



# PSMP CHANGE LOG

## 12/2025

Removed Trade Partner Helmet Initiative from the Addendum section into the body of the PSMP. This is now a requirement.

Added Stop Work Authority as part 4 of the Safety 360 section in both the safety declaration and the Safety 360 section.

Changed Life Saving Rules to High Risk Activities

Stop Work Authority section created to identify expectations onsite

Lone Worker Program identified

Pre-Task Plan section updated – to describe that ideally individual crews should complete pre-task planning to improve communication on specific tasks being completed on that day.

Additional full-time safety professionals may be required beyond the first one identified by the manpower count, for both approved and CAP trade partners

Approved trade partners may be put on a CAP if poor safety performance is exhibited onsite.

Fall restraint in scissor lifts on owner required sites

Cutting station expectations

## 12/2024

Tracking changes will be noted here:

Layton Construction changed to general contractor/project management team.

Subcontractor to trade partner

Changed front-line supervisor/supervision to trade partner supervisor/supervision.

2025 Safety Declaration

- Changed LaPSZ to Safety 360 to show inclusivity across all STOBG-West companies.
- Updated Maximum lifting weight for workers section to match body of PSMP.
- Removed some classifications from the PPE section.
- Updated housekeeping to include submission of Housekeeping Plan at pre-mob meeting.
- Fall protection section – added 6-foot in front of shock absorbing lanyards, and that fall protection includes body harness, connecting device, and anchor point.

Replaced the LaPSZ section with a more detailed Safety 360 section.

Added Life Saving Rules and zero tolerance policy, with regards to fall protection, excavation and trenches, confined spaces, and energized electrical work.

Updated Responsibility matrix table

Updated Training matrix table

Lightning section updated in the crisis management plan to clarify when to seek shelter and when work activities can begin again.

Updated PPE section to clarify when and what type of Hi-Viz is expected.

PPE section – added the sleeve section - cut sleeves expected when arms are exposed to cut hazards.

Removed Fix Blade Utility knife section.

Added Health Hazards in Construction Section, taking the health hazards out of the general contractor requirements section.

Added an additional addendum section – to include all additional project requirements based on local, state, federal/territory, and owner requirements.

Removed the Appendix 100% glove policy as a separate document – the 100% glove policy requirement is included throughout the PSMP.



## ACKNOWLEDGE OF RECEIPT AND COMPLIANCE AGREEMENT

### I have received and read the Project Safety Management Plan

I have received, read, and understood the Project Safety Management Plan (PSMP).

On all projects, I agree that my company, its workers, all levels of my company's lower-tier subcontractor companies, and all levels of my company's lower-tier subcontractor workers will comply with federal, state, and local environmental, safety, and health requirements and will conform to the requirements of the PSMP. If there is any difference between a general contractor requirement in the PSMP and a federal, state, or local requirement, the more stringent requirement will apply.

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Company Name: \_\_\_\_\_

Printed Name of Principal: \_\_\_\_\_

Title of Principal: \_\_\_\_\_

Signature of Principal: \_\_\_\_\_ Date: \_\_\_\_\_



## PROJECT INFORMATION

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Project Address: \_\_\_\_\_

Project Superintendent: \_\_\_\_\_

Project Superintendent Phone: \_\_\_\_\_

Project Manager: \_\_\_\_\_

Project Manager Phone: \_\_\_\_\_

Project Safety Professional: \_\_\_\_\_

Project Safety Professional Phone: \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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# 2026 SAFETY DECLARATION

## GENERAL REQUIREMENTS

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The stricter of 29 CFR 1926 and the Project Safety Management Plan  
[laytonconstruction.com](http://laytonconstruction.com)  
[abbottconstruction.com](http://abbottconstruction.com)  
[stobuildinggroup.com/southwest](http://stobuildinggroup.com/southwest)

**►** Safety and accident prevention must be a part of the bid preparation when choosing to work with the general contractor. When bids are presented, it is understood that the submitting company will meet all regulatory, owner, and general contractor standards for safety and accident prevention on all projects, as outlined in this Safety Declaration and more thoroughly specified in the Project Safety Management Plan (PSMP). When a general contractor requirement and a federal, state, or local requirement differ, the more stringent requirement will apply.

## Trade Partner Pre-Mobilization

Prior to mobilization, each trade partner's project management and field supervisors will attend a pre-mobilization meeting led by the general contractor project team. Trade partner field supervisors will discuss detailed, project-specific safety hazards and describe how they and their lower-tier trade partners intend to implement and conform to the PSMP.

## Daily All-Hands Production/Safety Huddle

As led by the general contractor project team at the beginning of each shift, all trade partner employees and lower-tier trade partner employees will participate in warm-up/stretching exercises and a meaningful discussion of planned work activities.

## Trade Partner Supervision and Safety Inspection and Oversight Requirements

Each trade partner and lower-tier trade partner supervisor should have OSHA 30-hour training. Each trade partner will provide an on-site, full-time safety professional when the trade partner and its lower-tier trade partners collectively have 50 or more employees on site, unless the trade partner is working under a Corrective Action Plan (CAP), where a full-time safety professional may be required for fewer on-site employees. Trade partner supervisors will complete documented weekly safety audits in the Construct PM mobile app. These audits will describe the corrective actions taken for hazardous or non-compliant issues found.

## Crew Pre-task Planning

Prior to beginning its work tasks, each trade partner work crew supervisor will engage in a meaningful pre-task planning meeting. Each planning meeting must be an open discussion between the supervisor and the workers accountable to the supervisor, completed in the work area when possible. Supervisors must analyze tasks to be performed and identify the work sequence, hazards, training, controls, tools, and emergency action plans necessary to protect the workers. Tasks, especially high-hazard tasks, must be described, and the means to implement each task's hazard control methods must be communicated. Supervisors must ensure workers understand the hazards and hazard control expectations beyond the use of PPE. At least daily, each supervisor must submit in the field software application the crew's completed pre-task plan.

## Safety 360°

Safety 360° is the shared corporate and individual belief that safety is a value not compromised by cost or schedule. Everyone has the right to go home safely at the end of the day. Safety 360° has four basic premises:

1. All incidents and injuries are preventable.
2. Injury-free operations are possible in construction.
3. Elevate safety awareness daily - a journey of continuous improvement to advance safety and achieve a heightened state of awareness where field employees are responsible for their own safety.
4. Every worker is empowered to stop work to proactively prevent incidents, injuries, and unsafe acts or conditions without the fear of punishment.

## Maximum Lifting Weight for Workers

The company has implemented a 75 lb. maximum lifting restriction for all workers. Manual lifts over 50 lbs. should be avoided as much as possible. In general, materials weighing over 75 lbs. should be moved by mechanical means.

## Weekly Trade Partner Coordination Meeting

Each trade partner supervisor will attend a weekly planning, coordination, and safety meeting led by the general contractor.

## Disciplinary Action

Trade partner and lower-tier trade partner workers who fail to abide by the requirements of the PSMP may be suspended or removed from the site. This is intended to preserve safety-conscious working conditions for all workers and encourage each employee to be responsible and conscientious.

## Incident Reporting

All incidents (injuries, illnesses, property damage, close calls) will be reported immediately to the general contractor. On a case-by-case basis, as determined by the general contractor, post-incident drug

testing may be required for anyone involved in an incident involving injury or property damage.

## Personal Protective Equipment

Unless the task requires a higher level of personal protection, at a minimum, clear eye protection conforming to ANSI/ISEA Z87.1, Type II helmet with chin straps conforming to ANSI/ISEA Z89.1, high-visibility apparel, and gloves conforming to ANSI/ISEA 105 Cut Level A4 will always be worn on the site outside of an office setting or an enclosed cab. Protective footwear will be worn at all times on the site.

## Housekeeping

Each trade partner will practice good housekeeping, including completing a housekeeping plan submitted prior to mobilization. Each trade partner will remove trash and debris during and after each shift. Cords and hoses will be elevated, bridged, buried, or controlled to eliminate trip hazards and reduce damage from equipment travel. Work areas will be kept organized and free from clutter. Walkways and stairs will be kept clear.

## Fall Protection

Each trade partner will abide strictly by the general contractor's safe work practices when working from heights. When exposed to a fall of six feet or more, fall protection must be used. When engineering controls do not eliminate the fall hazard, 100% tie-off is required using a full-body harness, approved connecting device, and an anchor point fully compliant with 29 CFR 1926 Subpart M. 6-foot shock absorbing lanyards are prohibited; self-retracting deceleration devices are recommended. When using ladders, each trade partner will follow the general contractor's Ladder Tag process.

## Equipment Operation

Equipment operators must show proof of training. All equipment must be operated and maintained in strict accordance with the manufacturers' specifications.

Signature CEO/Principal

Date

Company

Name

Title

**Layton**

**ABBOTT**

 **STRUCTURE TONE**  
Southwest

**SAFETY**  
**360°**  
EVERYBODY | EVERYWHERE | EVERYDAY

## ENVIRONMENTAL SAFETY AND HEALTH COMMITMENT

At STORG-West, the commitment to environmental, safety, and health is an extension of our philosophy of Constructing with Integrity.

Our commitment to safety excellence is emphasized by:

- Management's commitment and accountability to provide a safe and healthy work environment.
- Encouraging open communication between all project personnel and soliciting input, support, and action to achieve an injury-free environment.
- Providing training and equipment to help ensure employee safety and project success.
- Promoting safety as a value rather than a directive and extending that value into all areas of our lives.

At STOBG-West, environmental, safety, and health are everyone's responsibility. As a condition of employment with STOBG-West, all employees are accountable to adopt safety as a value and comply with the best practices of the highest level of environmental, safety and health standards and guidelines.



# CODE OF CONDUCT

STO Building Group's Code of Conduct and Business Ethics (the "Code"), available [here](#), is the keystone to our commitment to ethical conduct. It provides guidance on upholding STO Building Group's core values and helps employees and business partners understand the legal and ethical principles that govern the way we conduct business.

The Code applies to all STO Building Group employees, and to members of the board of directors, agents, consultants, contracted labor, and others when they are acting for or on behalf of STOBG. This Code also applies to the company's vendors, subcontractors, suppliers, and other business partners.

The Code is an indispensable resource, but it cannot address every situation that may arise. We rely on you to exercise common sense and good judgment in applying the principles contained in the Code, and to ask for help when you need it. These key principles include:

- maintaining compliance with the letter and spirit of all applicable laws and regulations
- upholding our commitment to maintaining a respectful workplace, free from discrimination and harassment, and to fair employment practices providing business opportunities to minority, women-owned, and disadvantaged business enterprises (M/W/DBEs)
- avoiding conflicts of interest—actual, potential, and perceived
- promoting fair competition and making business decisions exclusively on the basis of price, service, and the ability to meet the company's and clients' needs
- operating in a fair and transparent fashion and disclosing material terms and conditions of our engagements
- keeping accurate company documents and records

As a member of the STOBG family, you also have a duty to let the company know about any potential misconduct. Managers have a duty to act and to ensure that reports of potential misconduct made to them are promptly escalated and handled in accordance with the Code. You can report potential misconduct to or seek guidance from any of the following company resources:

- Your manager, a more senior manager, or your business unit leader
- A member of STOBG executive management
- Your compliance liaison or the Compliance & Ethics Department, which can be reached by email at: [compliance@stobuildinggroup.com](mailto:compliance@stobuildinggroup.com)
- The Human Resources Department
- The Legal Department

You may also report potential misconduct anonymously through our 24/7 helpline, operated by a third party unaffiliated with STOBG, by calling the below toll-free numbers or visiting the online portal.

Call toll-free:

800.461.9330 in the United States  
1.800.235.6302 in Canada  
0808.189.1053 in the United Kingdom  
1.800.904.177 in Ireland

Online: [compliancehelpcenter.com](http://compliancehelpcenter.com)

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# GENERAL CONTRACTOR STANDARDS OF ENVIRONMENTAL, SAFETY, AND HEALTH

The purpose of the general contractor's environmental, safety, and health (ESH) standards is to assist project management, trade partner, and field employees in understanding the general contractor's Safety 360 philosophy and the ESH expectations and requirements for its projects. The ESH standards within this document represent the minimum expectation of performance on every project site.

## Responsibility and Accountability

Everyone associated with the project must understand his or her responsibilities concerning ESH on the project. With the responsibilities defined, project management, supervision, trade partner supervision, and craft workers will be held accountable for their ESH performance.

**Project management** includes project executives, project directors, project managers, project superintendents, project engineers, and the ESH vice president/ ESH team leaders.

**Trade partner supervision** includes general superintendents, superintendents, field engineers, general foremen, and foremen.

The matrix serves to associate tasks with position(s) responsible.

**TABLE 1** ————— Accountability Matrix

SUBJECT	PROJECT MANAGEMENT WILL ENSURE THAT:	TRADE PARTNER SUPERVISION WILL ENSURE THAT:	CRAFT EMPLOYEE WILL:	TRADE PARTNER SITE-SAFETY REPRESENTATIVE WILL:
Project Management Plan (PMP)	All project team members participate in preparing the PMP, including assigned ESH.			
Project Safety Management Plan (PSMP)	The PSMP is fully understood, implemented, and enforced by general contractor, trade partners, vendors, or third parties working or visiting the project.	The PSMP is fully understood, implemented in work planning, and communicated to craft workers.  The project is compliant with all aspects of the PSMP.	Be required to participate in site-specific orientation to understand the content of the PSMP.	Understand and support the implementation of the content of the PSMP.
Work Practices		All work tasks and expectations are properly communicated to craft workers and that all craft understand and comply.	Understand and follow the safety expectations communicated to them by their supervisor.	Ensure the project conforms to the PSMP.
Site-Specific ESH Rules	The site team should actively engage with trade partners to follow site specific safe work practices.	Trade partner supervisor should actively engage with trade partners to follow site specific safe work practices.	Understand and follow the safety expectations communicated to them by their supervisor.	Will ensure that all site specific ESH rules are being followed by trade partner workers.
Site Orientation	Resources are available to conduct effective and meaningful site orientation for all workers.  Project management participates in site orientations.	Trade partner supervision ensures that all workers attend site orientation prior to beginning work on the site.	Attend site orientation prior to beginning work on the site.	Will review and ensure that all trade partner workers have attended site orientation.
ESH Training	Gathers all required ESH training documentation during the pre-mobilization meeting.	Ensure that all required ESH training documentation has been supplied to general contractor.	Only perform the work that they have been provided training for.	Ensure the competency for workers and provide training or re-training as required.

## Orientation, Training, and Meetings

To promote and help ensure an injury-free environment, ESH training is a requirement for all general contractor workers and trade partner craft workers assigned to the project.

### Trade Partner Supervisor – Pre-mobilization Meeting

All trade partner supervisors are required to attend a pre-mobilization meeting prior to the mobilization of their work crews so they can receive site-specific training, review permits, forms, procedures, and safety initiatives required by the project. In this meeting, the team will discuss site-specific information necessary to adequately coordinate work and prepare work crews to complete the scope of work with the highest quality and safety. Competent person, training documentation, and any other applicable items will be delivered to the general contractor project team at this time. Training on applicable software such as ConstructPM, SmartTagit, etc. will be given. A typical pre-mobilization meeting agenda is shown in Appendix 14.

### OSHA 30-Hour

The general contractor requires all trade partner lead supervisor to provide proof of competency, (i.e. OSHA-30). If state, or owner requires OSHA-30, general contractor will ensure that trade partner is compliant.

### Employee Site-Specific Orientation

All trade partner supervisors and all craft workers (including all lower-tier subcontractor workers) shall attend a site-specific orientation conducted by the project team prior to starting any work onsite. The site orientation will provide general ESH information, project-specific policies, rules, procedures, safety initiatives, and expectations for safe work performance. Attendance sheets shall be kept and uploaded in either ConstructPM or Box. Each person attending will receive a name tag and a sticker for their helmet upon completion of the site orientation.

### Daily All-Hands Production/Safety Huddle

All trade partner supervisors and all craft workers (including all lower-tier subcontractor workers) shall actively engage in a daily pre-shift production and safety coordination huddle conducted by the general contractor project team. The general contractor reserves the right to remove any trade partner management, supervisor, or personnel that do not regularly attend the daily huddle. The daily huddle starts with a safety share, and includes stretch-and-flex, a description of the work activities for the shift, coordination discussions among trade partners, safety concerns, descriptions of new work activities, new and continuing hazards and risks, and any incidents that may have occurred on the project as well as corrective actions taken.

### ESH Training

In addition to site-specific orientation, the general contractor, along with federal, state, and local regulations, require ESH-related, task-specific training for workers. To help with understanding these training requirements and to further our goal of an injury-free workplace, the training matrix is included to assist in the identification of applicable training requirements. Project management or trade partner supervision will communicate the established ESH policies, rules, procedures, and initiatives to all vendors and third-party individuals visiting the project.

**Each trade partner shall maintain thorough, accurate written records of all ESH training and shall provide these records to the general contractor, and as changes occur, updated documentation will be provided. In some cases (as described below), training and certification records shall be maintained on the site.**

**TABLE 2** ESH Training Matrix

TOPIC	WHO NEEDS TRAINING	WHAT TRAINING IS NEEDED
30-hour OSHA in Construction	Lead supervisor; recommended for all supervisors.	30-hour OSHA in Construction.
Project-specific Site Orientation	All project management, supervision, and craft workers (including all lower-tier subcontractors) entering the project.	<p>Project-specific site orientation shall be conducted by the general contractor project team. Site orientation shall contain the following topics:</p> <ul style="list-style-type: none"> <li>Application of this PSMP on the site</li> <li>Site-specific ESH policies, rules, and procedures</li> <li>Site-specific emergency action plan</li> <li>General site safety performance expectations, including attendance at daily huddle and pre-task planning meetings.</li> <li>The site's disciplinary program</li> <li>Client specific safety expectations</li> <li>Location of SDS.</li> </ul>
Hazard Communication	All workers entering the project.	All workers are trained in the safe use of the products/chemicals used in their work site.
Respiratory Protection	All workers for which respiratory protection is required.	In addition to a written respiratory protection program, medical monitoring, and a fit-testing protocol, formal, employer-provided training fully consistent with the specific training elements found in 29 CFR 1910.134(k) is required.
Fall Protection	All workers who might be exposed to a fall hazard.	Formal, employer-provided training fully consistent with the specific training and certification elements found in 29 CFR 1926.503 and or other applicable standards as required.
PPE	All workers using PPE.	<p>Refer to the Personal Protective Equipment (PPE) section in this PSMP.</p> <p>NOTE: Unless the task requires a higher level of protection, gloves conforming to ANSI/ISEA 105 Cut Level A4 shall always be worn by all personnel.</p> <p>Initial and annual PPE training is required on the following topics:</p> <ul style="list-style-type: none"> <li>Proper selection, use, and care of required PPE</li> <li>How to recognize hazards where PPE (or additional PPE) is required.</li> <li>How to properly don, doff, adjust, and wear PPE.</li> </ul> <p>Where improper use of PPE is observed, or when an employee demonstrates a lack of understanding or demonstrates improper use of PPE, retraining will be required.</p>
Forklifts/Powered Industrial Trucks	All operators of forklifts/ powered industrial trucks.	<p>Formal, employer-provided training fully consistent with the specific training and certification elements found in 29 CFR 1910.178(l) is required.</p> <p>Workers must have proof of their training and certification to operate forklifts / powered industrial trucks.</p>

TOPIC	WHO NEEDS TRAINING	WHAT TRAINING IS NEEDED
Confined Spaces	All workers attending to, supervising, entering, or working solely within confined spaces for which a permit is NOT required for entry.	Formal, employer-provided training fully consistent with the specific training elements found in 29 CFR 1926.1207 is required.
Permit-required Confined Spaces	All workers attending to, supervising, entering, or working within confined spaces that require a permit for entry.	In addition to having a written permit-required confined space program, formal, employer-provided training fully consistent with the specific training and elements found in 29 CFR 1926.1207 and 29 CFR 1910.146(g) is required.
Excavation/Trenches	All workers entering or working within an excavation/trench.	<p>Training is required on the following topics:</p> <ul style="list-style-type: none"> <li>• Hazards of the space (slides, cave-ins, water accumulation, etc.)</li> <li>• Safe means of access/egress</li> <li>• Proper support system procedures (erection, maintenance, disassembly, and inspection)</li> </ul>
Lockout/Tagout	All workers affected by hazardous energy sources.	<p>Training is required on the following topics:</p> <ul style="list-style-type: none"> <li>• Nature of known hazardous energy sources</li> <li>• Project-specific lockout/tagout procedures</li> </ul>
Gas Welding, Arc Welding, and Cutting	All workers conducting gas welding and/or cutting.	<p>Training is required on the following topics:</p> <ul style="list-style-type: none"> <li>• The safe use of fuel gas systems</li> <li>• What to do with unattended machines and electrode holders</li> <li>• Operations around water, and in damp or humid conditions</li> <li>• Shield-arc welding safe work practices.</li> <li>• Appropriate storage of compressed gas cylinders.</li> </ul>
Hot Work with Combustibles, Flammables	Workers conducting hot work activities such as cutting, welding, brazing, or grinding.	<p>Training is required on the following topics:</p> <ul style="list-style-type: none"> <li>• Hazards of the area</li> <li>• Duties of a person assigned as a fire-watch.</li> <li>• How to use a fire extinguisher</li> <li>• Permits, and the hot work permit approval process</li> </ul>
Scaffolding	Workers working from scaffolding.	<p>Formal, employer-provided training fully consistent with the specific training elements found in 29 CFR 1926.454 is required.</p> <p>Any additional requirements required by the project.</p>
Crane Baskets  **If approved by General Contractor	Workers working from crane baskets.	<p>Formal training is required on the following topics:</p> <ul style="list-style-type: none"> <li>• Safe work rules</li> <li>• 100% fall protection</li> <li>• Lift plans contents</li> <li>• Emergency procedures</li> </ul>
Mobile Elevated Work Platforms (MEWPs)	Workers operating or working from scissor lifts and articulating boom lifts.	<p>Training is required on the following topics:</p> <ul style="list-style-type: none"> <li>• Safe work rules</li> <li>• Fall protection</li> <li>• Emergency procedures</li> </ul>

## SAFETY 360

The general contractor is committed to an injury-free environment. Safety 360 is the shared corporate and individual belief that safety is a value not compromised by cost or schedule. Everyone has the right to go home safely at the end of the day. Safety 360 has three basic premises:

- All incidents and injuries are preventable – no level of incident or injury is acceptable.
- Injury-free operations are possible in construction – if a prevailing mindset and conviction exists to do the right thing and to do what is necessary to achieve that state.
- Elevate safety awareness daily – a journey of continuous improvement to advance safety and achieve a heightened state of awareness where field employees are responsible and accountable for their own safety and the safety of their co-workers.
- Every worker is empowered to stop work to proactively prevent incidents, injuries, and unsafe acts or conditions without the fear of punishment.

An injury-free environment includes a willingness to adapt to any new safety initiatives implemented during construction by the general contractor project team emphasizing the continual improvement process to protect field employees.

If a hazard is noticed, immediate action should be taken to correct the unsafe situation, including pausing the work and reporting the concern to a supervisor. These observations should be documented in field software application such as ConstructPM or Smart Tagit.

## HIGH RISK ACTIVITIES

The general contractor has identified high-risk activities, regarding specific behaviors, actions, and conditions that are strictly prohibited onsite. Violations will lead to immediate and serious consequences potentially resulting in permanent removal from the project. These policies are in place to uphold our commitment to safety, security, and professionalism.

High Risk Activity - violations include:

- Fall protection -working at heights unprotected (including openings, edges, scaffolds, lifts, and ladders)
- Excavation and Trenches – working in a trench or excavation unprotected and without a permit.
- Confined Spaces – working inside a confined space without a plan or permit.
- Energized Electrical – working near unguarded or energized parts.

Individuals found in violation of these rules may be removed from the project and required to undergo retraining before being allowed to return. Your safety is our priority , and adherence to these rules is essential for a safe work environment.

## STOP WORK AUTHORITY

Stop work authority is a policy that empowers every worker to stop work to proactively prevent incidents, injuries, and unsafe acts or conditions. Every worker has both the authority and the obligation to stop work when an unsafe condition or behavior is observed. If there is an identified hazard or high-risk activity that warrants additional control measures. It's a fundamental principle in occupational safety that allows workers to take immediate action without fear of punishment. This can include stopping a task and re-evaluating the situation, notifying the competent person, until the situation is resolved.

## ACCOUNTABILITY

The general contractor has invested a great deal of time and resources to encourage employee safety. Accountability for all workers on projects includes the following safety expectations and consequences.

- Workers are empowered and expected to correct hazards and safety violations in their work area.
- There are no exceptions! Employees at all levels are expected to participate in Safety 360.
- If an incident occurs nearby, the worker will be asked to participate in the incident analysis process.

Workers who do not follow the general contractor's safety policies, procedures, and initiatives will be disciplined, including possible removal from the project.

Every individual is entitled to work in a safe environment. Each employer and employee are asked to adopt Safety 360 and do everything in their power to protect themselves and others.

## ESH Regulations

The general contractor and all trade partners shall comply with all applicable local, state, and federal regulations, specific client policies and requirements, and this PSMP. If any of these standards, requirements, rules, procedures, or initiatives conflict, the most stringent will prevail. Monthly inspections involve items that are to be inspected by designated competent persons.

### LONE WORKER PROGRAM

Working alone is strictly prohibited unless explicitly approved by the GC senior site management. All employees, trade partners, and personnel working under the GC who may be required to work alone at job sites, remote locations, or after hours need to get formal written approval prior to completing alone work. Site specific conditions may warrant additional procedures.

Monthly Inspection Procedures – The Competent person will be able to produce proof of the inspection.

Equipment requiring monthly inspection includes the following, but not limited to:

- Personal fall protection and fall arrest systems.
- Electrical cords and power tools
- Ladders
- Fire extinguishers.
- Rigging
- Equipment

### GENERAL GUIDELINES

The name of each Competent person shall be submitted (see Appendix 3) and updated upon employee turnover. The color code of the month will be mentioned at the All-Hands Coordination Meeting.

