"/> Electrical <input type="checkbox"/> Instrumentation <input type="checkbox"/> Mechanical <input type="checkbox"/> Piping (<input type="checkbox"/> fabrication <input type="checkbox"/> erection) <input type="checkbox"/> Insulation <input type="checkbox"/> Environmental <input type="checkbox"/> Other (please specify)	
*Contractor's license/states		*Labor affiliations	
President		<input type="checkbox"/> Union <input type="checkbox"/> Nonunion <input type="checkbox"/> Open shop	
Contact person		Geographic area of business operations	
Years in business	Years performing construction services	Work hours/month now under contract	Percent of work as construction manager
Last year's work load (man-hours/year)			Percent and type of work subcontracted
This year's forecasted workload			Percent of work by direct hire
Annual gross sales last 3 years 199__ 199__ 199__			Percent of work by own force
Maximum bonding capacity \$		Bonding company	
Value of work presently bonded \$		Agent/phone/fax	
Total permanent staff employed by firm (professional/trade people/clerical). Please attach a list, including craft breakdown.			
In-house design/build capability or fabrication capability			
*Pertains to contractors working in the U.S. only and is not applicable to contractors outside the U.S.			

Figure E-2 – Final Questionnaire

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

Approximate value of capital equipment owned by firm (please attach list with model numbers and capacities)	Bank reference (address/phone/fax/account manager)
Insurance company Indicate current limits for the following:	
General liabilities	Auto insurance
Workers Compensation	Excess coverage (umbrella)
Insurance agents (name/phone/fax)	Years in business with current insurance company
*List your firm's experience modification ratings (EMR) for the last 3 years 19__ 19__ 19__	
*Please use your OSHA 200 Log to fill in the number of injuries and illnesses for the last 3 years	Total employee hours worked in the last 3 years (do not include any nonwork time, even though paid)
Year	19__ 19__ 19__
Number of lost/restricted workday cases (Totals OSHA 200 Log, columns 2 and 9)	B) Year Hours 19__ _____ 19__ _____ 19__ _____
Number of recordable cases without restricted activity or lost workdays (Totals OSHA 200 Log, columns 6 and 13)	Injury Index (c) Multiply total for each year (A) x 200,000 and divide by total employee hours for that year (B) $\frac{A \times 200,000}{B}$
Number of fatalities (columns 1 and 8)	C) Year Hours 19__ _____
Total OSHA 200 Log	A) _____
What agency do your safety procedures comply with?	
Please provide copies of any OSHA citations received for the most recent 3-year period and provide a description of the actions taken to abate the citations.	
Do you hold site safety meetings for field supervisors? No _____ Yes _____	
How often? Weekly _____ Biweekly _____ Monthly _____ Less often or as needed _____	
Who conducts the inspection (title of person conducting inspections)	
*Pertains to contractors working in the U.S. only and is not applicable to contractors working outside the U.S.	

Figure E-2 – Final Questionnaire (Contd)

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

Are the following accident records and accident summaries kept? How often are they recorded?				
	No	Yes	Monthly	Annually
Accidents totaled for the entire company	_____	_____	_____	_____
Accidents totaled by project	_____	_____	_____	_____
Subtotaled by superintendent	_____	_____	_____	_____
Subtotaled by foreman	_____	_____	_____	_____
Do you have a written safety program and manual? No _____ Yes _____				
If you answered "yes," please attach the manual's table of contents.				
A copy of your company's safety manual will be reviewed prior to final contractor selection.				
Do you have an orientation program for new hires? No _____ Yes _____				
Do you hold craft toolbox safety meetings? No _____ Yes _____				
How often?	Weekly _____	Biweekly _____	Monthly _____	Less often or as needed _____
In the previous 3 years, has your firm been cited for any serious violations? No _____ Yes _____				
If you answered "yes," please explain and attach OSHA Safety Orders.				
Are your quality control personnel certified by an approved inspection testing agency? No _____ Yes _____				
This form must be signed by an authorized official of the organization.				
Signature	Name		Type of firm	
Title			_____ Corporation _____ Partnership _____ Sole proprietorship	
Comments				
*Pertains to contractors working in the U.S. only and is not applicable to contractors working outside the U.S.				

Figure E-2 – Final Questionnaire (Contd)

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

CONTRACTOR QUALIFICATION SUMMARY AND RATING			
Contractor _____	Phone number _____		
Location _____	I.D. No. _____		
Contact person _____	Title _____		
This form is used in-house only for evaluating pertinent information taken from the three-page Contractor Qualification Survey. Each item on this list is a question pulled directly from the questionnaire and is used to derive a rating for each contractor surveyed. The evaluator will review the contractor's response to each of the items listed below and assign a rating of 1-5 (5 being the best score) in the score column to the right. A score of zero will be given if the contractor does not meet the minimum rating requirements.			
	Score 0 - 5	Weight %	Weighted Score
Experience			
Years in business	[]		
Years performing expertise work	[]		
Annual sales last 3 years	[]		
Geographic location of business operations	[]		
Type of work performed by own force	[]		
Total	[]		
Total possible score	÷ 25		
Section rating		x 15%	
Soundness and Insurance Coverage			
Total bonding capacity	[]		
Total staff employed by firm/professional/trade people/clerical	[]		
In-house design/build capability or fabrication capability	[]		
Approximate value of capital equipment owned by firm	[]		
Overall insurance coverage	[]		
Years in business with current insurance company	[]		
Total	[]		
Total possible score	÷ 30		
Section rating		x 15%	

Figure E-3 – Contractor Qualification Summary and Rating

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

	Score 0 - 5	Weight %	Weighted Score
Safety Program and Record			
EMR last 3 years			
OSHA 200 Log			
Written safety program			
Emergency action plan			
Programs for new hires			
Site safety meetings			
Toolbox safety meetings			
Project safety inspections			
Accident reports (OSHA 200 Log) and report summaries			
Employee health			
Total			
Total possible score	÷ 50		
Section rating		x 45%	
Quality Program			
Quality Assurance/Quality Control program and procedures			
Total			
Total possible score	÷ 5		
Section rating		x 15%	
Contractor Interview			
Refer to personal interview and site survey reports			
Total			
Total possible score	÷ 25		
Section rating		x 10%	
Total Weighted Score			
Evaluation Comments			

Figure E-3 – Contractor Qualification Summary and Rating (Contd)

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

Item	Activity	1 (Worst)	2	3	4	5 (Best)
1	Experience Modification Rating (EMR)	.96 to 1 and above	.90 to .95	.86 to .89	.81 to .85	.8 and below
2	OSHA 200 Log Total Recordable Injury Rate (including fatalities) compared to the 1990 BLS Report, Table 3 Construction	14.1 and above	11 to 14	8 to 10.9	5 to 7.9	4.9 and below
3	Written safety program	Objectives and goals are clearly set. Program includes new hire orientation, including supervisors and employees. Responsibilities are defined. Haz-Com program is complete.	In addition to column 1, program includes formal training and documentation for all employees, alcohol and drug abuse policy, and emergency evacuation plans.	In addition to column 2, program includes confined space and permit procedures, a medical program, and site safety meetings.	In addition to Column 3, the program includes exposure assessment, site inspections, accident investigations, and control procedures for subcontractors and new hires.	In addition to Column 4, the program includes trend analysis for accident prevention, incentive award systems, and disciplinary procedures. The safety manual is signed by the CEO or officer of the company.
4	Emergency action plan	Plan is in writing and posted.	Employees are trained on plan upon initial hiring.	Emergency response is pre-planned and medical personnel are notified of the job.	Supervisors and workers are trained in first aid.	The plan is updated as required.
5	Programs for new hires	Pre-employment screening for alcohol and drug abuse is conducted.	New hire orientation, including supervisors and employees, is given formally. Responsibilities are defined.	In addition to column 2, HAZ COM and the emergency evacuation plans are covered upon hiring.	In addition to column 3, safety training is given to employees for specialized operations. Leadership training is given to supervisors.	In addition to column 3, additional training is provided upon transfer to another location and whenever new hazards are introduced in the work area.

Figure E-4 – Contractor Selection Criteria Standards (Contd)

**APPENDIX E
 CONTRACTOR SELECTION PROCESS (CONTD)**

Item	Activity	1 (Worst)	2	3	4	5 (Best)
6	Site safety meetings	Safety indoctrinations are given to new employees upon hiring. Toolbox safety meetings are held once a week.	In addition to column 1, staff and supervisor safety meetings are held weekly.	In addition to column 2, supervisors cover safety issues when reviewing work practices with employees.	In addition to column 3, Job Task Analyses are conducted for a majority of operations and employees are given training prior to performing the task.	In addition to column 4, special meetings are held when important safety issues need to be discussed.
7	Toolbox safety meetings	Toolbox meetings are held at least weekly.	In addition to column 1, meetings are conducted by supervisors with worker participation.	In addition to column 2, records are kept on attendance and topics covered.	In addition to column 3, topics pertain to current tasks and highlight safe performance techniques.	In addition to column 4, management attends meetings periodically and provides feedback to improve the quality of the meetings.
8	Project Safety Inspections	Contractor relies on outside sources, such as insurance or the project safety engineer.	The contractor has a written program outlining inspection guidelines and responsibilities. Reported hazards are documented and follow-up timing is adequate.	In addition to column 2, the inspection program is measured by results, such as reduction in accidents and costs.	In addition to column 3, inspections include representatives from line supervision and staff management.	In addition to column 4, inspection results are followed up by top management.
9	Accident reporting and summaries	Line supervision makes investigations of only medical injuries and takes corrective action for any unsafe condition. The injuries are recorded on the OSHA 200 Log when applicable.	In addition to column 1, line supervision is trained to make complete and effective investigations of all accidents, including near-miss and property damage accidents.	In addition to column 2, every accident is investigated within 24 hours and reviewed by the area engineer and construction manager.	In addition to column 3, accident analysis is performed for all accidents, including first-aid cases. The information is graphically illustrated and evaluated to analyze trends for accident prevention.	In addition to column 4, there is a close liaison with the insurance carrier.