### SAFETY COLOR CODE OF THE MONTH (SEE APPENDIX 13)

January and July	Yellow
February and August	White
March and September	Brown
April and October	Green
May and November	Red
June and December	Blue

### PERSONAL FALL PROTECTION

All fall protection equipment shall be inspected before each use in accordance with 29 CFR 1926.502(d)(21). Monthly inspection of fall protection body harnesses, self-retracting lifelines (SRLs), and wall chains shall be inspected for cuts, tears, abrasions, worn stitching, cracks, burns, and freely moving parts. No alterations are allowed, and each item will include correct labeling from the manufacturer. All personal fall protection that is damaged shall be removed from service, destroyed, or sent to the manufacturer for repair. The monthly color code tape shall be visibly placed on the fall arrest equipment. All inspections of fall protection shall be documented monthly.

### ELECTRICAL CORDS AND POWER TOOLS

Any employee using electrical equipment and/or cords shall perform a pre-use visual inspection of each cord set, plug, receptacle, spider box, temporary power panel, and tool or equipment connected by cord and plug with periodic inspections documented monthly. Any possible hazards, damage, or missing parts that pose a hazard shall be reported, and the equipment removed from service, repaired, or destroyed. A tag shall be placed on the item stating, "Caution: Do Not Use."

- Continuity
- Polarity
- Ground continuity
- Double-insulated equipment shall be inspected for damage

The monthly color code tape shall be placed on the male and female end of the extension cord or power tool to ensure the entire length has been inspected.

The Competent person shall perform the following test on ground fault circuit interrupters (GFCIs) and the equipment identified above. These tests shall be performed and documented monthly.

- GFCIs shall be tested with an approved trip tester.

#### **LADDERS**

The employee using the ladder shall perform a daily visual inspection and sign the ladder tag affixed to the ladder.

A competent person shall perform monthly portable ladder inspections in accordance with 29 CFR 1926.1053(b)(15) and 29 CFR 1926.1053(b)(16). Bends, dents, cracks, loose or missing rivets, disconnected braces, and corrosion can weaken a ladder. The competent person shall carefully inspect the area around rivet points on fiberglass ladders for hairline stress cracks. Any damaged ladder shall be removed from service and tagged, "Caution: Do Not Use." Destroy any defective ladders immediately and remove them from the site.

Ladders used when servicing energized electrical equipment must be nonconductive.

#### **FIRE EXTINGUISHERS**

Fire extinguishers shall be inspected monthly in accordance with 29 CFR 1926.150(a) and 29 CFR 1926.150(c). This will ensure that the fire extinguisher is ready in case of need. Check that the extinguisher is charged by looking at the green arrow on the pressure indicator to ensure it is in the green section. Fire extinguishers that do not meet the criteria above shall be taken out of service and repaired, recharged, or removed from the site.

#### **RIGGING**

All rigging shall be inspected prior to each use and monthly, in accordance with 29 CFR 1926.251(a)(1). Damaged or defective rigging shall immediately be removed from service and either repaired or destroyed. All rigging (chains, wire rope chokers, synthetic webbing) shall have a type of material. This identification tag MUST BE LEGIBLE. The monthly color code tape shall be placed on the end of the rigging below the identification tag, with the exception of the synthetic webbing.

#### **NOTIFICATION OF UNSAFE OR HAZARDOUS CONDITIONS**

Each person on the general contractor's project has the right and responsibility to notify project management or supervision of any unsafe or hazardous condition that may be present without fear of retribution. Project management or supervision shall take immediate action to correct or remove any hazards brought to their attention.

#### **DISCIPLINARY PROGRAM**

At-risk behavior on the project will not be tolerated. Each person has a responsibility to work safely, and trade partner supervisors are responsible to correct at-risk behavior of employees under their direction. If you see something that does not look right, stop, follow Safety 360, or report it to your supervisor.

Discipline is intended to preserve safe conditions for all employees and encourage individuals to be responsible. Disciplinary action may include verbal warnings, written warnings, and removal from the project (days without pay). For minor offenses, the employee will be expected to agree to improve behavior. These minor offenses, if not corrected may later result in a written warning. Suspension or discharge will result from major offenses, those with serious or costly consequences, or for repeated minor offenses for which an employee shows lack of effort to correct deficiencies. Examples of major offenses are those related to fall protection, confined space, red-barricaded space, electrical or lockout/tagout violations, or disregarding specific instructions that resulted in an onsite incident (including property damage, injury, or a close call event).

#### **SAFETY CHECKLIST REQUIREMENTS - DAILY/WEEKLY INSPECTIONS**

Trade partners shall perform safety inspections of their scopes of work. All trade partners are required to purchase and utilize an iPad or tablet for use onsite. The checklist and reporting tools presented in ConstructPM will serve as the only acceptable method to record these safety and quality inspections.

The required checklists include Daily Pre-Task Plan, Weekly Safety Inspection, Weekly Safety Meeting (toolbox talk). Other safety checklists based on the scope of work may be assigned and are then considered required. Trade Partners enrolled in a Corrective Action Program (CAP) shall be required to complete the weekly CAP Compliance checklist. Issues related to safety will be assigned to trade partners, these issues need to be rectified so that the project team can close the issue following inspection.

#### **Pre-task Planning**

A pre-task planning meeting shall be completed daily by each individual work crew performing specific tasks on the project. Pre-task planning shall be completed in the field, ideally in the location where the work crew will perform the work, and with meaningful participation from the entire work crew. Trade Partners are required to use the pre-task plan checklist in ConstructPM, SmartTagit, or equivalent (see Appendix 5).

Each trade partner supervisor, with input from the crew, will discuss the tasks, identify the work sequence, possible hazards, training requirements, necessary controls, and emergency action plans needed to protect workers from any identified hazards. The day's work will be broken down into individual steps including known hazards associated with each step and how to mitigate that hazard. All craft workers will acknowledge the plan signifying that they understand the work activities, hazards, and controls.

#### **ACCOUNTABILITY: PLAN-DO-CHECK-ACT**

The intent of the pre-task plan is to help ensure all workers are knowledgeable of their work tasks, ready to anticipate hazards, and prepared to adopt the planned, safe means and methods to accomplish each task safely. Accountability for the pre-task planning process includes four key components:

**Plan** – The crew lead or foreman is accountable for leading the work crew to identify daily tasks and the hazards associated within those tasks. The workers need to engage to develop mitigation methods.

**Do** – The crew lead and workers are accountable for following the plan to accomplish the work.

**Check** – The crew lead and workers are jointly responsible to spot check the process, both the quality of the plan and the rigor of compliance.

**Act** – The crew lead and workers are accountable to identify unforeseen conditions, changes, or uncertainties, pause the work, and act to improve the plan and mitigate the hazard before going forward.

# TRADE PARTNER GENERAL AND PROJECT-SPECIFIC REQUIREMENTS

Trade Partners must demonstrate safety knowledge relevant to 29 CFR Part 1926. The documentation is to be attached to the Competent person Form required with submittals, as well as during the pre-mobilization meeting (in case supervision changes between pre-award and start of project). If any supervisor changes are made following mobilization, certifications shall be provided immediately to the project team.

Each trade partner will designate a safety representative prior to mobilization. The onsite safety representative will be a competent person who has completed at minimum 30-hour OSHA awareness training, and who may have other onsite duties.

- Trade partners with 50 or more workers (including lower-tiered subcontractors) shall provide a full-time, onsite safety professional upon mobilization. This person shall have no other onsite responsibilities.
- Trade partners working under a Red or Yellow CAP have different requirements for a full-time safety professional. Trade partners working under a Red CAP shall provide a full-time, onsite safety professional at any point when 10 or more workers (including lower-tiered subcontractors) are onsite. Trade partners working under a Yellow CAP, shall provide a full-time, onsite safety professional at any point when 25 or more workers (including lower-tiered subcontractors) are onsite. Additional full-time safety supervision may be required beyond a single full-time safety professional, depending on scope of work and any identified safety requirements. In all cases, the full-time onsite safety professional shall have no other onsite responsibilities.
- The project team may require full-time, onsite safety professional based on owner requirements.
- The project team reserves the right to require a full-time, onsite safety professional at any time.
- The project team reserves the right, based on performance to put a qualifying trade partner on a CAP.

Trade partners shall submit the resume(s) of the proposed safety professional(s) or safety representative(s), which will be reviewed by the project team at pre-mobilization. The general contractor will determine whether the proposed safety professional or safety representative has the required training and experience required for the specific project.

Trade partner safety professionals and safety representatives shall have full authority to implement safety corrections and recommendations and shall have the authority and responsibility to ensure the proper implementation of this PSMP. In addition, along with every worker, trade partner safety professionals and safety representatives shall have the authority to stop any work they deem unsafe.

Trade partner full-time, onsite safety professionals shall have the following minimum qualifications:

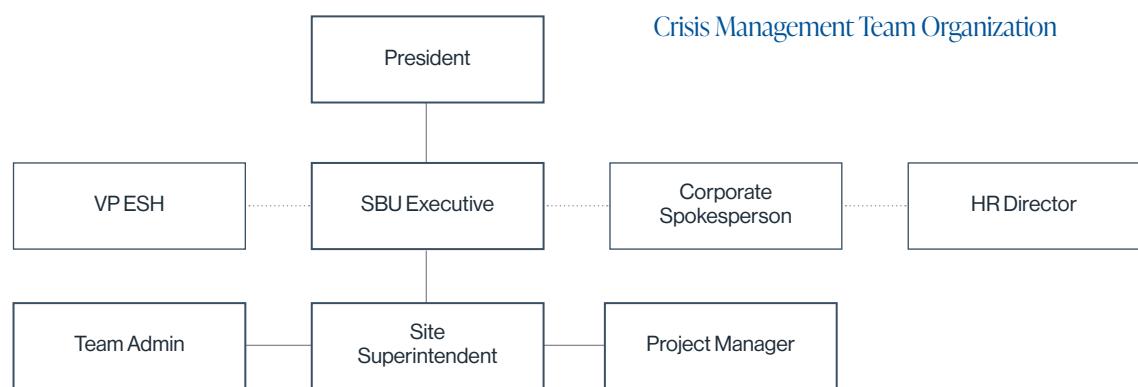
- 5 years of construction experience, 1 year of which includes onsite construction safety responsibilities.
- Specialized training relevant to the scope of work
- OSHA 30-hour construction safety awareness course
- Working knowledge of safety regulations and hazard control methods
- Demonstrated ability to conduct safety training.

The minimum duties of the designated safety professional and/or representative will be:

- Assist in investigating any incidents or close calls and report the findings to the project team.
- Attend safety meetings as required by the general contractor.
- Conduct regular safety meetings with workers to instruct them on project safety practices and requirements.
- Conduct safety inspections of work activities and document them in ConstructPM through either checklists or issues to ensure compliance with safe work practices and this PSMP.
- Take direction from the project team related to timely abatement and control of hazards.

# CRISIS MANAGEMENT PLAN

Every project shall have an established and rehearsed plan of response to an emergency or crisis condition. The intent of this section is to provide guidance as to what information is needed such that a consistent response can be expected.



## GENERAL RESPONSE PROCEDURE

The project management team will establish and train site personnel regarding emergency response procedures.

The project management team will maintain, as necessary, emergency response supplies and equipment to meet emergency response needs.

Designated general contractor supervisors will notify emergency response personnel of emergencies at the project site.

The appropriate supervisor or responding personnel will initiate the notification process, which includes alerting local response organizations (such as ambulance or fire personnel) and/or others as required.

Notify the following immediately:

- Project manager
- Project superintendent
- Project safety manager
- ESH VP
- SBU executive vice president
- Director of corporate communications/company spokesperson

\*\*General Contractor Management (ESH VP and SBU EVP) must be called as soon as possible\*\*

If necessary, the general contractor project superintendent will coordinate with local emergency organizations and provide the following:

- Technical information about hazardous materials and products
- Quantity and/or size of hazardous materials or products
- Locations and methods of storage for hazardous materials or products
- Report known hazards of materials or products.
- Provide a copy of the Safety Data Sheet (SDS)

General contractor site management will make site equipment and supplies available until the emergency has been resolved.

#### **FIRST HOUR RESPONSE: SITE SUPERINTENDENT CHECKLIST**

- Contact emergency services (911)
- Contact project safety manager.
- Account for all employees.
- Project safety manager to contact regional safety manager and ESH VP (if needed)
- Notify the SBU executive vice president.
- Do not move potential evidence.
- Direct all outside inquiries to company spokesperson.
- Post people to restrict entry to site or direct emergency response teams.
- Notify owner/developer (varies by project)

#### **SITE ACTIONS - GENERAL RESPONSE PROCEDURES**

- Ensure the scene is safe before entering the area.
- Review site for hazards. Isolate hazardous area(s)
- Secure the site from further hazards (i.e., turn off utilities, remove hazardous substances not involved, stop flows of product or water, etc.)
- Attend to the injured, render first aid.
- Call 911 or facility emergency number. Give the following information:
  - Name of person reporting the emergency
  - Nature and severity of the injury or illness
  - Locations and phone extension from which they are calling.
  - Number of people involved.
  - Directions to the site of the emergency
- Secure and isolate incident site. Do not move anything that does not have to be moved, only things to assist the injured or make the area safe.
- Make note of those items that must be moved. For major incidents, site emergency shutdown is required.
- Take a roll call. Account for each site employee, vendor, owner's rep, and trade contractor employees.
- Keep only those onsite who are essential in the recovery process. Release those who are not needed and required.
- Establish first aid and evacuation areas, if needed, where ambulance or air evacuation services have access.
- Control site access.
- Start investigation and reporting procedures.

#### **FIRST HOUR RESPONSE: BUSINESS UNIT EXECUTIVE VP**

- Contacted by the site superintendent.
- Determine what/where/when the event happened and who is involved.
- Verify current status of site operations or shutdown.
- Notify Dave Layton
- Notify corporate spokesperson (Tim Garrick)
- Advise project assistant and receptionists where to route calls.
- Notify chief human resource officer (Kari Plaster)

### EMERGENCY PREPAREDNESS TRAINING

Employees and trade partner management and employees will be trained on the subjects below as appropriate:

- Emergency notification and reporting procedures.
- Site emergency and evacuation procedures
- Points of assembly
- A site map will be posted for all contractor and trade partner employees, showing the points of assembly locations.

### CRISIS COMMUNICATIONS PLAN (MEDIA REQUESTS)

If contacted by the news media concerning an incident, refer them to the designated company spokesperson.

#### DESIGNATED SPOKESPERSON:

VP of Marketing Tim Garrick (480) 416-2686.

#### ADDITIONAL SPOKESPERSON(S):

Name: \_\_\_\_\_ Position: \_\_\_\_\_ Phone: \_\_\_\_\_

Name: \_\_\_\_\_ Position: \_\_\_\_\_ Phone: \_\_\_\_\_

Unless assigned to someone else on the job site due to remote location or other circumstances. Refer media calls immediately to company spokesperson.

Establish a controlled access site for media at a safe distance from the incident to maintain scene safety and coordination (at a distance from the scene, jobsite management trailers and employee jobsite gates)

Gathering Location: \_\_\_\_\_

The company spokesperson and project management team will develop an initial statement of known information that can be provided as soon as possible. Provide regular updated information as it becomes available. Create a log of persons from the media including organization, phone numbers, and email addresses for effective continued communication. Project Management and site employees should not engage in social media activity regarding the incident. Unauthorized posting to social media about an incident is subject to disciplinary action.

### EMERGENCY ACTION PLAN

Project management will ensure the Emergency Action Plan is communicated to all workers during orientation. Specific emergency procedures and emergency phone numbers will be posted in lunch areas, near all telephones and on all project bulletin boards. The plan will be reviewed periodically by the project team to ensure continued accuracy and applicability. Daily pre-task plans will also address emergency plans.

This plan will be reviewed by all workers and posted with a site plan in prominent locations accessible to all.

Project Name: \_\_\_\_\_

Work Location: \_\_\_\_\_

This is a project specific Emergency Action Plan communicating evacuation procedures, specific alarms, and assembly points, should an emergency evacuation become necessary because of severe weather, fire, hazardous chemical release, explosion, or other emergencies that could cause harm.

It is each person's responsibility to familiarize themselves with evacuation routes, alarms, and assembly points in case an emergency evacuation of the work area is required. Caution: Evacuation routes, alarms, or assembly points may differ from one emergency to another. The implementation of a successful emergency response depends on thoughtful planning, training, and execution.

### **EVACUATION**

- Exit signs will be conspicuously posted along evacuation routes.
- A signal or alarm will be designated to initiate evacuation.
- Personnel should de-energize tools and equipment and check the work area for fellow workers in need of assistance.
- Evaluate stairs for safe passage before accessing.
- Report any hazardous conditions that are known to exist within the building to your supervisor.

A site plan drawing will be developed for each project's evacuation plan. The drawing will clearly identify the following:

- Building footprint
- Primary and secondary assembly area points
- Exits
- Fire alarm pull stations or air horn locations.
- Site telephones
- Stairs
- Fire extinguishers.
- General contractor's project office
- First aid kit / AED locations
- Emergency numbers

### **MEDICAL EMERGENCY**

During the safety orientation, workers will be given information on how to summon medical assistance in case of a medical emergency. Everyone should know the following information:

Emergency Phone Number: 911

Project Address: \_\_\_\_\_

When reporting a medical emergency, the person will state their name, the nature of the emergency, the severity of the emergency, and where assistance is needed. Someone may be required to meet medical personnel and guide them to where the emergency is located.

Do NOT move an injured worker before medical assistance arrives unless further injury is possible.

### **FIRE**

In case of fire, evacuate the work area immediately and report to the pre-determined assembly point.

#### **In case of Fire or Emergency:**

Emergency Phone Number: 911

Alarm or Notification: \_\_\_\_\_

Site Specific: \_\_\_\_\_

**Evacuation Route:**

Primary Assembly Point A is located at \_\_\_\_\_

Primary Assembly Point B is located at \_\_\_\_\_

**Utility Shutdown:**

Gas (if applicable) Responsible Person: \_\_\_\_\_

Electricity (if applicable) Responsible Person: \_\_\_\_\_

**SEVERE WEATHER OR OTHER NATURAL DISASTERS**

Should weather conditions such as severe thunderstorms or tornadoes develop around or near the project, follow the direction of the immediate supervisor. All projects will have a severe weather plan specific to the region (such as hurricane, tornado, earthquake, tsunami, or any other severe weather or natural disasters) where severe weather events are possible will have a contingency plan in place. Refer to the Document Library for templates to be attached in the additional addendum section of this PSMP.

**LIGHTNING**

All projects should utilize an appropriate weather/lightning notification system. If lightning is within 10-miles of the site, all crane and exterior elevated activities will immediately stop. If lightning is within 5-mile radius all exterior work will cease and everyone will take shelter. No work will recommence until the all-clear is given. Generally, when greater than a 10-miles radius or for a period of 30 minutes, as published by the National Commission for the Certification of Crane Operators (NCCCO).

**CHEMICAL RELEASE OR EXPLOSION**

Workers shall immediately evacuate their work area upon hearing the alarm or being notified of the emergency and ordered to evacuate. No employee is exempt from evacuation even if the evacuation is a drill. Everyone is required to report immediately to their designated assembly point and be accounted for. Failure to report may endanger others if they must search for you. Do not leave the project without prior authorization from trade partner supervision.

A general contractor supervisor will contact an identified remediation or abatement company to respond to chemical spills that require expert attention. The company will be identified in the PMP.



# GENERAL CONTRACTOR CONSTRUCTION SAFETY POLICIES

The purpose of the general contractor safety policies is to assist project management, supervision, trade partners, and workers in understanding the general contractor's injury-free philosophy and the health and safety expectations and requirements for its projects. The safety policies within this document represent the expectation of performance on **EVERY** project.

## Incident and Injury Management and Reporting Policy

To control and manage any incident onsite, the following measures will be followed. Each project will have general contractor leaders and trade partner supervision onsite during all work activities that are trained in first aid and cardiopulmonary resuscitation (CPR), documentation of the training will be provided at pre-mobilization.

An **incident** is defined as any unplanned or undesired event that results in a work-related injury/illness, environmental damage, property damage, or disruption of business.

A **near-miss (good catch/close call)** is any situation that has the potential, under slightly different circumstances, to result in a work-related injury/illness, property damage, serious environmental impact, or disruption of business.

Every incident shall be reported immediately to the general contractor project team, which will immediately notify the ESH department. General contractor supervision will take control of the administrative management of the incident and thoroughly investigate to determine the probable root cause. The general contractor project team, and applicable trade partner supervision will be involved in the investigation process. The ESH claims administrator must be notified within 24-hours of any injury that occurs on ANY project site (CCIP or non-CCIP).

The general contractor reserves the right to appoint a supervisor from the trade partner to keep track of the injured person until a full release to work can be obtained. Training will be completed with this supervisor, and a general contractor contact will be given to so that a close working relationship can be established to ensure that all the needs of the injured employee, as well as the needs of the injury management program are met.

All trade partners and their employees working on projects will follow the Return-to-Work Policy in this manual, each trade partner will be responsible to ensure that their employees comply with this Return-to-Work Policy. Light duty is a mandatory requirement on each project to help in the quick recovery of the employee. Trade partners will establish their own Light Duty Program or ask how to use light duty onsite.

## SITE CONTROL FOLLOWING AN INCIDENT

Following an incident, if necessary, administer first aid until help arrives. First aid kits will be in both the general contractor jobsite trailer and in each trade partner's job trailer/gang box for accessibility. These first aid kits will be stocked and re-stocked as required, a weekly inspection should be completed and documented in ConstructPM.

If the injury is significant and 911 has been called, place employee's strategically to direct the emergency response team to the incident scene. For emergencies requiring evacuation, each project will develop a site-specific Crisis Management Plan (see pg. 20).

Once the incident is under control, and if necessary, all injured parties are treated and/or transported to a local treatment facility, the investigation team will perform an investigation. The team will consist of the project manager as the team leader, the project superintendent, and ESH professional, trade partner supervision, injured employee, trade partner safety manager, and any others deemed necessary.

#### REPORTING AN INCIDENT

In the event of any injury or property damage incident, trade partner supervision will contact the general contractor superintendent and obtain an incident packet that will contain all the applicable literature, including:

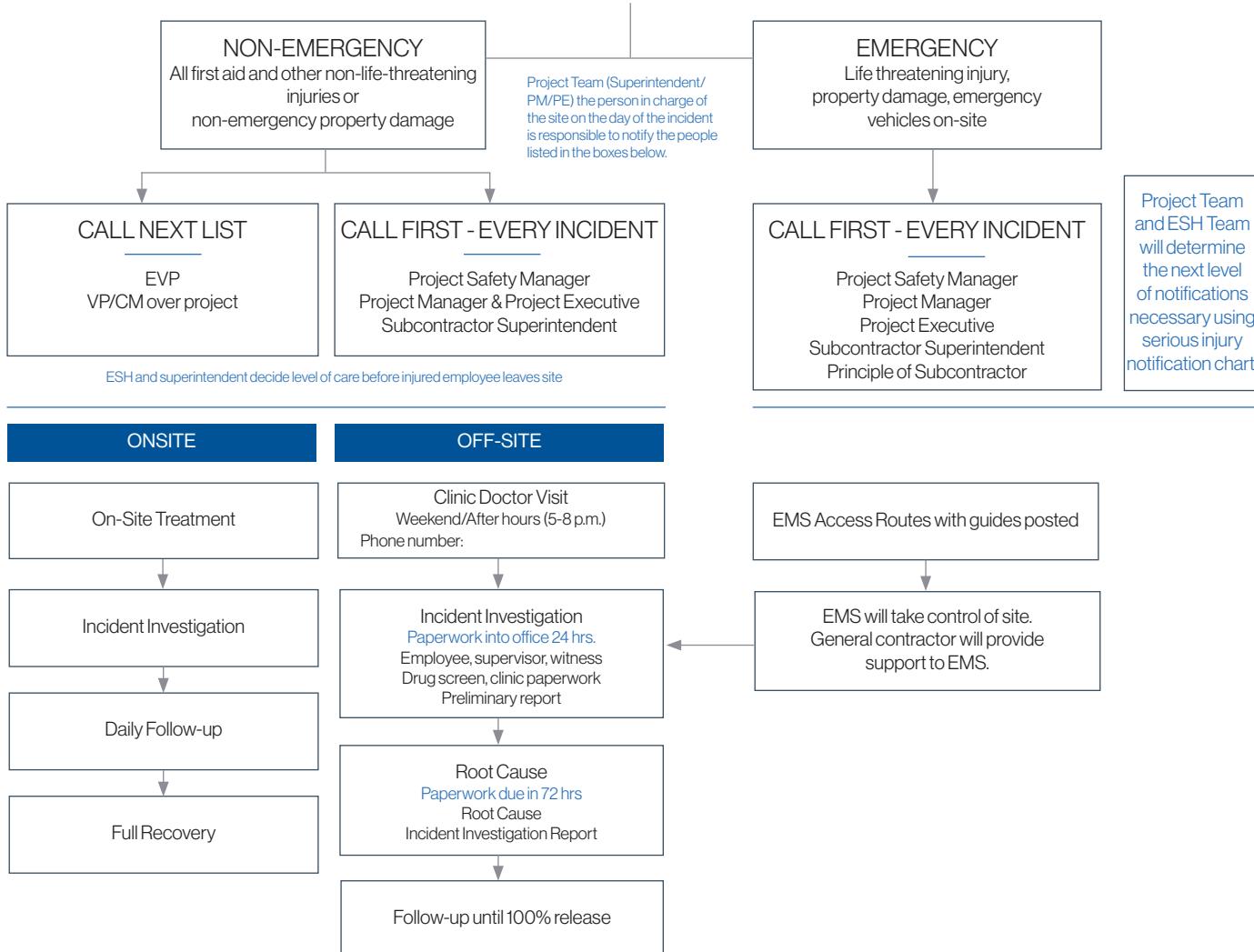
- Employee Injury Report
- Supervisors Investigation Report
- Witness Statement Form
- Site-Authorization Treatment Form (for CCIP projects)
- Rx First Fill Form (CCIP projects)

These written reports shall be submitted to general contractor management during the **same shift**. The trade partner supervisor will submit a copy of a First Report of Injury form (from a doctor) to the project team management the next business day following the doctor or clinic visit.

#### LATE REPORT FEE

Failure to comply with these claim procedures will result in a flat fee of \$5,000 to be paid by Trade partner to general contractor for additional costs to investigate and manage the claim.