Figure E-4 – Contractor Selection Criteria Standards (Contd)

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

Item	Activity	1 (Worst)	2	3	4	5 (Best)
10	Employee health	Industrial hygiene and monitoring are provided for jobsites.	In addition to column 1, medical surveillance programs are provided as required.	In addition to column 2, environmental conditions are monitored and maintained.	In addition to column 3, hazardous materials are handled in accordance with the MSDS and other requirements.	In addition to column 4, PPE is provided in all instances where there is exposure to toxins.

Figure A-4 – Contractor Selection Criteria Standards (Contd)

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

PARSONS

To	Manager of Purchasing	Date	_____
From	_____ (Construction Mgr)	Phone	_____
Subject	Prequalification/Facility Survey and Approval Form	Location	_____

This report is prepared and sent to you to indicate the technical acceptability of the Subcontractor (named below) to perform work on the _____ project.

Subcontractor's Name: _____

Street Address, Zip: _____

Mailing Address, Zip: _____

City, State: _____

Phone Number: _____

Contact: () _____

1. OFFICE AND FACILITY

A. ___ A facility visit was made.

The facilities are:

___ Adequate ___ Inadequate

B. ___ A facility visit was not made.

C. Comments: _____

Figure E-5 – Prequalification/Facility Survey and Approval Form

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

2. PERSONNEL

A. Permanent Office Employees:

Adequate Inadequate

B. Permanent Field Employees:

Adequate Inadequate

C. Comments: _____

3. CONSTRUCTION EQUIPMENT

Adequate Inadequate

Comments: _____

4. HEALTH AND SAFETY PROGRAM

A. Experience Modifiers are:

Acceptable Unacceptable

Comments: _____

B. The OSHA 200 Safety Information

Acceptable Unacceptable

Comments: _____

Figure E-5 – Prequalification/Facility Survey and Approval Form (Contd)

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

4. HEALTH AND SAFETY PROGRAM (Contd)

C. Safety Plan:

___ Adequate ___ Inadequate

Comments: _____

5. QUALITY PLAN

___ Adequate ___ Inadequate

Comments: _____

6. Preferred Types of Project: _____

7. Expertise: _____

8. If this Subcontractor is awarded a Subcontract, Parsons will work with this Subcontractor to improve the following areas.

Figure E-5 – Prequalification/Facility Survey and Approval Form (Contd)

APPENDIX E
CONTRACTOR SELECTION PROCESS (Contd)

9. WORK EXPERIENCE

A. The Subcontractor (___ has) (___ has not) worked in a fully operational petrochemical facility in the past three years.

B. The Subcontractor (___ has) (___ does not have) other work experience in the past ___year(s) that would make it eligible to perform work at this jobsite.

C. The Subcontractor's work experience is:

___ Acceptable ___ Unacceptable

D. Comments: _____

10. Based on the technical review of the:

___ Prequalification Questionnaire

___ Interview with Authorized Representative of Subcontractor

___ Subcontractor Facility Survey

___ Other: _____

this Subcontractor is:

___ Acceptable ___ Unacceptable ___ Other

to perform work on the _____ project at the _____ facility.

Figure E-5 – Prequalification/Facility Survey and Approval Form (Contd)

PARSONS

Subcontractor Qualification Scorecard

HEALTH AND SAFETY

Please answer the following questions.

1. ___Yes ___No Do you have a written safety program? If yes, provide a copy of the table of contents and a copy of your firm's policy statement.

2. ___Yes ___No Do your safety procedures comply with government agency requirements? If yes, provide name of agency/agencies.

3. ___Yes ___No Do you require and use site-specific safety plans?

4. ___Yes ___No Does your worker's compensation carrier provide site audits on a regular basis?

5. ___Yes ___No Does your company have a written drug/substance abuse policy?

6. ___Yes ___No Do you have an orientation program for new hires?

7. ___Yes ___No If you have an orientation program for new hires, does it include subcontractors?

8. ___Yes ___No Do you require subcontractors to submit safety plans?

9. ___Yes ___No Do you hold site safety meetings for field supervisors?

 How often? Weekly___ Biweekly___ Monthly___ Daily___

10. ___Yes ___No Do you hold craft toolbox safety meetings?

 How often? Weekly___ Biweekly___ Monthly___ Daily___

11. ___Yes ___No Have you been inspected by OSHA or received any OSHA citations in the past 3 years? If yes, provide an attachment describing the outcome of the inspection along with copies of citations received. Provide a description of the actions taken to abate the citations as an attachment to this application. Respond to any open citations shown on the OSHA website (www.osha.gov).

12. Identify below by name, phone number, and title the person in your firm directly responsible for the firm's Safety Program management and attach a copy of his or her resume to this application.

Subcontractor Prequalification Scorecard (contd)

13. How do you conduct project safety inspections, and how often are they performed?

14. Describe your firm's program to motivate, encourage, and monitor safe work performance.

OSHA INFORMATION:

*Please use your OSHA 200 Log and/or 300 Log to fill in the number of injuries and illnesses for the last 3 years				Total employee hours worked in the last 3 years (do not include any non-work time, even though paid)	
Year	1	2	3	Year	Hours (B)
				1	_____
				2	_____
				3	_____
Number of lost/restricted workday cases (Totals OSHA 200 Log, columns 2 and 9; Totals OSHA 300 Log, columns K and L).	_____	_____	_____	Recordable Injury Frequency Rate Multiply total for each year (A) x 200,000 and divide by total employee hours for that year (B) $\frac{A \times 200,000}{B}$	
Number of recordable cases without restricted activity or lost workdays (Totals OSHA 200 Log, columns 6 and 13; Totals OSHA 300 Log, column I and J).	+ _____	_____	_____	Year	Rate
Number of fatalities (Totals OSHA 200 Log, columns 1 and 8; Totals OSHA 300 Log column G).	+ _____	_____	_____	1	_____
Total OSHA Log (A)	_____	_____	_____	2	_____
				3	_____
				Experience Modification Rate (EMR)	
				Policy Year	EMR
				1	_____
				2	_____
				3	_____

Are the following accident records and accident summaries kept? How often are they recorded?				
	No	Yes	Monthly	Annually
Accidents totaled for the entire company	_____	_____	_____	_____
Accidents totaled by project	_____	_____	_____	_____

The Applicant shall maintain records of such evaluations and make them available for review and approval of Parsons representatives at all reasonable times should Applicant be awarded a contract based on this application.

By submitting this application, the Applicant agrees to use the above criteria and this form when selecting lower tier subcontractors.

PARSONS
Subcontractor Safety Plan Review

Date: _____ Project/Location: _____

Subcontractor: _____ Parsons Safety Manager: _____

The information provided here is based on a review of a subcontractor's safety plan. Areas identified as incomplete are reevaluated and modified based on the standards in the contract specifications and the Project Safety Program manual. Subcontractors resubmit corrected sections of the SSP to the Parsons Construction Manager within one week of receiving review documentation.

Section	Complete	Incomplete	Section	Complete	Incomplete
Site Specific Safety Plan	_____	_____	Specific Activity Hazard Analysis (AHA)	_____	_____
Responsibilities assigned	_____	_____	Project Site Employees Orientation Program	_____	_____
Compliance	_____	_____	Emergency Action Plan	_____	_____
Hazard Communication	_____	_____	Site Specific Medical Emergency Plan	_____	_____
Hazard Assessment	_____	_____	Identification of Key Line Personnel	_____	_____
Accident Investigation	_____	_____	Identification of Competent & Qualified Personnel	_____	_____
Hazard Correction	_____	_____	Written Progressive Disciplinary Program	_____	_____
Training and Instruction	_____	_____	Written Trenching and Shoring Plan (if applicable)	_____	_____
Recordkeeping	_____	_____	Written 100% Fall Protection Plan (if applicable)	_____	_____
Scope of Work Evaluation	_____	_____	Other	_____	_____

Additional Comments:

Reviewed by:

Nn	Name	Title
_____	_____	_____

PARSONS

Notice of Noncompliance with Safety and Health Regulations

Under conditions of this enforcement procedure check all items that apply:

- _____ 1. You are being notified of this violation and should take corrective action to prevent a reoccurrence. The corrective action shall be documented to the Parsons Construction Management representative immediately.
- _____ 2. You must submit a plan for compliance to your Parsons Construction Management representative and the Construction Safety Manager within two days of receipt of this letter. The compliance plan must include the means or methods of compliance and the date that the requirements for compliance will be completed. Once compliance has been achieved, a follow up letter must be sent to the Parsons Construction Management representative and Construction Safety Manager. Failure to comply will result in disciplinary action against your Company.
- _____ 3. You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and the Subcontractor responds formally that the procedure is understood and will comply.
- _____ 4. You are required to review the stated procedures with your Parsons Construction Management representative. Work may not commence on the site until the review is complete and you **must** confirm formally the disciplinary action to be taken against the supervisor and employees.
- _____ 5. All work on the site will stop until the Parsons Construction Management representative reviews all the facts with the Subcontractor and determines if the contract between the parties will be terminated.

Sincerely,

Parsons Representative

cc: Issuing Construction Manager Representative
Job File
GBU Safety Manager
Project Manager

PARSONS

**Notice of Subcontractor Violation
of Safety and Health Regulations**

Date: _____

Contractor Name: _____
Address: _____

Attention: _____

This letter officially notifies you that you have been found to be in violation of the following Safety Regulations:

_____ on (date) _____, by _____.

- | | | | | | | | |
|------------------------------|-----|-----------------------------|-----|--------------------|-----|--|-----|
| Confined Space Entry | ___ | Lockout/Tagout | ___ | Hot Work | ___ | Personal Protective Equipment | ___ |
| Knowledge of the environment | ___ | Awareness of warning alarms | ___ | Evacuation routes | ___ | Back-up Alarms | ___ |
| Assembly locations | ___ | Fall Protection | ___ | Scaffolding | ___ | Environmental/Hazardous Material Storage | ___ |
| Trenching | ___ | Safe Work Practices | ___ | Security Practices | ___ | | ___ |

Other: _____

This/These violations occurred at the following locations: _____

at the following times _____ and dates _____

The name of the employees was/were _____
under the supervision of _____.

PARSONS

Initial Subcontractor Employee Training Acknowledgment

Name of Trainer: _____

Training Subject: _____

Training materials used: _____

Name of employee: _____

Date of hire/assignment: _____

I, _____, hereby certify that I have received training as described above in the following areas:

- The potential occupational hazards in general in the work area and associated with my job assignment.
- General safety requirements indicate the safe work conditions, safe work practices and personal protective equipment required for my work.
- The hazards of any chemicals to which I may be exposed and my right to information contained on material safety data sheets for those chemicals, and how to understand this information.
- My right to ask questions, or provide any information to the employer on safety either directly or anonymously without any fear of reprisal.
- Disciplinary procedures the employer will use to enforce compliance with general safety requirements.

I understand this training and agree to comply with general safety requirements for my work area.

Employee Signature

Date

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX F
STANDARD OPERATING PROCEDURES FOR UXO CONSTRUCTION
PROJECTS

THIS PAGE INTENTIONALLY LEFT BLANK

**STANDARD OPERATING PROCEDURES FOR UXO CONSTRUCTION
SUPPORT DURING AOC-55 REMEDIAL ACTIONS AT CAMP STANLEY
STORAGE ACTIVITY, BOERNE, TEXAS**

**SECTION 1
INTRODUCTION**

1.1

This SOP describes the anomaly avoidance and UXO support procedures during construction and excavation activities at Area of Concern (AOC) -55, Camp Stanley Storage Activity. While the probability of encountering UXO is low, one of the primary purposes of the excavations is to establish that no UXO exists within the anomalies identified during the geophysical investigation at AOC-55. A UXO team, with UXOSO safety oversight, will therefore perform construction support activities at AOC-55.

1. REGULATIONS

The following regulations, and documents were used in the SOP preparation:

EP 1110-1-18, Ordnance and Explosive Response, Chapter 23, UXO Support for Construction Activities.

EP 75-1-2, UXO Support During HTRW and Construction Activities, Chapter 6, UXO Support During Construction Activities.

EP 385-1-95a, Basic Safety Concepts and Considerations for OE Operations.

2. RESPONSIBILITIES

2.1 Project Manager. The PM is responsible for providing the necessary resources to complete the project in a safe and timely manner. He/she coordinates with the UXO Safety Officer and UXO Field Team Leader to ensure that all safety precautions are being taken and that work plan procedures are being followed.

2.2 UXO Safety Officer (UXOSO). Responsible for identifying to the PM, the requisite safety equipment and PPE appropriate for UXO team members. The UXOSO will conduct safety oversight of the excavation, construction, and all UXO activities related to this task. He is also tasked with investigating any incidents or accidents relating to explosives or injuries to the UXO team. The

UXOSO has stop work authority for any and all safety related situations, and is responsible for the safety of the other UXO team members and all site personnel as it relates to UXO and safety. The UXOSO will conduct a daily tailgate safety briefing for all site personnel. The UXOSO is also responsible for maintaining a daily log.

- 2.3 **UXO Team Leader (UXO Tech III).** The team leader is responsible for coordinating with the PM, UXOSO, and the equipment operator to plan the UXO teams support and to keep all parties informed of their efforts. The Team Leader is responsible for supervising the UXO team members while conducting visual and magnetometer searches of the spoils from the excavations. The UXO Tech III is a working supervisor.
- 2.4 **UXO Tech II.** The UXO Tech IIs are responsible for supporting the UXO Tech III as directed and acting as a safety observer as required. The UXO Tech IIs will conduct visual and magnetometer searches of the spoils from the excavations.

3. OPERATIONS

- 3.1 **UXO Team Composition.** The UXO team will consist of a UXO Tech III, who is the senior member of the team and two UXO Tech IIs. At least two team members must be present on site during intrusive and earth moving activities where UXO has been identified as a hazard.
- 3.2 **Work Schedule.** The UXO personnel will work a 40-hour week unless overtime is approved by the PM. Lunch and breaks will be in accordance with state labor laws.
- 3.3 **UXO Team Procedures.** The UXO team will physically preview the construction footprint with the equipment operator and discuss visual observations and any area of concern. In the event that surface UXO is discovered, the UXO team will place flagging adjacent to the discovery for visual reference, select a course safely around the item and cease operations in the immediate area. If appropriate, cease all operations. The UXO team will assess the condition of the UXO to determine what action is appropriate and the U.S. Army EOD will be notified for any live fired and fuzed ordnance that is discovered. The UXO team shall monitor excavation activities. One member of the team should be positioned to the rear and upwind of the excavation equipment for continuous visual observations

whenever possible. If the excavator unearths or otherwise encounters suspect UXO, all excavation activities in the immediate area will cease.

The UXO team will assess the condition of the UXO to determine if disposal action is required. Once UXO has been encountered in an excavation, no further excavation is allowed at that location until a four foot UXO removal action has been conducted of the area.

4. LOGS, COMMUNICATION AND REPORTING

4.1 Logs. The UXO Tech III is responsible for maintaining a daily log of activities in a bound, sequentially page numbered book listing the following:

Daily start and stop times throughout the day.

Weather conditions.

Any significant events affecting safety and operations.

Significant discussions with the Parsons PM. Any UXO discoveries, listing the location, nomenclature, condition, depth and disposition.

4.2 Communication. At a minimum, cell phone communications will be available on the site. The UXO Tech III, UXOSO and equipment operators will establish visual communications through predetermined hand signals if two-way radio communications are not available. The PM will provide the UXOSO with a list of emergency contact information and a map to the nearest hospital.

4.3 Incident Reporting. In case of an accident or injury, the UXOSO will report immediately to the PM, and will follow up with Parsons OE management personnel. The contact numbers for these persons are provided below.

Name	Position	Phone Number(s)
Ken Rice	Project Manager	(512) 719-6050 Office (512) 497-0075 Cell.
Michael Short	OE Operations Manager	(626) 440-3115 Office (626) 379-3558 Cell
Neil Feist	Deputy, OE Operations Manager	(626) 440-4045 Office (909) 917-5833 Cell

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX G
CSSA ENVIRONMENTAL, SAFETY AND SECURITY PROCEDURES
OSHA JOB SAFETY, HEALTH AND PROTECTION

THIS PAGE INTENTIONALLY LEFT BLANK

**Camp Stanley Storage Activity
Environmental, Safety, and
Security
Procedures for Visitors**

01 April 2005

Environmental and Safety Procedures

- Environmental/Safety Office
- Security Procedures
- Access to CSSA
- Emergency Contact List
- Safety Issues
- Special Requirements
- Contractor Office Space

CSSA Environmental/Safety Staff

- Environmental Project Manager/Engineer
Jeff Aston
- CSSA Safety Officer
Teresa Benavides
- Environmental Geologist
Christopher Beal
- Environmental Office Manager
Stephanie Harr
- Environmental Administrative Assistant
Brenda Shirley

Security on Camp Stanley

- CSSA is a Closed Military Installation
- Possession of a Security Clearance does not give an Employee or Contractor Automatic Access to any Area
- Restricted Access by Contract
- Notification to CSSA Environmental Office
- Disclosure of Information

Access to CSSA

- Consent to Search
- Restricted Items - Photo Equipment, Knives, Matches/Lighters, Firearms, Explosives
- Vehicles - Minimum Insurance, Subject to Inspection
 - Field Work vs. POV's
 - Routes of Travel
 - Posted Speed Limits

Access to CSSA

CSSA Security Requirements for Facility Access

Legitimate Reason for Visit

Appropriate Notification to Environmental Office:

**Jeff Aston
Stephanie Harr
Brenda Shirley**

Advance Notice for On-Post Access is Required. All Visitors MUST Phone or E-mail 24 Hours before Visit.