## Injury/Incident Flow Chart



## EVIDENCE

It is in the best interest of all parties that all physical evidence remains undisturbed and not tampered with, regardless of the circumstances involved, unless doing so is necessary for safety reasons. Take photographs prior to moving any evidence for documentation purposes, if possible. Secure the area of the incident as soon as possible to prevent any alteration of the scene prior to the investigation. If any equipment, tools, or materials were involved in the incident, remove them from service for safekeeping. If this proves to be impractical the area in which the incident occurred, barricade the area and post security personnel to keep unauthorized personnel out of the area. The secure area will only be reopened upon approval from the general contractor safety manager.

## DRAWING, PHOTOGRAPHS, AND DIAGRAMS

Drawings, photographs, and diagrams should be marked up to indicate the location of the incident. All measurements of time, distance, size, weight, etc. must be accurate. In the event of unknowns (e.g., speed, distance, weight), every attempt must be made to closely approximate the same with tables, formulas, or calculations which must be kept as part of the incident analysis.

## INCIDENT ANALYSIS FORMS

The injured employee will complete the Employee Report Form (see Appendix 1), which gives personal information so that insurance can be filed on their behalf (in the case of a non-CCIP project the personal information can be omitted from the report). Make sure that the employee fills out the description of incident as completely as possible to assist the incident analysis team in determining the root cause of the incident.

The injured employee's supervisor will complete the Supervisor Report Form (see Appendix 1), as well as gather other pertinent documents needed in the analysis (training records, pre-task plan forms, salary data if required, etc.). This supervisor will be expected to keep the project management team apprised of the recovery progress of the injured employee until 100% full release to duty occurs.

Any witnesses should complete a Witness Statement Form (see Appendix 1), they should consider the facts of what they saw the employee doing immediately prior to the incident, including what the witness saw during the morning huddle, pre-task planning, etc.

## ROOT CAUSE ANALYSIS

A root cause analysis meeting will be held following all significant incidents at the work site to ensure the root causes have been determined and proper corrective actions have been initiated. A Root Cause Analysis Form may be completed and filed with the analysis report for documentation purposes. The following personnel will attend this meeting: the injured worker, witnesses, trade partner management (including supervisor, project manager, and safety representative), and the general contractor management team including superintendent, project manager, and safety manager, and construction manager/vice president, as well as any others that are deemed appropriate.

## CORRECTIVE ACTION FOLLOW-UP

The general contractor project team and trade partner project management, supervision, and involved workers will follow up on any corrective actions assigned during the Root Cause Analysis meeting.

## RETURN TO WORK POLICY – LIGHT DUTY POLICY

The project management team is committed to providing a safe workplace environment for all employees. In the event of a work-related injury, the general contractor has a "Modified Alternate Duty Requirement" which shall be implemented by all trade partners working onsite. The purpose is to minimize the risks and financial burdens to the workforce. Each trade partner **MUST** provide an injured employee the opportunity to maximize rehabilitation and recovery from the injury and enable an early return to work by accommodating temporary work assignments in compliance with medical restrictions.

At a minimum, the modified duty must include the following features.

- Communication between the employer and the injured employee and the physician, the employer's modified duty requirement.
- The injured employee must provide copies of all medical notes, which include a statement on work capacity.
- Modified duty assignments must comply with all medical limitations as outlined by a physician.
- The injured employee is not to assume normal work activities unless there is medical documentation releasing the employee to his/her normal duties.
- Trade partner and its lower-tier subcontractors must provide a modified return to work program for any of its injured employees insured under workers' compensation as part of the CCIP. Failure to provide reasonable accommodations to an injured worker will result in a penalty assessment to the trade partner (of any tier) of \$1,500 weekly until such time as the injured worker is returned to work. Trade partners are responsible for the assessments of their lower-tier subcontractors.

**Note:**

Modified duty positions do not have to be on the general contractor's project. The injured workers' employer can provide this position at any alternative site. The insurer may provide recommendations for modified duty labor through cooperative organizations if the trade partner/subcontractor is unable to accommodate the employee.

**SUBSTANCE ABUSE POLICY**

The general contractor is committed to providing a safe, drug-free workplace for all employees. This substance abuse policy applies to all project management team employees, trade partners of any tier, vendors, and any third-party employees (including management) working on or visiting the project. To ensure safe and productive working conditions are consistent with business necessity, the general contractor prohibits the use, possession, or distribution of any of the following on its sites: alcoholic beverages, intoxicants, narcotics, illegal or unauthorized drugs or drug paraphernalia. Employees shall not report for work under the influence of any illegal or unauthorized drug, alcoholic beverage, intoxicant, narcotic, or other controlled substance. This includes legally prescribed drugs and medicines, which may in any way adversely affect an employee's working ability, alertness, or coordination, or which may adversely affect the safety of others on the job.

**PRESCRIPTION DRUGS**

Legally prescribed drugs may be permitted on company premises or work locations provided these drugs are in the original prescription container and prescribed for the current use of the person possessing the drug. It is the responsibility of each employee who is taking prescription medication to inform the physician of current job responsibilities, as well as to inform the direct supervisor of any medication that would restrict him from performing duties in a safe and efficient manner. Employees shall not report for work under the influence of any legally prescribed drugs and medicines, which may in any way adversely affect an employee's working ability, alertness, or coordination, or which may adversely affect the safety of others on the job.

### DRUG TESTING

Consistent with the intent of this policy, the general contractor reserves the right to require drug testing of anyone as a condition of employment and thereafter may require randomly selected workers to take drug tests to ensure continuing compliance with the drug policy. The general contractor also reserves the right to drug test based on reasonable suspicion. Our drug testing facilities conduct a 10-panel drug test, specifically testing for the following substances: marijuana, cocaine, opiates, barbiturates, amphetamines, benzodiazepines, phencyclidine, methadone, propoxyphene, and alcohol (if post-incident or reasonable suspicion). Additionally, any worker on the project involved in an incident resulting in an injury/illness or property damage may immediately subject to a mandatory drug test. The employee will be sent to a certified drug testing facility, if the sample is non-negative the drug testing facility will send the sample for further analysis. All information, interviews, reports, statements, memorandums, or test results received by general contractor will be kept as confidential as possible. Employees may request a written copy of the drug test results and may explain a positive test result in a confidential setting by contacting Human Resources. Employees and prospective employees may request a retest of the original sample at their own expense by contacting the drug testing facility.

### DISCIPLINARY ACTION FOR DRUG POLICY VIOLATIONS

Any employee who refusing to submit to a drug test, or tampering with or adulterating a sample will be immediately removed from site. Any employee with an inconclusive drug test will be removed from site pending review of medical review officer (MRO).

### SEARCHES

The general contractor reserves the right to search any company property, facilities, equipment, employee vehicles, or other personal property located on company property or work sites. The general contractor may seize any controlled substances and report the same to law enforcement personnel. Refusal to submit to a search may result in removal from site.

### TOBACCO POLICY

The general contractor encourages a smoke-free workplace. There will be NO smoking, e-cigarettes, vaping, or chewing tobacco except in designated areas.

### CELL PHONE USE POLICY ON PROJECTS

There shall be no cell phone use at all while operating equipment or vehicles while on a project site.

Cell phone use on all projects will be limited to emergency, company, or project-related business. No radios, iPods, earbuds, etc. are allowed on any project site. Personal devices are only allowed during company approved breaks. Individuals using cell phone or mobile devices MUST position themselves out of the line of fire and remain stationary while completing the task. Once the task has been completed, the individual will look around prior to walking again.

### Personal Protective Equipment (PPE)

Except for footwear, PPE shall be provided by the employer. In accordance with 29 CFR 1926.28, a PPE assessment shall be completed prior to commencement of any work activity where PPE may be needed.

All general contractor employees, trade partners, vendors, and third-party individuals shall, at a minimum, wear the following PPE without exception while on the project (except in the office, lunch areas, and enclosed cabs). Additional PPE may be required based upon the PPE assessments.

- Type II Helmet with chin straps conforming to ANSI/ISEA Z89.1
- Clear eye protection conforming to ANSI/ISEA Z87.1
- Above the ankle leather work boots.
- High-visibility apparel required when working inside, ANSI/ISEA 107 Class 2 when working around equipment.
- Gloves conforming to ANSI/ISEA 105 Cut Level A4

All employees shall be trained annually on proper use and care of required PPE, as well as hazard recognition of when additional PPE is required, how to properly don, doff, adjust, and wear PPE. When an employee demonstrates a lack of understanding, improper use, or following an incident, retraining will be required. Documentation records of PPE training shall be maintained and provided if requested. All PPE shall be inspected daily prior to use and be maintained in a reliable and sanitary condition. Any PPE that is determined to be damaged, defective, or insufficient in any way must be discarded from service and immediately replaced by the employer.

#### **HEAD PROTECTION**

Head protection required – Type II Helmet with chin straps conforming to ANSI/ISEA Z89.1 and worn in accordance with manufacturer's recommendations. Head protection shall be worn at all times on the project. The employee's name must be displayed on the front of the helmet so that a person speaking to them can easily see this information.

#### **EYE AND FACE PROTECTION**

Eye and face protection must conform to ANSI/ISEA Z87.1 and worn at all times. Employees requiring corrective lenses must wear prescription safety glasses conforming to ANSI/ISEA Z87.1 or they must wear over-the-glasses (OTG) safety eyewear conforming to ANSI/ISEA Z87.1. The integrated eye protection in conjunction with a Type II helmet may be used in lieu of standard safety glasses. Clear safety glasses are required as a minimum in all interior work situations and low-light conditions. Where eyes may be exposed to injurious or corrosive materials, an eyewash station must be easily accessible to the workers. The following eye/face protective equipment must be used when performing the following work activities in accordance with SDS specifications. The table below is a sample, but not a complete list of activities.

ACTIVITY	SAFETY EQUIPMENT
Welding	Welding hood and safety glasses with side shields
Burning	Burning goggles with shield
Abrasive Grinding or Cutting	Face shield and safety glasses with side shields
Drilling	Goggles or face shield
Reaming	Face shield and safety glasses with side shields
Chemical Handling	Goggles and face shield
Molten Materials	Goggles and face shield
Corrosive Liquids	Goggles and face shield
Concrete Pouring	Safety glasses with side shields
Overhead Work	Goggles or face shield

#### **FOOT PROTECTION**

Sturdy, above the ankle leather work boots shall be worn at all times on the project. The level of footwear protection is based on the PPE assessment or site requirements.

#### **HIGH VISIBILITY ATTIRE**

Every worker, visitor, and vendor shall wear high-visibility apparel at all times inside the building and conforming to at least ANSI/ISEA 107 Class 2 when around equipment. More reflective apparel conforming to a higher class of ANSI/ISEA 107 apparel will be required when working in traffic or at night. Only welders are excluded from this requirement while performing welding operations.

### **HAND PROTECTION – GLOVE POLICY**

Company employees, visitors, and trade partner employees shall be required to wear gloves 100% of the time. At a minimum, gloves shall conform to ANSI/ISEA 105 Cut Level A4, unless the task specifically requires a higher cut level. Fingerless gloves are prohibited. The gloves selected shall be suitable for the task. Any exceptions will be discussed on a case-by-case basis, based on activities being performed.

#### **General and Moderate Duty Use**

This will be the typically accepted glove for general use for all workers not exposed to more specific hazards. All typical low-cut hazard operations will be covered under this guideline. The acceptable glove options will be a glove with conforming to ANSI/ISEA 105 Cut Level A4 or greater. If using the touchscreen sensitive gloves, they must conform to ANSI/ISEA 105 Cut Level A4 or higher. **NOTE:** If the task requires a higher level of cut protection, gloves conforming to a higher ANSI/ISEA 105 cut level are required.

#### **High Cut Hazard Use**

If the hazard assessment calls for a high cut hazard protection or a trade typically exposed to high cut hazards in the normal daily work practices, appropriate cut level PPE should be addressed in the pre-task plan.

#### **SLEEVES**

When hazard assessment identifies exposure to arms, cut resistant sleeves should be required and discussed during pre-task planning session.

#### **HEARING PROTECTION**

Approved hearing protection shall be worn as specified in posted areas and while working with or around machines, tools, and equipment producing high noise levels (at or above 85 dBA). A good rule to follow is if you must raise your voice to be heard, you need hearing protection. Exposure to impulsive or impact noise will not exceed 140 dB noise level.

DURATION PER DAY (HOURS)	SOUND LEVEL DBA SLOW RESPONSE
8	85
4	88
2	91
1	94

Trade Partners shall fully comply with federal and state/territorial regulatory standards for occupational hearing conservation, and the guidance described above shall not to be interpreted to supersede legal requirements. The most stringent standard shall apply.

### RESPIRATORY PROTECTION

A competent person will determine if a hazard exists that requires respiratory protection prior to start of work. Written documentation supporting this hazard assessment will be made available to the general contractor upon request. For all general contractor employees, the program director will be the VP of ESH. Each trade partner working on any project will include a comprehensive respiratory protection program for all trade partner employees onsite. Whenever respirator protection is required, the requirements outlined in 29 CFR 1910.134 shall be followed.

- Develop a formal, written respiratory protection program.
- Have affected workers complete a medical questionnaire for respirator use.
- Submit questionnaires to a physician / licensed health care professional (PLHCP) for review and further testing.
- Once medical approval to wear a respirator is received from the PLHCP, select the appropriate type of respirator to protect workers from the hazard(s).
- For air purifying respirators, choose the appropriate filter/cartridge.
- For supplied air respirators, ensure breathing air source provides “Grade D” breathing air.
- Train affected workers about the specific type(s) of respirator(s) being used.
- Fit test the workers with the specific type(s) of respirator being used and ensure the proper facial seal.
- The employer will supply the employee with proper respiratory equipment when it is deemed necessary or is requested by the employee for use on the jobsite.
- Respiratory protection shall be selected based on the respiratory hazard.
- All respiratory protection equipment shall be kept in good condition, being properly cleaned, and stored.
- All respiratory protection equipment must be inspected prior to each use, and if there are any defects the item will immediately be discarded and replaced with a new item.
- An employee must leave the area if there is a gas or vapor breakthrough, if the employee begins to have breathing issues, breathing resistance, or if leakage of the face shield occurs.
- The project management team and its trade partners shall not perform any work that constitutes immediate danger to life or health.

If a worker desires to voluntarily wear a filtering face piece (dust mask) and a respirator is not required, the trade partner supervisor must inform the worker about the limitations of the selected respirator. Voluntary use of a disposable respirator form or an equivalent form must be completed.

### WORK ATTIRE

Shirts will have a minimum sleeve length of three inches. Tank tops, and cut-off shirts are not permitted. Long trousers are required that fit properly around the waist and ankles and are proper length as to not present a tripping hazard. Shorts are prohibited.

### ADDITIONAL PROTECTIONS

Where engineering and administrative controls do not fully mitigate the hazard, the general contractor may require workers to wear additional PPE to reduce the likelihood of a work-related injury or illness.

## Sanitation

### TOILET FACILITIES

Adequate chemical toilets are available on the jobsite for the use of employees. Chemical toilets will be serviced often enough to prevent overflowing, creation of unsanitary conditions, a health hazard or nuisance, and will be maintained and in good repair to prevent leakage of the contents to the surrounding areas. The facilities will be placed to ensure easy access/egress.

## **WASH FACILITIES**

Wash facilities will be available at the jobsite for washing hands prior to eating or drinking.

## **DRINKING WATER**

Employers will provide daily, fresh clean drinking water to their employees. If water bottles are provided, they need to be disposed of properly. Refer to all state, federal, and local regulations.

## **Heat Illness Prevention**

To control the risk of heat-related injury or illness on the project site, the following heat illness prevention program will be followed by all trade partners and sub-tier subcontractors on all sites. Projects in California shall reference Cal/OSHA 8 CCR Section 3395.

## **PROVISION OF WATER**

Water is a key preventative measure to minimize the risk of heat-related illness. All employees will have access to potable drinking water in sufficient quantity for the entire work shift. All trade partners will have sufficient water supplies in all locations where craftsmen are working. The frequent drinking of water will be encouraged by supervisors, through training during weekly toolbox safety meetings.

## **ACCESS TO SHADE**

Access to rest and shade or other cooling measures are important preventative steps to minimize the risk of heat related illnesses. Employees will be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes if they feel that they need a recovery period from the heat. Such access to shade will be permitted at all times. Employees will have access to an office, construction trailer, or other building with air conditioning. Employers will provide an area for employees to take breaks which are readily accessible, in the shade and open to the air or ventilated and cooled, and near sufficient supplies of drinking water. Toolbox safety meetings will be held to instruct employees in the requirement for breaks in areas of shade and near location of drinking water.

## **WRITTEN PROCEDURES**

Written procedures help reduce the risk of heat related illnesses and ensure that emergency assistance is provided without delay. The written procedures will be used during applicable trainings such as weekly safety meetings, toolbox talks, or other training forums as needed. The written procedure will include recognition of symptoms of heat illness, and how to respond if medical intervention becomes necessary. This will include how emergency medical services will be provided should they be necessary. When a heat illness is suspected, the injured person will be taken to a cool shaded area and evaluated, proper medical treatment will be administered until emergency response arrives.

## **TRAINING**

All employees will attend a site orientation prior to being permitted to start work on the project. This orientation will include training and requirements for the identification of heat illnesses and the requirements for preventing and treatment of heat injury and illness. The following features are required – more aggressive features may be required depending on the conditions.

Both supervisors and non-supervisors shall have adequate heat illness training. Training is critical to help reduce the risk of heat-related illnesses and to assist with obtaining emergency assistance without delay. All employees including supervisors will receive training on the following:

- A written program and procedures related to heat illness prevention and treatments, including the procedure for contacting emergency medical services.
- Immediate reporting of any symptoms or signs of heat illness.

- Environmental and personal risk factors, including the common signs and symptoms of heat illness.
- The importance of frequent consumption of water, up to 4 cups per hour on 15-minute intervals, when working in hot environments.
- All supervisors will receive periodic additional training in heat related illness prevention methods.

### Daily Huddle and Stretch-and-Flex

Prior to the commencement of work, a huddle will be held where all general contractor team members, trade partners (including sub-tiers), and their employees that will be working during that shift will be assembled. This time serves for general announcements, safety moment, events unique to that day, and recognition of good work completed on the project. Research suggests that most re-occurring and disabling injuries that plague the construction industry are soft tissue injuries, to mitigate this trend warm-up and stretching will be included in the Daily Huddle.

### Maximum Lifting Policy

The general contractor has implemented a 75-pound maximum lifting restriction for all employees and craft workers on all projects. Proper training and lifting mechanics will help ensure that 75 lbs. can be lifted without injury, and manual lifts of over 50 lbs. should be avoided as much as possible. In general materials weighing greater than 75 lbs. should be moved by carts, dollies, pallet jacks, forklifts, or crane/hoists. There may be special circumstances when individuals may have to manually move material weighing over 75 lbs. Anytime material greater than 75 lbs. is to be moved manually, hazards associated with the same should be discussed during the Daily Pre-Task Planning by each crew.

Proper planning for material handling is an essential preventative step to eliminate incidents from occurring on project sites.

### Environmental Policy

The general contractor is committed to protecting the environment by identifying and complying with all local, state/territorial, and federal regulations and client policies and requirements. It is the responsibility of the project management team, trade partners, vendors, or other third-party individuals to help identify and analyze environmental safety and health (ESH) regulations and work with the general contractor ESH professionals to coordinate any concerns. Outside legal representation may assist with regulatory interpretations as needed. It will be the responsibility of all trade partners to comply with the regulations and client policies and requirements. Prior to commencement of construction activities, a comprehensive search that identifies relevant federal, state/territorial, and local regulations will be conducted. Any regulation that applies to the operation will be identified and a specific plan of compliance will be developed.

Any applicable additional requirements will be detailed in the additional addendum section of this PSMP.

### HAZARDOUS MATERIALS

In the event hazardous materials are identified, or a spill occurs, the responsible party will coordinate containment with the project management team. Once the spill is contained, the responsible party will coordinate clean up and disposal with the owner. All work will actively stop in the immediate area of the hazardous material spill and will not resume until the area has been cleaned and released by the responsible party. The project management team will coordinate with the client any impacts to the property.

## **WATER**

To prevent the contamination of water, the Storm Water Pollution Prevention Plan (SWPPP) will be developed by a qualified person. Before site work commences, best management practices will be installed in accordance with the SWPPP plan.

## **AIR POLLUTION CONTROL PLAN**

The written Air Pollution Control Plan is to establish requirements to prevent or minimize air pollution associated with onsite construction activities. The requirements should comply with all federal, state/territorial, and local laws, regulations, and standards. Where local or state regulations require more stringent or different controls, the project must incorporate those requirements into the Air Pollution Control Plan. The Air Pollution Control Plan (APCP) applies to all trade partners and their lower-tier subcontractors.

## **SITE PREPARATION AND VEHICULAR TRAFFIC**

Many local jurisdictions require that a dust control plan be prepared and submitted for approval prior to beginning site preparation or earthwork. Prior to beginning construction, a dust control plan should be obtained from the earthwork trade partner. The dust control plan must be included in the site specific APCP. The dust control plan must include the criteria and frequency for applying water to potentially dusty areas of the site subject to vehicular traffic.

## **APPLICATION OF CHEMICALS TO THE SOIL**

Chemicals are often applied to the surface of soils for purposes of stabilization/moisture control (lime), sterilization (pesticides, fungicides) or to support landscape plantings. Even if site-specific approvals/permits are not required by local jurisdictions, there may be local restrictions prohibiting the use of certain chemicals because of the site's proximity to sensitive receptors (i.e., employees, residents, local creeks, lakes, estuaries, wetlands, or protected flora or fauna, etc.). Prior to applying chemicals to the soil/ground the trade partner will coordinate with project management team to ensure that any adverse conditions to the site are addressed and documented.

## **CONSTRUCTION MATERIAL SURFACE PREPARATION AND COATING**

The construction of roads, buildings and other structures often requires the surface to be prepared prior to applying surface coatings. These activities along with the surface coatings themselves, can result in the generation of air pollutants. In preparing the surfaces, sand or bead blasting is often used, which generates aggregate and metal dust particles. The application of surface coatings (i.e., epoxy coatings, paint, hot tar roofing, asphalt paving materials, etc.) can generate fumes, vapors, and strong odors. All materials/chemicals to be used in these activities will be approved prior to any of the materials arriving onsite. Any trade partner conducting such activities will ensure that they are in compliance with the Air Pollution Control Plan (APCP) and must ensure that all dust, particulate, and other airborne pollutants never impact sensitive receptors. All waste produced by surface preparation and coating activities must be disposed of properly.

## **DEMOLITION**

The demolition of buildings, tanks, and piping systems can often result in the release of air pollutants. Ductwork or pipes may contain residual chemicals of concern such as arsenic, adhesives/coatings, solvent, or petroleum vapors. Tanks may contain materials that can release vapors or pose a potential hazardous situation when being removed. State and/or local permits are usually required for demolition of asbestos-containing/coated structures, pipes, and equipment or for removal of underground fuel/chemical tanks. A licensed/certified asbestos remediation or asbestos abatement contractor will be used for any asbestos removal activity. All permits and licenses must be available for review. Sand/bead blasting of metal tanks, heavy equipment and steel structures generates spent abrasive material and residual rust and paint chips. The paint being removed may contain lead, requiring additional steps to be taken to prevent the release of these materials. Prior to removal, dismantling, or disassembly of tanks, pipes, pumps, or valves, they must be checked to verify that they contain no liquids, sludge, or residues. These residues must be removed in accordance with government, owner, and contractor requirements prior to demolition.

### **HAZARD COMMUNICATION**

All workers on the project are entitled to know the properties and potential safety and health hazards of chemicals or substances that they may encounter on the project. Each project will develop a written project-specific Hazard Communication Plan. This plan will be placed in a location where workers can easily access and review the plan and the Safety Data Sheets (SDSs). Prime trade partners will submit to the project management team a copy of their SDSs of all known hazardous chemicals that are in their work area including all lower-tier subcontractors.

It will be the responsibility of each prime trade partner supervision or project manager to ensure SDSs are received prior to the time of delivery of a hazardous chemical. Prime trade partners will keep SDS on location for each hazardous chemical or substance used on site. Project management and trade partner supervision will ensure all hazardous chemicals are properly labeled in accordance with the SDS and the Global Harmonizing System. Containers that hazardous chemicals have been transferred into for use during a single shift will be properly labeled.

Each worker will receive annual training on the Hazard Communication Program, this will include at minimum: the location of the SDSs, labeling requirements in accordance with SDS and GHS, and any specific safety or health instruction about the hazardous chemical or substance.

Prior to exposure or use of any hazardous chemical or substance workers will be trained in physical and health hazards, required PPE, procedures to protect against the hazards, emergency procedures in case of exposure or accidental spill, engineering and administrative controls, and labeling requirements.

Whenever a new chemical or substance is introduced into the workplace, workers will be briefed of its hazards during pre-task planning.

Anyone that may have business in or near a work area that hazardous chemicals are being used will be notified of the hazards they may encounter. If a worker believes they have encountered a hazardous chemical or substance unfamiliar to them, they will immediately notify a supervisor. Project supervision will attempt to identify the hazardous chemical or substance and initiate all precautions to handle and dispose of the material.

### **Utility Protection Policy**

Prior to start of work that could possibly interrupt any live utility, the general contractor superintendent and the trade partner creating the exposure must complete the Utility Protection Permit (see appendix 18). Work could include demolition of any scale, concrete cutting, core drilling, and re-work or floor/wall/roof penetrations, overhead utilities.

The permit process is meant to force critical pre-planning and to establish the means to discover, identify, and mark the locations of utilities, and to ensure all affected crafts in the area are aware and educated on the protection system. Superintendents will include utility protection as a topic in the weekly trade partner coordination meeting.

The general contractor superintendent and trade partner supervisor will identify the work activity that could cause a utility interruption. The trade partner will be provided the Utility Protection Permit form to be uploaded into ConstructPM (see Appendix 18) and will complete all sections with assistance from the project management superintendent if needed.

Discovery methods used to locate utilities will be scheduled and completed with findings reviewed and posted if necessary. Following discovery all employees or affected crews in the area will be trained on live utilities or protected methods in place. This information will be documented in ConstructPM to include any training(s) and requisite signatures.