Individuals who have not Visited CSSA before will need to submit the following information:

**U.S. Citizen
Full Name
Social Security Number
Date of Birth
Place of Birth**

All Visitors will be Issued Appropriate Badges

Report to Environmental Office before Proceeding to Site – All Contractors MUST Sign in.

CSSA is a Restricted Access Facility and Requires Proper Authorization to ALL Post Buildings Prior to Entry with Escort.

Contractors will have a Means of Communication on them at all Times while on Site

Environmental will Coordinate Visit with the appropriate CSSA activities

All Contractors MUST Check Out with Environmental Office before Leaving Post

Emergency Contact List

ENVIRONMENTAL OR SAFETY INCIDENTS

Environmental

Hazardous Material Spill or Leaks
Hazardous Waste Mgmt. Plan and SPCC

CSSA Environmental Office

Jeff Aston Office: (210) 698-5208
 Office#2: (210) 295-7451
 Cell: (210) 336-1270

CSSA Security

Don Wise, Chief of Security (210) 295-7411
 (210) 295-7408

Camp Bullis Fire Department

(210) 295-7517

Safety

Personal Injuries, Accidents,
and Near Misses

CSSA Security

Desk Sergeant (210) 295-7408

Safety Office

Teresa Benavides Office: (210) 698-5208
 Office#2: (210) 295-7451
 Cell: (210) 336-1270

Environmental Office

Jeff Aston Office: (210) 698-5208
 Office#2: (210) 295-7451
 Cell: (210) 336-1270

Methodist Hospital Emergency Room

(210) 575-4444

Note: If using a phone on Post (prefix 295) dial 911 for any emergency. This will dial the Security Desk.

Safety Issues

- Hot Works Permits
- Refueling Vehicles or Equipment
- Hazardous Materials Pharmacy
- Smoking
- Trenching
- UXO
- Confined Spaces
- Heat Exhaustion/Stroke
- HSP

Special Notification Requirements

All Contractors Need to Notify Environmental Office when Special Requirements are Requested, Such as:

- Overtime
- After Duty Hours/Weekends
- Government Furnished Equipment
- etc.

Contractor Office & Storage Space

- Building 98 - Office Space $\approx 250 \text{ ft}^2$
 - PC/Workstation to LAN
 - Printers
 - Access to Internet and Fax
 - Phones for “Official” Calls
- Storage Space – CONEX
 - Field Equipment
 - Hazardous Materials Storage Locker

APPENDIX H
PARSONS SAFE HEALTH PRACTICES FOR VARIOUS FIELD ACTIVITIES

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX H

PARSONS SAFE PRACTICE RULES

OBJECTIVE

The Safe Practice Rules in Table H-1 provide an overview of construction site safety requirements. These rules are not to be considered all-inclusive. For more specific information, refer to the relevant manual sections or OSHA requirements that pertain to specific areas of concern.

This information must be conveyed to all employees upon hire (during New Hire Safety Orientations) and during safety meetings. Failure to comply with these rules may result in termination.

Employees are required to sign a form acknowledging that they have read and understand these Safe Practice Rules (see Exhibit H-1), and that they are aware of the location where these rules are posted.

A copy of these Safe Practice Rules, along with a letter signed by the Construction Manager, must be posted where they are readily accessible to all employees.

See Exhibit H-2 for a copy of the Construction Manager Safe Practice Rules letter.

Table H-1 – General Safety Guidelines

Subject	Requirement
1. Work Planning	Plan work before starting a job. Planning prevents unnecessary exposure, job shutdowns, and rework.
2. Reporting Injuries and Accidents	Immediately report each occupational injury or illness to the site first aid attendant and to the responsible supervisor to ensure suitable first aid or medical attention. Immediately report all accidents involving damage to equipment and materials, including motor vehicle accidents, to the responsible supervisor. Immediately report all near-miss incidents that could have resulted in damage to equipment and materials to the responsible supervisor. The Near-Miss Report form appears in Exhibit 16-2.
3. Reporting Unsafe or Hazardous Conditions	Report unsafe or hazardous conditions to the responsible foreman or supervisor so that corrective action can be taken to prevent accidents.
4. Good Housekeeping	Good housekeeping on the job is mandatory. All employees must do their part to keep jobsites clean to ensure safety and efficiency. Never leave tools and materials where they could fall or cause another employee to face and incur injury. Promote good housekeeping through personal commitment, including proper disposal of lunch bags, bottles, and personal scrap.

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
5. Personal Protective Devices	<p>The hard hats and nonprescription safety glasses with side shields provided for each employee must be worn at all times, except in the job office. Other protective equipment (goggles, respirators, face shields, metatarsal safety shoes, hearing protection and safety belts), are issued and used as required.</p> <p>Wear suitable work shoes in good repair. Steel-toed shoes are recommended. Sandals, athletic shoes, and other soft footwear may not be worn on the job.</p> <p>Wear a full-length shirt with at least 4-in. sleeves at all times on the jobsite. <i>Cutoffs and tank tops are not permitted.</i></p>
6. Alcohol and Narcotics	<p>Drinking intoxicants on the job is forbidden. Anyone reporting for duty under the influence of alcohol or narcotics will not be permitted to work, will be removed from the jobsite, and will be subject to termination.</p>
7. Sanitation	<p>Use the toilets provided.</p> <p>Do not use gasoline or kerosene for cleaning purposes.</p>
8. Horseplay or Fighting	<p>Practical jokes, horseplay, scuffling, wrestling or fighting are strictly prohibited.</p> <p>Running at any time on a project, including in parking areas, is strictly prohibited.</p>
9. Lifting	<p>When lifting, take a position over the load and lift with the leg muscles. Get help for heavy or awkward loads, or use a lifting device. Employees should not lift objects that weigh 50 lb or more unassisted by others or by lifting devices. Always use proper lifting techniques to lift any object.</p>
10. Starting and Operating Machines	<p>Do not start or operate mechanical equipment unless qualified and authorized to do so.</p>
11. Machinery and Tool Guards	<p>Machinery and tool guards on equipment protect against revolving or reciprocating parts. Such guards must be in place before a machine or tool is used and may not be removed or made inoperative.</p>
12. Scaffolds and Elevated Work Platforms	<p>Scaffolds must be substantially constructed to carry the loads imposed on them and to provide safe work platforms. All scaffolds more than 10 ft high must have approved guardrails on all exposed ends and sides. Toeboards and screens must be provided on any scaffold under which persons are required to pass.</p> <p>Scaffolds 4 to 10 ft high and less than 45 in. in width or length must have standard guardrails on all open sides.</p> <p>Use only approved scaffolds. Barrels, boxes, and other makeshift substitutes for scaffolds may not be used.</p> <p>Never lean against safety lines or guardrails.</p> <p>Throwing material from scaffolds or other high places is not permitted. Lock all wheels on manually propelled scaffolding before ascending. Never attempt to move a scaffold while someone is on the platform.</p>

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
13. Ladders	<p>Use only approved ladders. Job-made ladders must be substantially constructed in accordance with approved designs. Portable straight or extension ladders must be placed at safe angles and secured to prevent displacement. The top of each ladder giving access to a work area or platform must extend at least 36 in. above the work area or platform.</p> <p>Barrels, boxes, chairs, or other substitutes may not be used.</p> <p>Do not climb or descend a ladder with anything in your hands.</p>
14. Excavations and Trenches	<p>Trenches in unstable or soft material 4 ft or more in depth must be shored or sloped in an approved manner.</p> <p>Trenches in hard, compact material must be shored or otherwise protected when 4 ft or more deep and 8 ft or more long.</p> <p>Sides of trenches may be sloped in lieu of shoring above the 4 ft level, but the slope may not be steeper than a 1 ft rise for each 0.5 ft horizontal.</p> <p>Ladders must be placed in each trench 3 ft deep or more where employees are working to provide safe exits from the trench. The lateral travel distance between ladders must be no more than 25 ft.</p> <p>Excavated or other material may not be stored nearer than 4 ft, where possible, and at no time closer than 2 ft from the edge of any excavation.</p> <p>Excavations and trenches must be inspected daily by a competent person. If there is evidence of slides or cave-ins, all work in an exposed area must cease until necessary precautions have been taken to ensure the protection of employees scheduled to work in the exposed area.</p>
15. Floor Openings, Holes, and Edges	<p>Protect floor openings or holes with approved guardrails or covers. Covers must be strong enough to support the loads imposed on them and secured to prevent accidental displacement.</p> <p>Guard the open edges of all floors 6 ft or more above the next floor or level using approved barricades secured to prevent accidental displacement. Guardrails and toeboards must also be provided.</p>
16. Hand Tools	<p>Turn in worn or broken hand tools for repair or replacement. Dull or broken tools are unsafe.</p> <p>Use hand tools for their intended purposes only. The design capacity of hand tools may not be exceeded by the addition of unauthorized attachments.</p>
17. Power Tools	<p>Ground electrically powered tools and equipment at all times when in use.</p> <p>Secure air hose connections to prevent accidental separation.</p> <p>Pressure reducing valves must be installed on all compressors to prevent injury in case of a break in the hose or a sudden disconnect.</p> <p>Do not tamper with operating switches or levers requiring constant pressure for operation to make tools operate without constant hand or finger pressure.</p> <p>Grinding wheel speeds must conform to manufacturers' specifications.</p> <p>Never point compressed air tools or hose nozzles at persons.</p> <p>Report and turn in all defective power tools and equipment for repair.</p>