# GENERAL CONTRACTOR SITE-SPECIFIC STANDARDS

The following requirements are established for all trade partners. If an owner requirement, local ordinance, state/territorial, or federal regulation is more stringent, the more stringent requirement shall apply. The absence of a requirement below means that the related owner requirement, local ordinance, state/territorial regulation, or federal regulation shall apply.

## Abrasive Blasting

Abrasive blasting is primarily used for the preparation of metal surfaces to prepare them to accept a coating or lining. Abrasives and surface coatings on the materials blasted are shattered and pulverized during blasting operations and the dust formed will contain particles of respirable size. The composition and toxicity of the dust from these sources shall be considered when making an evaluation of the potential health hazards. Exposure of employees to inhalation, ingestion, skin absorption, or contact with any material or substance at a concentration above those specified in the Threshold Limit Values of Airborne Contaminants for 1970 of the American Conference of Governmental Industrial Hygienists, shall be avoided.

Any trade partner conducting abrasive blasting shall coordinate activities with the project management team and any other trade partners in the vicinity. A blasting zone where dust is visible should be established and marked off with signs around the area to communicate the hazard. If silica exposure is anticipated, follow Table 1 in Appendix 17 to ensure proper protection for exposed personnel.

### INSPECTION REQUIREMENTS

Machines and hoses shall be inspected daily prior to use; parts showing excessive wear will be repaired or replaced. Other inspections completed per manufacturer's instructions. The blast nozzle shall be bonded and grounded to prevent the build-up of static charges. The blast cleaning nozzles shall be equipped with an operating valve which must be held open manually. A support shall be provided on which the nozzle may be mounted when not in use. Hoses should be joined by external metallic connectors; these connectors shall have pin-clips to prevent disengagement. Anti-whip arresters shall be used between each connector.

### PPE REQUIREMENTS

Eye, face, hearing, and respiratory protection shall be provided to all personnel working in the area where abrasive blasting is to take place; when possible, limit the number of employees in the vicinity of blasting. When needed additional eye and face protection shall be supplied to the operator when the respirator design does not provide enough protection. Abrasive blasting hoods shall always be worn by abrasive blasting operators during blasting operations. All employees using respirators shall follow the respiratory protection plan outlined in this document, including medical evaluation, fit testing, and training. Abrasive blasting respirators shall be worn by all abrasive blasting operators under the required conditions. Respirators shall be cleaned daily using either vacuum or water and kept in an acceptable operating condition. After daily cleaning, respirators shall be kept in an upright position to prevent debris from spilling inside. Air for abrasive blasting respirators must be free of harmful quantities of dusts, mists, or noxious gases.

## HOUSEKEEPING

Good housekeeping practices shall be followed with active abrasive blasting operations to eliminate slip, trip, and fall hazards from hoses. Once active abrasive blasting operations have concluded, clean the area completely to eliminate any excess materials, dust, and debris. Compressed air shall not be used for cleaning purposes except where the pressure is reduced to less than 30 psi(g).

## Concrete Construction

All vertical and horizontal rebar, form stakes, metal or plastic conduit, or small pipe stub-ups shall be protected with approved caps or other industry accepted alternatives to protect against impalement and injury. Workers that will operate vibrators, pump nozzles, and concrete buckets will wear appropriate eye and foot protection. Long sleeve shirts will be worn to protect bare skin from exposure to concrete and the possibility of concrete burn and contact dermatitis. Finishers will wear kneepads and impervious gloves when hand-finishing concrete. In case of exposure, appropriate first aid measures will be put in place in the work area in accordance with all regulatory requirements.

Workers engaged in vertical rebar assembly shall comply with the six-foot fall protection rule. Positioning devices alone are not approved fall protection but can be used in conjunction with personal fall protection equipment. Walkways along form walls shall be designed by qualified persons and erected under the oversight of competent persons in accordance with relevant scaffold and fall protection regulations.

Prefabricated forms and form-making material will be always stacked neatly. When stripping concrete forms, all material will be immediately removed and stacked in an orderly manner. Forming material or debris shall not block walkways and aisles.

Trade partners shall:

- Remove rebar, tie-wire, and other debris from the work area at least daily.
- Ensure that reinforcing steel and forms for walls, piers, columns, stairs, and similar vertical structures are adequately supported to prevent overturning or collapse and are designed and installed under the supervision of a qualified person.
- Ensure that uncoiled wire mesh is adequately secured to prevent recoiling.

Concrete buckets will be equipped with a discharge device that an employee can operate without being exposed to the load. Equip concrete buckets with safety devices to prevent premature or accidental dumping and ensure that the release is self-closing. Follow safe rigging practices when handling concrete buckets. No employee is permitted to ride a concrete bucket.

When using bull floats, inspect the area to ensure there is no energized equipment or nearby power lines. Concrete buggy handles shall not extend beyond the wheels on either side of the buggy. Rotating-type powered concrete trowels shall be equipped with dead-man controls that automatically shut down the equipment when the operator's hands are removed from the controls.

## POST-TENSIONING OPERATIONS

No worker, except those essential to the post-tensioning operation, shall be permitted behind the jack. Warning signs and barriers shall be erected to limit access to the post-tensioning area during post-tensioning operations.

## PRECAST CONCRETE

A qualified person is required to be responsible for the inspection of all rigging and hardware and the supervision of the rigging of precast concrete members.

## UNLOADING OF PRECAST CONCRETE MEMBERS

Prior to precast concrete members being unloaded, all rigging and hardware shall be inspected, the precast member shall be verified that it is properly rigged, and the load is verified as stable before releasing the binders.

#### PLACEMENT OF PRECAST CONCRETE MEMBERS

Precast members are not to be moved over workers. Workers involved in the setting or connecting of precast members will strictly adhere to the 100% fall protection policy with no exception. No worker shall use hands to reach under a precast member to adjust a shim or bearing pad.

### Confined Spaces

The general contractor is classified as the controlling contractor per 29 CFR 1926 Subpart AA (Confined Spaces in Construction) and will be the primary point of contract for information about permit-confined spaces at the work site. The host employer (owner) must provide the information it has about permit spaces at the work site to the controlling contractor, who then passes it on to the trade partners whose employees will enter the spaces. This process will be reviewed annually and adjusted as necessary. The duties of entrants, attendants, and supervisors are outlined below and in the confined space permit.

When multiple employers are working in a confined space, the general contractor shall require all trade partners to coordinate work, to ensure clean communication and a safe work environment for all workers. Measures such as barriers or barricades shall be erected when necessary to prevent unauthorized entry and to prevent other external hazards from compromising the confined space.

All personnel shall know the hazards of entry. The entrant will properly use equipment, communicate with the attendant, alert the attendant of unsafe conditions, and exit the space when a hazardous condition develops. The attendant will monitor entrant behaviors, maintain a head count of entrants, remain outside the entry point, ensure the permit is posted, communicate with entrants, order evacuations, and summon rescue. The entry supervisor will verify atmospheric monitoring, ensure hazards identified are mitigated, verify rescue service availability, remove unauthorized personnel, and terminate the entry when appropriate.

In the event of a confined space emergency, the rescue response procedure will be followed, the general contractor will be immediately notified to provide emergency response assistance in addition to the rescue team designated in the rescue response plan. The general contractor does not perform work in confined spaces where conditions immediately dangerous to life or health (IDLH) are present.

Procedures to ensure safe work on work sites for all personnel who enter confined spaces shall cover:

- The requirements for safe entry, work, and exit of personnel assigned to work in confined spaces. These requirements apply to all project management staff and includes trade partners and lower-tier subcontractors.
- Identification of confined spaces (e.g., equipment, tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes) that have the following physical characteristics:
  - Large enough and so configured that a person can bodily enter and perform assigned work (this includes spaces where the head and trunk can enter even if the whole body could not fit)
  - Not designed for continuous personnel occupancy (aka a hazardous situation is typically present in the space)
  - If all three conditions above are present, the space is a confined space. Proceed to classify the confined space based on the potential hazard in the space.

Prior to commencement of work, each employer must ensure that a competent person has identified all confined spaces in which any employee may work and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary. All entry employers conducting work onsite will decide how the employees it directs will enter a permit space, the entry employer must have a written permit space program implemented onsite. Entry employers must give the general contractor information about the entry program and any hazards they encounter in the space.

Prior to any worker entering a confined space, the trade partner shall submit training records to the general contractor. This training shall include the contents of the confined space entry plan, known hazards in the confined space, emergency procedures in case of an emergency, correct use of PPE (when required), hot work permit (if required), atmosphere testing requirements, lockout/tagout procedures, and fall protection (if required).

Entry certification and confined space entry permits must comply with 29 CFR 1910.146 and 29 CFR 1926 Subpart AA (Confined Spaces in Construction). There are five key differences in the construction rule for confined space work versus the general industry rule.

1. More detailed provisions requiring coordinated activities when there are multiple employers at the worksite. This will ensure hazards are not introduced into a confined space by workers performing tasks outside the space. An example would be a generator running near the entrance of a confined space causing a buildup of carbon monoxide within the space.
2. Requiring a Competent person to evaluate the work site and identify confined spaces, including permit spaces.
3. Requiring continuous atmospheric monitoring whenever possible.
4. Requiring continuous monitoring of engulfment hazards. For example, when workers are performing work in a storm sewer, a storm upstream from the workers could cause flash flooding. An electric sensor or observer posted upstream from the work site could alert workers in the space at the first sign of the hazard, giving the workers time to evacuate the space safely.
5. Allowing for the suspension of a permit, instead of cancellation, in the event of changes for the entry conditions list on the permit or an unexpected event requiring evacuation of the space. The space must be returned to the entry conditions listed on the permit before re-entry.

## Mobile Elevated Work Platforms (MEWPs)

The overhead and underground utility considerations for aerial lifts should follow federal, state, or local standards. Scissor lifts will be used in accordance with 29 CFR 1926.452(w). Aerial lifts shall be inspected daily per the manufacturer's instructions prior to use. Aerial lifts shall not be used as material hoists unless the load is contained within the basket and meets the lift's rated capacity. The lift shall not be modified for hoisting material unless the manufacturer approves such modifications in writing. Personal fall arrest systems shall be worn and attached to the manufacturer's designated anchorages in the boom or basket when working from an aerial lift. The gates of aerial lifts shall be properly engaged whenever the lift is in use. Aerial lifts shall be equipped with a reverse signal alarm, and when necessary due to obstructed view, spotters shall be used.

Always ensure guardrails and mid-rails are installed and in good condition. Never climb, sit, or stand on guardrails. If the owner/client requires tie off, follow the manufacturer's recommendations for fall restraint

### TRAINING REQUIREMENTS

Only trained personnel who have been deemed competent and designated by their supervisor are authorized to operate any mobile elevated work platform. Employer will provide proof of training at pre-mobilization.

## Crane Safety

### LIFT AND PRE-TASK PLANNING

Prior to any lifts a lift plan will be completed, reviewed, and signed off on by the senior superintendent and ESH manager. The final lift plan should fully incorporate the current site conditions, including utility locations and any possible intersections with public access areas. A Daily Pre-Task Plan must be accomplished prior to any lift for that specific day to ensure that no deviations from the lift plan exist.

Every crane operating onsite must have the following documentation in the cab of the crane available for review:

- Manufacturer's operating manual
- Manufacturer's lift charts

- Last annual inspection
- Last monthly inspection
- Exception reports, if any.

At any time during the lifting process the crane operator has the authority to stop the lift and request a review by a qualified person to determine that safety has been assured.

Accessible areas within the swing radius or the rotating superstructure must be barricaded to prevent serious injury or death to workers. Crane baskets are not permitted unless conventional methods are more hazardous or infeasible without the prior approval from site management and general contractors ESH regional manager. No employee will work or travel on any part of the crane boom without proper personal fall arrest equipment. No worker will be allowed to climb the tower or get on the boom when the crane is in operation. No load will be swung over any public street that is occupied by the general public unless authorized by local authorities.

#### **OPERATOR, RIGGER, AND SIGNALMAN QUALIFICATIONS**

All crane operators onsite are to be a certified crane operator (NCCCO) and possesses all the requisite skills and demonstrate requisite skills to safely operate the applicable equipment.

Prior to any lifts the operator's competency will be verified through their employer and made available to the general contractors site management and be always available. This certification does not ensure that an operator is capable of safely operating a particular piece of equipment.

Qualifications for riggers and signalmen will be compliant with OSHA standards; verification of certifications must be presented to project team site leadership prior to crane operations.

#### **REQUIRED CERTIFICATIONS**

Review and inspect NCCCO Certification Card for type of cranes the operator is certified to operate. Verify on the application for employment or by trade partner certification that the applicant has operated cranes in the classification for which they are being hired. The general contractor reserves the right to remove an operator from the site if, in the general contractor deems the operator is unfit to operate the applicable crane.

#### **INSPECTION AND OVERSIGHT REQUIREMENTS**

Ongoing comprehensive inspections are a critical component that ensures the on-going safe operation of all cranes. Prior to any crane arriving onsite, the previous monthly and annual inspection will be submitted and reviewed by the general contractor. Verification that all noted defects have been corrected will be included with the inspection form. A qualified third-party will inspect all structural components in accordance with manufacturer's recommendations. The crane rental company will perform all maintenance and inspections in accordance with manufacturer recommendations. The erection of tower cranes will be directed by a third-party inspector and upon completion of erection a new annual inspection will be accomplished, and all defects corrected and documented prior to any lift.

Monthly Inspections will be accomplished for all cranes used on the project for greater than 21 days or 3 consecutive weeks, regardless of operating days during that period. The monthly inspection forms are required to be completed and maintained in the cab of the equipment.

Monthly forms will be retained for a minimum of three (3) months and some local agencies may require them to be retained longer.

Annual Inspections will be accomplished for all cranes used on that project for greater than 365 calendar days, regardless of operating days during that period. The annual inspection must be accomplished by either a vendor, manufacturer, or third-party inspector and the forms maintained in the cab of the equipment.

#### FAA AND OTHER AGENCY NOTIFICATIONS

The Federal Aviation Administration (FAA) requires a permit on construction cranes any time they will exceed 200 feet in height, when they are placed within 20,000 feet (3.79 miles) of an airport regardless of height, and when they meet other requirements found in 14 CFR 77 Subparts B and C. The FAA-required FAA Form 7460-1 shall be submitted at least 45 days before the date the proposed construction is to begin or the date the application for a construction permit is to be filed, whichever is earlier. The FAA requires that four (4) copies of the FAA Form 7460-1 be sent to the local/ regional FAA Director. In addition to the FAA, other local statutes may require additional notification.

#### PRE-ERCTION REQUIREMENTS

Geotechnical requirements: soil conditions must be fully assessed prior to any crane arriving at the site. Items to consider include travel, slope, and soil loading ability. Prior to the erection of any tower crane, a geo-technical evaluation will be accomplished and incorporated into the foundation design of the engineered system. For mobile cranes, outrigger size, location, and soil condition must be considered when planning. Soil bearing capacity is to be determined by a vendor and outrigger sizing established prior to the crane arriving onsite. Tower crane foundations must be a designed system, certified by a professional engineer, taking all loads and soil conditions into consideration.

VOLTAGES (NOMINAL KV, ALTERNATING CURRENT)	MINIMUM CLEARANCE DISTANCE (FEET)
Up to 50	10
Over 50 to 200	15
Over 200 to 350	20
Over 350 to 500	25
Over 500 to 750	35
Over 750 to 1,000	45
Over 1,000	As established by the power line owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution

#### OVERHEAD AND UNDERGROUND UTILITY CONSIDERATIONS

Prior to the assembly/erection of any crane it must be determined if any part of the crane, load line, or load (including rigging and lifting accessories) could get in the direction or area of assembly within proximity of a power line. Minimum clearance distances are on the table below. In the event this clearance must be encroached the line will be de-energized prior to the planned encroachment.

#### WORKING IN PROXIMITY OF HIGH VOLTAGE TRANSMISSION LINES

The general contractor project teams will determine the presence of electrical transmission lines and develop a specific plan that assures no worker will have the potential to be harmed from unplanned electrical discharge. The project management team will contact the power provider to evaluate the load being carried, and if the power can be shut off during the construction process.

Where the power cannot be shut off the following distances will be maintained at all times:

- Any work that involves involving high voltage shall ONLY be accomplished by person(s) trained and competent in such work, and a specific work permit will be prepared and presented to the general contractor project team prior to commencement of work.

### **CRITICAL AND MAJOR LIFT PLANNING AND PROCEDURES**

Guidelines provided here are intended to aid in making the decision to designate a critical lift. In conjunction with ESH regional manager, senior superintendent, and crane operator, who have the responsibility for the material being lifted have the authority to require that it be handled as a critical lift. In addition, the manager at the facility where the lift will be performed also has the authority to require that it be handled as a critical lift. The manager who designated the lift as a critical lift will ensure that a lift director is assigned. The lift director need not be in the general contractor's organization. A definition of a critical or major lift is: 1) if load reaches 75% of the crane's maximum capacity; 2) two or more cranes are needed to make the pick, or 3) when hoisting personnel.

The lift director will ensure that a step-by-step procedure is prepared for all critical lifts. Although individual procedures are prepared for the one-time critical lifts, general procedures may be employed to accomplish routine recurrent critical lifts. Any non-routine lift of critical equipment (as determined by the project manager, superintendent, or safety manager) is considered a critical lift. Critical equipment may include equipment that meets one of the following criteria:

- The load item, if damaged or upset, would result in a release into the environment of radioactive or hazardous material exceeding the established permissible environmental limits.
- The load item is unique and, if damaged, would be irreplaceable or not repairable and is vital to a system, facility, or project operation.
- The cost to replace or repair the load item, or the delay in operations of having the load damaged, would have a negative impact on the facility, organization, or budget to the extent that it would affect program commitments.

A lift not meeting the above criteria will also be designated critical if mishandling or dropping of the load would cause any of the above noted consequences to nearby installations or facilities. Further site-specific criteria may be developed to supplement those cited above and may include loads which require exceptional care in handling because of size, weight, close-tolerance installation, or high susceptibility to damage as well as lifts using multiple pieces of lifting equipment.

### **APPROVAL AND REVISION OF CRITICAL LIFTS**

The critical lift procedures should be reviewed at a pre-lift meeting by the responsible contractor, the crane operator(s), general contractor site management, ESH regional manager, author of the lift plan, and manager of the lift operation. Any revisions to the procedure will be reviewed and approved through the same cycle as the original procedure.

### **PRE-LIFT MEETING**

Before any critical lift is performed, a pre-lift meeting with all participating personnel will be held. During the meeting, the critical lift procedures will be reviewed, and questions will be resolved. The pre-lift meeting will be documented. Practice lifts are recommended (if used, requirements for the practice lifts should be documented in the procedure).

### **JUMPING CRANES**

Jumping of cranes must follow similar protocols as a critical or a major lift and requires a comprehensive written plan to address the following:

- Number of sections to be added/removed.
- Work sequences.
- Rigging to be used
- Inspection of all rigging equipment including shackles, hooks, etc.
- Review of all equipment such as collars, ties, and bolts, including capacities and a record of visual inspection by a competent person
- Relevant weather warnings and emergency procedures
- Full compliance with manufacturer's recommendations

## **DISMANTLING CRANES**

A written crane plan is required for the dismantling of any crane.

## **CRANE INCIDENTS**

All incidents involving crane operations (e.g., unsafe observation, near miss) must be reported immediately to general contractor project management, including the ESH regional manager. The project management team will collaborate with other trade partners if appropriate and develop a corrective action plan in response to the cause of the incident prior to resuming any crane operations.

## **RIGGING**

Riggers must be properly trained and qualified to rig material or equipment lifted by a crane. Rigger's training documentation will be made available to general contractor at the pre-mobilization meeting. If any changes are made in riggers onsite, updated training records will be provided prior to any rigging work.

Tag lines will be used when required in accordance with 29 CFR 1926.1401 to keep loads under control, or in other circumstances where the safety of employees dictates the use of tag lines.

All hooks will be equipped with safety latches, safety latches on hooks that are disabled and/or shakeout ("pelican") hooks will not be used unless in compliance with 29 CFR 1926 Subpart R. All rigging equipment and spreader bars will have the manufacturer's tag. Rigging equipment and spreader bars not tagged or marked will be immediately removed from the project.

All rigging will be inspected daily before each shift, during use, and after use by a qualified rigger and documented in writing. This includes rigging equipment such as chains and slings including nylon straps, continuous chockers and wire rope chockers; as well as all rigging hardware such as hooks and shackles or any hardware used in the rigging of material for lifting and hoisting purposes. In addition, all chain slings such as single chains, or chain 2, 3, and 4 ways or in any configuration will have the following inspected:

- Missing or illegible identification
- Indications of heat damage including weld splatter or arc strikes
- Excessive pitting or corrosion
- Bent, twisted, distorted, stretched, elongated, cracked, or broken load bearing components.
- Excessive nicks or gouges
- Evidence of unauthorized (other than the manufacturer) welding or modification
- Swivels unable to freely rotate.
- Other conditions including visible damage that causes doubt as to continued use.

All chain slings will be returned to the vendor/manufacturer at least annually and have a complete inspection by a qualified person to ensure that the integrity of that chain or chain sling configuration is suitable for use (ASME B30.26: 4.8.4) up to and including the loss of metal not to exceed 10% of the original catalog dimension (ASME B30.26: 4.8.5) all other rigging equipment will meet or exceed the OSHA standards described in 29 CFR 1926.251, 29 CFR 1910.184, and ASME B30.26.

## **Demolition**

Prior to start of any demolition work, the trade partner shall ensure a competent person has performed an engineering survey of the building or area to be demolished to determine the condition and location of utilities, whether hazardous materials exist, means and methods of performing the work, and sequencing. No work will commence until a written engineering survey has been completed and submitted to the general contractor.

Debris and material will not be dropped through walls, floor holes, windows, or other elevated work areas without the area below being barricaded and properly signed. Under no circumstances will materials be dropped more than 20 feet without using a chute. Debris chutes will have a substantial gate at all elevated openings.

If demolition of a building will involve implosions, the demolition contractor will submit to the general contractor a detailed safety plan to specifically address site preparation, installation of explosives, debris/dust control and blaster qualifications.

### Lockout / Tagout

The general contractor will review the trade partners Lockout/Tagout procedures and training documents to ensure that workers are not exposed to the hazards from moving machinery or equipment and the hazards posed by an energized source (pneumatic, steam, hydraulic, chemical). This program should be reviewed annually by the trade partner to ensure that the procedures are being followed, in addition periodic inspections throughout the year will be performed by a competent person. If any deficiencies are discovered during these periodic inspections, training and re-training will be completed immediately with both the employee and the supervisor to ensure that all parties are aware of correct practices. Refer to Appendix 12 for the Lockout/Tagout checklist.

Safety locks and tags for individuals will be applied to all circuits, switches, valves, isolating devices, and any other energy sources to ensure equipment, machinery, or processes, which have been considered functioning, charged, or could otherwise be operable have been rendered non-operational or de-energized. In the event of a group of workers, each individual will be issued their own lock/tag to ensure that every individual is protected. No person will remove another worker's safety lock or attempt to energize any piece of equipment, machinery or process that has been locked out and tagged.

Training will include recognition of hazardous energy source, type, and magnitude of energy available, methods and means necessary for energy isolation and control. Each authorized employee will receive adequate training. The training will address that all affected employees are instructed in the purpose and use of the energy control procedure. There will be training provisions included for any other employee whose work operations are or may be in an area where energy control procedures may be utilized. The employee training will also address when lockout/tagout systems are used including the limitations of a tag (tags are warning devices and do not provide physical restraint). The training will include that a tag is not to be removed without authorization, the tag is never to be ignored or defeated in any way.

Retraining is required when there is a change in job assignments, in machines, a change in the energy control procedures, or a new hazard is introduced. All training and/or retraining must be documented, signed, and certified.

### DE-ENERGIZING EQUIPMENT AND PROCESSES

A general contractor representative will coordinate with the operating facility representative when any energized equipment or process must be de-energized. All circuits and sources of energy that require locking and tagging to make the equipment inoperable will be identified. The operating facility representative will notify personnel that may be affected by the de-energizing. The trade partner supervisor for each individual overseeing the work will sign out sufficient safety locks to lockout the piece of equipment, or process.

The operating facility representative and Competent person will make certain the operating controls to the equipment, machinery, or process are in the "off" or "neutral" position. Once verified that the controls are in the "off" or "neutral" position, the operating facility will place a safety lock and tag on the energy isolating device first. Next the trade partner supervisor will apply their safety lock and tag to each isolating device that provides power, or other energy to the machinery, equipment, or process. The tag will contain the name of the worker, company name, date, and phone number. Once the worker has placed their safety lock and tag on the energy-isolating device, all affected workers will then apply a safety lock and tag to the energy-

isolating device. Alternatively, the worker may place the key to the equipment safety locks in a safety lock box, place the individual safety lock, and tag on the safety lock box, and then have each affected worker place their safety lock and tag on the lock box.

Prior to any work being performed on the piece of equipment, machinery, or process, the operating facility representative and Competent person will verify that it is inoperable. After verifying it is inoperable, the switch will be returned to the "off" or "neutral" position. Before an authorized or affected employee turns off a machine, or equipment, the authorized employee will have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled and the methods or means to control the energy. Stored or residual energy will be dissipated by whatever means are necessary. Capacitors will be discharged, and high capacitance elements short-circuited and grounded by a qualified electrician.

#### **RE-ENERGIZING EQUIPMENT AND PROCESSES**

When the required work is completed and the machinery, equipment, or process can be returned to service, the Competent person will contact the operating facility representative to notify of completed work operations. The Competent person will make a visual inspection of the equipment, machinery, or process to ensure all workers have completed their work and equipment, tools, and other material is removed from the area.

After confirming all workers, materials, tools, and other equipment are out of the area, the operating controls are still in the "off" or "neutral" position, and each worker has removed their safety lock and tag. Project management will notify the operating facility representative that the equipment, machinery, or process is clear to be energized.

#### **DE-ENERGIZING FLUID PROCESSES**

The general contractor will coordinate with the operating facility when any fluid process requires de-energizing. Any vessel, pipe, hose, or process that contains a hazardous liquid or gas will be purged with nitrogen or flushed before work begins as described in the Pre-Task Plan for the activity. All valves or gates and where blanks are required to be installed to isolate the work area will be identified.