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
18. Explosive-Actuated Tools	<p>Only authorized and properly-trained employees may use explosive-actuated tools. All such tools must be used in accordance with manufacturers' instructions and applicable regulations.</p> <p>Operators must wear approved safety goggles at all times during operations of such tools.</p>
19. Hazardous Energy	<p>Obey all warning tags. Be alert for electrical lines, hot rails, pipe lines, etc.</p> <p>On any work on electrical or otherwise energized systems (for example, pneumatic or hydraulic), the person doing the work and the task supervisor are responsible for lockout and tagout of switches, valves, and like components (after proper arrangements have been made) and for removing the lock and tag after the work is completed.</p>
20. Electrical	<p>Do not use electrical tools or cords unless they have been tested for assured grounding or are used in conjunction with a ground fault circuit interrupter (GFCI).</p> <p>Use only Underwriters' Laboratories (UL) approved electrical extension cords. All extension cords must be properly grounded. Damaged or inoperative cords must be turned in immediately for repair or replacement.</p> <p>Route or elevate electrical cords to avoid damage to cords and tripping hazards.</p> <p>Always handle electrical equipment as though it is alive.</p>
21. Welding	<p>Connect and splice welding cables in an approved manner. No exposed metal parts are allowed in any splice.</p> <p>Route welding cables to avoid damage to cords and tripping hazards.</p> <p>Hang or route lines and hoses so that they do not present a tripping hazard or otherwise jeopardize personnel safety.</p> <p>Use welding blankets or burn blankets where there is a fire hazard or where employees could be subject to hot sparks or falling slag.</p>
	<p>Valve cover caps must be in place and cylinders secured from falling at all times.</p> <p>Place spent welding rods in suitable waste containers.</p> <p>Use flash shields in areas where others might be exposed to welding arcs or sparks.</p> <p>Check weld leads for bare spots at all times.</p> <p>A suitable fire extinguisher must be available for welding or cutting operations.</p> <p>Use proper eye protection.</p> <p>When arc welding, ensure that equipment and the work is properly grounded.</p> <p>Place flashback valves on fuel gas systems at the regulator.</p>
22. Temporary Electric Power	<p>Assume that all temporary electric power lines are energized and use appropriate precautions in handling them.</p> <p>All temporary power equipment must be properly guarded.</p>

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
23. Gas Cylinders	<p>Gas cylinders must be upright when in use, secured to prevent falling, and protected from extreme heat and from being struck by moving equipment and falling objects.</p> <p>When transporting gas cylinders by crane, hoist, or derrick, use suitable cradles, nets or skip boxes. Never use wire or fiber ropes, webs or chain slings, or dragging. Remove regulators before transporting gas cylinders for reattachment in place.</p> <p>Never store oxygen cylinders near highly combustible materials, especially oil and grease, or near fuel gas cylinders.</p> <p>Replace caps on cylinders after each use.</p> <p>Store compressed gas cylinders in designated areas that have appropriate cautionary signage.</p> <p>Store unlike compressed gases separately.</p>
24. Explosion and Gas Hazard	<p>Do not attempt work involving a source of ignition near pits, manholes, open sewers, drain vents, pipe trenches, or enclosed spaces where flammable vapors might be present, until such areas have been tested with an approved hydrocarbon vapor detector, and the atmosphere is found to be safe for hot work.</p> <p>At similar locations where toxic gases might be present, such areas must first be tested with an approved toxic gas detector. No work may be performed until toxic gas concentrations are found to be lower than the maximum permissible level for the gas or gases being detected, or until approved protective measures have been taken.</p> <p>In areas where flammable or toxic vapors or gases might be present, no work may be performed until a job task analysis has been approved. The Site Safety Manager approves the area and procedure.</p>
25. Fire Prevention and Control	<p>All employees must comply with Fire Prevention and Control Procedures in this manual.</p> <p>Open fires are strictly prohibited.</p> <p>Learn where fire extinguishers are located and how to use them.</p> <p>Observe and obey all no smoking and other warning signs.</p>
26. Temporary Heaters	<p>Temporary heaters must have pilot and automatic valves that shut off and prevent fuel flow when pilots are unlit or go out.</p> <p>Only authorized personnel may install, service, and relocate temporary heaters. Installation, service and relocation must be in accordance with manufacturers' instructions, the Fire Prevention and Control Procedures, and any other applicable regulations.</p> <p>The use of makeshift heaters is not permitted.</p> <p>Only cool shell heaters may be used inside buildings.</p> <p>When temporary heaters are used indoors, ensure that adequate ventilation is provided to prevent dangerous concentrations of carbon monoxide.</p>

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
27. Fueling Equipment	<p>No gasoline or diesel engine may be fueled while it is running.</p> <p>Use only approved metal safety fuel cans for refueling cans. Approved fuel cans have a flash arresting screen, a spring closing lid, and a spout cover that ensures safe relief of internal pressure if a can is exposed to fire.</p> <p>No smoking or open flames are permitted within 25 ft of fuel storage tanks, fuel pumps, or refueling operations.</p> <p>Fuel storage tanks must be properly grounded. Such electrical grounds may not be removed without authorization.</p> <p>Fire extinguishing equipment must be available in adequate volume and type to handle the special hazards inherent in the storage and operation of fueling equipment.</p> <p>Fuel storage areas must be graded or surrounded by a curb at least 6 in. high to divert spills from buildings or other exposures. Curbs must be provided with drains to control accumulations of rain and fuel.</p>
28. Vehicle Operation	<p>Vehicle drivers and operators of rubber-tired construction equipment must comply with jobsite speed limits and traffic control procedures.</p> <p>No vehicle with an obstructed rear view may be operated in reverse unless an observer is available to signal that it is safe to do so. All vehicles with obstructed rear views must have operating backup alarm signals that are audible above surrounding noise levels.</p> <p>No employee may be transported in a vehicle unless approved seating is available.</p> <p>Do not operate equipment unless authorized to do so.</p> <p>Vehicle drivers must obey all laws and regulations governing their use.</p> <p>Loads on trucks, tractors, and buggies must be safely secured before such vehicles are moved.</p> <p>Beware of machinery or equipment that can start up at any time while personnel are working nearby.</p> <p>All loads protruding more than 12 in. beyond the end of pickup and flatbed trucks must be properly flagged.</p> <p>Be alert to changes in road conditions and traffic patterns (intersections).</p> <p>Do not allow employees to jump from a moving vehicle. Vehicles must come to a complete stop before riders may board or leave them.</p> <p>Report any and all defects on trucks, etc., immediately to the truck foreman.</p> <p>Allow 3 persons maximum in the cab of a truck.</p> <p>Any personnel being transported in the back of a pickup truck must sit down in the bed; they may not sit on the side rails.</p> <p>Do not allow employees to sit on loads such as crates, boxes, or barrels.</p>

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
29. Crane Operation	<p>The Construction Manager or authorized designate must review the operations of a crane when that crane must be operated in the vicinity of an overhead power line and any part of the crane could come within 10 ft of the overhead line. The review must be done before a crane is moved to an exposed area.</p> <p>The Construction Manager or authorized delegate must review the operations of a crane before any lift that exceeds 80% of the rated capacity for the radius of the crane boom. The review must be documented in accordance with procedures established by Parsons.</p> <p>Outriggers must be used at all times, except when a crane is traveling. If a crane is traveling with a load, every reasonable effort must be made to keep the outriggers extended as far as practical to avoid overturning potential.</p> <p>Hoisting employees in personnel platforms may only be performed when conventional means of accessing the work area are not possible.</p> <p>Hand signals to crane or derrick operators must be those prescribed by the American National Standards Institute (ANSI) standard for the type of crane in use. A poster illustrating the signals must be posted at the jobsite. Appendix K also shows the ANSI hand signals.</p> <p>Overhead lines that encroach on a work area must be marked with caution signs, 6 ft above ground level.</p> <p>Rigging and boom changes must be made by competent mechanics under the supervision of qualified supervisors.</p> <p>Do not walk or work underneath suspended loads.</p> <p>Use tag lines for all loads.</p> <p>Never ride material hoists, headache balls, hooks, or loads. Employees who do so are subject to immediate termination.</p> <p>Operators are responsible for checking their machines before starting work. Any defects of equipment or parts must be reported immediately to the appropriate foreman and mechanic.</p> <p>Outrigger pads must be set on solid foundations before lifts are made.</p> <p>Inspect all load lines, boom lines, etc. before starting work. Any cuts, broken wires, or serious kinks must be reported immediately to the appropriate foreman and repaired before each use as required.</p>

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
	<p>The swing radius of all articulating equipment must be guarded to prevent individuals from being struck. Also, employees must take care not to enter the swing radius of articulating equipment.</p> <p>Do not talk to any other person while making lifts. Operators cannot afford to be distracted.</p> <p>Require that cherry pickers have all loads attached to a tag line back to the machine to prevent movement.</p> <p>Do not allow other workers to ride on the sides of cherry pickers.</p> <p>If improper signals are being given or cannot be seen, operators must secure the load and wait for a competent person to provide the signals. Operators also have the authority to ensure that hand signals are visible.</p> <p>Operators may not move compressed gas cylinders unless the caps are in place and the cylinders are secured in proper carrying racks.</p>
30. Rigging	<p>All rigging equipment must be checked for defects daily.</p> <p>Cable clips must be installed according to OSHA requirements.</p> <p>Use softeners on all wire rope to prevent the cable being cut on beam flanges or other potentially damaging objects.</p>
31. Material Handling	<p>Railroad cars must be balanced when unloading progressively from one side.</p> <p>Do not use shake-out hooks for hoisting or other rigging work. They should be used only for sorting.</p> <p>Do not overload skip boxes so that materials fall out while loads are being raised or landed.</p> <p>Use tag lines when hoisting loads.</p> <p>Pile or stack materials safely and use blocking to support the piles and stacks.</p>

Table H-1 – General Safety Guidelines (Contd)

Subject	Requirement
<p>32. Confined Space Work</p>	<p>A job task analysis and an entry permit must be approved prior to any confined space work or entry into any confined space.</p> <p>Preparatory precautions for confined space work include:</p> <ul style="list-style-type: none"> • Blinding any potential release sources of hazardous materials • Locking and tagout any hazardous energy or mechanical hazard sources • Purging and cleaning • Introducing fresh air and ventilation • Being familiar with the job hazards • Barricading the area <p>All employees working in confined spaces must wear safety harnesses with lifelines if there is potential for toxic, flammable, and oxygen-deficient atmospheres, or if there are engulfment or fall hazards.</p> <p>All employees must be trained in confined space work.</p> <p>If you are unsure about anything, ask. Your life depends on it.</p> <p>Never enter a confined space without going through the Parsons Entry Procedure. If you see someone in a confined space who appears to be injured or unconscious, contact rescue personnel. Many unfortunate accidents occur when employees enter confined spaces to help a fellow employee.</p>
<p>33. Hazard Communication</p>	<p>All employees must be familiar with the written hazard communication program that describes how to handle and use everyday construction chemical materials.</p> <p>The HAZCOM program must include the following:</p> <ul style="list-style-type: none"> • Labeling of containers • How to read material safety data sheets • How and where to obtain chemical information • How employees will be trained <p>Always read labels prior to using chemicals. If you want more information, refer to the MSDS. If you are still not sure how to use a chemical, ask your foreman. Remember: Never use a chemical material unless you have been trained in its use.</p> <p>Always label all chemical containers.</p> <p>Do not use chemicals from containers that do not have labels.</p> <p>You have the right to know about the chemicals you use. Exercise that right.</p>

The Safety Practice Rules in Table H-2 apply to specific crafts employed by Parsons. These rules are for personal safety, and all employees are expected to abide by them at all times.

Table H-2 – Craft Specific Safety Guidelines

Subject	Requirement
<p>1. Boilermakers</p> <p>Eye Protection</p> <p>Safety Belts</p> <p>Lifting</p>	<p>Full eye and face protection must be worn when machines or operations present potential eye or face injuries (grinding, cutting, or welding). Such protection includes face shields and safety glasses when grinding and cutting, or welding hood and safety glasses when welding.</p> <p>Safety belts shall be used when:</p> <ul style="list-style-type: none"> • Guardrails cannot be erected around scaffolds. • Elevated work platforms are more than 4 ft high and less than 45 in. wide. • Independent lifelines with rope grabs are required for employees working on boatswain chairs, swing stages, or other types of suspended scaffolds. • Employees working on floats must tie off to independent lifelines (not floats) with rope grabs, or to substantial building structures. <p>Request assistance to lift any item that is either too large or too heavy to be handled by one person.</p> <p>To lift loads properly, bend your legs, keep your back straight, and lift by straightening your legs. Refrain from putting stress on your back.</p>
<p>2. Carpenters</p> <p>Safety Belts</p>	<p>Safety belts or harnesses must be used when erecting, dismantling, or working on scaffolding not otherwise equipped with appropriate fall protection, or</p> <ul style="list-style-type: none"> • When sides and ends are more than 6 ft high. • When scaffolds are 4 ft to 9 ft high, are less than 45 in. in length or width, and are not equipped with handrails. • When working in boatswains chairs, swing stages, etc. In these instances, each safety belt must be attached to a separate lifeline with rope grabs.

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
Tools	<p>Inspect all hand tools for defects such as cracked hammer handles that could cause injury.</p> <p>Electrical power tools must be properly grounded.</p> <p>Guards must be kept in place on all power equipment at all times.</p> <p>Nails protruding from lumber must be removed or bent over to avoid catching clothing or suffering injury.</p> <p>All scaffolds must be built in accordance with OSHA requirements.</p> <p>Power-actuated tools must be operated only by competent persons. These persons should carry a certification card stating that they know and understand all rules for the safe operation of power tools.</p>
3. Cement Finishers	<p>Use appropriate care so that bags of lime or cement do not burst during handling.</p> <p>Cement masons should use personal protective equipment as follows:</p> <ul style="list-style-type: none"> • Wear suitable clothing to protect all parts of the body from burns. Do not wear clothing that has become stiff and hard with cement. Such clothing can irritate skin and cause infections. • Wear required goggles or face shield and safety glasses when grinding, drilling, chipping, or brushing concrete. • Wear respirators with approved filters and eye protection when working in excessive concentrations of dust. • Wear rubber boots in good condition when working in concrete. Water mixed with cement will cause serious burns. • Wear hard hats at all times. <p>Use protective skin cream on the hands, face and other exposed parts of the body to prevent or alleviate cement or lime burns. Personal cleanliness and frequent washing with soap and water is the best preventive.</p> <p>Store lime in a dry place. There is danger of fire when lime becomes damp and slaked.</p>

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
<p>4. Electricians</p>	<p>Electrical work must be done “cold” in preference to doing it under hot, or power on, conditions.</p> <p>Always handle electrical equipment as though it is alive.</p> <p>Lay only heavy-duty cords on the ground. It is recommended that all cords be elevated above or routed around the working or traffic area.</p> <p>Take no risks. Always assume voltage is high enough to cause physical injury.</p> <p>Warn others in a work area of any potential electrical hazard.</p> <p>Before closing a switch, review the circuit and why the switch is open. Be sure nobody can be injured when the switch is closed.</p> <p>Before beginning repairs on motors or circuits, first remove fuses from the starting box or switch, and place a danger tag and lock on the switch as a warning that repairs are in process. Switches should be locked open in accordance with the Parsons lockout/tagout procedure in Section 10 of the Parsons Health and Safety Manual. After work is completed, remove the tag and lock and replace all protective equipment.</p> <p>Never leave any electrical job unattended unless it is in safe condition for others.</p> <p>Take extra precautions in places that might be occasionally or constantly wet. For example,</p> <ul style="list-style-type: none"> • Use no bare wires. • Ensure that light sockets are nonmetallic. <p>Ensure that switches are enclosed, safety-type, and grounded.</p> <p>Temporary lighting must be used to provide sufficient illumination for safe working conditions.</p> <p>All temporary electrical circuits must be periodically inspected and properly maintained.</p> <p>Never use a fuse or breaker heavier than the capacity of the circuit.</p> <p>Never bridge a fuse or breaker.</p> <p>When removing fuses, use regular insulated fuse pullers.</p>
<p>5. Iron Workers</p> <p>Personal Protection</p>	<p>Face shields and safety glasses must be worn at all times when cutting, welding, or grinding.</p> <p>Wear safety belts when:</p> <ul style="list-style-type: none"> • Guard rails are not available on the scaffold unit. • Elevated work platforms are over 4 ft. high and less than 45 in. wide. • Independent lifelines with rope grabs are required for persons working from boatswain chairs and swing scaffolds. • Employees working on floats must tie off to independent lifelines with rope grabs, or to an independent substantial building structure. • Wear hearing protection when required.