The Competent person overseeing the work will sign out sufficient safety locks and tags to completely isolate the system. The operating facility representative and competent person will verify that each valve or gate is in the "off", "neutral", or "closed" position. The operating facility representative will place a safety lock on the valve or gate first, then the Competent person will apply a safety lock to each valve or gate and visible warning tag that includes the name of the worker, company, date, and phone number. Next all affected workers will then apply a safety lock and tag to the energy-isolating device. Alternatively, the Competent person may place the key to their equipment safety lock in a safety lock box, place their individual safety lock and tag on the safety lock box and then have each affected worker place their safety lock and tag on the lock box. The required blanks will be placed at this time. Prior to commencing work, the operating facility representative and Competent person will verify the system and all piping, hoses, valves, and processes are de-energized, and that any stored energy is dissipated or restrained.

Welded valve connections should have the valve handles removed and the stem tagged "DO NOT OPERATE" all other valves and isolating devices must be physically prohibited from operating. Hydraulic and pneumatic equipment or machinery will be blocked to prevent movement.

#### **RE-ENERGIZING FLUID PROCESSES**

The Competent person will make a visual inspection of the area to ensure all workers, equipment, tools, and materials are removed from the area. After confirming this, while the valves and gates are in the "off", "neutral", or "closed" position, each worker will remove their safety lock and tag, then the Competent person will remove their safety lock and tag from each of the isolating devices. The management representative will be notifying the operating facility representative that the system is ready to be energized.

## Electrical

No work will be performed on any energized electrical circuit, bus bars, equipment, or panels unless an approved written work plan is developed in accordance with NFPA 70E and submitted and reviewed by the general contractor superintendent, ESH regional manager, and OPS VP for review prior to performance of work (see Appendix 6 Energized Work Permit). The general contractor is obligated to ensure all electrical trade partners follow the NFPA 70E standards regulating electrical safety. The general contractor will advise trade partners of hazards unique to the jobsite. When unanticipated hazards are revealed during the work process, work will stop, the general contractor site management will be notified, and the identified hazard is fully mitigated before work can resume. The NFPA 70E standard must be followed when any “energized work” is completed on any project. All electrical trade partners working onsite must know and follow these standards. Employees should treat de-energized parts as live when working near the equipment.

When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in the voltage range table.

VOLTAGE RANGE (PHASE TO PHASE)	MINIMUM APPROACH DISTANCE
300 V and less	1 ft. 0 in. (30.5 cm)
Over 300V, not over 750V	1 ft. 6 in. (46 cm)
Over 750V, not over 2kV	2 ft. 0 in. (61 cm)
Over 2kV, not over 15kV	3 ft. 0 in. (91 cm)
Over 15kV, not over 37kV	3 ft. 6 in. (107 cm)
Over 37kV, not over 87.5kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

### ADDITIONAL REQUIREMENTS FOR WORK IN LIMITED APPROACH BOUNDARY

The following procedures will be in place prior to any work being authorized on or near any energized electrical circuit, equipment, or panels in accordance with NFPA 70E and an MOP will be developed to address sequencing of work and hazards associated with work activities.

### TEMPORARY POWER

Prior to construction a temporary power plan will be discussed, reviewed, and approved by the project team. Temporary lighting will be placed such that adequate lighting is always provided during active construction in areas of access and egress. Task lighting will be provided by trade partners to ensure adequate lighting in the work area.

All cord sets will be elevated above the work surface when practical. Wire, nails, or other conductive material will not be used to hang or attach cord sets or welding leads. Cord sets that cross roadways will be protected from damage from vehicle and equipment traffic by devices such as hose bridges. Light stringers, and halogen lamps will have the light bulbs protected from accidental contact or breakage and will be hung per manufacturer specifications and must have UL listed and be OSHA approved. UL approved covers are required on all panels, load centers, and pull boxes prior to energizing. Necessary steps will be taken to prevent unauthorized or unqualified workers access to energize electrical parts or equipment.

### INSPECTION PROGRAM

An inspection program must be established to inspect all cord sets, portable electrical equipment, tools, and appliances as described below and before first use, before returned to service following any repair, and after an incident that could have caused damage.

A Competent person will inspect all cord sets, portable electrical equipment, tools, and appliances not part of any permanent building or structural electrical system to prevent any worker from receiving an accidental electric shock. All temporary cords will be three wire types S, ST, SO, or STO with a 16 or heavier wire gauge.

**Daily Inspections:** Each cord set, attachment cap, plug, and receptacle of cord sets, portable electrical equipment, tools, or appliances connected by a cord and plug, will be visually inspected daily by the user for external damage, such as deformed or missing ground pins, insulation damage, frayed wires, or indications of possible internal damage. Any electrical equipment, tool, appliance, or cord set that is damaged or defective will be immediately removed from service and tagged out as defective equipment for repair. A qualified electrician will repair tagged electrical items.

**Monthly Inspections:** Each cord set, receptacle, and cord-plug connected electrical equipment, tools, or appliances not part of the building or structure's permanent wiring, will be visually inspected for damage or missing ground pin, insulation damage, frayed or exposed wires, and signs of internal damage. The color of the month tape will be applied following this inspection procedure. Any defective electrical equipment will be immediately removed from service and tagged as defective equipment for repair.

#### **GROUND FAULT CIRCUIT INTERRUPTERS (GFCI)**

All cord sets and cord-plug electrical equipment, tools or appliances that are 120 volts will be connected to a ground fault circuit interrupter (GFCI). When the source of electricity is from a portable, or vehicle mounted generator, a GFCI is required, and the generator is to be grounded if required by the manufacturer. Electrical contractor will periodically inspect, test, and reset the GFCI device being used to ensure it is working properly. If the GFCI device is not functioning properly it will be reported to electrical contractor supervisor to correct and to notify the project team.

No cord set or cord-plug electrical equipment, tool, or appliance will be plugged directly into any permanent building or structural electrical system not equipped with a GFCI.

#### **DOUBLE-INSULATED TOOLS**

Double-insulated tools are allowable if the case bears the Underwriter Laboratories "double-insulated" label. Tools where this label has been removed, painted over or otherwise not readable must be removed from service.

#### **DAILY INSPECTION**

Each cord set, attachment cap, plug, and receptacle of cord sets, portable electrical equipment, tools, or appliances connected by a cord and plug, will be visually inspected daily by user for external damage, such as deformed or missing ground pins, insulation damage, frayed wires, or indications of possible internal damage. Exceptions include cord sets and receptacles that are fixed to the permanent electrical system and are not exposed or damaged.

Any tool, electrical equipment, power tool, appliance, or cord set that is damaged or defective will be immediately removed from service and tagged out as defective equipment for repair. A qualified electrician will repair tagged electrical items.

All cord sets, receptacles and cord-plug connected electrical equipment, tools, or appliances not part of the building or structure's permanent wiring, will have the following performed each month, visually inspect for damage or missing ground pin, inspect insulation for damage, inspect for frayed or exposed wires, inspect signs of internal damage, once inspected the color tape for the month will be applied.

#### **TRAINING REQUIREMENTS**

For all employees required to work on or near electrical work (limited approach boundary), the following trainings and refresher periods will be verified by the general contractor project team.

- Trained in safety-related work practices meeting the requirements of 29 CFR 1910.332(b)(1).
- Re-training will be required for any employee that is observed to be non-compliant with safety-related work practices OR when working conditions change. Re-training will be accomplished at planned intervals not to exceed 3 years.
- All training records for employees will be maintained during the tenure of employment and for a minimum of 5 years.

## Equipment and Vehicles

Only company and/or delivery vehicles used for the sole purpose of conducting work tasks onsite are permitted in construction areas. Equipment used onsite must have an audible backup alarm, and the driver and all passengers of any vehicle will wear seat belts. ATV/UTV's used onsite must be used following the manufacturer's recommendations, and all state, local, and federal regulations.

Heavy equipment (cranes, forklifts, dump trucks, excavators/back hoes, man-lifts, etc.) utilized on the project will be inspected prior to use and comply with applicable OSHA and ANSI standards, and those inspections will be documented daily. At minimum the operator will check brakes, lights, backup alarm, horn, hydraulic systems, steering mechanism, operating controls, mirrors, fire extinguisher, limit switches, and look for any leaks.

Powered Industrial Truck operators will be re-trained every 3 years, or earlier if needed based on unsafe operations, change in type of vehicle, or if workplace conditions warrant additional training. Topics covered during training must include proper inspection procedures, basic knowledge of machinery, safe practices during operation of equipment, and hazard awareness during operation. Proof of training will be provided upon request.

Rollover protective structures (ROPS) will protect all equipment, including forklifts, and any equipment with a windshield will be free of cracks and other visible damage, seatbelts are required to be always worn when provided. Forklifts will have an approved fork attachment for rigging when used to suspend loads from forks, free rigging from forks will not be allowed on any project.

No equipment will be used to transport personnel unless it is specifically designed to do so – this includes beds of pickup trucks.

Prior to loading/unloading the operator will visually verify that trailer chocks, supports, and dock plates are in place.

## Excavation and Trenching

Prior to any disruption of ground, excavation, or trenching on the project, the project team will request locations for existing underground utilities from the owner and notify public utility locating authorities. No work will commence prior to the utilities being located and a Utility Protection Permit (see Appendix 18) completed by the contractor performing the work. An Excavation Permit (see Appendix xx) must be completed prior to commencement of work.

All utilities within two-feet of the excavation and or are crossing the excavation will be located first by hand digging or the use of a vacuum truck. Once the utilities are exposed, they need to be protected from damage. (i.e., shielding and shoring). A full-time spotter will be used while equipment is operating within four feet of the exposed utilities to ensure they are not damaged. If excavation and trenching operations cover multiple days, the competent person will inspect the exposed utilities for any damage and or possible issues prior to commencing the new workday. The newly discovered issues and or hazards will be communicated to the excavation team then documented in their pre-task plan.

All trade partners will identify the competent person and submit qualifications for review and approval by general contractor. The competent person will analyze the soil of the work area to determine the condition and type of soil to ascertain proper sloping and shoring requirements. The competent person will inspect excavations and trenches at the beginning of each day before work begins and when conditions change. Any excavation or trench at four feet or greater in depth will be evaluated for atmospheric hazards. A registered professional engineer must design all excavations over 20 feet in depth.

During excavation or trenching operations on the project, all trenches and excavations will be barricaded, and signage posted at the work area. Fall protection will be provided for excavations six-feet or more in depth. Trenches or excavations will be sloped or benched in accordance with local rules and regulations, and as determined by the competent person (Type C soil will not be benched). Supporting systems (shoring, piling, or trench boxes) will be utilized for all trenches and excavations where sloping or benching cannot be utilized. Spoil piles and all other material will be placed at minimum of two feet from the edges of all activities.

Employees will not work in excavations where there is accumulated water, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees vary with each situation but may include:

- Special support or shield systems to protect from cave-ins.
- Water removal to control the level of accumulating water, if water is controlled or prevented from accumulating by using water removal equipment, the water removal equipment and operations will be monitored by a competent person to ensure proper operation.
- If excavation work interrupts the natural drainage of surface water, diversion ditches or other suitable means will be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation.
- Excavations subjected to runoff from heavy rains will require an inspection by a competent person.

Adequate access and walkways must be always maintained during trenching or excavating activities. Walkways will be provided where employees are permitted to cross over excavations, guardrails will be provided where walkways create a 6-foot or greater exposure to lower levels. Access points will be placed such that no worker travels more than 25-feet in any direction.

## Fall Prevention / Protection

The project is committed to the philosophy of **100% continuous** fall protection whenever workers are exposed to fall hazards of six feet or more. In conjunction with all local, state, federal, trade partner, or owner requirements, whatever is most stringent will apply.

- **Fall Restraint** – a fall restraint system will prevent the worker from being exposed to a fall hazard by restricting the worker's travel along an elevated surface.
- **Fall Arrest** – a fall arrest system is used to arrest an employee in a fall from a walking-working surface. It consists of a body harness, anchorage, and connector.

Fall restraint will be prioritized over fall arrest, unless proven more hazardous or infeasible.

The general contractor, trade partners, vendors, or other third-party individuals will take all practical measures to eliminate, prevent, and control fall hazards. All work will be planned with the intent to eliminate identified fall hazards. When a fall hazard has been identified and cannot be eliminated, then effective means of fall protection will be implemented. A fall protection program will be developed by a qualified person. All fall protection will be attached to an anchorage point that will support 5,000 lbs. and will be rigged to limit free fall distance. Acceptable fall protection systems include:

- Guardrail systems
- Safety netting
- Covers for floor, roof, and wall openings.
- Protection from falling objects.
- Personal fall arrest systems

Prior to elevated work, a fall protection plan (including a rescue plan) will be submitted and reviewed by the project team. Workers exposed to fall hazards that cannot be eliminated will be equipped, trained, and given periodic refresher training in fall

protection to minimize the adverse effects of accidental falls. Fall protection training records will be available for review by the general contractor. Retraining will be required when deficiencies are evident, when work practices are changed, or when fall protection equipment is modified. Elevated work will address protection from falling objects if work below is permitted.

100% fall protection means that all workers shall be protected from falls at ALL TIMES when working at or above six feet. This means it is mandatory for all trades, including but not limited to:

- Structural steel erection (bolt up and connectors)
- Decking operations
- Re-bar assembly
- Concrete forming
- Pre-cast erection
- Masonry
- Carpentry
- Scaffold erection/disassembly.
- Roofing

Personal Fall Arrest Systems will consist of a full-body harness meeting or exceeding the requirements of ANSI/ASSP Z359. Self-retracting decelerating devices (SRRLs) are recommended, 6-foot shock absorbing lanyards are prohibited.

Double locking snap hook and anchorage points must meet OSHA regulations; positioning device systems should be used for positioning only when they are not part of a fall arrest system. Workers shall not tie off to a perimeter cable or wire rope handrail unless engineered for such use. Trade partners will submit all engineered documentation on horizontal lifelines to general contractor project team for review and approval. All horizontal lifelines will be installed by a qualified person per the manufacturer's specifications.

When wire rope is used to construct guardrail systems, at least 3/8" diameter cable will be used with wire rope clips as required by wire rope manufacturer. Wire rope will be flagged with high visibility tape every six-feet. If any component of a guardrail system must be removed, a Guardrail Removal Permit must be issued (Appendix 8). Any trade partner that must remove a fall protection system in the course of their work will be responsible for immediately replacing the protective system.

Floor openings 2-inches or greater and all wall openings will be guarded or covered with an appropriate cover or guardrail. Floor covers will be secured to the floor to prevent easy removal. The floor or wall cover will be properly marked with a Danger sign stating "COVER-DO NOT REMOVE" or in accordance with local, state, or federal regulations whichever is more stringent.

## Fire Protection / Prevention

### **FIRE PROTECTION**

The general contractor will develop a Fire Protection Plan in accordance with NFPA 241 and OSHA 29 CFR 1926 Subpart F. Temporary fire protection measures such as fire extinguishers, temporary hose lines, and temporary standpipes are required during construction. Each temporary building and trailer (shops, field offices, storage boxes, etc.) will have its own appropriately sized and located class ABC fire extinguisher. Access to fire hydrants and extinguishers will be always maintained and clear access to buildings and other structures will always be maintained. All employees will be trained annually on the hazards of firefighting and how to properly use a fire-extinguisher. If a fire extinguisher is discharged for any purpose, it will be reported to the general contractor. Fire extinguishers will be conspicuously located, inspected monthly, and protected from freezing. Fire extinguishers will be placed within the immediate area of any welding/cutting operation or flammable liquid storage area.

### **FIRE PREVENTION**

Temporary buildings located within another building or structure will be constructed of non-combustible material or have a fire resistance rating of one (1) hour. Plastic tarps, poly-sheeting, or covers (e.g., Visqueen) used for any purpose inside an occupied building or where welding, cutting, or open flame is present will be made of fire-retardant material.

Combustible materials will be removed at end of shift.

### **FIRE AND FLAMMABLE LIQUID STORAGE AND DISPENSING**

Flammable and combustible liquids will be stored, dispensed, and used in accordance with OSHA 1926.152 and NFPA 30. Requirements. "NO SMOKING" signs will be visibly posted. When stored outside then they cannot be within 20 feet of any structure, or they must be in a properly constructed storage locker. Outside storage areas will be kept free of weeds and other combustible materials. Storage of flammables will be in an enclosure away from open flame, heat, direct sun, or other sources of ignition. No more than a total of 25 gallons flammable and combustible liquids can be stored outside of an approved locker. All flammable and combustible liquids will be stored in approved portable containers marked as to contents and ownership.

Fuel and flammable liquid tanks, drums, or barrels will have the proper DOT placard and be labeled as to content. All storage tanks/drums will be placed in a berm or other secondary containment. Berms will be lined with a minimum 6-mil plastic sheeting that is fuel resistant. PVC linings are not allowed. All fuel storage tanks, and compressed gas cylinders will be protected from vehicle traffic.

The general contractor will designate vehicle refueling locations. All fuel dispensing points will be located away from storm drains and wetlands. The following will be required at all refueling locations:

- A portable 20-lb. ABC fire extinguisher will be placed no closer than 5 feet and no further than 25 feet from the fueling point.
- "NO SMOKING" signs shall be posted.
- Self-locking fuel nozzles are prohibited.
- An adequate spill kit shall be stored nearby.
- Tanks shall be grounded and when dispensing flammable liquids, and the containers shall be bonded.

### **Hand and Power Tools**

Hand and power tools are to be operated according to manufacturers' specifications. The required personal protective equipment (PPE) shall be worn. All hand and power tools shall be kept in good condition with regular maintenance.

Daily visual inspection prior to use of tools is required; if after inspection a tool is found to be defective, it must be removed from service and tagged.

#### **HAND TOOLS**

Impact tools such as chisels, wedges, etc. may not have mushroomed heads, and wooden handles may not be splintered or cracked. Pocketknives may not be used for stripping wire.

#### **ELECTRICAL TOOLS**

Never lift or carry a power tool by its cord. Guards and safety switches may not be removed or made inoperative, and all electric tools must have a three-wire cord unless it is double-insulated.

#### **PORTRABLE ABRASIVE WHEEL TOOLS**

Guards may not be removed and grinding disks and wheels shall meet the manufacturer's specifications.

### PNEUMATIC TOOLS

Air hoses and receivers shall be equipped with a safety excess valve installed at the source of air. Air receivers shall be equipped with a readily visible pressure gauge that is equipped with spring-loaded safety valves. Valves will be checked frequently to ensure that they are in proper working order. Proper draining of the receiver should be performed by opening the drain valve frequently to prevent the accumulation of liquids. Clips, whip checks, or retainers are required at each air hose coupling and to prevent attachments from being ejected from the tool.

Only the pneumatic nail guns requiring the muzzle to be pressed against the work surface to fire are allowed. Hose couplings will be secured to prevent displacement. Pneumatic nail guns will be disconnected from the air supply when unattended. Compressed air equipment will be visibly inspected prior to each use to ensure that all components are in working order. Additionally, equipment will be inspected according to the manufacturer's specifications.

### POWDER ACTUATED TOOLS

Workers must be trained, certified, and authorized to operate powder-actuated tools, and are required to carry proof of certification on their person at all times during use." The powder-actuated tool must not be able to fire until it is placed against the surface with a force of 5 pounds or greater. Fired or misfired cartridges shall be disposed of per the manufacturer's specifications.

### CUTTING STATIONS

Cutting stations are important for maintaining safety and efficiency when cutting materials onsite. Cutting stations should be clearly marked, elevated, and be located in areas that minimize exposure to hazards associated with cutting. Trash/debris receptacles should be placed at all cutting stations to aid in housekeeping efforts onsite. Effective cutting stations minimize exposures, and create a controlled environment where cutting tasks can be completed safely and effectively.

## Hot Work Operations

Hot work activities include burning, welding, cutting, grinding, or other operations that produce a flame or sparks. Prior to performing Hot Work operations, workers will complete a Hot Work Permit in Construct PM (Appendix 10). The Hot Work Permit must be approved prior to the commencement of hot work and posted in the immediate work area.

The Hot Work Permit is valid only for the date and shift that is indicated on the permit. When practical, material involved in hot work should be moved to a safe location. When a Hot Work Permit is required, the following precautionary measures shall be taken:

- Gratings and openings will be completely covered to prevent sparks and slag from falling to a level below.
- Fire extinguishers shall be located in the immediate area of work.
- No flammable or combustible material may be stored within 35-feet in any direction. If materials cannot be moved, positive means such as the use of non-combustible shields or fire blankets shall be used to confine heat and sparks to prevent them from contacting the combustible material.
- No welding, cutting, or heating may be done where the application of flammable liquids or heavy dust concentrations may create a hazard.
- Fire watch personnel shall be identified, trained, and equipped with an extinguisher rated at 20A, 60B:C or greater and will be immediately available in the work area (within 25-feet of all hot work). Fire watch personnel shall remain for a minimum of one hour after hot work has ended to detect and extinguish possible smoldering fires. Fire watch personnel shall have no other tasks while assigned as fire watch.
- If applicable, any Confined Space Entry procedures will be followed.

## TRAINING

Prior to performing any hot work, involved personnel shall receive the following training:

- Review of the work to be performed.
- Precautions to be taken.
- Emergency procedure in case of fire
- How to use the fire extinguisher correctly.

## HOT WORK PERMIT PROCESS

A Hot Work Permit must be authorized by the general contractor superintendent, or designated person overseeing the project. This permit is available in digital form in Construct PM (See Appendix 10 for Hot Work Permit). The person performing the work will review and sign the permit and keep a copy in the work area. The person giving approval for the permit must ensure that the area is periodically surveyed to ensure that all conditions remain suitable for hot work. In the event the hot work will extend past the permit's expiration date and time, a new permit must be obtained, or the existing permit extended by the authorized person.

Combustible gas indicators will be calibrated per manufacturer's specifications and bump tested prior to performing tests. If the meter is to be used multiple times during the shift, it only needs to be bump tested at the beginning of the shift.

## FIRE WATCH PROCEDURE

Fire watch personnel will be trained to understand the nature of hot work and be provided proper PPE to complete their tasks safely. Fire watch will assist in survey of the area to ensure the necessary fire protection equipment is in place and ready for use.

The fire watch is authorized to stop work whenever they feel the conditions are unsafe, or if the work description on the permit is being exceeded. Assigned fire watch will never leave the area for any reason without a replacement and remain in the area for at least one hour following the completion of hot work.

## Housekeeping

The general contractor's housekeeping policy is that all equipment, tools, or materials shall be stored, stacked, located, and placed to prevent any incident or injury which could occur in the work area. All work areas will give the direct and obvious impression of a clean and orderly workplace.

A Housekeeping Plan (see Appendix 2) should be completed prior to mobilization. Minimum standards listed below will be followed onsite:

- Debris and loose material may not be placed in an area where winds could blow materials into or off any elevated platforms.
- Mud and dirt tracked onto public streets or alleyways shall be removed continuously during the workday.
- Access walkways, roadways, and fire lanes may not be blocked with material, tools, ladders, scaffolds, welding leads, air hoses, or electrical cords.
- Electrical extension cords, light stringers, air hoses, and welding leads shall be buried, controlled, or elevated above walkways a minimum of seven feet or bridged with the area marked with signage.
- Welding rods, nuts, bolts, and washers shall be kept in proper containers.
- Shackles, slings, chokers, ladders, and safety equipment shall be removed from the work area when not in use and stored properly.
- Trash containers shall be placed at appropriate locations; recycling bins are also encouraged.
- All nails shall be removed from scrap and lumber or bent over flat to the surface.
- Rubbish, trash, and debris shall be removed from the work area daily.
- Once concrete is poured, work areas shall be broom swept at the end of each shift.
- Adequate trash container shall be located for disposal of cups or water bottles.

## Stairways and Ladders

Stairs or ramps will be provided where there is a change in elevation of 19-inches or greater. Stairways having four or more risers or rising 30-inches or more will have a stair rail system 36-inches high on each unprotected side. Metal pan stairs will not be used until the pans are filled to prevent a tripping hazard.

Workers shall be trained on the safe use of ladders. Each ladder shall be inspected and noted on the tag daily prior to use. Any ladder that is not in working order will be immediately removed from the project and destroyed. All ladders will be heavy-duty type with a minimum capacity rating of 250 lbs. Ladder landings will remain clear of all obstacles and obstructions to allow easy access on and off the ladder, and ladders will extend past the bearing point no less than 36 inches. A ladder that does not support itself will be placed at a safe angle utilizing the 4:1 ratio. When ladders are used to access upper levels, they must be secured to prevent displacement. Ladders will only be used for the purpose they were designed; ladders are never used in a horizontal position, or as scaffolding.

### STEPLADDERS

Stepladders will only be used with the spreaders fully extended and the spreader bar locked in place. Workers will not stand on the top three rungs of a ladder, or when knees are above the top of the ladder. Stepladders will not be used as straight ladders unless designated as lean-safe. Workers will not straddle the top of a stepladder or stand on the back of a stepladder unless the ladder is designed by the manufacturer for this use.

### STRAIGHT / EXTENSION LADDERS

Ladders will be set up so that the horizontal distance at the bottom is not less than  $\frac{1}{4}$  of the vertical distance to the bearing point. Workers will not stand on the top three rungs of a ladder. All straight ladders will have non-skid feet at the base.

### JOB-MADE LADDERS

Job-made ladders will be constructed for intended use. If a ladder is to provide the only means of access or exit from a working area for 25 or more employees, or simultaneous two-way traffic is expected, a double cleat ladder will be installed.

## Lasers

All workers that will use a laser will be trained in proper use and hazards associated with lasers. Standard laser warning signs will be placed around the perimeter of the area the laser is being used. No work will be allowed until all proper signage is in place. No laser equipment will be used that does not contain a label, indicating make, maximum output, and beam spread. Whenever a laser is not in use the laser will be turned off. Workers using lasers will use appropriate eye protection. No laser beam will be directed at any worker.

## Maintenance and Protection of Traffic

When it becomes necessary to temporarily close a public street or alley, a written traffic control plan is required showing how the closure will occur and submitted to the general contractor. Refer to the local, state, or federal Manual of Uniform Traffic Control Devices (MUTCD) Part 6 when developing a traffic control plan. At minimum the written Traffic Control Plan will contain the time the street will be required to be closed, a plan illustrating detour routes for traffic impacted by the closed streets, and detailed drawing showing the signage, flaggers, etc. All workers will wear high visibility attire in accordance with the DOT requirements. Workers assigned as flaggers will be trained as recommended in the MUTCD and state DOT. Work will be stopped if it fails to follow the traffic control plan or occupies a city street or sidewalk without authorization.

## Masonry Construction

A limited access zone is required to be in place prior to the construction of any masonry wall. Masonry walls over eight-feet in height will be adequately braced to prevent collapse and remain in place until permanent support is in place. All masons using scaffolds must have scaffold user training and be able to provide documentation if requested by the general contractor. All scaffolds used in masonry tasks will have adequate handrail protection in the material loading areas. If guardrails are removed to load materials, 100% fall protection must be worn during loading. A Guardrails Removal Permit (see Appendix 8) must be submitted prior to any guardrail removal.

## Scaffolding

All scaffolding used on the project will meet the requirements established in 29 CFR 1926 Subpart L. Each trade partner using scaffolds must designate a scaffolding competent person to direct and supervise the erection and dismantling of all scaffolding on the project; only qualified/competent personnel are allowed to modify scaffolding systems. Scaffolding will be inspected daily by the competent person prior to use and the tag signed at the time of inspection. Each trade using the scaffold must designate a competent person and they must inspect the scaffold daily prior to any person from that trade using the scaffold. One of the following color-coded scaffold tags will be attached to each scaffold (See Appendix 16 for example):

- Green Tag – scaffolding is complete and ready for use.
- Red Tag – scaffolding is incomplete and not ready for use.
- Yellow Tag – scaffolding is usable but personal fall protection is required.

Workers required to work from scaffolding will receive training, and have training records available upon request that covers at minimum:

- Nature of any known hazards, such as electrical, fall, or falling objects.
- Correct method of erecting, maintaining, and disassembling fall protection systems
- Falling object protection system
- Proper handling of equipment or material on the scaffold
- Maximum load- carrying capacity of the scaffold.

In the event where there is reason to believe that an employee lacks the understanding of safe erection, use, or dismantling of scaffolds, the employee will be retrained. In addition, when employees are exposed to new hazards not encountered before, additional training will be provided prior to start of work, this includes jobsite specific hazards, new type of scaffold/system, and any other equipment on which the employee has not previously been trained.

### SCAFFOLD ERECTION

Prior to erection, all scaffolding components will be inspected for defects and any damaged components will not be used; only scaffolding-grade planking will be utilized. Scaffolding will be erected on a firm foundation/footing, and scaffold poles, legs, posts, frame, and uprights will bear on metal base plates and mud sills. Scaffold legs, poles, posts, frames, and uprights will be pinned or locked to prevent uplift.

No scaffold will be enclosed unless a qualified engineer designs and approves the attachment to the adjacent structure. The space between the platform components and the scaffold uprights will not exceed one inch. Because of special circumstances, such as building a scaffold around a pipe, the space opening between the scaffold and the obstacles cannot exceed 9½ inches. Scaffold planks will extend past the horizontal support a minimum of 6-inches, but not more than 12-inches, unless cleated or restrained by hooks. Scaffold plank will not be overlapped unless the overlap occurs at a horizontal support, and the minimum planking overlap is 12-inches. Ladders or stairs must be used to access any scaffold platform that is more than two feet above or below the point of access.

End frames of tubular welded scaffold can be used as a ladder if the following criteria are used:

- Specifically designed and constructed as ladder rungs.
- Rung length of at least eight inches
- Spacing between rungs not to exceed 16¾ inches.
- A walk-through frame or gate is provided for access at each landing. No worker may climb up or down a scaffold using the cross bracing.

Workers working below scaffolding shall be protected from falling objects. Scaffolds shall be equipped with toe plates, screening, debris netting, catch platforms, or a canopy structure.

#### **SUSPENDED SCAFFOLDS**

A competent person shall evaluate suspended scaffolding and all required components per the manufacturer's recommendations. Workers working from suspended scaffolding will wear a full body harness attached to an independent vertical lifeline. When welding is required from swing stage scaffolding, the scaffold shall be grounded, and suspension ropes protected. In all cases, activities on suspended scaffolds shall be consistent with manufacturer's recommendations.

#### **MOBILE SCAFFOLDS (E.G., BAKER SCAFFOLD)**

The general contractor strongly recommends handrails be in place when the working platform is 4-feet or more above the deck. Handrails shall always be in place when the working platform is 6-feet or more above the deck. Wheels on mobile scaffolding shall be locked in place when workers are working from it; self-propelling is prohibited. Mobile scaffolds will be assembled, inspected, and tagged by a competent person per the manufacturer's recommendations. Each user prior to use should confirm that the appropriate scaffold tag has been signed.

#### **MAXIMUM INTENDED LOAD FOR SCAFFOLDS**

Each scaffold and scaffold component shall be capable of supporting without failure, its own weight and at least four times the intended maximum load. The rated load capacity of a scaffold is defined below:

- Light Duty – 25 pounds per square foot (psf)
- Medium Duty – 50 psf
- Heavy Duty – 75 psf

#### **MULTI-USE SCAFFOLDS**

Stair Scaffolds will be built in accordance with all state, federal, and local regulations. Stair scaffolds for access will be inspected by a competent person for each trade partner. The general contractor requires coordination on scaffold configuration and capacity if multiple trades are using the scaffold.

#### **Steel Erection**

No steel erection may begin without a written Notice to Commence Steel Erection (see Appendix 14). Workers engaged in steel erection activities, including but not limited to connecting, decking, and bolt up, shall comply with the general contractor's 100% fall protection requirements when working at heights six feet or more. Such steel erection workers are not exempt from compliance with the 100% fall protection requirements.

Perimeter safety cables installed by steel erector shall be maintained by the steel erector until turned over to project team.

## Temporary Barricades

Temporary barricades will be erected and maintained to warn or protect workers whenever hazards or processes such as those listed below are encountered on the project.

- Floor or wall openings
- Working above other workers
- Open excavations/trenches
- Unguarded equipment
- Overhead loads
- Closed stairwells
- Exposure to vehicular traffic
- Startup operations and testing of equipment/systems.
- Process hazards such as discharges, open systems, etc.

Anyone who enters an identified restricted work area without authorization will be subject to disciplinary action up to removal from project.

When barricading is required, barricades should be installed in accordance with the regulations applicable to the exposure. Install a standard “Caution” or “Danger” tag that identifies the hazard at regular intervals around the barricaded area including the name and contact information of the competent person that erected the barricade. Temporary barricades will not impede stairs, walkways, driveways, or aisles without approval from the project management team, and identification of alternative passageways is determined.

The following guidelines in determining type of Temporary barricades will be followed:

- Yellow “Caution” is used to limit the passage through the barricaded area. This barricading should only be used to protect from hazards that are not severe or when the potential for severe injury or death is unlikely.
- Red “Danger” is used to prohibit the passage through the barricaded area. This barricading should be used to protect from hazards that have the potential to cause serious injury or death. Red Danger tape is NOT a substitute for a guard rail. Danger tape is not to be used if the hazards cannot be eliminated or removed during a single work shift. Danger tape should always be approved by the general contractor superintendent.
- Radiation “Danger” is used to identify x-raying operations and warn of a radiation hazard in the area.

When rigid barricading is required, it should support and maintain construction fencing to prevent tipping or sagging. If there is a danger of vehicles or heavy equipment striking the barricade pins should be installed in traffic barriers. There should be adequate access to the work area, and once the work is complete and the hazard is eliminated the rigid barricade will be removed immediately.

Rigid barricades are used when protection is required beyond a single work shift. It will be used to protect workers from unguarded moving machinery/equipment, vehicular or heavy equipment traffic and low light conditions. Rigid barricading will consist of standard guardrail, temporary chain link fencing, tube and coupler scaffold members with construction fencing attached, or traffic barriers.

### TILE-UP PANEL OPERATIONS

All tilt-up operations will submit a tilt-panel erection plan to the general contractor prior to operations.

The nature of tilt-up construction dictates the need for thorough pre-planning. The economy and success of tilt-up construction is realized by an efficient onsite production operation with each step of the construction sequence building

on the previous step. The erection of the wall panels is the most important phase of tilt-up construction. It is critical for the engineers and trade partners to plan and review this process completely and thoroughly. Construction documents will be submitted to a third-party lift engineer for review and approval.

#### **PRE-ERECTION SAFETY MEETING**

A full crew Pre-Task Plan safety meeting will be held each day prior to lifting, where all pertinent safety details are discussed, and all questions answered. Reinforce the need for all concerned to be alert during lifting. Only members of the erection crew will be allowed in the area. The rigger foreman will be identified at the safety meeting. A designated person will be identified to communicate with the crane operator.

#### **PRIOR TO LIFTING**

Inspect all panels for projections (such as rebar) that may interfere with the process. Inspect all rigging and hardware for alignment and be sure that the rigging is free of snags. If non-swivel sheaves are being used, make certain the sheaves are properly aligned. Braces are usually attached to the panels prior to lifting, be sure that the braces will not be trapped by the rigging during the lift. Be alert for panels sticking to the casting bed.

#### **DURING THE LIFT**

Twisting the hardware can cause side loading. The tilt panel crew shall be alert for this condition and halt the lift to realign the hardware. Ensure that the path of the panel is free of any obstacles.

#### **BRACING PANELS**

All bracing should be in place and complete before relaxing the crane load. Do not release the crane load if for any reason, the bracing does not appear to be adequate. Bracing anchors must be installed per manufacturer's recommendations. Bracing will be monitored daily with special attention after high winds, always check the tightness of bolts. Bolted hardware must have full bearing on the concrete surface and attachment bolts bear fully on the hardware. Caution must be taken so that the hardware is not subjected to a side loading that will cause an additional unintended loading. Wall braces should never be removed until all structural connections are complete. Until the panels are structurally tied in, pour back strips should be barricaded.

### **Arc Welding and Cutting**

When burning or welding using compressed gases, flame arrestors will be installed on both the torch side and regulator side of the oxygen and gas hoses. Welding current return circuits or grounds must carry their current without hot or sparkling contacts and without passage of current through equipment or structures. Specifically, welding current must not be allowed to pass through any of the following materials:

- Acetylene, fuel gas, oxygen, or other compressed gas cylinders
- Tanks or containers used for gasoline, oil or other flammable or combustible material.
- Pipes carrying compress, steam, gases or flammable or combustible liquids.
- Conduits carrying electrical conductors.
- Chains, wire ropes, metal hand railings, or ladders, machines, shafts, bearings, or weighing scales.

Whenever practical, all arc welding and cutting operations will be shielded by non-combustible or flame-proof screens. Screens are mandatory when arc welding or cutting creates exposure for other crafts or individuals. The ground for the welding circuit shall be mechanically strong and electrically adequate for the service required and should be attached directly to the work piece. When possible, electrode and ground cables will be supported to prevent obstructions interfering with the safe passage of workers. Cables with worn insulation may not be used.

### **GAS WELDING, CUTTING, AND SOLDERING**

All employees utilizing compressed gas cylinders for gas welding, cutting, and soldering shall be trained on the proper use, handling, and storage of compressed gas cylinders. Gas identification shall be stenciled or stamped on the cylinder or affixed with a label. No compressed gas cylinder may be accepted for use that does not legibly identify its contents.

All cylinders will be inspected visually to determine that the gas cylinders are in safe condition. Cylinders must be transported in a vertical secured position using a cylinder basket or cart and must not be rolled. Regulators shall be removed, and the cylinders protective caps secured before movement. Cylinders shall not be dropped or permitted to strike violently, and protective caps shall not be used to lift cylinders. A suitable cylinder cart, chain, or other secure non-flammable fastener shall be used to keep cylinders from being knocked over while in use. When inside buildings, cylinders shall be stored in a well-ventilated dry location.

Requirements related to the storage of compressed gas cylinders:

- Valves, regulators, and hoses shall be removed from the cylinder when stored, and the cylinder valve safety caps shall be secured.
- They shall be secured upright at all times, including when transported in vehicles.
- Fuel and oxygen cylinders shall be separated by a minimum of 20 feet.
- Empty cylinders shall be stored separate from full or in-use cylinders and labeled appropriately.
- Empty cylinders shall be properly marked as empty and stored with their valves closed.
- Leaking cylinders shall be moved to an isolated, well-ventilated area away from ignition sources.

Use the correct tools when installing valves, when the cylinder cannot be opened it shall be tagged "Do Not Use" and returned to the designated storage area for return to the vendor. Regulators and hoses shall be frequently inspected for leaks, worn places, and loose connections. Regulators will also be checked for operable gauges. Approved flash arresters shall be provided in both oxygen and acetylene hoses at the regulator connection.

# HEALTH HAZARDS IN CONSTRUCTION STANDARDS

The following requirements are established for all trade partners. If an owner requirement, local ordinance, state/territorial, or federal regulation is more stringent, the more stringent requirement shall apply. The absence of a requirement below means that the related owner requirement, local ordinance, state/territorial regulation, or federal regulation shall apply.

## Silica

In an effort to limit worker exposure to respirable silica, employers must plan tasks, have written programs, and provide training to meet 29 CFR 1926.1153(k) (Respirable Silica) and 29 CFR 1910.1200 (Hazard Communication) or stricter state/territorial/local regulations or owner requirements. Exposure tasks may include using masonry saws, grinders, drills, jackhammers, handheld powered chipping tools, operating vehicle-mounted drilling rigs, milling, operating crushing machines, and using heavy equipment for demolition tasks. For employers following the requirements outlined in Table 1 (Appendix 17), it will be assumed the work falls below the permissible exposure limit. Table 1 lists 18 silica-generating tasks along with specific engineering controls and respirator requirements. The employer is responsible to ensure exposure limits are not exceeded. Employers who DO NOT follow the requirements outlined in Table 1 (Appendix 17) shall be required to measure workers' exposure to silica and independently determine the respirable silica and dust controls that work best to limit exposures to the permissible exposure limits in the workplace. Regardless of which exposure control method is used, all construction employers covered by the standard are required to:

- Establish and implement a written exposure control plan that identifies tasks that involve exposure and methods used to protect workers, including procedures to restrict access to work areas where high exposures may occur.
- Designate a Competent person to implement the written exposure control plan and train workers on work operations that result in silica exposure and ways to limit the exposure.
- Restrict housekeeping practices that expose workers to silica where feasible alternatives are available.
- Offer medical exams, including chest X-rays and lung function tests, every 3 years for workers who are required by the standard to wear a respirator for 30 or more days per year and keep records of workers' silica exposure and medical exams.
- Train workers on work operations that result in silica exposure and ways to limit exposure.
- Keep records of workers' silica exposure and medical exams.

## Bloodborne Pathogens

Bloodborne pathogens are infectious microorganisms present in blood, saliva, and mucous that can cause disease in humans. These pathogens include but are not limited to hepatitis B virus (HBV); hepatitis C virus (HCV); and human immunodeficiency virus (HIV), the virus that causes AIDS. Workers exposed to bloodborne pathogens are at risk for serious or life-threatening illnesses.

Identification of possible engineering or work practice codes will be addressed prior to the start of work. All employees who may be exposed to any bodily fluids will be trained to use universal precautions and treat human blood and bodily fluids as if they are known to be infectious for bloodborne pathogens. Each employee exposed occupationally to bloodborne pathogens shall be provided a Hepatitis B vaccine. All employee medical records will be kept through employment plus 30 years as required by relevant regulations.

Each employee exposed occupationally to bloodborne pathogens will complete annual training and re-training and provide documentation of that training as necessary. These records will be maintained for at least 3 years. Trade partners may be required to provide proof of training of their employees.

All jobsites will have pre-determined areas where handwashing and/or antiseptic hand cleansers will be available. Proper personal hygiene will be expected at all times. Anytime employees come into contact with bodily fluids, the employees shall immediately wash the exposed areas and notify their supervisors of the exposure. If any equipment or work surface is exposed to any bodily fluids, it shall be cleaned by authorized personnel prior to continuation of work.

All bloodborne pathogen PPE shall be readily accessible throughout the project site and included in all first aid kits.

### Asbestos Procedures / Processes

Asbestos containing material (ACM) or presumed ACM (PACM - certain materials pre-1980) are classified as hazardous by OSHA and the EPA. ACM is used in a variety of building materials including insulation, soundproofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet, and fire-resistant drywall. Asbestos is also present in pipe and boiler insulation materials, pipeline wrap and in sprayed-on materials located on beams, in crawlspaces, and between walls. It is never the intent of the general contractor to include asbestos removal/abatement in the scope of work. All hazardous material abatement, including the abatement of ACM or PACM, shall be the responsibility of the owner.

Any scope of work requiring demolition (no matter the quantity) shall require a complete asbestos survey conducted by a licensed/certified asbestos survey professional. This survey shall determine the presence, location, and quantity of ACM and/or PACM, or it shall state that there is no ACM or PACM present within the area associated with the demolition activities. In most cases, the asbestos survey shall be conducted by a third party licensed/certified asbestos survey professional retained by the owner.

If ACM or PACM is detected, disturbed, or damaged, work in that area shall stop, workers shall be removed from that area, and the project superintendent, project manager, and general contractor ESH VP shall be notified immediately. The area shall be barricaded and signage displayed indicating "No Entry" until authorized by the general contractor. A third- party licensed/certified asbestos remediation or asbestos abatement professional shall be retained to provide advice on personnel notification and area isolation and protection practices. Only a licensed/certified asbestos remediation or asbestos abatement contractor shall be permitted to repair and/or abate detected, disturbed, or damaged ACM or PACM.

Exposure to asbestos has been shown to cause lung cancer, asbestosis, mesothelioma, and cancer of the stomach and colon. All employees involved in field operations shall complete annual asbestos awareness training to provide a general understanding of the hazards and responsibilities when ACM or PACM is introduced into the scope of work, including known ACM products, cancer and lung effects, and protective measures. All trade partners shall provide proof of worker asbestos awareness training for those workers that may come into contact with ACM or PACM.

No worker shall be exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter (0.1 f/cc) of air as an 8-hour time-weighted average (TWA). No worker shall be exposed to an airborne concentration of asbestos in excess of 1.0 f/cc as averaged over a sampling period of 30 minutes.

### **PRE-CONSTRUCTION**

Identify and consult the licensed/certified asbestos survey professional who will perform the asbestos survey relevant to the scope of work, who will provide support if ACM or PACM is detected, and who will verify that there is no longer any detectable ACM or PACM if remediation or abatement was required. The asbestos survey report shall remain at the project site through completion, for review by employees, trade partner workers, or regulators, if requested.

Work shall not start on any project requiring demolition until the asbestos survey report is provided by the owner. The asbestos survey report with the exact locations and quantities of ACM or PACM (or the absence of detectable ACM or PACM) shall be communicated to the trade partner workers that will be working in these areas prior to work beginning. This notification shall be documented in a pre-construction orientation. ACM or PACM that will remain during the renovation shall be clearly identified, and all workers accessing this area shall be notified of the ACM or PACM locations and the requirement not to disturb.

### **ASBESTOS ABATEMENT CONTRACTOR**

If discovered, a licensed/certified asbestos remediation or abatement contractor will complete the repair/abatement. The asbestos remediation or abatement contractor shall follow all federal, state/territorial, and local regulations, as well as any owner requirements. PPE shall be provided by the asbestos remediation or abatement contractor to include coveralls or full-body clothing, gloves, head coverings, foot coverings, face shields, vented goggles, or any other appropriate protective equipment.

Engineering controls and work practices shall be used to reduce and maintain employee exposure to a level at or below the TWA and/or excursion limit, except to the extent that such controls are not feasible. Wherever the feasible engineering controls and work practices are not sufficient to reduce employee exposure to a level at or below the TWA and/or excursion limit, the asbestos remediation or abatement contractor shall provide respiratory protective equipment to reduce employee exposure to the lowest levels achievable. Respirators must be used when necessary to install or implement feasible engineering and work-practice controls during maintenance and repair activities when engineering controls are not possible and during emergencies. During the remediation or abatement process, warning signs shall be posted at each regulated area and at all approaches to the regulated area so that an employee can take necessary protective steps before entering the area.

### **Arsenic Awareness**

Arsenic is a naturally occurring chemical element that is widely distributed in the Earth's crust. Arsenic levels in the environment can vary by locality and is found in water, air, and soil. There are two general forms of arsenic: organic – meaning the arsenic compound contains carbon; and inorganic. Research indicates that toxicity levels are higher and associated health effects are more severe with inorganic arsenic. Arsenic can be harmful to the eyes, skin, liver, kidneys, lungs, and lymphatic systems. Exposure to arsenic can also cause cancer. Workers may be harmed from exposure to arsenic; the level of exposure depends on the dose, duration, and work being done. Arsenic is used in many industries, in paints, wood preservatives, agricultural chemicals, and in glass manufacturing.

Arsenic exposure in the workplace occurs through inhalation, ingestion, dermal, or eye contact. Chronic exposure to arsenic leads to distinct skin diseases, such as arsenical keratinosis, which is characterized by excessive formation of scaly skin on the palms and soles, darkened patches of skin, wart formation, skin lesions, acne, and increased risk of skin cancers. Chronic arsenic poisoning can also cause sudden constriction in arteries or veins, reducing blood flow, decreased nerve function, cancers of the lung, liver, kidney, and bladder, and other cancers. Acute exposures can cause respiratory distress and death.

When a worker could be exposed to arsenic during work activities, the SDS shall be followed strictly. To eliminate possible exposure to arsenic in the workplace, the hierarchy of controls shall be considered, and all requisite PPE shall be worn.

## Cadmium Awareness

The general contractor does not expect exposure to cadmium; if the possibility of cadmium exposure exists, we will work with the owner to utilize the hierarchy of controls to engineer out the hazard. If that is not possible, the following protocols shall be followed to complete the work safely. This program will be evaluated and updated annually.

Cadmium is a soft, blue-white, malleable, lustrous metal, or a grayish white powder. Some cadmium compounds may also appear as a brown, yellow, or red powdery substance. Cadmium is used frequently as a rust-preventive coating on steel and as an alloying element. It is easy to mistake cadmium plated steel for galvanized steel, when heated, cadmium leaves an olive-drab color as it oxidizes. Cadmium oxide fumes often cause no immediate symptoms until a few hours after exposure.

Cadmium can cause local skin or eye irritation. Acute exposure to high concentrations of cadmium fumes can produce severe lung irritation. Long-term exposure to low levels of cadmium in the air can result in emphysema and can damage the kidneys. Cadmium fumes or fine dust can cause serious injury or death when inhaled.

- Skin exposure may result in redness or pain, if eyes are exposed wash with large amounts of water and seek medical attention immediately.
- Ingestion may result in vomiting, abdominal pain, nausea, headache and sore throat, treat symptoms, but seek medical attention immediately.
- Inhalation – if large amounts of cadmium are inhaled, move the exposed person to fresh air and seek immediate medical attention.

All equipment and processes that may contain cadmium will be identified on the JHA, only trained and qualified personnel will be authorized to work near cadmium. The exposure limit TWA is five micrograms per cubic meter (5 ug/m<sup>3</sup>).

Only trained and qualified personnel may operate welding, cutting, or brazing equipment, training certifications will be presented upon request to the general contractor. The training will include a test to determine competency as well as annual practical training to ensure awareness of the hazards associated with the work. Appropriate PPE will be worn at all times.

If an employee is exposed to cadmium medical evaluations will be provided to determine exposure and medical history at no cost to the employee. These results can be requested to be provided to the employee's personnel physician.

## Lead

It is never the intent of the general contractor to include any quantity of lead removal or abatement in the scope of work. All hazardous material abatement, including lead, should be the responsibility of the owner. Any scope of work requiring demolition (no matter the quantity) shall require a complete lead inspection/survey by a licensed/certified lead surveyor by the owner to determine the presence, location, and quantity of lead.

Lead poisoning can happen if a person is exposed to very high levels of lead over a short period of time. Exposure can take place in several ways – workers can inhale lead fumes or dust, or even ingest lead through contaminated hands. The hazard can follow the worker home by collecting on skin, clothes, hair, tools, and vehicles. Possible health effects from lead exposure include the following: abdominal pain, constipation, tiredness, headaches, irritability, loss of appetite, memory loss, pain or tingling in the hands or feet, and general feeling of weakness. Exposure to high levels of lead may lead to anemia, weakness, and kidney or brain damage.

Anytime an employee will be assigned to work in an area with possible lead exposure, initial training must be completed prior to the start of work, and annual refresher training is mandatory for employees working in areas where lead exposure

is suspected. No employee should disturb any material thought to contain lead. While working on any jobsite, any possible lead exposure in any area of the project will be reported to the project team immediately, and this information will be communicated to all trade partners working on the project. Communication about lead exposure will be addressed in the morning daily production/safety huddle.

When welding, cutting, burning, grinding, chipping, abrasive blasting, or rivet busting on painted or coated surfaces, a pre-assessment will be required to determine if the surface(s) contain lead-based paint. No work will be performed prior to an assessment. If sampling results for lead-based paint are positive for 0.02% lead by weight, the requirements of 29 CFR 1926.62 shall be followed, unless local, state/territorial, or owner requirements are stricter.

An initial hazard assessment is required and will be performed to determine worker exposure levels. The assessment will involve personal sampling of a representative group of workers performing different tasks unless historical data is available. During the initial exposure assessment, workers will wear protective clothing and the proper respiratory protection until the results of the assessment are known. Training will be completed prior to worker exposure, during orientation (site-specific), and the training documentation will be supplied to the general contractor prior to working onsite. If lead is present, the employee will take all precautions to ensure that they are not exposed, i.e., washing hands and face after exposure.

Copies of sampling results will be made available to the general contractor. Area sampling of a work area will not be used for determining worker exposure levels. These results will be shared with all trade partners working in the area of exposure, to protect all workers from possible exposure.

If sampling results indicate the exposure limits are above 30 µg/m<sup>3</sup> but below 50 µg/m<sup>3</sup>, the following are required:

- Written compliance plan
- Medical surveillance (blood lead)
- Personal monitoring
- Hazard communication training for lead

If sampling results are above 50 µg/m<sup>3</sup>, the following are required:

- Written compliance plan
- Engineering controls
- Respiratory protection
- Protective clothing
- Medical surveillance
- Clean change rooms and showers
- Clean lunchrooms
- Warning signs
- Training

Each worker is to be notified in writing of their blood and/or personal monitoring results within five working days after the results are known.

Barricades, enclosures, track mats and/or ventilation protocols shall be provided to ensure the protection of the other workers, members of the public, or building occupants. Signs will be posted in areas where the PEL is exceeded, such as "Danger: Lead may damage fertility or an unborn child, cause damage to the central nervous system. Do not eat, drink, or smoke in this area."

## Hexavalent Chromium

Hexavalent chromium is essential in several industrial applications such as chromate pigments in dyes, inks, and plastics, and chrome plating when chromium metal is deposited on a surface using chromic acid to prevent corrosion in paints, primers, and other coatings. Hexavalent chromium may also be a by-product of industrial processes and maintenance operations.

When levels of hexavalent chromium cannot be reduced to less than 2.5 micrograms per cubic meter of air ( $2.5 \mu\text{g}/\text{m}^3$ ) calculated as an 8-hour time-weighted average (TWA), an exposure program assessment will be put in place. No employee will be exposed to an airborne concentration of chromium (VI) in excess of 5 micrograms per cubic meter of air ( $5 \mu\text{g}/\text{m}^3$ ), calculated as an 8-hour TWA.

Welders are most likely to be exposed to chromium (VI) when fumes are released while welding stainless steels, chromium alloys, and chrome-coated metals.

Only trained and qualified employees can operate welding, cutting, or brazing equipment. Training will include both written and practical applications, and certifications will be provided during pre-mobilization meetings and be kept onsite and available upon request. Training will be completed and reviewed on an annual basis. All areas with possible exposure to chromium (VI) will be regulated and marked as authorized access only.

Repeated and prolonged exposure to the inhalation of hexavalent chromium can lead to harmful health effects including bronchitis, pneumonia, asthma, and lung cancer. Some symptoms of inhalation exposure to chromium (VI) include runny nose, sneezing, coughing, itching, and burning sensation. Inhalation is the most likely route of entry, employees can inhale dusts, mists, and fumes containing chromium (VI), fresh air is the only method that will prevent airborne exposure and eye exposure.

Some employees who come in contact with hexavalent chromium may develop an allergic reaction known as contact dermatitis. When an employee becomes allergic, brief skin contact causes swelling and a red itchy rash. Contact dermatitis becomes longer lasting and more severe with repeated skin exposure. Direct skin contact can also lead to skin ulcers, which are small, crusted skin sores that heal slowly and leave scars. Skin exposure can be prevented by using the appropriate skin protection such as Tyvek and disposable gloves. Appropriate changing room facilities will be provided with separate areas for contaminated clothing and fresh clothing. No contaminated PPE will be removed from the jobsite except by the appropriate disposal/cleaning companies. Chromium (VI) will not be removed from PPE by blowing, shaking, or any other means that will disperse chromium (VI) into the air.

## Hydrogen Sulfide (H<sub>2</sub>S)

Exposure to H<sub>2</sub>S, while relatively rare in construction, can have both short-term (acute) and long-term (chronic) effects on human health. Although most people can smell very low concentrations of H<sub>2</sub>S, it is dangerous to rely on this to provide adequate warning.

Hydrogen sulfide may be encountered during drilling operations. The gas may be associated with recycled drilling mud, water from sour crude wells, blowouts, tank gauging, and field maintenance. Hydrogen sulfide may also be present in refineries and is associated with decaying material in natural settings. The health effects of hydrogen sulfide include irritation of the eyes, nose, throat, and respiratory system. Hydrogen sulfide is both an irritant and a chemical asphyxiant with effects on both oxygen utilization and the central nervous system. Its health effects can vary depending on the level and duration of exposure.

Where the potential for H<sub>2</sub>S exposure exists, the following protocol will be put in place.

## PURPOSE

The purpose of this program is to establish minimum requirements for site specific H2S safety, which will enhance safety in the occupational setting where hydrogen sulfide is present or is recognized as being potentially present.

## SCOPE

This program sets forth accepted practices for H2S. This program applies to all employees of the general contractor and employees of trade partners working onsite.

## DEFINITIONS

- Contingency Plan – a site-specific written document that provides an organized plan for alerting and protecting the public within an area of exposure following the accidental release of all potentially hazardous atmospheric concentrations of hydrogen sulfide.
- Exposure level – permissible exposure level of hydrogen sulfide is 10 ppm for an 8-hour, time weighted average.
- Gas Detector Instrument – an instrument/detector to measure levels of H2S. Instruments may be electronically or manually operated.
- Hydrogen Sulfide (H2S) – is an extremely deadly, toxic gas that in its pure state is colorless and is heavier than air. Additionally, it is the second most toxic gas known to man, ranking behind hydrogen cyanide and ahead of carbon monoxide. It has the odor of rotten eggs as a low concentration, but in higher concentrations it rapidly paralyzes the olfactory nerves (sense of smell). Is soluble in water and is flammable and poses a definite threat of explosion.
- Parts Per Million (ppm) – parts of vapor or gas per million parts of contaminated air by volume.
- Personal H2S Monitor – an electronic instrument worn on the person that is set to alarm at 10 ppm of H2S.
- Venting – the process of discharging a material to the atmosphere through a series piping and/or venting devices, to facilitate the proper and safe dispersion of toxic materials and to minimize personnel exposure.

## KEY RESPONSIBILITIES

### MANAGERS AND SUPERVISORS

Supervisors will ensure that all employees who are to be assigned to work at locations where hydrogen sulfide is known to be present, or suspected to be present in any concentration, have been trained in hydrogen sulfide safety. They will ensure that employees have been medically approved to wear respirators and trained on the safe use of respirators, including a respirator fit test in accordance with OSHA's respirator protection program. To ensure employees have been trained and familiar with personal H2S monitors and gas detection instruments. All employees will go through site safety orientation, including any additional client procedures for H2S. To ensure that all respiratory equipment to perform required work is available. Each employee will be provided a copy of the H2S safety plan.

### EMPLOYEES

Employees are responsible to comply with all aspects of the H2S program.

## GENERAL

The general contractor will have a written confined space program per 29 CFR 1910.146 and employees should be trained under 29 CFR 1910.146(g). The general contractor will be aware of owner's contingency plan provisions.

Every person entering a H2S designated location, regardless of the concentration, will wear a personal H2S monitor that is set to alarm at 10 ppm and will carry a 5-minute escape pack with them at all times.

When work requires opening any equipment on location that has the potential of releasing concentrations of H2S at 100 ppm or higher, two or more H2S trained persons will be present and follow these procedures prior to and during the opening of equipment:

- Each person entering the H2S location will don a personal H2S monitor prior to entry.
- A special safety meeting will be held with everyone on location to discuss the work plan, the responsibilities of each person and the site-specific contingency plan.
- Each person will have either a self-contained breathing apparatus (SCBA) or a supplied airline respirator equipped with a 5-minute escape pack and will be worn when opening the equipment to the surrounding atmosphere.
- At least one person (per two workers) equipped with a SCBA will act as the stand-by person and may not participate in the work being performed until the atmosphere has been tested and found to have no H2S present in quantities over 10 ppm. The stand-by person will be stationed up wind, within 100 feet and in clear view of the workers.
- If an operator or other third party provides the stand-by person, it will be the responsibility of the general contractor/supervisor in charge to verify that the person has been H2S, CPR/AED, and first-aid-trained, and that they have been provided the proper respiratory equipment.
- After the equipment has been locked and tagged out (per Lockout/Tagout procedure), opened and the H2S concentration has been cleared to less than 10 ppm, the stand-by person will no longer be required.

#### SAFE WORK PROCEDURES

Maintain compliance with permit requirements of the general contractor and any requirements by the client. Verify that proper safety equipment is available, functioning properly and is utilized. Make sure to check and remain aware of wind conditions and direction. Perform a thorough check of the downwind area prior to the start of any potentially hazardous work activity. Check for other personnel and ignition sources. Ventilate work areas by venting and purging lines and vessels prior to the beginning of any work activities. Keep all non-essential personnel away from work areas with potential H2S hazards. Immediately vacate the area when any H2S monitor sounds and do not re-enter without proper respiratory protection.

#### MONITORS AND GAS DETECTOR CALIBRATION

Each personal H2S monitor will be calibrated at least monthly, and the results recorded on the calibration log. Those monitors that do not require calibrating will be bump checked with calibration gas to test alarms, monthly or prior to use if not used routinely.

# FORMS APPENDIX

<a href="#"><b>APPENDIX 1</b></a>	Incident Report Forms
<a href="#"><b>APPENDIX 2</b></a>	Housekeeping Plan
<a href="#"><b>APPENDIX 3</b></a>	Competent Person Form
<a href="#"><b>APPENDIX 4</b></a>	Confined Space Entry Permit
<a href="#"><b>APPENDIX 5</b></a>	Daily Pre-Task Plan
<a href="#"><b>APPENDIX 6</b></a>	Energized Work Permit
<a href="#"><b>APPENDIX 7</b></a>	Excavation Permit
<a href="#"><b>APPENDIX 8</b></a>	Guard Rail Removal Permit
<a href="#"><b>APPENDIX 9</b></a>	Harness and Lanyard Inspection
<a href="#"><b>APPENDIX 10</b></a>	Hot Work Permit
<a href="#"><b>APPENDIX 11</b></a>	Critical Lift Checklist Form
<a href="#"><b>APPENDIX 12</b></a>	Lockout/Tagout Checklist
<a href="#"><b>APPENDIX 13</b></a>	Monthly Inspection Color Code Sign
<a href="#"><b>APPENDIX 14</b></a>	Notice to Commence Steel Erection
<a href="#"><b>APPENDIX 15</b></a>	Pre-Mobilization Meeting Agenda
<a href="#"><b>APPENDIX 16</b></a>	Scaffold Tag Examples
<a href="#"><b>APPENDIX 17</b></a>	Silica Standards - Table 1
<a href="#"><b>APPENDIX 18</b></a>	Utility Protection Permit
<a href="#"><b>APPENDIX 19</b></a>	Notice of Non-Compliance

# EMPLOYEE INCIDENT REPORT

General Contractor

Subcontractor

Is Subcontractor working under a CAP?

Yes

No

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Where did the Incident Occur? \_\_\_\_\_

Date of Incident: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Time of Incident: \_\_\_\_\_

Date of Report: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Name of Company: \_\_\_\_\_

Employee's Name: (First, Middle, Last): \_\_\_\_\_

Birthdate: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Age: \_\_\_\_\_ Social Security: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Marital Status:  Married  Single  Divorced # of Dependents: \_\_\_\_\_

Job Title: \_\_\_\_\_

Years of Experience: \_\_\_\_\_ Hire Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ State Hired In: \_\_\_\_\_

Hourly Wage: \_\_\_\_\_  Full Time  Part Time

Supervisor's Name: \_\_\_\_\_

Time Shift Began: \_\_\_\_\_ Date/Time Asked for Medical Attention: \_\_\_\_\_

Circle the Answers Below:

# of Hours Worked prior to Incident

All Hands Huddle Attendance

Yes      No

WEEK	# HRS WORKED
Day of Incident	_____
Last Week	_____
Previous Week	_____
Previous Week	_____
Previous Week	_____

Stretch & Flex Performed?

Yes      No

Pre-Task Plan Completed?

Yes      No

Body Part Injured: \_\_\_\_\_

Task Being Performed: \_\_\_\_\_

Description of Incident: What Happened? \_\_\_\_\_

Names of Witnesses: \_\_\_\_\_

Signature of Employee: \_\_\_\_\_ Date: \_\_\_\_\_

# SUPERVISOR INCIDENT REPORT

General Contractor

Subcontractor

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Date of Incident: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time of Incident: \_\_\_\_\_

Date of Report: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Name of Company: \_\_\_\_\_

Employee's Name: (First, Middle, Last): \_\_\_\_\_

GC Supervisor's Name: \_\_\_\_\_

Subcontractor Supervisor Name: \_\_\_\_\_

Craft Type: \_\_\_\_\_ # Years of Experience: \_\_\_\_\_

Where Was the Employee Treated?  Clinic  ER Date Restriction / LTA Started: \_\_\_\_\_

Medical Status:  FA  REC  REC/R  LTA

Was Safety Equipment Provided?  Yes  No # of Hours Worked prior to Incident

Was Safety Equipment Being Used?  Yes  No

WEEK	# HRS WORKED
Last Week	
Previous Week	
Previous Week	
Previous Week	

Pre-Task Plan Completed Day Of?  Yes  No

Scope Safety Plan Completed?  Yes  No

Task Being Performed: \_\_\_\_\_

Description of Incident: \_\_\_\_\_

Is the Incident Questionable? State Reason: \_\_\_\_\_

Signature of Supervisor: \_\_\_\_\_ Phone Number: \_\_\_\_\_

# WITNESS STATEMENT REPORT

Witness is Employed By:

General Contractor

Subcontractor

Project Name:

---

Project Number:

---

Employee Involved in the Incident:

---

Name of Company:

---

Witness Name:

---

Witness Phone Number:

---

Witness Address:

---

City, State, Zip:

---

## DESCRIPTION OF INCIDENT

Location of Incident on Project:

---

Date of Incident:

---

Time of Incident: \_\_\_\_\_ : \_\_\_\_\_

Date of Report:

---

Who Was Involved:

---

What Happened?

---



---



---



---



---

What or Who Caused the Incident:

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---



---



---



---

Signature of Witness: \_\_\_\_\_ Date: \_\_\_\_\_

# HOUSEKEEPING AND MATERIAL HANDLING PLAN

Please fill out form completely. If additional room is required, you may attach additional pages to this plan.

Project Name: \_\_\_\_\_

Trade Partner Company: \_\_\_\_\_

Start Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

## MATERIALS HANDLING

1. List primary activities of your work (masonry, concrete, steel erection, etc.)

\_\_\_\_\_

2. What products do you intend to bring PREFABRICATED to the site?

\_\_\_\_\_

3. How will you ensure products staged on site are mobile and easily relocated?

\_\_\_\_\_

4. If you are dealing with "bulk" type products (drywall mud, fasteners, clips, etc.) how do you propose to improve the delivery, staging, and utilization on-site?

\_\_\_\_\_

5. What will you do to minimize the amount of excess "packaging" brought to the site?

\_\_\_\_\_

\_\_\_\_\_

6. How will you minimize the amount of cut-offs and general trash/debris created from dealing with stock length materials?

\_\_\_\_\_

7. Describe additional tasks/methods of work you intend to implement to improve job site efficiency:

\_\_\_\_\_

\_\_\_\_\_

8. Describe how you plan to maintain a clean and efficient work area. Provide a commitment level of resources to ensure a clean and effective work area:

\_\_\_\_\_

\_\_\_\_\_

9. What would you like to see the general contractor do to improve YOUR job site efficiency?

\_\_\_\_\_

\_\_\_\_\_

#### DAILY WORK AREA CLEANUP AND SCRAP REMOVAL

What type of containers will be used for control and removal of daily scrap?

---



---

To protect supplied dumpster

---



---

To contractor supplied dumpster

---



---

To contractor yard

---



---

Other - explain

---



---

#### BREAK/LUNCH AREA CONTROL

Assigned area? \_\_\_\_\_

\_\_\_\_\_ Number of 30-gallon containers (Minimum of one per company, one additional for every 20 employees)

Furnished by (name on logo on containers)?

---



---

Individual(s) responsible for emptying car

---



---

Mandatory pre-shift empty days:  Mon  Tues  Wed  Thurs  Fri

#### EMPLOYEE PARKING

Assigned location \_\_\_\_\_

\_\_\_\_\_ Number of garbage containers (minimum of one per contractor)

#### CORD AND HOSE CONTROL

Mandatory pre-use inspection by employees

Periodic inspection by Supervisor? How Often?

---



---

Roll up daily or weekly (all hoses not bridged, buried, protected, or elevated)?  Daily  Weekly

All cords and hoses organized to one side of access or work area if not elevated.

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ GC Supervisor: \_\_\_\_\_

# DESIGNATED COMPETENT PERSON ACKNOWLEDGEMENT FORM

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

## PURPOSE

The purpose of this procedure is to define and list the areas within 29 CFR 1926. OSHA's Construction Standards, where a Competent person is required to be a part of a particular project activity.

## DEFINITION

A Competent person is someone who, by reason of education, training, and experience, is capable of identifying existing and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. The training records and documentation will be submitted with this form at the pre-mobilization meeting.

## RESPONSIBILITY

The designated Competent person is responsible for recognizing and correcting safety hazards specific to the area of competency. This person has the authority to stop work in the event of any potential safety concern on the job site. This representative is considered the contact person for the general contractor on safety related issues. This form must be completed by the subcontractor and the subcontractor's designated Competent person(s). Where a subcontractor is responsible for multiple crafts, it is necessary to maintain additional designated Competent persons and forms for each additional tier. This form must be updated any time there is a change in the designated representative(s). This designated person must be on the project site whenever the area of competency is functioning.

## ACKNOWLEDGEMENT

I, \_\_\_\_\_ (Subcontractor Supervisor) representing \_\_\_\_\_ (Company), have assigned the below listed

personnel to be the Competent person(s) 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 SUPERVISOR SIGNATURE

DATE

## AREA OF COMPETENCY

A Project Competent person (Safety Representative)	J Demolition	T Materials/Personnel Hoists
B Asbestos	K Electrical	U Mechanical Demo
C Accident Prevention	L Excavations/Trenches	V Respiratory Protection
D Bolting/Riveting/Fitting	M Fall Protection	W Scaffolding
E Caissons/Cofferdams	N First Aid/CPR	X Slings
F Concrete/Forms/Shoring	O Hearing Protection	Y Tilt Panel Operations
G Compressed Air	P Ionizing Radiation	Z Tunnels/Shafts
H Confined Space Entry	Q Ladders	AA Underground Construction
I Cranes/Derricks	R Lead	BB Welding/Cutting
	S Lift Slab Operations	

I acknowledge that I have been thoroughly trained and have the experience to perform the duties as a Competent person in the areas indicated above. 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.

COMPETENT PERSON (SIGNATURE)

COMPETENT PERSON (PRINT NAME)

AREAS OF COMPETENCY

DATE

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

# CONFINED SPACE ENTRY PERMIT

Trade Company: \_\_\_\_\_

Name: \_\_\_\_\_

## Permit is only valid for a single 8-hour shift

Date Issued: \_\_\_\_\_ Time Issued: \_\_\_\_\_ Duration: \_\_\_\_\_

Location and Scope of Work: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Entry Requirements:

<input type="checkbox"/> Employee is Trained	<input type="checkbox"/> Harness / Lifeline	<input type="checkbox"/> LOTO
<input type="checkbox"/> Adequate Access	<input type="checkbox"/> Communications Equip	<input type="checkbox"/> Fire Extinguisher
<input type="checkbox"/> Adequate Lighting	<input type="checkbox"/> Continuous Air Monitor	<input type="checkbox"/> Valves Closed
<input type="checkbox"/> Ventilation	<input type="checkbox"/> Respirator Required? _____	
<input type="checkbox"/> Name of Attendant: _____		
<input type="checkbox"/> Other Requirements: _____		

### Authorized Entry Log & Warning Signs MUST be posted at access

### Air Monitoring Requirements:

Make: \_\_\_\_\_ Model: \_\_\_\_\_ ID #: \_\_\_\_\_

Date Calibrated: \_\_\_\_\_ Calibrated By: \_\_\_\_\_

TIME	% Oxygen (19.5 - 23.5)	% LEL (<10%)	Carbon Monoxide CO (<35 PPM)	Hydrogen Sulfide H2S (<10 PPM)	Other
Prior to Entry					

GC Approval: \_\_\_\_\_

Date: \_\_\_\_\_

# DAILY PRE-TASK PLAN

Trade Company: \_\_\_\_\_ Date: \_\_\_\_\_

The Pre-Task Plan meeting should be an open discussion between the Foreman / Crew Leader and the crew members assigned to them. If possible, it should be completed in the work area.

**Our goal is to help crew members understand the hazards of their job and how to reduce or eliminate them.  
Reducing the potential of injury while working.**

## Coordination Effort with Other Trades:

<input type="checkbox"/> Mechanical: _____	<input type="checkbox"/> Structural: _____
<input type="checkbox"/> Electrical: _____	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Plumbing: _____	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Work Conditions: _____	
<input type="checkbox"/> Equipment Required: _____	

TASK		How do I reduce the potential for injury?	
1		HAZARD:	
		CONTROL MEASURE:	
2		HAZARD:	
		CONTROL MEASURE:	
3		HAZARD:	
		CONTROL MEASURE:	
4		HAZARD:	
		CONTROL MEASURE:	
5		HAZARD:	
		CONTROL MEASURE:	

CREW MEMBER

SUPERVISOR

2026

# DAILY PRE-TASK PLAN

PROJECT #

Continued from the front side.

TASK		How do I reduce the potential for injury?	
6		HAZARD:	
		CONTROL MEASURE:	
7		HAZARD:	
		CONTROL MEASURE:	
8		HAZARD:	
		CONTROL MEASURE:	
9		HAZARD:	
		CONTROL MEASURE:	
10		HAZARD:	
		CONTROL MEASURE:	
11		HAZARD:	
		CONTROL MEASURE:	
12		HAZARD:	
		CONTROL MEASURE:	
13		HAZARD:	
		CONTROL MEASURE:	
14		HAZARD:	
		CONTROL MEASURE:	
15		HAZARD:	
		CONTROL MEASURE:	

The following should be used to assist in eliminating or reducing hazards:			
TASK	LEAST Effective	Moderate	MOST Effective
Elevated Work	Ladder & Permit	Scaffolding	Mechanical Lift
Material Handling	Lifting Limits	Proper Lift Training	Use Equipment
Electrical	LIVE Work	Signs Identifying Hazard	Lock Out Tag Out
Excavation	Competent Supervision	Barricade Around Hazard	Bench / Slope / Trench Box

## Daily Pre-Task Plan

What Tasks Are We Doing Today?	How Could We Get Hurt?	How Can We Keep From Getting Hurt?	Hazards Associated with Each Step
Sequence of Basic Job Steps			

Work Conditions	How Can We Keep From Getting Hurt?
	The conditions of the area where the crew will be working (site conditions, weather, etc.).
Coordination	How Can We Keep From Getting Hurt?
	Any other trades in the area and if coordination has been addressed.
Equipment	How Can We Keep From Getting Hurt?
	Address any equipment in use; inspection will be documented.
Elimination	How Can We Keep From Getting Hurt?
	Physically remove the hazard
Substitution	How Can We Keep From Getting Hurt?
	Replace the hazard
Engineering Controls	How Can We Keep From Getting Hurt?
	Isolate people from the hazard
Administration Controls	How Can We Keep From Getting Hurt?
	Change the way people work
PPE	How Can We Keep From Getting Hurt?
	Protect the worker with PPE

# ENERGIZED WORK PERMIT

PROJECT #

Trade Company: \_\_\_\_\_

Name: \_\_\_\_\_

## PERMIT MUST BE APPROVED TO WORK ON ENERGIZED EQUIPMENT (NFPA 70E Article 130)

Date Issued: \_\_\_\_\_

Time Issued: \_\_\_\_\_

Duration: \_\_\_\_\_

Equipment to be Worked on: \_\_\_\_\_

Location: \_\_\_\_\_

Scope of Work: \_\_\_\_\_

**WAS A SHUTDOWN REQUESTED?** YES  NO**APPROVED?** YES  NO

Reason for Non-Approval: \_\_\_\_\_

 Owner/Client Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## A DETAILED M.O.P. MUST BE INCLUDED WITH THIS PERMIT

### Shock Risk Assessment

- Limited: \_\_\_\_\_
- Restricted: \_\_\_\_\_
- Prohibited: \_\_\_\_\_

### Arc Flash Risk Assessment

- Boundary: \_\_\_\_\_
- Hazard Risk Category: \_\_\_\_\_
- Incident Energy (cal/cm<sup>2</sup>): \_\_\_\_\_

**Equipment Voltage:**  50V or Less  51V to 250V  250V to 600V  600V+

Required Protection Category: \_\_\_\_\_

Additional Protective Equipment: \_\_\_\_\_

Means of Restricting Unauthorized Access: \_\_\_\_\_

Other Requirements: \_\_\_\_\_

Trade Approval: \_\_\_\_\_

Date: \_\_\_\_\_

GC Superintendent Approval: \_\_\_\_\_

Date: \_\_\_\_\_

Owner Approval: \_\_\_\_\_

Date: \_\_\_\_\_

GC Regional Manager: \_\_\_\_\_

Date: \_\_\_\_\_

GC VP of Operations: \_\_\_\_\_

Date: \_\_\_\_\_

IN CASE OF EMERGENCY, CALL 911 IMMEDIATELY

# EXCAVATION PERMIT

(per task/location)

PROJECT #

Company: \_\_\_\_\_ Competent Person: \_\_\_\_\_

Date Issued: \_\_\_\_\_ Time Issued: \_\_\_\_\_ Duration (1 week max): \_\_\_\_\_

Equipment Used: \_\_\_\_\_ Specific Location: \_\_\_\_\_

Scope of Work: \_\_\_\_\_

Size (Include Sloping/Shoring/Benching): \_\_\_\_\_

Length: \_\_\_\_\_ Width: \_\_\_\_\_ Depth: \_\_\_\_\_

Verify all utility locations are clearly marked for overall excavation (above and below)  Yes  No  
811 and site trades for active construction identifying utilities:What form of locating underground utilities will be used for  
excavations within 5 feet of marked utilities (pot holing/hand digging, ect.): \_\_\_\_\_

Type of Excavation:	Trench	Excavation	Drilling
Will employees enter the trench/excavation (If yes, answer A & B below):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Will structural integrity of buildings be affected (If yes, answer A & B below):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>A.)</b> Excavation inspection must be completed as required (daily pre-entry at a minimum by competent person)			
<b>B.)</b> What method of cave in protection will be used:			
Bench in B Class only	Sloping	Shoring	Shielding
<b>If other than C Class soil (complete the following questions):</b>			
Soil Classification performed by who:			
What testing method will be used (minimum of two required):			

## Excavation Inspection (only if employees enter/structural Integrity compromised):

1. Signatures of all who enter after review of inspection

2. Soil classification - a competent person must make inspections of excavations as required, including areas around excavation and protective systems.

<b>A.)</b> Before work starts and as needed	<b>D.)</b> Other occurrences which may increase hazards
<b>B.)</b> After rainstorms	<b>E.)</b> When it can be reasonably anticipated that an employee will be exposed to hazards.
<b>C.)</b> High winds	

## Required Signatures

Excavation Competent Person: \_\_\_\_\_ Operators: \_\_\_\_\_

Other Trades: \_\_\_\_\_ GC Superintendent/Safety: \_\_\_\_\_

**IN CASE OF EMERGENCY, CALL 911 IMMEDIATELY**

# GUARDRAIL REMOVAL PERMIT

PROJECT #

Trade Company: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Duration: \_\_\_\_\_

Contact #: \_\_\_\_\_

Scope of Work: \_\_\_\_\_

## GUARDRAIL & PROTECTIVE BARRIERS CANNOT BE REMOVED UNTIL THE PERMIT IS APPROVED

### Important Information & Requirements

Location: \_\_\_\_\_

Please be specific on location including grid lines. Identify all affected areas (above & below).

Affected Area: \_\_\_\_\_

Other Items: \_\_\_\_\_

Reason for Modification: \_\_\_\_\_

Trades Working Nearby: \_\_\_\_\_

### Employees Performing Work

_____	_____	_____
_____	_____	_____

### Fall Protection Plan

Fall Protection System: \_\_\_\_\_  
System must be in place prior to removal of guardrail or protective barriers.

All Workers Have Been Trained in Fall Protection.

All Workers are Required to be Tied Off Within 15' of an Unprotected Area.

Adequate Signs Posted and Barricades Provided.

How Will Other Trades be Protected from Fall Hazards? \_\_\_\_\_

Trade Approval: \_\_\_\_\_

Date: \_\_\_\_\_

GC Approval: \_\_\_\_\_

Date: \_\_\_\_\_

## Harness and Lanyard Inspection

**HOT WORK PERMIT**

Trade Company: \_\_\_\_\_

Name: \_\_\_\_\_

Location and Scope of Work: \_\_\_\_\_

**Permit is Valid Through:** \_\_\_\_\_

Daily sign off is required by both GC and the trade partner signifying compliance with the permit requirements. Trade is to sign prior to start of work, then GC to verify compliance.

MON	TUE	WED	THU	FRI	SAT	SUN
/	/	/	/	/	/	/
GC						
TRADE						

**FIRE WATCH SIGN OFF - 1 HOUR AFTER WORK IS COMPLETED**

--	--	--	--	--	--	--

**Fire Protection Methods:**

<input type="checkbox"/> Fire Extinguisher(s)	<input type="checkbox"/> Sewers / Drains Covered	<input type="checkbox"/> LOTO
<input type="checkbox"/> Spark Containment	<input type="checkbox"/> Area Wet Down	<input type="checkbox"/> SDS Reviewed
<input type="checkbox"/> Combustibles Removed	<input type="checkbox"/> Ventilation / Smoke Eater	<input type="checkbox"/> Valves Closed
<input type="checkbox"/> Charged Fire Hose	<input type="checkbox"/> Purge & Type of Gas: _____	
<input type="checkbox"/> Name of Fire Watch: _____		

**IS GAS MONITORING REQUIRED** YES     NO

TYPE	TIME	%LEL / PPM	TESTER

GC Approval: \_\_\_\_\_

Date: \_\_\_\_\_

# CRITICAL LIFT PLAN

FORM 16-3 | FOR USE OF THIS FORM, SEE EM 385-1-1, SECTION 16. PROONENT IS CRANE HHWG.

DATE:	PREPARED BY:
LOCATION:	USACE DISTRICT:

A "critical lift" is defined as any non-routine crane lift requiring detailed planning and additional or unusual safety precautions. Critical lifts include: lifts made where the load weight is greater than 75% of the rated capacity of the crane; lifts which require load to be lifted, swung, or placed out of the operator's view; lifts made with more than one crane; lifts involving non-routine/technically difficult rigging arrangement; hoisting personnel with a crane or derrick; or any lift which the crane operator believes should be critical.

<b>A. TOTAL LOAD</b>		<b>E. CRANE PLACEMENT</b>			
1. LOAD WEIGHT			1. MAXIMUM BEARING PRESSURE	PSF	
2. WEIGHT OF AUX. BLOCK			Note: Bearing Pressure Calculations must be attached on page 3.		
3. WEIGHT OF MAIN BLOCK			2. GROUND CONDITIONS SUITABLE FOR LOAD?	YES/NO	
4. WEIGHT OF LIFTING BEAM			Note: Ground Condition Calculations must be attached on Page 3.		
5. WEIGHT OF SLING/SHACKLES			3. HIGH VOLTAGE OR ELECTRICAL HAZARDS?	YES/NO	
6. WEIGHT OF JIB/EXT. (ERECTED/STOWED)			Note: If Electrical Hazards are present they must be shown on Page 4.		
7. WEIGHT OF HOIST ROPE			4. OBSTRUCTIONS TO LIFT OR SWING?	YES/NO	
8. OTHER			Note: If Obstructions are present they must be shown on Page 4.		
TOTAL WEIGHT			5. TRAVEL WITH LOAD REQUIRED?	YES/NO	
Note: Source of load weight (Drawings, Calcs, etc.) must be attached on Page 2.					
<b>B. CRANE</b>		<b>F. OPERATOR QUALIFICATIONS</b>			
1. TYPE OF CRANE	Mobile Hydraulic Truck				
2. MAXIMUM CRANE CAPACITY			1. CERTIFIED OPERATOR?	YES/NO	
3. RADIUS (MAXIMUM)			2. OPTION?		
4. RADIUS (MINIMUM)			3. CERTIFIED FOR TYPE, CLASS & CAPACITY?	YES/NO	
5. BOOM LENGTH (MAXIMUM)			4. DESIGNATED IN WRITING BY EMPLOYER:	YES/NO	
6. BOOM LENGTH (MINIMUM)			<b>G. PRE-LIFT CHECKLIST</b>		
7. CRANE CAPACITY (MAX RADIUS)			1. CRANE INSPECTED	YES	N/A
8. CRANE CAPACITY (MIN RADIUS)			2. RIGGING INSPECTED		
9. BOOM ANGLE (MAXIMUM)			3. CRANE SET-UP		
10. BOOM ANGLE (MINIMUM)			4. OVERHEAD HAZARD CHECK		
11. GROSS LOAD OF CRANE			5. SWING CHECK		
12. LIFT IS % OF THE CRANE'S RATED CAPACITY			6. COUNTERWEIGHT CHECK		
13. IF JIB/EXT IS TO BE USED:			7. OPERATOR QUALIFICATIONS		
			8. SIGNAL PERSON QUALIFICATIONS		
			9. RIGGER QUALIFICATIONS		
14. RATED CAPACITY OF JIB/EXT.			10. LOAD CHART IN CRANE		
<b>C. HOIST ROPE</b>		<b>H. SIGNATURES</b>			
1. # OF PARTS	MAIN	AUX1	AUX2	1. CRANE OPERATOR	
2. ROPE DIAMETER				2. RIGGER	
3. CAPACITY				3. SIGNAL PERSON	
<b>D. RIGGING</b>					
1. HITCH TYPE(S)				4. LIFT SUPERVISOR	
2. NO. OF SLINGS		SIZE:		5. OTHER	
3. SLING TYPE				6. OTHER	
4. SLING ASSEMBLY CAPACITY					
5. SHACKLE SIZE					
6. SHACKLE RATED CAPACITY(S)					

# CRITICAL LIFT PLAN

FORM 16-3 | FOR USE OF THIS FORM, SEE EM 385-1-1, SECTION 16. PROPOSER AGENCY IS CRANE HHWG.

## LOAD CALCULATIONS

Show here or attach calculations, drawings, etc.

## LOCKOUT/TAGOUT CHECKLIST

NAME OF CONTRACTOR(S):	SCOPE OF WORK: <input type="checkbox"/> TEMPORARY ELECTRICAL SERVICE <input type="checkbox"/> PERMANENT ELECTRICAL SERVICE <input type="checkbox"/> MECHANICAL WORK <input type="checkbox"/> OTHER _____
NAME OF CONTRACTOR'S ON SITE SUPERVISOR:	
DATE OF COORDINATION MEETING:	DATE(S) LO/TO WILL BE IN AFFECT:
<p>Electrical hazards and many forms of stored energy are unique in that there are very few properties that warn of their presence.</p> <p><b>The goal of this checklist is to minimize exposures with electrical equipment and other deadly hazards associated with stored energy.</b></p> <p>This checklist shall be used to identify and/or review the following:</p> <ul style="list-style-type: none"> <li>Scope of work that requires LO/TO</li> <li>Identify circumstances and/or locations where electrical hot work or other hazards cannot be avoided, and</li> <li>Identify the procedures and safety precautions that will be followed.</li> </ul> <p>The contents of this checklist shall be reviewed with all affected contractor employees and general contractor personnel.</p>	

PRINTED NAME OF MEETING ATTENDEES	TITLE/RESPONSIBILITY		

1. DOES THE OWNER OR HOST EMPLOYER HAVE A LO/TO PERMIT OR LO/TO REQUIREMENTS?	YES		NO
2. HAS A PROJECT SPECIFIC SAFETY PLAN OR JOB HAZARD ANALYSIS (JHA) BEEN DEVELOPED BY THE CONTRACTOR(S) DOING THE WORK?	YES		NO
3. WHAT TYPE OF ENERGY SOURCES OR SYSTEMS WILL BE WORKED ON AND/OR NEED TO BE ISOLATED AND LOCKED OUT (CHECK ALL THAT APPLY)			
TYPE OF SYSTEM	LO/TO REQUIRED? (CHECK ONE)		
	YES	NO	N/A
1. ELECTRICAL			
2. HIGH VOLT ( $\geq 480\text{v}$ )			
3. LOW VOLT ( $< 480\text{v}$ )			
4. MECHANICAL			
5. HYDRAULIC/STEAM			
6. PNEUMATIC			
7. CHEMICAL			
8. OTHER			
4. ARE OTHER CONTRACTORS OR ENTITIES AFFECTED BY THIS LOCK OUT? IF YES, PLEASE IDENTIFY:	YES		NO

## LOCKOUT/TAGOUT CHECKLIST

PG 2

5. IDENTIFY THE COMPANIES AND INDIVIDUALS WHO ARE RESPONSIBLE FOR LEADING THE LOCKOUT-TAGOUT PROGRAM FOR THEIR EMPLOYER. THESE INDIVIDUALS MUST BE ON SITE FOR THE DURATION OF THE LOCKOUT-TAGOUT IN MOST CIRCUMSTANCES.

NAME OF CONTRACTOR	NAME OF INDIVIDUAL

### Safety Equipment and Procedures Checklist

A. WILL THE WORK PROCEED IN A FLAMMABLE OR CLASS I ATMOSPHERE? IF NO, CONTINUE TO ITEM B. IF YES, CHECK ALL SAFETY EQUIPMENT THAT WILL BE USED:		YES		NO
<input type="checkbox"/> NON SPARKING TOOLS <input type="checkbox"/> INTRINSICALLY SAFE LIGHTS, TOOLS, RADIOS, ETC. <input type="checkbox"/> NON STATIC CHARGING CLOTHING OR SHOES <input type="checkbox"/> LEL MONITOR				
B. WILL OTHER TRADES BE WORKING IN THE IMMEDIATE VICINITY OF LIVE CIRCUITS OR OTHERWISE BE AFFECTED OR EXPOSED TO THE HAZARDS OF THE ACTIVITY? IF YES, DESCRIBE SAFETY PRECAUTIONS THAT MUST BE TAKEN TO PROTECT AFFECTED WORKERS:		YES		NO
C. CHECK THE SAFETY EQUIPMENT OR PROCEDURES THAT WILL BE FOLLOWED TO PROTECT THE SAFETY OF THE WORKERS CONDUCTING LIVE WORK				
<input type="checkbox"/> SAFETY GLASSES WITH SIDE SHIELDS AND/ OR FACE SHIELD <input type="checkbox"/> HARD HAT (REGULAR OR HIGH VOLT?) <input type="checkbox"/> LEATHERS OR HEAT RESISTANT CLOTHING <input type="checkbox"/> INSULATING TOOLS <input type="checkbox"/> LOW VOLT LIGHTING <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> ELECTRICAL BLANKETS <input type="checkbox"/> BLANKETS FOR HOT WORK <input type="checkbox"/> CHEMICAL RESISTANT CLOTHING <input type="checkbox"/> AIR MONITOR <input type="checkbox"/> HARNESS AND LANYARD <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> GLOVES (ELECTRICAL, HOT WORK, OR CHEMICAL RESISTANT?) <input type="checkbox"/> INSULATING MATS <input type="checkbox"/> BARRICADE AROUND THE WORK AREA <input type="checkbox"/> RETRIEVAL EQUIPMENT <input type="checkbox"/> LOCKS AND TAGS <input type="checkbox"/> <input type="checkbox"/>
COMMENTS:				
D. TO BE COMPLETED BY THE EMPLOYER(S) COMPLETING THE WORK: IF WORK IS TO PROCEED ON LIVE, ENERGIZED, CHARGED, OR OTHERWISE OPERATING SYSTEMS, DESCRIBE WHY WORK CANNOT PROCEED IN A LOCKED-OUT OR DE-ENERGIZED STATE:				

## MONTHLY INSPECTION COLOR CODES

JANUARY & JULY  
YELLOW

FEBRUARY & AUGUST  
WHITE

MARCH & SEPTEMBER  
BROWN

APRIL & OCTOBER  
GREEN

MAY & NOVEMBER  
RED

JUNE & DECEMBER  
BLUE

Monthly focused inspections on extension cords, tool cords, ladders, ect. will be required. Each tool will be marked with colored tape designating the month of inspection. Inspections shall be performed by a competent person. Monthly focused inspections do not take the place of daily pre-use inspections.

## INPSECCIONES MENSUALES COLOR DEL MES

ENERO & JULIO  
AMARILLO

FEBRERO & AGOSTO  
BLANCO

MARZO & SEPTIEMBRE  
CAFE

ABRIL & OCTUBRE  
VERDE

MAYO & NOVIEMBRE  
ROJO

JUNIO & DICIEMBRE  
AZUL

Las inspecciones requeridas mensuales se enfocan en extensiones electricas, herramientas electricas, escaleras, ect. Cada herramienta debe de ser marcada con cinta adecuada de colores designada al color mensual. Las inspecciones deben de ser hechas por la persona competente. Las inspecciones mensuales no deben remplazar las inspecciones de herramientas del uso diario.

## NOTICE TO COMMENCE STEEL ERECTION

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

STEEL ERECTOR SUBCONTRACTOR:
CONTACT NAME:
ADDRESS:

General contractor is hereby authorizing you to commence steel erection activities with the following notifications:

Concrete in footings, piers, and walls, and mortar in masonry piers and walls has attained, based on the appropriate ASTM standard test for field cured samples either 75% of the intended minimum compressive strength or sufficient strength to support the loads imposed during steel erection.	Name of testing agency:  Attached testing reports:
Repairs or modifications were made to anchor rods/bolts: <input type="checkbox"/> Yes <input type="checkbox"/> No	Approval by: (Structural Engineer of Record):  Approval in writing? <input type="checkbox"/> Yes <input type="checkbox"/> No
Location of repairs/modifications:	Date approved:  As built drawings available? <input type="checkbox"/> Yes <input type="checkbox"/> No

You are notified of your responsibility to: (initial each)

Indicate to general contractor what material lay down areas are needed, and intended routes of transferring materials. Only those designated lay down areas will be utilized, and general contractor responsibility to maintain lay down areas will be limited to those that are designated	
Preplan all overhead hoisting operations to prevent traveling loads over other contractor personnel, and to coordinate hoisting activities with general contractor and other contractors to minimize impacts on other operations.	
Provide a written site-specific erection plan if any part of your operations will deviate from the published OSHA Standard 29 CFR 1926.752(e).	
Conduct documented daily inspections of all cranes, forklifts, and other hoisting equipment utilized in steel erection activities.	
Designate a qualified trained rigger(s) to inspect all rigging equipment (Submit record of training) Name of qualified rigger:	
Maintain on the project written proof of training for all employees engaged in connecting, bolt-up, multiple lift rigging procedures, exposure to falls, equipment operation, and as required by any other specific standard.	
Assure that all columns are properly anchored by a minimum of 4 anchor bolts.	
Maintain and require the use of fall protection equipment for all employees exposed to fall elevations of 6 feet or greater as directed in the project Incident Prevention Program.	
Properly install perimeter guardrail systems on all exterior and interior leading edges consisting of a top rail and mid rail meeting the requirements of 29 CFR 1926.502 (b)(1-15).	
Maintain required fire protection/prevention equipment appropriate to the type of work operation and hazards involved.	
Meet all other requirements of the general contractor's Incident Prevention Program, Published OSHA Standards, and the requirements of local regulations.	

# PRE-MOBILIZATION MEETING

To: (Subcontractor Name)

From:

Subject: Preparation for the Pre-mobilization Meeting

The purpose of this memorandum is to help you prepare for the upcoming pre-mobilization meeting. By now you have been provided the site-specific safety plan for this project which identifies our expectations and your obligations regarding safety at this project. Our goal is to work with you to ensure that processes and procedures are in place such that everyone goes home safe to their family every day. Attached to this memorandum is a checklist for your review as you prepare for this meeting.

## GENERAL INFORMATION

Please be prepared to identify your person(s) designated to be responsible for safety and quality including their qualifications. Please review and be prepared to discuss any required submittals and that you are aware of inspection requirements. General contractor requires that you have an iPad or iOS device insofar that we will be using Construct PM to record inspections and safety observations.

- If you will NOT be self-performing the assigned scope of work please be prepared to identify your subcontractors AND provide assurance that they are prepared to comply with the site-specific safety plan and requisite inspections.
- In most cases the safety requirements of the general contractor parallel those of OSHA. The primary variance is the required use of Construct PM. If you are not comfortable with this technology, please reach out to us and we will provide the requisite training and support.

## TASK SPECIFIC INFORMATION

The attached checklist has several items that are not pertinent to every subcontractor. Please review and ensure you are prepared for those items specific to your anticipated scope of work. Please be prepared to discuss your safety management plan. Specific items may include:

1. Training records for all employees designated as the "competent person."
2. PPE assessment for tasks as required by OSHA.
3. General required training that has been accomplished:
  - a. Fall protection
  - b. Confined space
  - c. Hazardous communication
  - d. Working with mobile elevated work platforms (MEWP)
  - e. Crane operator, rigger, signal person
  - f. OSHA 10 and/or OSHA 30
4. Subcontractors working under a Corrective Action Plan (CAP) must be prepared to complete a project specific CAP checklist. The foreman should bring their iPad so that the software can be installed and tested during this meeting.

## SUMMARY

Please note that the intent of this meeting and effort is to ensure that we are well aligned with regard to risk identification and mitigation. The general contractor does not assume that we have all the answers with regard to providing an injury free workplace. However, we are confident that through meaningful collaboration, clear expectations, and a commitment to safety we can in fact eliminate injuries to our valued employees.

# SCAFFOLD TAGS

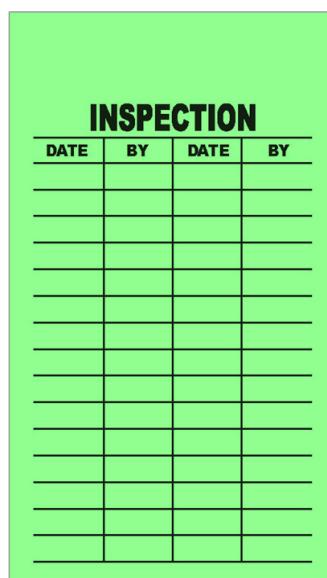
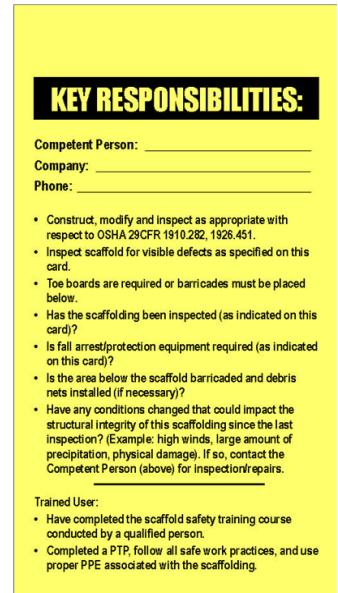


TABLE 1

## SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA

EQUIPMENT/TASK	ENGINEERING AND WORK PRACTICE CONTROL METHODS	REQUIRED RESPIRATORY PROTECTION AND MINIMUM ASSIGNED PROTECTION FACTOR (APF)	
		< 4 HOURS/SHIFT	> 4 HOURS/SHIFT
(iv) Walk-behind saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. <ul style="list-style-type: none"> <li>When used outdoors</li> <li>When used indoors or in an enclosed area</li> </ul>	None APF 10	None APF 10
(v) Drivable saws	For tasks performed outdoors only: <ul style="list-style-type: none"> <li>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions</li> </ul>	None	None
(vi) Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	None	None
(viii) Dowell drilling rigs for concrete	For tasks performed outdoors only: <ul style="list-style-type: none"> <li>Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism.</li> <li>Use a HEPA-filtered vacuum when cleaning holes.</li> </ul>	APF 10	APF 10
(ix) Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector <b>OR</b> Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None
(x) Jackhammers and handheld powered chipping tools	Use tools with water delivery system that supplies a continuous stream or spray of water at the point of impact. <ul style="list-style-type: none"> <li>When used outdoors.</li> <li>When used indoors or in an enclosed area.</li> </ul> <b>OR</b> Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. <ul style="list-style-type: none"> <li>When used outdoors.</li> <li>When used indoors or in an enclosed area.</li> </ul>	None APF 10 None APF 10	None APF 10 None APF 10
(xi) Handheld grinders for mortar removal (i.e. tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 10
(xii) Handheld grinders for uses other than mortar removal	For tasks performed outdoors only: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. <b>OR</b> Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. <ul style="list-style-type: none"> <li>When used outdoors.</li> <li>When used in an enclosed area.</li> </ul>	None None	None APF 10

TABLE 1

## SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA

EQUIPMENT/TASK	ENGINEERING AND WORK PRACTICE CONTROL METHODS	REQUIRED RESPIRATORY PROTECTION AND MINIMUM ASSIGNED PROTECTION FACTOR (APF)	
		< 4 HOURS/SHIFT	> 4 HOURS/SHIFT
(xiii) Walk-behind milling machines and floor grinders	<p>Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</p> <p><b>OR</b></p> <p>Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the airflow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.</p>	None	None
(xiv) Small drivable milling machines (less than half-lane)	Use a machine equipped with supplemental water sprays designated to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions	None	None
(xv) Large drivable milling machines (half-lane and larger)	<p>For cuts of any depth on asphalt only:</p> <p>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. For cuts of four inches in depth or less on any substrate:</p> <ul style="list-style-type: none"> <li>• Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.</li> <li>• Operate and maintain machine to minimize dust emissions.</li> </ul> <p><b>OR</b></p> <p>Use a machine equipped with supplemental water spray designated to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.</p>	None	None
(xvi) Crushing machines	Use equipment designated to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (i.e., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (i.e., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	<p>Operate equipment from within an enclosed cab.</p> <p>When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.</p>	None	None
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: Demolishing, abrading, or fracturing silica-containing materials	<p>Apply water and/or dust suppressants as necessary to minimize dust emissions.</p> <p><b>OR</b></p> <p>When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.</p>	None	None

# UTILITY PROTECTION PERMIT

PROJECT #

Trade Company: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Duration: \_\_\_\_\_

Contact #: \_\_\_\_\_

Scope of Work: \_\_\_\_\_

## Utilities Identified

Public Locator: \_\_\_\_\_

Date Complete: \_\_\_\_\_

Private Locator: \_\_\_\_\_

Date Complete: \_\_\_\_\_

Water

Storm

Sewer

Gas

Data/Fiber

Electrical

Other Items: \_\_\_\_\_

Provide a detailed plan showing scope of work and utilities identified.

## Detailed Information

- Utilities are protected, supported and barriers are installed if needed.
- Vacuum excavation (potholing) as needed or project required.
- Barriers have been installed to prevent unauthorized entry into the area.
- Hand digging, soft excavation, or vacuum excavation will be used to expose utilities as needed prior to completing excavation or when utilities are within 24" of work.
- Pre-Task Plan (Daily) has been completed for the task. Detailed task requirements have been reviewed by the crew and the GC Superintendent.
- Selective demolition will be used to discover in-wall, above-ceiling, or utilities located above or below concrete slab.
- All utilities will be potholed (at a minimum) every 200' horizontally for exterior work or as needed. Interior potholing should be completed every 25'.
- Contingency plans have been developed in case of an emergency or unplanned utility disruption. Contingency plans must include all affected parties. Contingency plans are attached to this permit.

Owner Approval: \_\_\_\_\_

Date: \_\_\_\_\_

Trade Approval: \_\_\_\_\_

Date: \_\_\_\_\_

GC Approval: \_\_\_\_\_

Date: \_\_\_\_\_

## NOTICE OF NON-COMPLIANCE

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Subcontractor Name: \_\_\_\_\_

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

### MATERIALS HANDLING

Subcontractor is out of compliance with:

- Violation of Federal or State Standards
- Violation of General Contractor/Owner Requirements
- Violation of Contractors' Safety Rules/Policy

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

Location of Vioation: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Actions/Conditions Observed: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Violations must be corrected by (date): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

**SIGNATURE OF PERSON ISSUING NOTICE**

**DATE**

**TIME**

Contractor must list corrective actions taken to bring his/her area into compliance: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Were corrective actions made IMMEDIATELY or DELAYED

Immediately

Delayed

If DELAYED, explain the reason for the delay in making corrections: \_\_\_\_\_  
 \_\_\_\_\_

Print name of person making corrections: \_\_\_\_\_ Date/Time: \_\_\_\_\_

**SIGNATURE OF SUBCONTRACTOR SAFETY REPRESENTATIVE**

**DATE**

**TIME**