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
<p>Welding</p> <p>Rigging</p> <p>Materials Handling</p> <p>Lifting</p>	<p>Hang lines and hoses so that they do not present a tripping hazard or otherwise jeopardize personal safety.</p> <p>Use welding blankets or burn buckets where there is a fire hazard or employees are subject to hot sparks or falling slag.</p> <p>Valve protection caps must be in place on cylinders and cylinders must be secured from falling at all times.</p> <p>Place spent welding rods in suitable containers.</p> <p>Protect cylinders from sparks, slag, or open flames at all times.</p> <p>Check all rigging equipment daily for defects.</p> <p>All cable clips must be installed according to OSHA requirements.</p> <p>Use cable softeners on all wire rope to prevent the cables being cut on beam flanges or other potentially damaging objects.</p> <p>Railroad cars must be balanced when unloading progressively from one side.</p> <p>Do not use shake-out hooks for hoisting; confine their use to sorting.</p> <p>Do not overload skip boxes to ensure that materials do not fall out while the loads are being hoisted or landed.</p> <p>Materials must be piled or stacked safely and the piles or stacks must be adequately supported by blocks.</p> <p>Request assistance to lift any item that is either too large or too heavy for one person to handle.</p> <p>To lift objects properly, bend your legs, keep your back straight, and lift by straightening your legs. Refrain from putting stress on your back.</p>
<p>6. Laborer</p> <p>Respirators</p> <p>Eye Protection</p> <p>Lifting</p> <p>Demolition</p>	 <p>Employees must use respirators when subjected to dust, fumes, gases, etc., in sufficient quantities to create a hazard or endanger safety.</p> <p>Clean respirators daily.</p> <p>Wear a safety glasses at all times.</p> <p>Wear face shield and safety glasses or goggles when cutting, welding, or grinding.</p> <p>Request assistance to lift any item that is too large or heavy for one person to handle.</p> <p>To lift objects properly, bend your legs, keep your back straight, and lift by straightening your legs. Refrain from putting stress on your back.</p> <p>Demolition work must be done under competent supervision.</p> <p>All necessary safety precautions must be checked through the Site Safety Office.</p>

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
Cleanup Placing of Concrete	<p>Cleanup crew members should wear steel-toe shoes and gloves.</p> <p>Wear rubber boots and gloves at all times when placing concrete.</p> <p>Be alert at all times for incoming concrete buckets and backing concrete trucks.</p>
<p>7. Millwrights</p> <p>Eye Protection</p> <p>Equipment</p> <p>Flammable Materials</p> <p>Welding</p>	<p>Full eye and face protection must be worn when machines or operations present eye or face injury hazards (grinding, cutting, and welding).</p> <p>Employees must use respirators when subjected to dust, fumes, gases, etc., in sufficient quantities to create a hazard or endanger safety.</p> <p>All tools must be in safe working condition.</p> <p>Bench grinders must have proper guards in place at all times.</p> <p>Hang lines and hoses so that they do not present tripping hazards or otherwise jeopardize personnel safety.</p> <p>Secure compressed gas cylinders in the upright position at all times. Compressed gas cylinders must be stored in accordance with Parsons policy on compressed gas storage, subsection 13.3 of the Parsons Health and Safety Manual.</p> <p>Store all flammable or combustible liquids in approved containers.</p> <p>Oily or flammable rags and waste must not be allowed to accumulate and must not be stored in closed spaces.</p> <p>Use flash shields in areas where others are subject to weld arcs or sparks.</p>
<p>8. Operators</p>	<p>Operators are responsible for checking their machines before starting work. Any defects of equipment or parts must be reported immediately to the appropriate foreman and mechanic.</p> <p>Outrigger pads must be set on solid foundations before lifts are made.</p> <p>Inspect all load lines, boom lines, etc. before starting work. Any cuts, broken wires, or serious kinks must be reported immediately to the appropriate foreman and repaired before each use as required.</p> <p>The swing radius of all articulating equipment must be guarded to prevent individuals from being struck. Also, employees must take care not to enter the swing radius of articulating equipment.</p> <p>Do not talk to any other person while making lifts. Operators cannot afford to be distracted.</p> <p>Require that cherry pickers have all loads attached to a tag line back to the machine to prevent movement.</p> <p>Do not allow other workers to ride on the sides of cherry pickers.</p> <p>If improper signals are being given or cannot be seen, operators must secure the load and wait for a competent person to provide the signals. Operators also have the authority to ensure that hand signals are visible.</p> <p>Operators may not move compressed gas cylinders unless the caps are in place and the cylinders are secured in proper carrying racks.</p>

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
<p>9. Pipefitters</p> <p>Eye and Face Protection</p> <p>Safety Belts</p> <p>Welding</p> <p>Rigging</p>	<p>Wear safety glasses with side shields at all times.</p> <p>Wear flash glasses with side shields at all times while working with a welder.</p> <p>Wear face shield and safety glasses when performing operations such as grinding.</p> <p>Use respirators when subjected to fumes, dust or mists, gases, or vapors in sufficient quantity to endanger safety.</p> <p>Safety belts shall be worn when:</p> <ul style="list-style-type: none"> • Guard-rails cannot be erected around scaffolds. • Elevated work platforms are more 4 ft high and less than 45 in. wide. • Independent lifelines with rope guards are required for employees working on boatswains chairs and swing stage scaffolds. <p>Hang or route lines and hoses so that they do not present a tripping hazard or otherwise jeopardize personnel safety.</p> <p>Use welding blankets or burn blankets where there is a fire hazard or where employees could be subjected to hot sparks, slag, or open flame.</p> <p>Check weld leads for bare spots at all times.</p> <p>Place spent welding rods in suitable containers.</p> <p>Protect cylinders from sparks, slag, or open flame.</p> <p>Use flash shields in areas where others are subject to weld arc and sparks.</p> <p>Check all rigging equipment for defects daily.</p> <p>Cable clips must be installed according to OSHA requirements.</p> <p>Use cable softeners on all wire rope to prevent the cable being cut on beam flanges and other potentially damaging objects.</p>
<p>10. Teamsters</p> <p>General</p>	<p>All loads must be secured from movement (shifting) while trucks are moving.</p> <p>Observe all speed limit signs on a project.</p> <p>Do not operate vehicles in reverse without clear vision to the rear, or without guidance from an observer stationed behind the vehicles.</p>
<p>Warehouse and Material Checkers</p>	<p>All cargo must be placed, not thrown, in the back of a pickup.</p> <p>Do not move any loads that are not well secured from movement.</p> <p>Stack materials so that they cannot fall over.</p> <p>To prevent back injuries, observe correct lifting procedures while handling materials.</p>

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
<p>11. Welders</p> <p>General</p> <p>Eye Protection</p> <p>Storage and Use of Cylinders</p>	<p>A suitable fire extinguisher or other effective means of fire extinguishing must be ready for instant use in any location where welding or cutting is to be performed.</p> <p>Screens, shields, or other suitable safeguards must be provided for the protection of employees or of combustible materials below or otherwise exposed to sparks or falling objects.</p> <p>The ground for a welding circuit must be mechanically strong and electrically adequate for the service required. Never ground through a pump or other rotating equipment.</p> <p>Electrode and ground cables must be supported and must not obstruct the safe passage of workers.</p> <p>Where several lengths of cable must be coupled into a welding circuit, use insulated cable connectors on both the ground line and the electrode holder line if occasional coupling or uncoupling is necessary.</p> <p>Always use an electrode holder of adequate rated current capacity, insulated to protect operators against possible shock and to prevent a short or flash when laid on grounded material.</p> <p>When arc welding is performed near others, use screens or adequate individual eye protection to protect from arc rays.</p> <p>Welding operators and helpers must use eye protective devices such as welding shields or helmets and goggles at all times.</p> <p>Keep cylinders away from all heat sources. Inside buildings, keep cylinders away from highly combustible materials such as oil, and from stoves, radiators, or furnaces.</p> <p>Cylinders must be stored in well-marked assigned areas away from elevators, gangways, or other places where they may be knocked over or damaged by passing or falling objects. Do not store cylinders of unlike gases together. Do not store oxygen cylinders in close proximity to acetylene cylinders or other fuel gas inside buildings.</p> <p>In the open, store cylinders where they are protected from accumulations of ice and snow and from continuous direct sunlight. Keep oxygen cylinders separated from fuel gas cylinders or combustible materials a minimum of 20 ft, or by using a noncombustible barrier at least 5 ft high, with a fire resistance rating of at least 30 minutes. Noncombustible barrier materials include steel plates, concrete walls, and concrete blocks.</p> <p>The valves on empty cylinders must be closed. Valve protection caps must be in place except when cylinders are in use or are connected for use. Cylinders must be connected to be in use.</p>

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
	<p>When using a crane to move cylinders, use a cradle, boat, or suitable cage. Do not use slings or hooks. Valve protection caps must always be in place during moves.</p> <p>Move cylinders by tilting and rolling them on their bottom edge; avoid dragging and sliding. When using a hand truck, ensure that cylinders are secure and in position. Never drop cylinders or permit them to strike one another violently. Do not use cylinders as rollers or supports even when empty.</p> <p>Use a suitable cylinder truck, chain, or other secure fastening to hold cylinders upright and in place while in use.</p> <p>Unless cylinders are secured on a special truck, remove regulators and ensure that valve protection caps are in place before cylinders are moved.</p> <p>Keep cylinders far enough away from welding or cutting operations to prevent sparks, hot slag, or flame reaching them. Otherwise, use fire resistant shields.</p> <p>For storing gas cylinders containing in excess of 2,000 cubic feet gas total, provide a separate room or compartment, store cylinders outside, or store them in a special building. Any special buildings, rooms, or compartments must not use open flame for heating or light, must be well ventilated, and must not be used for any other purpose. Smoking is not permitted in gas cylinder storage rooms. Use cylinder carts to transport gas cylinders from storage facilities to their place of use.</p> <p>The fusible safety plugs provided on all acetylene cylinders melt at about 212°F (100°C), or the boiling point of water. Should the outlet valve become clogged with ice, thaw it with warm, not boiling, water applied only to the valve. Never use flame or steam to thaw ice accumulations in a valve.</p> <p>Store and use acetylene and liquefied fuel gas cylinders with the valve end up. Never allow cylinders to lie on their sides.</p> <p>Take immediately out of use any fuel gas cylinders in which leaks occur. Handled leaking cylinders in accordance with the following procedures:</p> <ul style="list-style-type: none"> • Close the valve, tag the cylinder, move it outdoors away from sources of flame or sparks. If desired, use a regulator attached to the valve to temporarily stop a leak through the valve seat. • If leaks occur at the fuse plug or other safety device, tag the cylinder, move it outdoors away from sources of flame or sparks, and leave the valve slightly open to permit the gas to escape slowly. • Post signs warning workers against approaching leaking or otherwise defective cylinders with lighted cigarettes or other sources of ignition, notify the supplier, and follow the instructions in the compressed gas cylinder section of the Parsons Health and Safety Manual (subsection 13.3) for returning cylinders to suppliers.

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
<p style="text-align: center;">Pressure-Reducing Regulators</p>	<p>Open acetylene cylinder valves slowly, but not more than 1-1/2 turns of the spindle, only with the special wrench provided by the supplier. Leave the wrench in position on the stem while the cylinder is in use so that it can be quickly turned off in case of emergency.</p> <p>Do not use the top of a cylinder as a receptacle for tools. Improper use may damage the safety devices in the head or interfere with the quick closing of the cylinder valve.</p> <p>Keep oxygen cylinders and fittings away from oil or grease which, in the presence of pressurized oxygen, may ignite violently. Employees are prohibited from handling oxygen cylinders or apparatus with oily hands or oil-saturated gloves. Before beginning work with pressurized oxygen, warn workers against permitting a jet of oxygen to strike an oily surface or greasy clothes, or into fuel oil or storage that contains a flammable substance.</p> <p>Hammers and wrenches may not be used for opening oxygen cylinder valves. If valves cannot be opened by hand, notify the supplier who will replace the cylinder.</p> <p>When a pressure-reducing regulator is attached to a cylinders open the oxygen cylinder valve slightly at first so that the indicator on the regulator pressure gauge can climb slowly, after which the valve may be completely opened. A sudden release of high pressure can damage the regulator and pressure gauges. Stand at the side of the regulator and not in front of glass-covered gauge faces when opening cylinder valves.</p> <p>When an oxygen cylinder is in use, open the valve fully to prevent leakage around the valve stem.</p> <p>Use pressure-reducing regulators only for the gas for which they are intended.</p> <p>Never use gas from any cylinder without first attaching a suitable pressure-reducing regulator to the cylinder valve.</p> <p>Before attaching a regulator, open the cylinder valve slightly to clear the valve of dust or dirt, then close it.</p> <p>On oxygen cylinders, close the pressure-reducing regulator by turning off the pressure and adjusting the screw to the left (counterclockwise) until it turns freely before opening the cylinder valve.</p>

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
Hoses and Hose Connections	<p>Use only hoses made especially for welding and cutting to connect an oxy-acetylene torch to gas outlets. Metal-clad or armored hose is not recommended.</p> <p>Avoid using unnecessarily long hose. When long hose must be used, exercise appropriate care to ensure that hose does not kink or tangle, and that it is protected from being run over by trucks, stepped on, or otherwise damaged.</p> <p>Frequently inspect all hoses for leaks, worn places, and loose connections. Immersing hose in water under normal working pressure is a satisfactory method of testing. When worn at a connection, cut off the worn portion and reinsert the connections. Repair leads by cutting the hose and inserting a splice. Tape repairs are prohibited.</p> <p>Place flashback valves on fuel gas system regulators to avoid flashbacks into the cylinder.</p> <p>Discard any hose section in which a flashback has occurred and caused burns. Flashbacks burn the inner walls and render hose unsafe for use.</p> <p>Do not use single hose containing more than one gas passage. A wall failure in a hose of such design would permit the flow of one gas into the other gas passage, and cause unacceptable risk to workers. When parallel lengths of oxygen and acetylene hose are taped together for convenience and to prevent tangling, not more than 4 in. out of every 8 in. should be covered with tape.</p>
Eye Protection	<p>When engaged in oxy-acetylene welding or cutting, wear goggles equipped with suitable filter lenses.</p> <p>When engaged in electric arc welding, use shields or helmets equipped with suitable filter lenses.</p> <p>All employees exposed to flying objects resulting from chipping or similar operations must wear goggles with hardened lenses and side shields. Employees doing arc welding should wear such goggles under hoods for protection when the hoods are raised.</p> <p>Where practicable, enclose welding operations.</p>

Table H-2 – Craft Specific Safety Guidelines (Contd)

Subject	Requirement
<p>Oxy-Acetylene Burning Precautions</p>	<p>Always call oxygen by its proper name, "oxygen." Oxygen should never be called "air" and should never be confused with compressed air. Also, call acetylene by its name, "acetylene" not "gas."</p> <p>Never feed oxygen from a cylinder into a confined space, as it is unsafe to do so. Oxygen will not burn, but it supports and accelerates combustion, and can cause oil, wood, clothing, and other similar materials to burn with intensity. Clothing saturated with oxygen or oxygen-rich air may need only a spark to burst into flames. Test all equipment, including hoses, for leaks before taking it into confined places and bring it out when work is interrupted for any reason, even for a short time.</p> <p>Never substitute oxygen for compressed air. Such substitution can easily result in serious accidents. Never use oxygen in pneumatic tools, in oil preheating burners, to start internal combustion engines, to blow out pipe lines, to dust clothing or work, for pressure tests of any kind, or for ventilation. Never allow oxygen or oxygen-rich air to saturate any part of clothing since a spark might quickly set the clothing aflame.</p> <p>When work is stopped for an hour or more, release the pressure in the regulator. To minimize the chance of accidental release of gases when workers are away from equipment, cylinder valves must be closed and regulators and hose lines relieved of gas pressure, just as when detaching a regulator from a cylinder.</p> <p>Do not relight flames on hot work, in a pocket, or in small confined spaces. Always relight with a friction lighter in such instances. Gases do not always ignite instantly when a flame is relit from hot metal. In a small pocket, violent ignition may occur if it is delayed for even a second.</p> <p>Never alter any component of a compressed gas cylinder, regulators, valves, or fittings.</p> <p>Never identify compressed gas cylinders by color. Compressed gas cylinders must be identified by label only. Return compressed gas cylinders without labels to suppliers.</p>

PARSONS

Supervisor, Resident Engineer, Inspector Daily Checklist

Project: _____

Date: _____

Name: _____

Time: _____

Any items that have been found deficient must be corrected before work or use.

This checklist includes, but is not limited to, the following:

	Yes	No
<i>Safe Access and Workspace</i>		
Are safe access and adequate space for movement available for:	_____	_____
Emergencies	_____	_____
Work area	_____	_____
Walkways and passageways	_____	_____
Are ladders, stairways, and elevators properly located and functioning?	_____	_____
Is protection provided for floor and roof openings?	_____	_____
Is overhead protection provided for all areas of exposure?	_____	_____
Is lighting adequate?	_____	_____
<i>Planning Work for Safety</i>		
Are employees provided with all required protective equipment?	_____	_____
Have other contractors and trades been coordinated with to prevent congestion and avoid hazards?	_____	_____
Is all temporary flooring, safety nets, and scaffolding provided where required?	_____	_____
<i>Utilities and Services Identification</i>		
High voltage lines	_____	_____
Have all been identified by signs?	_____	_____
Have high voltage lines been moved or de-energized, or barriers erected to prevent employee contact?	_____	_____
<i>Sanitary Facilities</i>		
Drinking water	_____	_____
Are toilet facilities adequate?	_____	_____
<i>Work Procedures – Materials Handling</i>		
Is material handling space adequate?	_____	_____
Is material handling equipment adequate and proper?	_____	_____
Is material handling equipment in good condition?	_____	_____
<i>Other (e.g., tunnels, excavations, shafts)</i>		
	_____	_____
	_____	_____

Comments:

PARSONS

Activity Hazards Analysis

Page ____ of ____

Project Name & Number:		AHA No.		Date:	New:
Location:		Contractor:			Revised:
Required Personal Protective Equipment				Analysis by:	Date:
		Superintendent/Competent Person		Reviewed by:	Date:
Work Operation:				Approved by:	Date:
Work Activity	Potential Hazards	Preventive or Corrective Measures		Inspection Requirements	

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.

PARSONS

Activity Hazards Analysis Training Record

JOB NUMBER _____
AHA NUMBER _____
JOB LOCATION _____

DATE: _____

NAME OF TRAINER: _____
SUBJECTS COVERED: _____

TRAINING AIDS USED: _____

ATTENDEES (PLEASE SIGN NAME LEGIBLY):

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(Use additional sheets if necessary)

PARSONS

Safety Meeting Agenda/Minutes

Date & Location:
Meeting Start Time:
Meeting End Time:

Agenda:

Review of minutes of last safety meeting: Approved? Yes No

Corrections:

Unfinished business from last meeting:

Any hazards or safety concerns reported during this time period? Status of any corrective action reports?

Any accident investigations conducted since the last meeting? Describe identification of the cause and corrective action(s)?

Is your accident and illness prevention program working? Yes No

If no, describe any recommendations to improve it.

What other safety-related topics were covered in this meeting?

Safety related concerns for the next period?

Who attended this meeting?

Minutes prepared by:

Next meeting date and location: