SAFETY & HEALTH PROGRAM

Prepared For

The National Association Of Home Builders

Contributed by Dan Johnson, CSP

October 2025

FOR INFORMATION CONTACT

National Association of Home Builders
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ABOUT NAHB

The National Association of Home Builders (NAHB) helps its members build communities. Each year, NAHB members construct about 80% of the new homes built in the United States, both single-family and multifamily. A federation of more than 700 state and local associations, NAHB represents more than 140,000 members. About one-third are home builders and remodelers. The rest work in closely related specialties such as sales and marketing, housing finance, and manufacturing and supplying building materials.

SAFETY 365

NAHB has created a member and public awareness campaign to provide information and resources to help keep construction workers safe and eliminate preventable accidents, injuries, and deaths, with the focus on supporting construction safety every day--365 days a year: #safety365. The campaign with align with NAHB's current educational resources, safety training materials, and news updates that are intended to help educate employers and workers on the various safety and health hazards the industry faces on the jobsite, and to better understand and comply with Occupational Safety and Health Administration (OSHA) requirements.

ABOUT JAMES HARDIE

As the industry leader, James Hardie views safety for everyone as a top priority. According to Sean Gadd, CMO and EVP of Segments & Products, "Investing in safety is a critical component of our company. Understanding our shared values, James Hardie is pleased to partner with the NAHB to become the Diamond Sponsor Level of Safety." The company launched a Zero Harm initiative in 2016 to focus on safety: people, places and systems. And this extends to customers. "It goes beyond building great quality products at James Hardie," notes Gadd. "We don't just protect homes; we strive to help protect the people who build them and live in them." James Hardie website address is: jameshardie.com.

FOR SAFETY CONSULTANT INFORMATION CONTACT

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ABOUT SFI COMPLAINCE

Improving Lives & Empowering America's Workforce

SFI has over 100 years of workplace safety and risk management experience, industry recognition for excellence, extensive bilingual capabilities, and advanced certifications. Turn to SFI consultants for expert services in OSHA compliance, risk management, on-site safety evaluations, safety policy management, review and preparation, and safety training. SFI offers Complete Safety Management™ services nationwide.

Local Commitment, National Presence
COLORADO | TEXAS | ARIZONA | GEORGIA | FLORIDA | CAROLINAS

Visit their website at: www.sficompliance.com

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INSTRUCTIONS – HOW TO USE THIS PROGRAM

The SAFETY & HEALTH PROGRAM is a model company safety program for home builders/general contractors and it is intended to cover their employees only. It contains the materials needed to effortlessly set up a safety program for your company. It is intended to be used by management, who can take the safety program and provide it to each project so that each site (or superintendent, if applicable) will have a site-specific program.

The SAFETY & HEALTH PROGRAM is designed with small companies in mind. It is intended as a practical, hands-on guide for implementing an effective safety program without hiring an additional employee or consultant to develop it.

There are places in the SAFETY & HEALTH PROGRAM that are highlighted in **BLUE** in which companies should input their company specific information. It is intended for management (or the superintendent, if applicable) to fill out the information prior to starting the job. Be sure to insert your company's name and the name of any company personnel in the appropriate places highlighted.

Home builders/general contractors should require all subcontractors, trade partners, suppliers and vendors to develop, implement and follow *their own* SAFETY & HEALTH PROGRAM, including providing the proper competent person(s) for the specific task they are responsible for.

The SAFETY & HEALTH PROGRAM is made up of twenty-nine (29) sections. **START** with the "Start-up Checklist" that walks home builders/general contractors/superintendents through each of the sections when starting up a new program.

Home builders/general contractors can print out this document, which make up the SAFETY & HEALTH PROGRAM and use the cover page, table of contents, 3-ring binder divider tabs to separate each section and insert it into a 3-ring binder.

In addition to the SAFETY & HEALTH PROGRAM, ***forms*** are provided that could be used on the site, by the office, or posted near the working area. Contractors can also use these forms that should be filled out, returned, and then filed in the 3-ring binder.

Home builders/general contractors are encouraged to reproduce this program, or any portion(s) of it, for use in their own companies. *NOTE: this SAFETY & HEALTH PROGRAM is meant to be adaptable—not all the information is necessarily applicable to every construction project.*

More information is available at nahb.org/safety.

SAFETY & HEALTH PROGRAM

COMPANY NAME: _____

JOBSITE: _____

Provided by SFI Compliance, Inc.

Complete Safety Management™ services offering our clients a National Commitment and Local Presence

www.sficompliance.com

800-727-5051

This safety & health program is for company employees only. As a Home Builder, we require all subcontractors, trade partners, suppliers and vendors to develop, implement and follow their own safety & health program, including providing the proper competent person(s) for the specific task/role for with they are responsible.

HB

SAFETY & HEALTH PROGRAM

COMPANY NAME

JOBSITE

MASTER PROGRAM

RESOURCE GUIDE

Provided by SFI Compliance, Inc.

www.sficompliance.com
800-727-5051

Safety Program Start Up Checklist

The supervisor should use this checklist when starting up a new job. This checklist will guide the supervisor in setting up the new site. When a task is complete, please date and initial the appropriate column.

Item	Date Complete	Initials
Print the following items from the NAHB website and post in a prominent location on the jobsite. • Code of Safe Work Practices • Emergency Contact Form (fill out and post) • Competent Person Roster (fill out and post) • Subcontractor Safety Violation Reprimand/Fine Policy • Crane Hand Signals (English & Spanish) • OSHA Fall Prevention Poster (English & Spanish) • OSHA Excavation Poster (English & Spanish) • OSHA Posters (English & Spanish)		
Find the location of the nearest emergency facility for on the job injuries. Print a map and directions to this facility and post in a prominent location on the jobsite.		
Post the Urgent Care / Worker's Compensation Clinics to be used by employees for non-emergency issues.		
Post all required federal and state labor posters on the jobsite. This includes minimum wage posters, family medical leave act, etc. An all in one poster set is the preferred method. Make sure the posters are up to date.		
Post the Worker's Compensation Clinics or Urgent Care Clinics to be used by employees for non-emergency issues.		
Ensure your site has the proper first aid and safety equipment to protect your workers. Contact your company Safety/HR department for a complete list, here is a common list of items that should be on the jobsite: • First Aid Kit-appropriate size for number of employees with CPR Mask • Bloodborne Pathogen / Body Fluid Clean Up Kit • PPE (Hard Hats, Safety Glasses, Respirators, Ear Protection etc.) • Safety Signage (Hard Hats Required, No Trespassing, etc.) • Fall Protection Equipment • Eye Wash Station • Caution Tape / Danger Tape to warn of any hazards including open excavations		

Safety Program Start Up Checklist

Review each section of your safety program and make sure all employees review:	Date Complete	Initials
• Section 2: Safety Goals and Responsibilities: This section details overall company goals for safety as well as responsibilities for Employees, Site Management and Upper Management.		
• Section 3: Safety and Health Guidelines: This section covers the basic safety and health guidelines for all employees. These guidelines should be followed at all times.		
• Section 4: Emergency Action Plan: This section covers the basic emergency procedures for medical, fire, chemical, weather-related, and bomb threat emergencies that may occur on a project.		
• Section 5: Hazard Communication Plan: This section contains the requirements for the communication of hazardous chemicals, including all GHS requirements. Sample GHS labels, as well as all GHS pictograms, are detailed in this section.		
• Section 6: Chemical Inventory List: This form should be used on the projects. Site management should complete the chemical list for the chemicals that the company uses or supplies. SDS forms should be filed in the same order as listed in the chemical inventory list behind the list.		
• Section 7: Heat Illness Safety Plan: This section covers safe work practices for working in hot or humid environments. Plan ahead and remember: Water. Rest. Shade.		
• Section 8: Employee Safety Handbook-English: This section details the information that must be read and understood by all employees. All employees must, as a part of the on-boarding process, sign, acknowledging that they have read, understand, and agree to the policies presented in the safety and health program. The acknowledgment form should be kept with the employee files.		
• Section 9: Employee Safety Handbook-Spanish: This document is the Spanish version. This section details the information that must be read and understood by all employees. All employees must, as a part of the on-boarding process, sign, acknowledging that they have read, understand, and agree to the policies presented in the safety and health program. The acknowledgment form should be kept with the employee files.		
• Section 10: Employee Disciplinary Policy and Action Form: Review this section with employees. Use the included form if you need to discipline any employee following the discipline policy found in this program.		
• Section 11: Employee Training Record Form: Use these forms to document all the training you conduct with your employees. Do not use this form for any subcontractors.		
• Section 12: Subcontractor Safety Plan: Review this section and go over this with all subcontractors. The forms that need to be filled out are in the following sections.		

Review each section of your safety program and make sure all employees review:	Date Complete	Initials
• Section 13: Subcontractor Safety Agreement: this document contains some safety requirements for subcontractors. Although subcontractors must follow their specific safety and health program; the agreement details some of the specific requirements. The safety agreements will be used on the projects. Site management should provide a copy of this to each subcontractor and have them sign and return. Each Site-Specific Safety Program will also include a tracking form to help track the completion of this procedures.		
• Section 14: Fall Protection Plan Checklist: Subcontractors are to use this document to identify any fall exposures their employees may have, and the controls used to mitigate those exposures.		
• Section 15: Subcontractor Disciplinary Policy and Action Form: Review this section with subcontractors. Use the Action Form if you need to discipline any subcontractor following the discipline policy found in this program.		
• Section 16: Vehicle Safety Plan: This section covers responsibilities for workers who drive during their work duties. Vehicular accidents are the number 1 cause of death in the US workplace. The plan should be followed for all vehicles, company and personal, driven for company duties.		
• Section 17: Scaffold Safety Resource Guide: Scaffolding has many uses and is used by many workers on our projects. All scaffolds must be designed by a qualified person and erected under the supervision of a competent person. Subcontractors are also required to inspect their scaffolding prior to work each day. We recommend using “red” and “green” tags. A scaffold inspection form can be found at the end of this section.		
• Section 18: Forklift Safety Resource Guide: Forklifts perform a large amount of heavy lifting on our projects and save time. Subcontractors must ensure their use is always safe, and the forklifts are used according to manufacturer requirements. Subcontractors should provide copies of the operator certifications for their operators that will use the forklifts on all projects.		
• Section 19: Residential Excavation Safety Resource Guide: Trenches and excavations on site can be very dangerous if proper cave-in procedures are not followed. In addition, the work must be conducted under the supervision of a competent person, and that competent person must inspect the trench or excavation prior to allowing their employees to work in the trench or excavation.		
• Section 20: Fall Protection Resource Guide: Falls are the leading cause of death in the construction industry. All work conducted over 6 feet shall follow a fall protection plan. The work must be pre-planned to ensure the safety of the workers.		
• Section 21: Fire Protection Plan: Review and understand the fire protection and hot work safety plan.		

Review each section of your safety program and make sure all employees review:	Date Complete	Initials
• Section 22: OSHA Inspection Procedures: This section covers the procedures to be followed by site management if OSHA wants to conduct an inspection on one of our projects. Site management should be familiar with and follow these procedures during an inspection. Plan ahead and be ready.		
• Section 23: OSHA Inspection Report: This report should be completed during or immediately following an OSHA inspection.		
• Section 24: Incident Investigation Procedures: Project incidents such as injury events, near-miss events, and property damage events should be investigated to prevent future occurrences. This section covers the procedures for these investigations.		
• Section 25: Injury Accident Investigation Report: This report is to be completed immediately after an injury occurs.		
• Section 26: Property Damage Incident Investigation Report: This report is to be completed immediately after a property damage incident occurs.		
• Section 27: Incident Witness Statement: This form is to be completed with any witnesses to an incident.		
• Section 28: Non-Injury Near Miss Investigation Report: This report is to be completed after any “near miss” event.		
• Section 29: Safety Inspection Checklist: This checklist should be completed at each jobsite on a frequent and regular basis.		

Checklist filled out by (Print Name): _____ Date: _____

Signature: _____

Title: _____

Safety Goals and Responsibilities

It is our Company's policy to perform its work in the safest manner possible, consistent with safe work practices, and according to all governing laws and regulations. The safety and health of our employees, subcontractors, and others who may be in our work areas is paramount. This program has total management support. Managers at every level are charged with the task of translating this policy into positive and productive action.

This Safety Program, as revised from time to time, contains safety and health policy and rules for the workplace. They represent a wealth of practical experience and have been tested on many successful projects. Putting these procedures to work can protect the well-being of our employees, preserve vital company resources, and minimize financial losses caused by accidents. We also require all subcontractors, trade partners, suppliers, and vendors to develop, implement and follow their specific safety program, including providing the proper, competent person (s) for the specific task they are responsible for. Therefore, as a condition of employment, each employee is required to study, understand and abide by these procedures. This Safety Program is provided for the sole purpose of improving safety and health conditions and is NOT to be considered as an agreement or contract of employment.

This Safety Program follows the OSHA Safety and Health Program Management Guidelines, which provide for developing, implementing, and maintaining a program of policies, procedures, and practices that are adequate to protect employees from occupational safety and health hazards. Our program provides ways to systematically identify, evaluate, and prevent or control workplace hazards, specific task hazards, and hazards that could arise from operations. This Safety & Health Program is not a one-time plan but is a dynamic program that is always open to improvement.

Safety is as critical to our company's operations as planning, scheduling, and billing. Further, we believe that accidents are preventable and that it is up to each of us to ensure that we practice safety as a routine part of our daily work. One of our safety goals is to have the best safety and health conditions possible in the workplace. To achieve that goal, we must first have a good attitude about safety. Then we must THINK SAFETY and WORK SAFELY.

WE BELIEVE IN SAFETY AND INSIST UPON IT

Sincerely,

Signature of Company Representative

COMPANY SAFETY GOALS

Managers and supervisors are accountable to the upper management for the successful achievement of targeted company safety and health goals. The project safety and health goals are:

1. Have the best safety and health conditions possible in the workplace.
2. Minimize all injury accidents and health impairment.
3. Prevent any major fires, vehicle accidents, or property damage losses.
4. Zero permanent disabilities.
5. Zero environmental accidents.
6. Zero fatalities.

These goals are implemented to control and prevent construction site failures, which cause fatalities, injuries, illness, equipment damage, fire, and damage or destruction to property.

No phase of operations is more important than accident prevention. Each employee is expected to be aware of and actively pursue safety goals. There is only one way to do a job properly - THE SAFE WAY!

COMMITMENT

Company—the personal safety and health of each employee are of primary importance. The prevention of occupational injuries and illness is so important that it is to have precedence over operating productivity whenever necessary. The company will, to the greatest degree possible, provide safe mechanical and physical facilities, provide for employee safety training, and implement safe work practices that will make our work areas safe places to work. We are committed to a safety and health program that will reduce the number of injuries and illnesses to a minimum, not merely in keeping with, but hopefully surpassing, the best experience of similar industry operations.

Employees—this Safety Program conforms to the best practices of organizations in our industry. To make the program work, all employees must have good attitudes about preventing injury and illness. Success requires cooperation between each employee and his or her co-workers. With cooperative effort and positive attitudes, the Safety Program will benefit all the employees, our clients, and our visitors. Each employee is required, as a condition of employment, to read, understand, and sign the EMPLOYEE COMMITMENT TO WORK SAFELY, which will be kept in the personnel files.

ENFORCEMENT

General—all employees must understand that THE FIRST AND MOST IMPORTANT WORK RESPONSIBILITY IS TO BE RESPONSIBLE FOR ONE's OWN SAFETY! Disregarding safety and health guidelines provided for one's benefit is not only dangerous to oneself, but also to those with whom one works. An employee who disregards safety is a significant liability. Safety guidelines apply to all employees, without exception, and will be enforced by management. Warnings and reprimands will be issued for known violations of the safety guidelines as soon as the infraction is observed, and it will become part of an employee's work record.

Willfully Violating Safety Rules—any employee who refuses to work safely, or to observe the safety and health guidelines, who refuses to use proper protective equipment, or who fails to obtain proper permits, where required, or fails to observe required procedures, will be subject to verbal and written warnings resulting in disciplinary action, which may lead to termination of his or her employment. The severity of disciplinary action will be determined by the frequency and severity of infractions and may include reprimand, time off without pay, or termination. Willfully endangering one's life or the life of another person is gross misconduct and may be cause for immediate dismissal.

SAFETY PROGRAM LOCATION

This Safety Program, with its file of SDS, is to be kept in the jobsite trailer for immediate availability to employees, emergency personnel, and regulatory agencies.

GENERAL RESPONSIBILITIES

EMPLOYEES—safety is a management responsibility; however, management cannot be solely responsible for the acts of employees. Therefore, each employee shall, as a condition of employment for which he or she is paid, be responsible for working safely, including but not limited to the following specific responsibilities and duties:

General Safety and Health:

a. Study, understand and comply with the requirements of the SAFETY PROGRAM and comply with any other laws or regulations which may apply to his or her work.
b. Work in a manner that will avoid self-injury and prevent injury to fellow workers.
c. Attend any required employee safety and health orientation, and any regular or special employee safety training.
d. Acknowledge, by personal signature, any training received.
e. Refuse to perform any potentially hazardous or non-routine task, or to use any hazardous material, until properly trained about the hazards involved, and about the proper safety and health procedures to follow.
f. Properly use and care for personal protective equipment required for the task at hand.
g. Report any hazardous condition to the employee's supervisor, including any negligent act, a physical or health hazard, any unsafe use of hazardous materials by employees, or by an employee of some other employer in the workplace.
h. Report any job-related injury or illness to the employee's supervisor and seek treatment immediately and in no case, more than 24 hours.
i. Know what emergency telephone numbers to call in the event of a fire, accident, or personal injury.
j. Help to maintain a safe and clean work area.

Hazard Communication:

a. Know the location of the written Hazard Communication Plan, the SDS Master list, and the SDS files with emergency contact numbers.
b. Refuse to use any hazardous material if not trained in its use. Request a refresher training if unsure about the use, storage, handling, or personal protective equipment requirements.
c. Know how to read an SDS, the SDS Master List and labels.
d. Never remove nor deface hazardous chemical labels.
e. Know how to detect the presence of a hazardous chemical in the workplace by odor, appearance.
f. Never waste hazardous chemicals on site. (i.e., do not dump hazardous materials on the earth)
g. Become trained in the proper use of required protective equipment, and wear or use such equipment properly while working with hazardous chemicals.
h. Be properly trained about the hazards of any assigned work tasks, about which the employee has not been previously trained, before attempting to perform such "non-routine" tasks.

SUPERVISORS—unless notified otherwise, the supervisor of each jobsite (may be a Project Manager, Project Supervisor, Superintendent or foreman) is responsible for the implementation of the Safety Program at each workplace he or she supervises. Add the following supervisory duties to those he or she has as an employee:

General Safety and Health:

a. Set the example for good safety and health practices.
b. Provide a bulletin board in each job trailer and display all required postings.
c. Establish and implement procedures for workplace safety, health, first aid, fire prevention, site security, environmental pollution control, and others that comply with SAFETY AND HEALTH GUIDELINES, contract documents and specifications, and with local, state and federal laws and regulations.
d. Conduct an employee Safety Orientation whenever a new employee comes into the workplace.
e. Prepare for job site Tool Box safety meetings, with rules and regulations for each site.
f. Train employees under his or her supervision about the provisions of these SAFETY AND HEALTH GUIDELINES, about workplace hazards, safe working procedures and policies, how working safely can prevent accidents, and how one can avoid injury and prevent property damage.
g. Monitor the safety and health performance of employees. Prepare written warnings and reprimands for violations of this Safety Program.
h. Monitor the status of project safety and health, by personally conducting project safety inspections and by directing corrective action. These project safety inspections need to be formally documented on a _____ basis.
i. Assure the availability of required safety equipment and personal protective equipment needed for the work being done, giving special attention to non-routine tasks.

j. Cooperate with other employers and subcontractors to improve overall safety and health conditions in the workplace.

k. When the company is working as a subcontractor, the supervisor is to provide a copy of the Hazard Communication portion of the program to the general contractor and determine how this Safety and Health program will be coordinated with what is being provided by the general contractor, including attendance at safety meetings held by the general contractor.

l. Investigate and document accidents and losses immediately, analyze the causes, and prepare recommendations to prevent similar accidents in the future. Prepare reports for worker's compensation, employee reprimands or disciplinary action immediately following an incident. This must be completed within 24 hours of the accident or incident.

m. In the event of a serious accident or a government safety or environmental inspection, notify management ASAP.

n. Be familiar with the OSHA Standards for the Construction Industry and be able to find information in OSHA Standards when necessary. These are available at www.osha.gov or the reference programs normally on each site.

o. Report any reportable event that occurs to an employee of the company to OSHA:

- Fatality: within 8 hours
- Hospitalization: within 24 hours
- Amputation: within 24 hours
- Loss of Eye: within 24 hours

Hazard Communication:

a. Maintain the Hazard Communication Plan found in this program for each workplace supervised.

b. Conduct Hazardous Chemical Inventories. Maintain and preserve the SDS Master List after the Hazard Communication Plan.

c. Supervise the proper procurement of all hazardous chemicals to be present in the workplace supervised. Receive and check all shipments of hazardous chemicals for SDS and labels.

d. Verify that labeling is properly done. Maintain a supply of labels and other hazard warnings.

e. During the employee Safety Orientation, make sure employees know where to find the Hazard Communication Plan, explain labels and other hazard warnings, and the SDS Master List and teach him or her how to read a SDS.

f. Train all employees under his or her supervision as required by this Hazard Communication Plan. Prepare a Training Report for each hazardous chemical training done, which certifies by each employee's signature, the training received. Keep the training record on file in this Safety Program.

g. Provide special training and equipment needed to perform non-routine tasks safely.

h. Coordinate hazard communication with other employers, such as subcontractors, in a company workplace, as needed to protect employees.

i. Direct the proper cleanup of any hazardous chemical spill, prepare required reports and notify management. Check your Storm Water Plan for local jurisdictions that may require notification of spills or unintentional releases.

UPPER MANAGEMENT—Upper Management is responsible for providing direction, motivation, and accountability to ensure a dynamic safety and health program for all projects.

Specific responsibilities include:

a. Set the example for good safety and health practices.
b. Establish annual safety goals and objectives.
c. Establish an adequate budget to fund the safety program. Subcontractors, trade partners, suppliers, and vendors are also responsible for developing, implementing, and following their own safety program, including providing the proper funding to achieve the goals of the safety program successfully.
d. As part of performance evaluations, hold project supervisors accountable for the success or failure of achieving specific safety and health performance and insurance cost control goals.
e. Periodically take part in employee safety training.
f. Review all injury and accident reports and OSHA 300 Logs.

RELATED STANDARDS

The following Standards are incorporated herein by reference:

- OSHA Standard 29 CFR Part 1926 "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION," the latest edition

The requirements of the above standards are general. They contain far more detailed information than the Safety Program. Where information is lacking, or in the event of any conflict between the information in this program and the requirements of the OSHA standards, the OSHA Standards shall govern.

MODIFICATIONS, UPDATES AND EXPANSION

Local, State, and Federal regulations can change, and new and better safety and health procedures are often discovered. Such changes create, from time to time, a need to modify or update this Safety Program.

Because working conditions vary from site to site, some procedures may need to be changed to meet the site-specific safety needs for a particular project. The Project Supervisor, therefore, may modify or expand the procedures for his jobsite, as needed, with the prior written approval of the SFI Compliance, Inc.

SAFETY INSPECTION CHECKLIST

Date/Time: _____ Inspector Name: _____

Describe activity taking place at time of inspection (includes trades on site): _____

_____

_____

CATEGORY	MEETS REQUIREMENTS			HAZARD DESCRIPTION	HOW ABATED?	DATE ABATED
	YES	NO	N/A			
PPE						
Fall Protection						
Guardrails / Handrails						
Scaffolding						
Stairways						
Ladders						
Electrical						
Excavation/Trenching						
Heat Illness Prevention						
Crane/Rigging/Signaling						
Equipment						
Tools						
Confined Space						
Access / Egress						
Housekeeping						
Impalement Protection						
Fire Protection						
Traffic						
Haz Com						
Lock Out / Tag Out						
Other:						

Additional Comments/Recommendations: _____

_____

_____

Inspector Signature: _____

General Safety and Health Guidelines

The General Safety and Health Guidelines in this section are for all employees to ensure they understand many of the basic safety and health guidelines found in the construction industry. Additional sections of this Safety & Health Program may provide additional safe work practices. Employees should never work in an unsafe environment and should request additional guidance from their supervisors when needed.

Table of Contents

FIRST AID AND MEDICAL TREATMENT

First aid supplies are provided at the project. Qualified personnel is available to render minor treatment and to maintain required records.

- Report all injuries immediately, no matter how minor, to your supervisor and or project office. Treatment will be forthcoming, and the incident will be recorded.
- You must notify your supervisor and or the project office before leaving the project because of an injury or illness, whether personal or work-related.
- All medical treatment for work-related injuries must be obtained from the medical treatment facility authorized for the project unless you have received PRIOR WRITTEN AUTHORIZATION from the management to use another facility.
- Before returning to work after a lost-time injury or illness, you must present a medical clearance to the project office or safety department from the attending physician.
- If you have a physical handicap, such as diabetes, impaired eyesight, hearing, back or heart trouble, hernia, or aversion to heights, inform your supervisor or safety department. You won't be expected to do a job, which might result in injury to yourself or someone else.
- Never move an injured or seriously ill person unless necessary to prevent further injury. Non-designated employees should not administer first aid except in cases of severe bleeding or cessation of breathing.
- When an accident is reported late, it will be challenged for that reason.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

The company provides all Employees with required PPE to suit the task and known hazards.

General Policy

Engineering controls shall be the primary methods used to eliminate or minimize hazard exposure in the workplace. When such controls are not practical or applicable, personal protective equipment shall be employed to reduce or eliminate personnel exposure to hazards. Personal protective equipment (PPE) will be provided, used, and maintained when it has been determined that its use is required and that such use will lessen the likelihood of occupational injuries and/or illnesses. Personal Protective Equipment that is recommended by SDS sheets or Tool Manufacturers must be followed. Company policy may dictate PPE, which exceeds the requirements of the sources mentioned above.

In order to provide an effective means of protection, all PPE must be sized to fit the worker properly. If assigned PPE is improperly fitting, the worker must report the condition to their supervisor immediately, and before performing any work using the inappropriate PPE.

General Rules

All personal protective clothing and equipment will be of safe design and construction for the work to be performed. Only those items of protective clothing and equipment that meet the National Institute of Occupational Safety and Health (NIOSH) or American National Standards Institute (ANSI) standards will be procured or accepted for use.

Hazard assessment and equipment selection

Hazard analysis procedures shall be used to assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the following actions will need to be taken:

- Select, and have each affected employee use the proper PPE.
- Communicate selection decisions to each affected employee.
- Select PPE that properly fits each affected employee.
- Train each employee on proper use of assigned PPE.

Defective and damaged equipment

- Defective or damaged personal protective equipment shall not be used.

Head Protection

- Workers must wear hard hats when overhead, falling, or flying hazards exist or when the danger of electrical shock is present.
- Inspect hard hats routinely for dents, cracks, or deterioration.
- If a hard hat has taken a heavy blow or electrical shock, you must replace it even when you detect no visible damage.
- Maintain hard hats in good condition, do not drill, clean with strong detergents or solvents, apply paint, or store them in extreme temperatures.
- If helmets are in use, the chin strap must be used.

Eye and Face Protection

- Workers must wear safety glasses, goggles, and/or face shields for welding, cutting, nailing (including pneumatic), or when working with concrete and/or harmful chemicals.
- Eye and face protectors are designed for particular hazards, so be sure to select the type to match the hazard.
- Replace poorly fitting or damaged safety glasses.
- Prescription glasses are not acceptable unless lenses and frames are ANSI Z-87 rated, and that rating is stamped on the eyewear.

Hearing Protection / Conservation

- The company will use engineering and administrative controls to prevent exposure to loud noises.
- When engineering and administrative controls fail to reduce sound levels, ear protective devices (ear plugs, ear muffs) will be provided by your employer, and they must be used.
- Workers must wear and properly care for these ear protective devices as assigned.

Foot Protection

- Workers must wear shoes or boots with slip-resistant and puncture-resistant soles (to prevent slipping and puncture wounds).

- Safety-toed shoes are recommended to prevent crushed toes when working with heavy rolling equipment or falling objects.
- Specialty footwear (non-conductive, anti-static, conductive) must be worn as dictated by a specific task, exposure, or protocol.

Hand Protection

- Gloves must have an appropriate ANSI/ISEA cut resistance.
- Gloves should fit snugly.
- Glove gauntlets should be taped for working with fiberglass materials.
- Workers should always wear the right gloves for the job (for example, heavy-duty rubber for concrete work, welding gloves for welding).
- Ratings, from A-1 to A-9, indicate the level of cut resistance provided by the glove. The higher the number, the more cut resistance.
- Select gloves that are adequate for the exposure.

HOUSEKEEPING AND ACCESS

Attention to general cleanliness, storage, and housekeeping can prevent numerous accidents. This section covers items not discussed in other areas and is not intended to cover all specific housekeeping requirements. Good housekeeping efforts are a part of the company fire prevention and accident prevention program.

Hazard

- Slip & trip hazards
- Fall hazards
- Chemical exposure
- Contact with sharp objects
- Fire & Explosion hazards
- Overloading of storage shelves and bins

Hazard Control

- Keep all walkways and stairways clear of trash/debris and other materials such as tools and supplies to prevent tripping.
- Keep boxes, scrap lumber, and other materials picked up. Put them in a dumpster or trash/debris area to prevent fire and tripping hazards.
- Provide enough light for workers to see and to prevent accidents.

SANITATION

Drinking Water

An adequate supply of potable drinking water should be provided for workers. If portable containers are used to dispense the water, they must be tightly closed, and water dispensed by a tap. Cups and/or water bottles shall not be dipped into the containers. Workers should have their own drinking cups; no shared cups are allowed. If single-use cups are provided, trash facilities must be provided as well.

Portable Toilets

An adequate supply of portable toilets shall be provided for workers. These toilets shall be maintained and serviced regularly to maintain sanitary conditions. The number of toilets shall meet this minimum:

Number of Employees	Number of Toilets
20 or less	1
20 or more	1 toilet seat and 1 urinal per 40 workers.
200 or more	1 toilet seat and 1 urinal per 50 workers.

OSHA 1926.51(c)(1) Table D-1

ILLUMINATION/TEMPORARY LIGHTING

Good illumination is important to maximize production and maintain quality control. Poor lighting on the project may lead to personal injury accidents: tripping, falling, and injuries from tools and equipment.

OSHA requires that all construction areas, including stairs, ramps, corridors, storage areas, shops, offices, etc. be lit by natural or artificial illumination. Table D-3 in OSHA Standard 1926.56 indicates the intensities required for specific areas. OSHA uses a foot-candle measurement for determining the intensity of illumination. For general construction areas, illumination must be equal to 5-foot candles. If you can read drawings and follow layout marks without difficulty and use cutting tools effectively and with ease, there is sufficient lighting on the site. Plant and shop areas, first aid stations and offices require higher intensities of illumination.

Temporary lighting should follow these guidelines:

- All temporary wiring and lighting on the site must comply with the same codes as permanent wiring.
- Undersized wiring or overloaded circuits lead to work stoppages, electrical shocks and even fires.
- Be sure wiring is protected from damage in high traffic areas.
- Flexible cords used for temporary or portable lights must be designed for hard or extra-hard usage.
- All lamps for general illumination must be protected from accidental contact or breakage.
- Metal case sockets must be grounded.
- Temporary lights must not be suspended by their cords unless specifically designed for this means of suspension.
- 120-volt, portable lighting may be used in wet or other conductive locations such as vessels, drums and tanks but only if protected by a ground fault circuit interrupter, otherwise the maximum permitted is 12 volts or less.
- Temporary wiring must be removed immediately upon completion of construction.

FALL PROTECTION

Falls are the leading cause of death in the construction industry. OSHA requires fall protection be provided anytime a fall hazard of six (6) feet or more exists. OSHA recognizes conventional fall protection to be: Personal Fall Arrest Systems (PFAS), Guardrails and Safety Net Systems. Additional methods of fall protection include floor hole covers, fall restraint systems and administrative controls.

Prior to construction, the fall protection system utilized should be pre-planned and during construction, the fall protection system should be continually monitored and adjusted as necessary. The following hierarchy of fall protection should be followed:

- Hazard Elimination: eliminating the hazard is the first and most preferred option. Can the fall hazard be eliminated? Can a different process be used to keep the workers from being exposed to fall hazards?
- Passive Fall Protection: physical barriers such as guardrail systems and floor hole covers are considered passive fall protection. These systems, once installed, provide continued protection for the employees.
- Fall Restraint Systems: devices that prevent access to the fall area for the worker. These would physically limit a worker from getting to the edge of a roof or other fall hazard.
- Fall Arrest Systems: these are the traditional Personal Fall Arrest Systems that include an anchor point, full-body harness and lanyard/lifeline. A PFAS is designed to stop the worker after a fall. These devices have other issues because an injury can still occur to the worker during the fall, and once the fall has occurred, how are you going to rescue the worker?
- Administrative Controls: these are rules employees are expected to follow to prevent falls. These are the least likely to prevent a fall and the least preferred method. OSHA is likely to issue citations to companies that rely on administrative controls for their fall protection systems.

Personal Fall Arrest Systems (PFAS)

These consist of an anchorage point, full-body harness and lanyard/lifeline. If a personal fall arrest system is used for fall protection, it must do the following:

- Limit maximum arresting force on an employee to 1,800 pounds.
- Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level.
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet.
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet.
- Personal fall arrest systems must be inspected before each use for wear, damage, and other deterioration.
- Workers must be trained in the use and maintenance of the equipment they are using.
- Rescue planning should be undertaken before allowing any worker to work in a PFAS. Consideration should be given to the availability of rescue personnel, ladders , self rescue equipment, or other means for rescue.

Guardrails and Hole Covers

- Approved guardrails or covers must protect floor openings and/or holes. If covers are used, they must be able to support 2 times the intended loads imposed upon them, must be marked and must be secured to prevent accidental displacement.
- Do not remove covers on floor openings without approval from your supervisor. When a cover has been removed to bring in equipment or material, replace the opening immediately upon completion of material handling.
- Install guardrails around openings in floors and across openings in walls when the fall distance is 6 feet or more. Be sure the top rails can withstand a 200-lb load.
- Construct guardrails with a top rail approximately 42 inches high with a midrail about half that high at 21 inches.
- Install toe boards when other workers are to be below the work area.

STAIRWAYS

- Install permanent or temporary stair rails on stairs before stairs are used for general access between levels to prevent someone from falling or stepping off edges.
- The top edge of the stair rails should be 36” above the stair tread and the midrail installed at 18”.
- Block off access to stairs that are not ready to be used, or where activity, such as welding, grinding, or scaffold use, create a hazard for other workers using the stairs.
- Pan stairs and landings must not be used until infilled, except during installation.
- Do not store materials on stairways that are used for general access between levels.
- Keep hazardous projections such as protruding nails, large splinters, etc. out of the stairs, treads, or handrails.
- Correct any slippery conditions on stairways before they are used.
- Stairs with 4 or more risers shall be equipped with at least one handrail at 36”.

LADDERS

- Ladders that your work requires should be available on the worksite. If the appropriate ladder is not available, discuss it with your supervisor.
- Keep all ladders in good condition and free of defects.
- Inspect ladders before use for broken rungs or other defects. Broken or damaged ladders must not be used. Repair or destroy them immediately. Ladders to be repaired must be tagged “DO NOT USE.” Ladders to be destroyed must be cut vertically down the middle of the rungs.
- Secure ladders near the top and/or at the bottom to prevent them from slipping.
- When you can't tie the ladder off, be sure the ladder is on a stable and level surface, so it cannot be knocked over or the bottom of it kicked out.
- Place ladders at the proper angle (1 foot out from the base for every 4 feet of vertical rise).
- Extend ladders at least 3 feet above the landing to provide a handhold or for balance when getting on and off the ladder from other surfaces.

- Do not set up a ladder near passageways or high traffic areas where it could be knocked over. Where a ladder must be used near a door, a sign must be placed on the opposite side of the door stating that a ladder is in use.
- The areas around the top and base of ladders must be free of tripping hazards such as loose materials, trash, and electrical cords.
- Use ladders only for what they were intended for and not as a platform, runway, or as scaffold planks. Extension ladders must never be used in a horizontal orientation.
- Always face the ladder and maintain 3 points of contact when climbing or descending a ladder.
- Be sure that your shoes are free of mud, grease, or other substances, which could cause a slip or fall.
- Do not carry materials up a ladder. Use a hand line or other means to get materials to a higher level.
- Always move the ladder to avoid overreaching; the midline of your body should never extend beyond the ladder's side rail.
- Always move the ladder from ground level. Do not “walk” the ladder, or attempt to move a ladder while in use by another worker.
- Do not splice together short ladders to make a longer ladder.
- Stepladders must be fully opened to permit the spreader to lock; they are not allowed to lean on a wall, unless specifically designed and engineered to do so.
- You are prohibited from standing on the top two steps of a stepladder.
- Metal ladders must not be used for electrical work or in areas where they could contact energized wiring. The use of metal ladders is restricted to special applications where the heavier wooded ladders are not practical.
- Use only Type I or Type II ladders. Type III ladders are never to be used as they are designed for household use.

SCAFFOLDING

- Follow all local codes, ordinances, and regulations pertaining to scaffolding. Federal OSHA regulations are found in CFR Part 1926 Subpart L.
- Scaffolds shall be erected under the supervision of a competent person.
- Workers should only work on scaffolding or access scaffolding if they are authorized and have received scaffold user training.
- Be sure you inspect all equipment before use and daily thereafter. Check for cracks or bent parts, connectors, bracing, guard rails, access ladders, and especially footings. Never use any equipment that has been damaged. Be sure the scaffold is not overloaded.
- Inspections should be conducted by a competent person and documented.
- Never ride a rolling scaffold and be sure to lock or block the wheels after moving it.
- The working platform height of a rolling scaffold must not exceed 4 times the minimum base dimension.
- Keep platforms and the area around the scaffold free of debris and unnecessary material or other hazards that could cause you to trip or fall.
- Be sure to plank all work areas and only use lumber that is graded as scaffold plank.

- Never allow unsupported ends of planks to extend an unsafe distance beyond supports and be sure all planks are secured so they cannot be dislodged.
- Fasten all braces securely and do not mismatch side braces.
- Provide overhead protection if there is a hazard above the work area.
- Use toeboards where scaffold is greater than 10’ in height, and workers and/or points of building access are below.
- Don't use scaffolds near power lines.
- Make sure you have safe ladder access. Cross bracing or guardrails must never be used as a means of access.

CRANES & RIGGING

General Crane

- Only certified operators will be permitted to operate cranes.
- Operators are responsible for the exercise of caution necessary for the safe operation of their equipment.
- Operators shall immediately report unsafe conditions, including defects in the machine, to their supervisor.
- Operators shall not permit anyone to ride the hook or load.
- When the operator leaves his machine or repairs are being made, it is his/her responsibility to set the brakes, secure the boom, take the machine out of gear and turn off the engine.
- When making a lift, the operator will take operational signals only from the signal person authorized to give them. An emergency stop signal given by anyone will be acted upon by the operator.
- It is the joint responsibility of the operator and the qualified riggers to see that all hitches are secure and that all loose material is removed before the loads are lifted. The material should not be hoisted until it is ready to be put into place.
- Lifting hooks with proper latches shall be used on all operations where loads are being handled. Suspended loads shall be controlled by tag lines whenever necessary.
- Booms shall be equipped with a boom angle indicator and a device designed and constructed to prevent the boom from falling over backward. Boom heads, load blocks, and hooks shall be painted with high visibility paint.
- Where necessary to increase stability, cranes, except crawler cranes and boom type excavators, shall be equipped with outriggers of design and strength suitable for the work being performed.
- Hooks, wire rope, bearings, gears, friction clutches, chain drives, and other parts subject to wear must be inspected at regular intervals and repaired or replaced as required. The contractor shall maintain records of such inspections and resultant action taken.
- A thorough annual inspection of the hoisting machinery shall be made by a competent person or by a government or private agency recognized by the U.S. Department of Labor-OSHA. A record of these inspections must be maintained in office files.
- Crawler, truck, and locomotive cranes must be inspected monthly. Certification of the performance of these inspections is required.
- A designated competent person shall inspect machinery and equipment prior to each use, and during use, to make sure it is in safe operating condition.

- Rated load capacities, recommended operating speeds, special hazard warnings, or instructions shall be placed on all equipment so that it is visible to the operator while he/she is at his/her control station. Also, post hand signals for crane and derrick operators at the job site and on the equipment. Signals prescribed by applicable ANSI standards shall be used.
- Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded to prevent employees from being struck or crushed by the crane.
- When loads are being hoisted, avoid walking under the lift or permitting an employee to be exposed to the swing of the lift.

Rigging

- Only qualified riggers and signal persons shall be used.
- Appoint one member of the crew to act as a signal person and instruct the crane operator not to accept signals from anyone else.
- The signal person must not order a move until getting an "all ready" from each crew member. Each worker, in turn, must be in the clear before giving an "all ready" to the signal person.
- If you must hold on to the chain, sling, choker, etc. to maintain tension, be sure your hands and feet are out of the way of pinch points before giving an "all ready."
- If it isn't possible to release the chain, sling, or choker, make sure your hand is clear of pinch points. Keep your hand far enough away so that a frayed wire or splinter on the chain can't catch your glove and jerk your hand into a pinch point.
- It's almost impossible to position the hook exactly over the load center, so watch out for a swing or roll. Anticipate the direction of the swing or roll and work away from it.
- Never place yourself between material, equipment, or other stationary objects and the load.
- Stay away from stacked material that may be knocked over by a swinging load.
- Never get under a suspended load, and keep out from under the crane's boom, too.
- When it's necessary to guide a load, use a tag line or hook. If you must walk with a load, keep it as close to the ground as possible.
- Beforehand, look over the spot where the load is to land. Remove unnecessary blocks or the objects that might fly up when struck by the load. When lowering or setting a load, keep your feet and all other parts of your body out from under. Set the load down easily and slowly. Then, if it rolls on the blocking, it will shift slowly, and you'll be able to get away.

FORKLIFTS & AERIAL LIFTS

Forklifts

- A trained and certified operator should only operate a forklift. Never let someone operate a forklift that is not certified to operate a forklift. Forklift certification is good for no longer than 3 years; retraining is then required.
- Retraining is also required after an incident or accident, and/or when the worker is to operate a new piece of equipment.
- Inspect prior to use. Check the equipment for any broken or cracked weld-points. Be sure the forks are spaced apart equally and free from cracks. Check the tires for proper inflation and the fuel and hydraulic fluid levels.

- Some forklifts are battery-powered; others use gasoline or diesel, and some use propane. If the forklift is battery powered, make sure workers DO NOT SMOKE in the charging area. If the lift is propane powered, make sure to change the fuel cylinder outside, away from any buildings, and remember NO SMOKING is the rule. As always, NO SMOKING when refueling with gasoline or diesel.
- Avoid using gasoline or diesel powered forklifts indoors.
- Use the forklift only as it was designed. No workers are allowed to ride in or on the forklift—only the operator.
- Personnel platforms used to raise workers must be engineered and designed to be used with the specific forklift model. This requires manufacturer approval. Also, the workers in the personnel platform must always wear fall protection.
- Personnel platforms must be securely attached to the forks.
- The forklift shall not be moved horizontally while the platform is occupied.

Aerial Lifts

- Lift controls shall be tested each day before use to determine that such controls are in safe working condition.
- Only qualified persons shall operate an aerial lift.
- Using an adjacent pole, structure, or equipment to tie off to while working from an aerial lift shall not be permitted.
- Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
- A harness shall be worn, and a short lanyard attached to the manufacturers engineered anchor point when working from an aerial lift.
- Boom and basket load limits specified by the manufacturer shall not be exceeded.
- The brakes shall be set, and when outriggers are used, they shall be positioned on pads or a solid surface.
- Wheel chocks shall be installed before using an aerial lift on an incline provided, they can be safely installed.
- An aerial lift truck shall not be moved when the boom is elevated in a working position with men in the basket, except for equipment that is specifically designed for this type of operation in accordance with the provisions of 1926.556(a)(1) and (2).
- Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.

TRENCH & EXCAVATIONS

- Cave in protection must be provided in all trenches and excavations 5 feet deep or greater.
- Evaluation of shoring, sloping, or other means to eliminate the potential for cave-ins must be performed prior to the start of work by a competent person who is knowledgeable in the areas of soil analysis, the use of protective systems, and the requirements of applicable standards and regulations.
- Work in an excavation or trench must always be under the immediate supervision of a competent person.
- Excavated material, tools and equipment must be placed at least 2 feet from the edge of any trench or excavation.
- Adequate precautions must be taken to ensure that vibrating equipment and vehicular traffic do not cause a cave-in.
- Always consider groundwater seepage as a potential cause of the collapse of any trench or excavation.
- Safe access/egress must be provided (ladder, ramp, etc.). The access equipment must be securely fastened in place. Access must be provided and located so no worker must laterally travel more than 25 feet to access the egress point in any trench or excavation deeper than four feet.
- There are specific standards for the materials used for shoring, and for the angles of slopes used to protect workers. All the protection methods depend on the composition of the soil.
- If you aren't certain that the shoring, benching, or sloping is adequate, stay out of the excavation. Entering an unprotected excavation or trench may be the last thing you ever do.

TOOLS

Hand & Power Tools

- Only tools in safe working condition should be used.
- Inspect your tools daily to ensure that they are in proper working order. Damaged or defective tools must be immediately removed from service until repaired or replaced.
- Power saws, grinders, and other power tools must have proper guards in place at all times.
- Power tools should be hoisted or lowered by a hand line, never by the cord or hose.
- Cords and hoses must be kept out of walkways and off stairs and ladders. They must be placed so as not to create a tripping hazard for employees or to be subjected to damage from equipment or materials.
- Electrically powered tools and equipment must be grounded at all times when in use.
- Hand tools should be used for their intended purpose only. Unauthorized attachments should not exceed the design capacity of hand tools.
- When using the tool listed below or working near others using such tools, you must use personal protective equipment. If you have questions about the protective equipment or safety rules, ask your foreman.
- Use GFCI protection at all times.

Pneumatic Tools

- Eye protection is required, and face protection is recommended for employees working with pneumatic tools.
- Working with noisy tools such as jackhammers requires the proper, effective use of hearing protection.
- Pneumatic tools are to be fastened securely to the hose to prevent them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool will serve as an added safeguard.
- A safety clip or retainer must be installed to prevent attachments, such as chisels on a chipping hammer, from being unintentionally shot from the barrel.
- Screens must be set up to protect nearby workers from being struck by flying fragments around chippers, riveting guns, staplers, or air drills.
- Compressed air guns should never be pointed toward anyone. Users should never "dead-end" it against themselves or anyone else.

Powder-Actuated Tools

- Powder-actuated tools must be operated only by specially trained employees.
- These tools should not be used in an explosive or flammable atmosphere.
- Before using the tool, the worker should inspect it to determine that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions.
- The tool should never be pointed at anybody.
- The tool should not be loaded unless it is to be used immediately. A loaded tool should not be left unattended.
- Powder actuated strips with unspent loads shall never be left unattended.
- Powder actuated strips with unspent loads shall be stored in their original container, and secured from unauthorized access.
- Powder actuated strips with unspent loads shall not be discarded with general trash or debris. Refer to manufacturers documentation, as well as local ordinances with regards to hazardous waste disposal.
- In the event of a misfire, wait 30 sectionds before releasing the tool from its depressed condition. Then release the tool from the work surface without changing the direction the tool is pointing. Manually advance the strip one cartridge, and use the remaining shots.
- Misfired charges must not be used again.
- Hands should be kept clear of the barrel's end.
- To prevent the tool from firing accidentally, two separate motions are required for firing: one to bring the tool into position, and another to pull the trigger. The tools must not be able to operate until they are pressed against the work surface with a force of at least 5 pounds greater than the total weight of the tool.

Hydraulic Power Tools

- The fluid used in hydraulic power tools must be an approved fire-resistant fluid and must retain its operating characteristics at the most extreme temperatures to which it will be exposed.

- The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters, and other fittings must not be exceeded.

Jacks

- All jacks - lever and ratchet jacks, screw jacks, and hydraulic jacks - must have a device that stops them from jacking up too high.
- The manufacturer's load limit must be permanently marked in a prominent place on the jack and should not be exceeded.
- A jack should never be used to support a lifted load. Once the load has been lifted, it must immediately be blocked up.
- Use wooden blocking under the base if necessary, to make the jack level and secure. If the lift surface is metal, place a 1-inch-thick hardwood block or equivalent between it and the metal jack head to reduce the danger of slippage.

To set up a jack, make certain of the following:

- the base rests on a firm level surface
- the jack is correctly centered
- the jack head bears against a level surface
- the lift force is applied evenly

Proper maintenance of jacks is essential for safety. All jacks must be inspected, at a minimum, every six months. If a jack is used outside of a controlled environment (warehouse, shop, etc.), it should be inspected prior to being sent out and after being returned. If a jack is subjected to an abnormal load or shock, it should be thoroughly examined to make sure it has not been damaged.

Hydraulic jacks exposed to freezing temperatures must be filled with adequate antifreeze liquid.

ELECTRICAL

This section is designed to prevent injuries and incidents related to worker exposure to electrical energy. Exercise caution when working with and around electricity.

Electricity flows through a wire or conductor, just as water flows through a hose. A conductor that forms a path from the source of electricity to tools and equipment, and back to the source is called a circuit or loop. When the loop is closed, the path along the conductor is unobstructed and the circuit is complete, and electricity can then be distributed to tools and other equipment on that loop.

Electrical current is always looking for the path of least resistance back to ground. Shocks and electrocution occur when the human body becomes part of that loop, and our bodies become the quickest path to ground for current to flow.

Below are steps to minimize exposure to hazardous electrical current.

Isolate

- Regularly inspect temporary and flexible cords for visible damage. Cords with damage to the outer jacket, damaged insulation around wires, missing ground prongs, spliced cords, and cords

exposed to abnormal conditions should be removed from service until they can be repaired by a qualified electrician.

- Electrical tape or duct tape are NOT acceptable means of repair, as that material will not restore the original strength, flexibility, or insulation characteristics of that conductor.
- Use only 3-wire type extension cords designed for hard or junior hard service. (Look for any of the following letters imprinted on the casing: S, ST, SO, STO, SJ, SJT, SJO, SJTO.)
- Verify conductors are properly protected by means of outlet covers, intact knock outs, breaker panels, blanks, or other “dead front” devices.
- Utilize insulation barriers to prevent physical contact with conductors.

Distance

- Always maintain a minimum of 10’ from any energized overhead power lines when erecting or using scaffolding, using a ladder, or are in a situation where tools or material could potentially contact a power line. Always maintain a minimum of 20’ from any energized overhead power line when operating a crane nearby.
    - Refer to TABLE A in Subpart CC of the CFR 1926 Safety and Health Regulations for Construction for additional information on minimum distances required.
- Elevate cords when possible, including extension cords, power cords for tools, temporary light strings, portable distribution stations or “Spider Boxes”.
- Do not suspend cords by conductive material, such as nails, screws, or wire.
- Do not allow cords to come into contact with sharp edges, such as metal frame track or metal door sweeps.
- Do not allow cords to be pinched or crushed by vehicle or equipment traffic, or in closed doors or windows.

Control

- Deenergize and visibly ground electrical distribution and transmission lines.
- Utilize Ground Fault Circuit Interrupters (GFCI) on all temporary circuits.
    - Portable GFCI’s must be used on all circuits that are not otherwise protected by nonportable GFCI’s such as wall receptacle GFCI’s
    - If GCFIs are unavailable, an Assured Equipment Grounding Conductor Program (AEGCP) must be utilized.
- Implement a Lock Out/Tag Out (LOTO) program.
    - LOTO practices are a means to control hazardous energy (electrical, mechanical, hydraulic, etc.) at its source, so that it cannot be reintroduced during servicing or repair. A lockout device, such as a padlock or other specialized lockout device, will be used to physically isolate an energy source, such as circuit breaker, valve, wall switch, or disconnect switch, from the system or equipment that uses it. The tagout device is utilized to communicate information regarding why the equipment is locked out, and the individual who is responsible for installing and removing the tag.

FIRE PREVENTION

Hazards

Fire and explosion hazards can exist in almost any work area. Potential hazards include:

- Improper operation or maintenance of gas-fired equipment.
- Improper storage or use of flammable liquids.
- Smoking in prohibited areas.
- Accumulation of trash.
- Unauthorized Hot Work operations.

Hazard Control

Elimination of Ignition Sources

All nonessential ignition sources must be eliminated where flammable liquids are used or stored. The following is a list of some of the more common potential ignition sources:

- Open flames, such as cutting and welding torches, furnaces, matches, and heaters should be kept away from flammable liquids operations.
- Cutting or welding on flammable liquids equipment, such as tanks, drums, and pipes, should not be performed unless the equipment has been properly emptied and purged with a neutral gas such as nitrogen.
- Potential sources of ignition such as DC motors, switches, and circuit breakers should be eliminated where flammable liquids are handled or stored. Only approved explosion-proof devices should be used in these areas.
- Mechanical sparks can be produced as a result of friction. Only non-sparking tools should be used in areas where flammable liquids are stored or handled.
- Static sparks are generated as a result of electron transfer between two contacting surfaces. The electrons can discharge in a small volume, raising the temperature to above the ignition temperature. Every effort should be made to eliminate the possibility of static sparks. Also, proper bonding and grounding procedures must be followed when flammable liquids are transferred or transported.

Removal of Incompatibles

Materials that can contribute to a flammable liquid fire should not be stored with flammable liquids. Examples are oxidizers and organic peroxides, which, on decomposition, can generate large amounts of oxygen.

Control of Flammable Gases

Generally, flammable gases pose the same type of fire hazards as flammable liquids and their vapors. Many of the safeguards for flammable liquids should also be applied to flammable gases. Flammable gas could produce toxic combustion products, and other properties such as toxicity, reactivity, and corrosivity also must be taken into account.

Fire Extinguishers

A portable fire extinguisher is a "first aid" device and is very effective for use on small fires, and as a means to clear fire from exit routes in the event of a fire emergency. The use of fire extinguisher that matches the class of fire, by a person who is well trained, can save both lives and property. Portable fire extinguishers must be installed in workplaces regardless of other firefighting measures. The successful performance of a fire extinguisher in a fire situation largely depends on its proper selection, inspection, maintenance, and distribution.

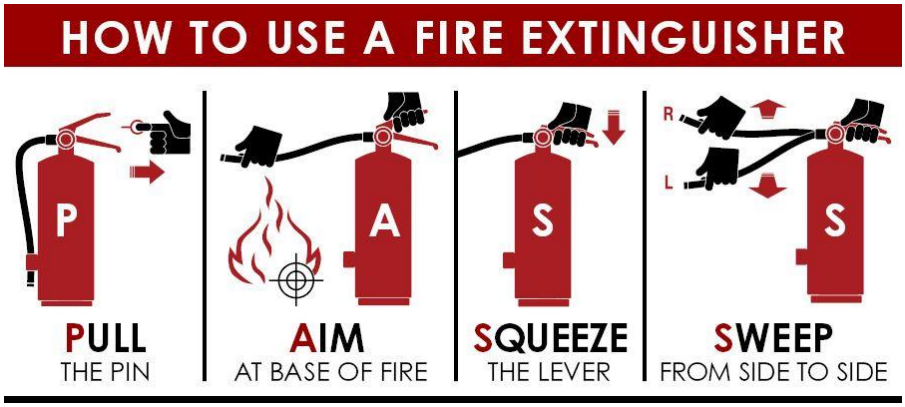
Classification of Fires and Selection of Extinguishers

Fires are classified into four general categories depending on the type of material or fuel involved. The type of fire determines the type of extinguisher that should be used to extinguish it.

- Class A fires involve materials such as wood, paper, and cloth that produce glowing embers or char.
- Class B fires involve flammable gases, liquids, and greases, including gasoline and most hydrocarbon liquids, which must be vaporized for combustion to occur.
- Class C fires involve fires in live electrical equipment or materials near electrically powered equipment.
- Class D fires involve combustible metals, such as magnesium, zirconium, potassium, and sodium.

Extinguishers will be selected according to the potential fire hazard, the construction and occupancy of facilities, hazard to be protected, and other factors pertinent to the situation.

Employees should be trained to use the P.A.S.S. method to operate a fire extinghisher:



WELDING & BURNING OPERATIONS

Welding and burning operations have a high potential for personal injuries and fires. When doing either, you must follow these precautions:

- A hot work permit must be completed prior to the start of any hot work activity. The permit must be posted and available for review within the area where the hot work will be taking place.

- An individual shall be assigned to act as a fire watch. This person must be trained to properly operate portable fire extinguishers, and methods for activating any fire alarm system. Personnel engaged as the fire watch cannot perform other duties, as their sole duty is to watch for and respond to fires that occur during hot work, for a minimum of 60 minutes after hot work is complete.
- Before starting to burn or weld, you must inspect your work area to ensure that sparks or molten metal won't fall on combustible materials, or into adjacent work areas. Fire blankets must be used to prevent hot material from falling on persons or combustible materials
- When welding near others, they must be protected from the arc rays by noncombustible screens or must wear adequate eye protection. If you can't provide the necessary safeguards, check with your supervisor.
- Ensure ventilation is adequate to prevent exposure to fumes and gasses.
- Do not weld or burn in a hazardous area without obtaining written authorization from the responsible authority.
- Make certain that suitable fire extinguishing equipment is available in your work area.
- Be aware of the locations of fire alarms and emergency exits.
- Inspect equipment for excessive wear and tear, such as frayed wires or leaking hoses.
- Utilize appropriate PPE, including, but not limited to eye protection with suitable filter lenses and impact resistance ratings, flame resistant gloves and outerwear, and leather workboots.
- Keep all welding leads and burning hoses off floors, walkways, and stairways.
- Never weld or burn on barrels, tanks, piping, or other systems, which may have contained either combustible or unknown products without first obtaining approval from your Safety Representative or other responsible authority.
- The frames of all welding machines must be grounded (except reverse polarity types).
- Ensure ventilation is adequate to prevent exposure to fumes and gasses.
- Do not use matches to light torches. Spark igniters must be used. Torches must not be used to light cigarettes, etc.
- When a crescent or special wrench is required to operate the acetylene cylinder valve, the wrench must be kept in position on the valve.

Storage & Handling of Cylinders

- The protective caps must be kept on all cylinders, not in actual use.
- Keep cylinder valves closed except when in use.
- All cylinders must be properly secured to prevent tipping.
- Do not lift cylinders by the caps.
- Cylinders must not be taken into confined spaces.
- Group and store compressed gasses based on their hazard class. Provide adequate space or segregation, and post conspicuous signage in the area.
- Cylinders should not be exposed to temeratures above 125° F.
- Cylinders should be regularly inspected for exterior corrosion, denting, bulging, gouges, digs, or leaks, and be removed from service as needed.

CONCRETE & MASONRY

There are some unique safety hazards associated with concrete and masonry construction. Here are a few to always remember:

- Do not place loads on any portion of a concrete structure until it has been determined that the structure can support those loads. This determination must be based on information provided by someone who is qualified in structural design and engineering.
- All protruding reinforcing steel, onto and into which someone could fall, must be guarded to eliminate the hazard of impalement. Square caps, channels, or troughs should be used. Mushroom caps are not appropriate for use as impalement protection; they are there primarily to prevent scratch injuries.
- Workers are not permitted to work under concrete buckets or hoppers while they are being raised or lowered into position.
- Workers are not permitted to position themselves between concrete buckets or hoppers and an adjacent structure, such as a building or piece of equipment.
- Formwork must be designed, fabricated, erected, supported, and maintained so that it can support all loads, vertical & horizontal, that may be applied to it.
- If a masonry wall over 8 feet high is not adequately supported by itself or another structure, then it must be braced to prevent it from tipping over or collapsing.
- A limited access zone must be established before starting to construct a masonry wall. The zone must be equal to the height of the wall plus four feet, run the entire length of the wall and be on the un-scaffolded side of the wall. Only those employees who are actively engaged in constructing the wall may enter the zone. The limited access zone must remain until the wall is adequately supported to prevent overturning or collapse.

VEHICLES AND MOBILE EQUIPMENT

- Train workers to stay clear of backing and turning vehicles and equipment with rotating cabs.
- When possible, designated equipment routes should be established away from foot traffic.
- Workers must wear high visibility garments when working around equipment.
- Be sure that all vehicles have fully operational braking systems and brake lights.
- Ensure equipment on site is equipped with rollover protective structures (ROPS), as needed.
- Maintain back-up alarms for equipment with a limited rear view or use someone to help guide them back.
- Spotters, positioned in the drivers line of site, should be utilized in high traffic areas.
- Workers may only ride in designated passenger areas equipped with seatbelts. Riding in beds of pick up trucks, and on equipment fenders and steps is prohibited.
- Operators must be trained, qualified, and, depending on the equipment, certified. Operator training records must be reviewed prior to the start of their work.
- Operators should make adjustments to seat, mirrors, etc. prior to operating the equipment
- Never leave unattended equipment running.
- When equipment is turned off, keys must be secured and parking brake set.
- Block up the raised bed when inspecting or repairing dump trucks.

- Maintain at least a 10-foot clearance from overhead power lines when operating equipment.
- Know the rated capacity of the crane and its attachments, and use it accordingly.
- Ensure the stability of the crane.
- Use a tag line to control materials moved by a crane.

CONFINED SPACES

A confined space is a space that meets all three of these requirements:

1. Is large enough or so configured that an employee can enter and perform work.
2. Has limited or restricted means for entry or exit.
3. Is not designed for continuous employee occupancy.

Permit required confined space is a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere.
- Contains a material that has the potential for engulfing an entrant.
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly covering walls or by a floor, which slopes downward and tapers to a smaller cross-section.
- Contains any other recognized serious safety or health hazard.

Confined spaces must only be entered after evaluation by a competent person. All entrants are required to be trained. Permit required confined spaces must be planned out and rescue provided. Qualified and trained workers should only undertake all of these tasks.

MATERIAL STORAGE & HANDLING

- All material must be properly stacked and secured to prevent sliding, falling, or collapse. Aisles, stairs, passageways must be kept clear at all times.
- Protruding nails must be bent or pulled when stripping forms or uncrating materials.
- Pipe, conduit and bar stock should be stored in racks or stacked and blocked to prevent movement.
- Materials or scrap should never be dropped from elevated levels without trash chutes.
- Stored materials must not block any exit from a building.

MANUAL LIFTING (BACK SAFETY)

- Lifting equipment, such as forklifts, cranes, lifting slings, hoists, jacks, skates, and hand trucks, must be used to lift heavy, awkward, or over sized pieces of material. This equipment will be provided to workers, as needed. When the use of lifting equipment is impractical or impossible, or a load cannot be broken down into smaller units, two man lifts should be used.
- During a manual lift, follow these safe lifting techniques:
    - Stand or kneel close to the object.
    - If the object has handholds, use them.
    - With one knee resting on the floor, tighten your core muscles, and lift the object between your legs. Hold the object close to your body. Rest the object on your knee as you prepare to stand.

- As you stand, use your leg muscles, not your back. Do not twist while lifting; step to the side if you need to turn.

ERGONOMICS

Ergonomics is a principle concerned with safely and efficiently fitting a person to a job. The intention is to protect workers from musculoskeletal disorders (MSDs), which typically manifest as injuries to soft tissues: muscles, nerves, blood vessels, ligaments, and tendons. These injuries can be caused by lifting heavy items, bending, reaching overhead, pushing or pulling objects, maintaining an awkward body posture, and performing repetitive motions.

MSD Prevention

Working conditions, including but not limited to work stations, tools, environment, material, frequency of movements, distance an object is to be moved, both horizontally and vertically, and quality of the grasp or handhold, must be assessed prior to the start of work to identify the potential for a MSD to occur. Work stations, processes, and company policies will be continually reviewed by supervision in order to identify areas where ergonomic safety can be improved.

If a worker feels they cannot perform a specific task with the tools and processes provided, they must report this to their supervisor before continuing.

Injury Reporting

In the event of an injury suspected to be caused by ergonomic contributing factors, an Injury Accident Investigation Report must be completed, with the involvement of both the supervisor and the affected employee. Any findings from that investigation should be incorporated into future safe work practices whenever possible.

VIOLENCE PREVENTION

The company recognizes that workplace violence is an occupational hazard and that a proactive approach in preventing workplace violence is necessary.

Policy

It is the policy of the company to provide a place of employment that is free from recognized hazards that cause or are likely to cause death or serious physical harm to employees or the public. The company is committed to maintaining a safe, healthful, and efficient working environment where employees and the public are free from the threat of workplace violence. When these workplace violence hazards are recognized and identified, then proper training and appropriate security measures will be implemented.

Prohibited Behavior

Prohibited behaviors are those behaviors that:

- Threaten the safety of an employee and/or customer.

- Affect the health, life, or well-being of an employee and/or customer.
- Result in damage to the company, employee, or public property (excluding vehicle and equipment accidents).

Such acts include, but are not limited to:

- Threatening, intimidating, coercing, harassing, or assaulting an employee or the public.
- Sexually harassing an employee or the public.
- Allowing unauthorized people access to buildings without management permission.
- Using, duplicating, or possessing keys to buildings or offices within the building without authorization.
- Damaging or attempting to damage the property of the company, an employee, or the public.
- Carrying weapons (concealed or exposed) on company property.

Reporting & Investigation

Any employee (including a supervisor or manager) who has been threatened, is a victim of a violent act, witnesses any threats or violent acts, or learns of any threats or violent acts, is to report immediately such activity to their supervisor or the HR Manager. Each report will be promptly evaluated and investigated by the management to determine what follow-up actions are necessary. Management has the authority and responsibility to request law enforcement intervention if it is thought to be necessary.

Confidentiality

Information about an incident or threat will be disclosed only on a need-to-know basis so that a fair and thorough investigation can be conducted, and appropriate corrective action can be taken. Every effort will be made to ensure the safety and privacy of the individuals involved.

Discipline

An employee who engages in prohibited behavior will be subject to appropriate disciplinary action, as determined by the findings of the investigation. Such discipline may include warnings, demotion, suspension, or immediate dismissal. In addition, certain actions may cause the employee to be held legally liable under state or federal law.

Retaliation

Episodes of workplace violence can only be eliminated if employees are willing and able to report threats, violent acts, and other unsafe conditions. To encourage employees to come forward without the fear of retaliation, prompt investigation of all complaints of retaliation, and enforcement of appropriate disciplinary action, up to and including dismissal.

Counseling

Dealing with or being exposed to a violent or abusive situation can be emotionally unsettling. Appropriate counseling will be provided to reduce tension and stress. Follow-up counseling services may be provided and arranged by employee's supervisors as requested to affected employees. If employees

prefer external counseling for emotional and/or family support, they should be encouraged to contact the HR Manager. In all instances, confidentiality is certain.

Violence Prevention Assessment

Evaluate the physical layout of the facility. Check for and consider the following:

- External lighting to cover walkways and parking areas.
- Controlled access to all building entry points.
- Video surveillance cameras at critical points.
- Procedures for allowing access to the facility.
- Number/gender of employees on-site between 10 p.m. and 5 a.m.
- Cash transactions conducted with the public during working hours.
- Safe or lockbox on the premises for temporary cash deposits.
- Security history of the establishment and surrounding areas.
- Physical security measures and barriers.
- Work practices implemented to increase security.
- Security training for employees.
- Procedures to limit stress caused by workplace changes.
- Application of an Employee Assistance Program.
- Termination procedures.
- Pre-hire screening procedures.

Emergency Action Plan

If an emergency occurred on the site, employees should know how to handle certain situations. This plan will evolve as the construction progresses on the site.

Basic Procedures

- **CREATE ROLES AND ESTABLISH AN INCIDENT CHAIN OF COMMAND** – Roles, such as Incident Commander or Communication Coordinator, should be created to delegate duties in an emergency situation. A chain of command should be established to allow an Incident Commander to direct and control the actions of all personnel on the incident, and avoid confusion by requiring that orders flow from supervisors.
- **PREPARE EMERGENCY KITS** – The U.S. Department of Homeland Security recommends the following contents for basic disaster supply kits:
    - Water (one gallon per person for several days)
    - Food (non-perishable)
    - Battery-powered or hand crank radio
    - NOAA Weather Radio
    - Flashlight
    - First aid kit
    - Extra batteries
    - Whistle
    - Dust mask
    - Plastic sheeting, scissors, and duct tape to shelter in place.
    - Moist towelettes, garbage bags, and plastic ties
    - Wrench or pliers
    - Manual can opener
    - Local maps
    - Cell phone with chargers
    - Contact information for company supervisors.
- **DESIGNATE SHELTERS** – These should be in the basement, or in a small, interior, windowless room on the lowest level of the structure.
- **ESTABLISH MEANS TO ALERT WORKERS** – Use an air horn or similar emergency siren to alert all workers on the project of the emergency if evacuation of the site is needed. Workers will be trained during the safety orientation to go to proper muster points when they hear the emergency signal.
- **PREPARE EMPLOYEES TO CALL 911 –** Workers should be prepared with jobsite address and specific emergency location details to relay to first responders.
- **PREPARE EMPLOYEES TO GIVE FIRST AID**—Workers should be prepared to provide first aid, at the level to which they are trained, to the injured as soon as possible.
- **PREPARE TO PROTECT THE ACCIDENT SCENE**—Protect the accident scene from continuing or further hazards—for example, traffic, operating machinery, fire, or live wires. Panels, valves, and switches for terminating hazardous energy should be identified on site maps.
- **PREPARE TO GUIDE THE AMBULANCE**—Have a worker meet and direct the ambulance to the accident scene.

- **PREPARE TO ADVISE MANAGEMENT**—Inform any members of senior management not currently part of the Incident Chain of Command. They can then contact relatives, notify authorities, and start procedures for reporting and investigating the accident.
- **PREPARE TO ISOLATE THE ACCIDENT SCENE**—Implement provisions to barricade, rope off or post a guard at the scene to make sure that nothing is moved or changed until the authorities have completed their investigation.
- **PREPARE TO COLLECT INFORMATION** – Have the Injury Accident Investigation Report, the Non-Injury Near Miss Investigation Report, the Property Damage Incident Investigation Report, and the Incident Witness Statement Form readily available to complete as soon as possible.

Medical Emergencies

1. Call 911.
2. Do not attempt to move an injured person.
3. Send someone to meet responding personnel at building/project entrance and guide them to the emergency location.
4. Provide First Aid to the level to which you are trained.
5. Stay with the injured person until first responders arrive.

After the emergency:

1. Contact the appropriate company personnel.
2. Remain on site to assist the investigating officer with pertinent information about the incident.
3. Complete the Injury Accident Investigation Report found in Section 30 of this program.

Fire Emergencies

In the event of a fire:

1. Activate the fire alarm system (alarm pull station, air horn, etc.).
2. Walk to the nearest stairwell/exit and evacuate the building. DO NOT USE ELEVATORS.
3. Call 911.
4. Use a portable fire extinguisher to douse very small fires only.
5. If it is a large fire, do not try to extinguish it. Utilize the fire extinguisher only to douse any small fires obstructing your evacuation route.
    - Follow the PASS method when using a fire extinguisher.
        - Pull the pin.
        - Aim at the base of the fire.
        - Squeeze the handle.
        - Sweep the nozzle from side to side.
6. If safe to do so, turn off any gas being used in the building.
7. Go to the designated muster point and await instruction from incident managers or first responders.

Chemical Emergencies

In the event of a chemical spill:

Large Spills

1. Isolate the spill and notify personnel in the room/area of the spill to evacuate immediately.
2. Determine the identity of the chemical spilled and consult the Safety Data Sheet to determine potential hazards and controls.
3. Provide first aid or other assistance to workers in the area.
4. Call 911.

Small Spills

1. Isolate the spill and alert personnel in the area.
2. Determine the identity of the chemical spilled and consult the Safety Data Sheet to determine potential hazards and controls.
3. Don appropriate Personal Protective Equipment, as identified in the Safety Data Sheet.
4. If the spill is flammable, remove ignition sources and use plastic or nonmetallic instruments.
5. Use absorbent or neutralizing agent to contain the spill, applied from the outside of the spill inward.
6. Refer to the Safety Data Sheet of the spilled chemical, as well as that of any cleaning agent used, to identify any special disposal considerations.
7. Properly dispose of waste.

Possible Contamination of Clothing

1. If workers may have been exposed to sufficient amounts of a spilled chemical to contaminate their clothing, call 911.
2. Direct those workers to report to and remain in one safe location. This will decrease the chance of contaminating other personnel and other areas.
3. Remove contaminated clothing as quickly as possible.
    - Any clothing that has to be pulled over your head should be cut off instead of being pulled over your head.
    - If you are helping other people remove their clothing, try to avoid touching any contaminated areas, and remove the clothing as quickly as possible.
4. As quickly as possible, wash any chemicals from your skin with large amounts of soap and water.
5. If eyes are burning or vision is blurred, rinse your eyes with plain water for 10-15 minutes. If necessary, remove contact lenses. Dispose of them along with the contaminated clothing, even if they are not disposable contacts. Do not put them back in your eyes.
6. Place contaminated clothing, and anything that may have touched the contaminated clothing, in a sealed bag. Place that bag into another bag.
7. Tell emergency personnel what you did with your clothes. They will arrange for further disposal.

Lightning

1. Monitor weather forecasts and notify workers when the potential for thunderstorms/lightning activity is present.
    - Utilize websites and smartphone applications to monitor weather forecasts and alerts. Examples of weather monitoring apps found on the Apple App Store or Google Play Store:
        - Weather – The Weather Channel
        - Weather Underground: Local Map
        - AccuWeather: Weather Alerts
        - National Weather Service (NWS) – **No official NWS app.**
2. When lightning is within 10 miles of the jobsite, activate the alarm and stop all outdoor work.
3. Direct workers to designated shelters until it is safe to return to work.
    - These should be fully enclosed indoor spaces, and never outdoors.
4. Continue to monitor for lightning. Work should not resume until at least 30 minutes after the last lightning strike or the last sound of thunder.
5. If a worker has been struck by lightning, call 911 immediately. A lightning strike victim will not carry an electric charge. It is safe to move the worker to a safer location, and for responders to begin cardiopulmonary resuscitation.

Tornado Watches & Warnings

When a tornado watch is issued:

1. Alert supervisors of potential incoming weather.
2. Lower crane booms and aerial equipment. Leave tower cranes to weathervane.
3. Secure loose material, including trash receptacles and portable toilets.
4. Take down temporary fencing or structures, if possible.
5. Monitor weather services for additional information.
    - Examples of weather monitoring apps found on the Apple App Store or Google Play Store:
        - Weather – The Weather Channel
        - Weather Underground: Local Map
        - AccuWeather: Weather Alerts
    - National Weather Service (NWS) – **No official NWS app.**
6. Prepare to take shelter.

When a tornado warning is issued:

1. Activate alert system (air horn, siren, etc).
2. Seek shelter in a steel frame or reinforced concrete building.
    - Go to the basement, or interior hallway on the lowest level. Closets or bathrooms in the center of the building offer the greatest protection.
    - Always stay away from the windows, exterior walls, and exterior doors.
    - Avoid auditoriums, gymnasiums, and large lecture-type rooms.
3. Prepare a roster and conduct a head count as people arrive in the shelter.
4. Do not use matches, candles, or lighters while in the tornado shelter.

5. If you are in a vehicle, do not try to outrun a tornado. Leave your vehicle immediately. If you cannot find shelter in a building, lie flat in a ditch, culvert, or the lowest area. Cover the back of your head with your hands.

After the tornado passes:

1. Check for injuries and provide medical attention to the level at which you are trained, if needed.
2. Continue to monitor current weather conditions and storm updates.
   - Wait at least two minutes past the tornado warning expiration time to see if another warning is issued before leaving the shelter.
3. When leaving the shelter, watch for downed power lines, broken gas lines, broken glass, etc.
   - Do not touch downed power lines or objects in contact with downed power lines.

Earthquakes

1. Stay calm. Don't panic. Stay where you are. If outside, stay outside. If inside, stay inside. Most injuries occur as people are entering or leaving buildings.
2. If an earthquake strikes while you are indoors:
   - Take cover under a desk, table, bench, or against an inside wall or in an interior doorway. Stay away from windows and exterior doors.
3. If you are in a high-rise building:
   - Use the stairway rather than the elevator; there may be a power failure, and you could become stuck in the elevator. Don't be surprised if fire alarms or sprinklers are activated. If you must leave the building, choose your exit carefully.
4. If you are in a moving vehicle:
   - Stop as quickly as safety permits but remain in your vehicle. Your vehicle may shake, and you are better off remaining in your vehicle until the shaking stops. Avoid stopping near or under buildings, overpasses and utility wires.
5. If you are outside:
   - Move away from buildings and utility wires. Remain in an open area until the shaking stops.
6. After an earthquake, check for injuries. Do not attempt to move a seriously injured person unless they are in immediate danger of further injury. Call 911 for assistance.
7. Don't re-enter buildings until emergency response personnel advise it is safe.
8. Be prepared for aftershocks (additional shaking)

Bomb Threat

In the event of a bomb threat or an explosive incident:

1. Engage caller in conversation.
2. Be calm and, if possible, take notes of the conversation.
3. Try to determine:
   - The exact location of the bomb.
   - The source of the threat.
   - Time of the explosion.
   - Background noises on the phone.

- Qualities of the caller's voice
- Sex and approximate age

4. If possible, have someone listen in on the call.
5. Check CALLER ID or, if supported by your network, dial *69 to determine where the call originated.
6. Call the Police by dialing 911.
7. Notify Site Management

Major Storm Preparedness

General

1. Ensure that the project office is outfitted with an emergency kit of the appropriate size for the number of employees on site.
2. Ensure a list of emergency telephone numbers and email addresses for employees and authorities is available.
3. Ensure designated shelters are well-stocked with necessary supplies.
4. Identify and avoid long-term material storage in areas prone to flooding.
5. Ensure that snow removal equipment, fuel supplies, de-watering pumps, portable heaters, and generators are prepared.
6. Ensure a spill kit is available to contain and control water in the event of a ruptured pipe, fixture, or other water intrusion event.
    a. Recommended contents include:
        i. Absorbent pads and socks
        ii. Safety goggles and gloves
        iii. Plastic bags
        iv. Container with a minimum volume of 10 gallons
7. Ensure panels, valves, and switches for terminating hazardous energy are identified on site maps.
8. Be alert to job conditions that require advanced attention or special material to reduce emergency preparation time.
9. Ensure that critical project documents are regularly backed up or otherwise protected from damage.

Winter Storm

1. Monitor weather forecasts and notify workers when the conditions for severe winter weather are present.
    a. Winter Weather Advisory: Issued for accumulations of snow, freezing rain, freezing drizzle, and sleet which will cause significant inconveniences and, if caution is not exercised, could lead to life-threatening situations.
    b. Winter Storm Watch: Alerts the public to the possibility of a blizzard, heavy snow, heavy freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 48 hours before the beginning of a Winter Storm.
    c. Winter Storm Warning: Issued when hazardous winter weather in the form of heavy snow, heavy freezing rain, or heavy sleet is imminent or occurring. Winter Storm Warnings are usually issued 12 to 24 hours before the event is expected to begin.
2. Move material and equipment susceptible to freezing indoors, if possible.

3. Flag or otherwise identify items that could be concealed by snowfall, including excavations, fire hydrants, material, and control valves.
4. Verify appropriate clearances are being maintained between portable heating devices and any combustible material.
5. Verify appropriate ventilation is available where portable heating devices are in use.
6. Verify fire extinguishers of at least 20-ABC are available near portable heating devices.
7. Monitor workers for signs of frostbite and hypothermia.
8. If necessary, direct workers to designated shelters until it is safe to return to work, or to leave the jobsite.

Tropical Storm/Hurricane

1. Monitor weather forecasts and notify workers when the conditions for severe weather, including heavy winds, lightning, rain, and potential flooding are present.
2. When lightning is within 10 miles of the jobsite:
    a. Activate the alarm and stop all outdoor work.
    b. Direct workers to designated shelters until it is safe to return to work.
3. When high winds are forecast:
    a. Secure loose material, including trash receptacles and portable toilets.
    b. Lower crane booms and aerial equipment. Leave tower cranes to weathervane.
    c. If needed, direct workers to designated shelters until it is safe to return to work.
4. When heavy rain with flood potential is forecast:
    a. Secure loose material and verify storm water pollution prevention systems are in place.
    b. Direct workers to designated shelters until it is safe to return to work, or until evacuation orders are issued, or the need to move to higher ground arises.
    c. Do not walk or drive through flood waters.
        i. Six inches of moving water can knock someone down. One foot of moving water can sweep a vehicle away.

Hurricane Preparedness Plan: 72-Hour Checklist	Complete	Initials
Confirm that all emergency contact information is current (i.e.) phone numbers, email addresses, etc.		
Verify that all erosion and sediment control devices are in place and meet adequate standards.		
Verify that all storage and office trailers are correctly tied down.		
Confirm all pumps and generators are in working order.		
Prioritize work-plan to minimize any open excavations, loose formwork.		
Schedule trash dumpsters to be emptied		
Ensure that the jobsite weather radio or other communication device, such as a smart phone is working and has back up batteries.		
Ensure there is sufficient supply of banding, clips, duct tape, tarps and sandbags as well as the manpower to accomplish preparations.		
Ensure that there is sufficient room to lay crane booms down.		

Hurricane Preparedness Plan: 48-Hour Checklist	Complete	Initials
Review 72-hour Checklist and ensure it has been completed.		
Notify owners of unsecured trailers and storage containers to anchor them or remove them from the site.		
Review all scaffolding. Remove, stack and band planks, secure scaffolding or take it down.		
Verify that all equipment is fueled, and all storage cans topped off and secure to prevent contamination of soil or wetlands.		
Begin banding loose materials.		
Review site drainage patterns and relocate materials stored in sheet lowlands.		
Ensure all hazardous materials cannot contaminate water (hurricanes can produce 20 – 30 inches of rain). Store materials high and dry.		
Remove screening on fences, signs, etc.		

Hurricane Preparedness Plan: 24-Hour Checklist	Complete	Initials
Review 48-hour checklist and ensure it has been completed.		
Project Manager shall send a draft letter directly to Upper Management for approval that notifies the subcontractors that the company is taking all necessary precautions to protect the project and per the contracts the company is notifying the subcontractors.		
Document the status of the project with pictures and store them in a dry secure place.		
Ensure all computer files are backed up and store in a dry, secure place.		
Secure all windows with plywood or tape and move all items vulnerable to water damage away from windows.		
Lower crane booms.		
Remove or anchor all trailers and storage containers that are not secured.		
Remove all non-essential barricades. Sandbag or tie-down essential barricades.		
All incomplete piping is to be capped to prevent sand infiltration.		
Tie down all materials and place a weight of some sort (rebar, block, etc.) on items that can be physically moved.		
Secure netting or covers on all trash containers that are not empty.		
Review stored materials for the potential of windblown rain damage.		
Confirm the inventory of all equipment in the office and in the field.		
Take pictures of site conditions for insurance purposes.		

Hurricane Preparedness Plan: 12-Hour Checklist	Complete	Initials
Review 24-hour checklist and ensure it has been completed.		
Turn off water, power, gas, etc. at source.		
Evacuate site.		
Take pictures of any changes to the construction site conditions for insurance purposes.		

GENERAL CHEMICAL SAFETY

Assume all chemicals are hazardous. The number of hazardous chemicals and the number of reactions between them is so large that prior knowledge of all potential hazards cannot be assumed. Use chemicals in as small quantities as possible to minimize exposure and reduce possible harmful effects. Any employees who are required to use or handle hazardous chemicals will be trained in how to use those specific chemicals safely.

The following general safety rules shall be observed when working with chemicals:

- Read and understand the Safety Data Sheets.
- Keep the work area clean and orderly.
- Use the necessary safety equipment.
- Carefully label every container with the identity of its contents and appropriate hazard warnings.
- Store incompatible chemicals in separate areas.
- Substitute less toxic materials whenever possible.
- Limit the volume of volatile or flammable material to the minimum needed for short operation periods.
- Provide means of containing the material if equipment or containers should break or spill their contents.

Task Evaluation

Each task that requires the use of chemicals should be evaluated to determine the potential hazards associated with the work. This hazard evaluation must include the chemical or combination of chemicals that will be used in work, as well as other materials that will be used near the work. If a malfunction during the operation has the potential to cause serious injury or property damage, a Safe Operational Procedure (SOP) should be prepared and followed. Operations must be planned to minimize the generation of hazardous wastes.

Chemical Storage

The separation of chemicals (solids or liquids) during storage is necessary to reduce the possibility of unwanted chemical reactions caused by accidental mixing. Explosives should be stored separately outdoors. Use either distance or barriers (e.g., trays) to isolate chemicals into the following groups:

- Flammable Liquids: store in approved flammable storage lockers.
- Acids: treat as flammable liquids
- Bases: do not store bases with acids or any other material
- Other liquids: ensure other liquids are not incompatible with any other chemical in the same storage location.
- Lips, strips, or bars are to be installed across the width of storage shelves to restrain the chemicals in case of an earthquake.
- Chemicals will not be stored in the same refrigerator used for food storage. A label on the door must appropriately identify refrigerators used for storing chemicals.

Container Labels

All containers of chemicals must be properly labeled. This includes every type of container from a 5000-gallon storage tank to a spray bottle of degreaser. The following requirements apply:

- All containers will have the appropriate label, tag, or marking prominently displayed that indicates the identity, safety, and health hazards.
- Portable containers, which contain a small amount of chemicals, need not be labeled if they are used immediately that shift but must be under the strict control of the employee using the product.
- All warning labels, tags, etc., must be maintained in a legible condition and not be defaced. The facility's weekly supervisor inspections will check for compliance with this rule.
- Incoming chemicals are to be checked for proper labeling.

OSHA has updated the requirements for the labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have pictograms, a signal word, hazard, and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown below:

SAMPLE LABEL

PRODUCT IDENTIFIER

CODE _____
Product Name _____

SUPPLIER IDENTIFICATION

Company Name_____
Street Address _____
City _____ State _____
Postal Code _____ Country _____
Emergency Phone Number _____

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.
Keep away from heat/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measure against static discharge.
Ground and bond container and receiving equipment.
Do not breathe vapors.
Wear Protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO_2) fire extinguisher to extinguish.

First Aid
If exposed call Poison Center.
If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

HAZARD PICTOGRAMS

SIGNAL WORD
Danger

HAZARD STATEMENT

Highly flammable liquid and vapor.
May cause liver and kidney damage.

SUPPLEMENTAL INFORMATION

Directions for use
_____
_____
_____
Fill weight: _____ Lot Number _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____

Hazard Communication Standard Pictogram

As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The chemical hazard classification determines the pictogram on the label. Pictograms and hazards are found below:

HCS Pictograms and Hazards

Health Hazard  ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity	**Flame**  ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides	**Exclamation Mark**  ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  ▪ Gases Under Pressure	**Corrosion**  ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals	**Exploding Bomb**  ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides
Flame Over Circle  ▪ Oxidizers	**Environment** (Non-Mandatory)  ▪ Aquatic Toxicity	**Skull and Crossbones**  ▪ Acute Toxicity (fatal or toxic)

Emergencies and Spills

In case of an emergency, implement the proper Emergency Action Plan.

- Evacuate people from the area.
- Isolate the area.
- If the material is flammable, turn off ignition and heat sources.
- Only personnel specifically trained in emergency response are permitted to participate in chemical emergency procedures beyond those required to evacuate the area.
- Call for Emergency Response Team assistance if required.

Housekeeping

- Maintain the smallest possible inventory of chemicals to meet immediate needs.
- Periodically review the stock of chemicals on hand.
- Ensure that storage areas, or equipment containing large quantities of chemicals, are secure from accidental spills.
- Rinse emptied bottles that contain acids or inflammable solvents before disposal.
- Recycle unused laboratory chemicals wherever possible.
- DO NOT Place hazardous chemicals in salvage or garbage receptacles.
- DO NOT Pour chemicals onto the ground.
- DO NOT Dispose of chemicals through the storm drain system.
- DO NOT Dispose of highly toxic, malodorous chemicals down sinks or sewer drains.

Contractors

All outside contractors working inside company facilities are required to follow the requirements of this program. The company will provide Contractors information concerning:

- Location of SDS
- Precautions to be taken to protect contractor employees
- Potential exposure to hazardous substances
- Chemicals used in or stored in areas where they will be working
- Location and availability of Safety Data Sheets
- Recommended Personal Protective Equipment
- Labeling system for chemicals

Definitions

- Chemical: any element, chemical compound, or mixture of elements and/or compounds.
- Combustible liquid: means any liquid having a flashpoint at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flashpoints of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.
- Compressed gas: any compound that exhibits:
  I. A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F.
  II. A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F. regardless of the pressure at 70 deg. F.
  III. A liquid having a vapor pressure exceeding 40 psi at 100 deg. F.
- Container: any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.
- Employee: a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

- Employer: a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.
- Explosive: a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.
- Exposure or exposed: an employee that is subjected in the course of employment to a chemical that is a physical or health hazard and includes potential (e.g., accidental or possible) exposure. Subjected in terms of health hazards includes any route of entry (e.g., inhalation, ingestion, skin contact, or absorption.)
- Flammable: a chemical that falls into one of the following categories:
  I. "Aerosol, flammable" means an aerosol that yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening.
  II. "Gas, flammable" means: (A) A gas that, at ambient temperatures and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or (B) A gas that, at ambient temperatures and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit.
  III. "Liquid, flammable" means any liquid having a flashpoint below 100 deg. F., except any mixture having components with flashpoints of 100 deg. F. or higher, the total of which add up to 99 percent or more of the total volume of the mixture.
  IV. "Solid, flammable" means a solid, other than a blasting agent or explosive as defined in 1910.109(a), that is liable to cause a fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.
- Flashpoint: the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.
- Hazardous chemical: any chemical, which is a physical or health hazard.
- Hazard warning: any words, pictures, symbols, or combination appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See the definitions for "physical hazard" and "health hazard" to determine the hazards which must be covered.)
- Health hazard: a chemical for which there is evidence that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.
- Identity: any chemical or common name, which is indicated on the safety data sheet (SDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label, and the SDS.

- Immediate use: the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.
- Label: any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.
- Safety data sheet (SDS): written or printed material concerning a hazardous chemical, which is prepared following OSHA Standard 1910.1200 requirements.
- Mixture: any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.
- Oxidizer: means a chemical other than a blasting agent or explosive as defined in 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.
- Physical hazard: a chemical that is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.
- Pyrophoric: a chemical that will ignite spontaneously in air at a temperature of 130 deg. F. or below.
- Specific chemical identity: the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.
- Unstable (reactive): a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.
- Use: to package, handle, react, emit, extract, generate as a byproduct, or transfer.
- Water-reactive: a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.
- Work area: a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.
- Workplace: an establishment, job site, or project, at one geographical location containing one or more work areas.

SAFETY DATA SHEET (SDS) INFORMATION

The Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)), revised in 2012, requires that the chemical manufacturer, distributor, or importer provide Safety Data Sheets (SDSs) (formerly MSDSs or Material Safety Data Sheets) for each hazardous chemical to downstream users to communicate information on these hazards. The information contained in the SDS is largely the same as the MSDS, except now the SDSs are required to be presented in a consistent, user-friendly, 16-section format. This brief provides guidance to help workers who handle hazardous chemicals to become familiar with the format and understand the contents of the SDSs.

The SDS includes information such as the properties of each chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing and transporting the chemical. The information contained in the SDS must be in English (although it may be in other languages as well).

In addition, OSHA requires that SDS preparers provide specific minimum information as detailed in Appendix D of 29 CFR 1910.1200. The SDS preparers may also include additional information in various section(s).

Sections 1 through 8 contain general information about the chemical, identification, hazards, composition, safe handling practices, and emergency control measures (e.g., firefighting). This information should be helpful to those who need to get the information quickly. Sections 9 through 11 and 16 contain other technical and scientific information, such as physical and chemical properties, stability and reactivity information, toxicological information, exposure control information, and other information including the date of preparation or last revision. The SDS must also state that no applicable information was found when the preparer does not find relevant information for any required element.

The SDS must also contain Sections 12 through 15, to be consistent with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS), but OSHA will not enforce the content of these sections because they concern matters handled by other agencies.

A description of all 16 sections of the SDS, along with their contents, is presented below:

Section 1: Identification

This section identifies the chemical on the SDS as well as the recommended uses. It also provides the essential contact information for the supplier. The required information consists of:

- Product identifier used on the label and any other common names or synonyms by which the substance is known.
- Name, address, phone number of the manufacturer, importer, or other responsible parties, and emergency phone number.
- Recommended use of the chemical (e.g., a brief description of what it does, such as flame retardant) and any restrictions on use (including recommendations given by the supplier).

Section 2: Hazard(s) Identification

This section identifies the hazards of the chemical presented on the SDS and the appropriate warning information associated with those hazards. The required information consists of:

- The hazard classification of the chemical (e.g., flammable liquid, category1)
- Signal word
- Hazard statement(s)
- Pictograms (pictograms or hazard symbols may be presented as graphical reproductions of the symbols in black and white or be a description of the name of the symbol (e.g., skull and crossbones, flame)
- Precautionary statement(s)
- Description of any hazards not otherwise classified.
- For a mixture that contains an ingredient(s) with unknown toxicity, a statement describing how much (percentage) of the mixture consists of ingredient(s) with unknown acute toxicity. Please note that this is a total percentage of the mixture and not tied to the individual ingredient(s).

Section 3: Composition/Information on Ingredients

This section identifies the ingredient(s) contained in the product indicated on the SDS, including impurities and stabilizing additives. This section includes information on substances, mixtures, and all chemicals where a trade secret is claimed. The required information consists of:

- Substances
  - Chemical name
  - Common name and synonyms
  - Chemical Abstracts Service (CAS) number and other unique identifiers
  - Impurities and stabilizing additives, which are themselves classified and which contribute to the classification of the chemical.
- Mixtures
  - Same information required for substances
  - The chemical name and concentration (i.e., exact percentage) of all ingredients which are classified as health hazards and are:
    - Present above their cut-off/concentration limits
    - Present a health risk below the cut-off/concentration limits.
  - The concentration (exact percentages) of each ingredient must be specified except concentration ranges may be used in the following situations:
    - A trade secret claim is made
    - There is a batch-to-batch variation
    - The SDS is used for a group of substantially similar mixtures
- Chemicals where a trade secret is claimed
  - A statement that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required.

Section 4: First-Aid Measures

This section describes the initial care that should be given by untrained responders to an individual who has been exposed to the chemical. The required information consists of:

- Necessary first-aid instructions by relevant routes of exposure (inhalation, skin and eye contact, and ingestion).
- Description of the most important symptoms or effects, and any symptoms that are acute or delayed.
- Recommendations for immediate medical care and special treatment needed, when necessary.

Section 5: Fire-Fighting Measures

This section provides recommendations for fighting a fire caused by the chemical. The required information consists of:

- Recommendations for suitable extinguishing equipment and information about extinguishing equipment that is not appropriate for a particular situation.
- Advice on specific hazards that develop from the chemical during the fire, such as any hazardous combustion products created when the chemical burns.
- Recommendations on special protective equipment or precautions for firefighters.

Section 6: Accidental Release Measures

This section provides recommendations on the appropriate response to spills, leaks, or releases, including containment and cleanup practices, to prevent or minimize exposure to people, properties, or the environment. It may also include recommendations distinguishing between responses for large and small spills where the spill volume has a significant impact on the hazard. The required information may consist of recommendations for:

- Use of personal precautions (such as removal of ignition sources or providing sufficient ventilation) and protective equipment to prevent the contamination of skin, eyes, and clothing.
- Emergency procedures, including instructions for evacuations, consulting experts when needed, and appropriate protective clothing.
- Methods and materials used for containment (e.g., covering the drains and capping procedures).
- Cleanup procedures (e.g., appropriate techniques for neutralization, decontamination, cleaning or vacuuming; adsorbent materials; and/or equipment required for containment/clean up)

Section 7: Handling and Storage

This section provides guidance on the safe handling practices and conditions for safe storage of chemicals. The required information consists of:

- Precautions for safe handling, including recommendations for handling incompatible chemicals, minimizing the release of the chemical into the environment and providing advice on general hygiene practices (e.g., eating, drinking, and smoking in work areas is prohibited).
- Recommendations on the conditions for safe storage, including any incompatibilities. Provide advice on specific storage requirements (e.g., ventilation requirements)

Section 8: Exposure Controls/Personal Protection

This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure. The required information consists of:

- OSHA Permissible Exposure Limits (PELs), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.
- Appropriate engineering controls (e.g., use local exhaust ventilation, or use only in an enclosed system).
- Recommendations for personal protective measures to prevent illness or injury from exposure to chemicals, such as personal protective equipment (PPE) (e.g., appropriate types of eye, face, skin, or respiratory protection needed based on hazards and potential exposure).
- Any special requirements for PPE, protective clothing or respirators (e.g., type of glove material, such as PVC or nitrile rubber gloves; and breakthrough time of the glove material).

Section 9: Physical and Chemical Properties

This section identifies physical and chemical properties associated with the substance or mixture. The minimum required information consists of:

- Appearance (physical state, color, etc.)
- Upper/lower flammability or explosive limits
- Odor
- Vapor pressure
- Odor threshold
- Vapor density
- pH
- Relative density
- Melting point/freezing point
- Solubility(ies)
- Initial boiling point and boiling range
- Flashpoint
- Evaporation rate
- Flammability (solid, gas)
- Upper/lower flammability or explosive limits
- Vapor pressure
- Vapor density
- Relative density
- Solubility(ies)
- Partition coefficient: n-octanol/water
- Auto-ignition temperature
- Decomposition temperature
- Viscosity

The SDS may not contain every item on the above list because information may not be relevant or is not available. When this occurs, a notation to that effect must be made for that chemical property. Manufacturers may also add other relevant properties, such as the dust deflagration index (Kst) for combustible dust, used to evaluate a dust's explosive potential

Section 10: Stability and Reactivity

This section describes the reactivity hazards of the chemical and the chemical stability information. This section is broken into three parts: reactivity, chemical stability, and other. The required information consists of:

- Reactivity
  - Description of the specific test data for the chemical(s). This data can be for a class or family of the chemical if such data adequately represent the anticipated hazard of the chemical(s), where available.
- Chemical stability
  - Indication of whether the chemical is stable or unstable under normal ambient temperatures and conditions while in storage and being handled.
  - Description of any stabilizers that may be needed to maintain chemical stability.
  - Indication of any safety issues that may arise should the product change in physical appearance.
- Other
  - Indication of the possibility of hazardous reactions, including a statement whether the chemical will react or polymerize, which could release excess pressure or heat, or create other hazardous conditions. Also, a description of the conditions under which hazardous reactions may occur.
  - List of all conditions that should be avoided (e.g., static discharge, shock, vibrations, or environmental conditions that may lead to hazardous conditions).
  - List of all classes of incompatible materials (e.g., classes of chemicals or specific substances) with which the chemical could react to produce a hazardous situation.
  - List of any known or anticipated hazardous decomposition products that could be produced because of use, storage, or heating. (Hazardous combustion products should also be included in Section 5 (Fire-Fighting Measures) of the SDS.)

Section 11: Toxicological Information

This section identifies toxicological and health effects information or indicates that such data are not available. The required information consists of:

- Information on the likely routes of exposure (inhalation, ingestion, skin, and eye contact). The SDS should indicate if the information is unknown.
- Description of the delayed, immediate, or chronic effects from short- and long-term exposure.
- The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose) - the estimated amount [of a substance] expected to kill 50% of test animals in a single dose.
- Description of the symptoms. This description includes the symptoms associated with exposure to the chemical, including symptoms from the lowest to the most severe exposure.
- Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA

Section 12: Ecological Information (non-mandatory)

This section provides information to evaluate the environmental impact of the chemical(s) if it were to be released to the environment. The information may include:

- Data from toxicity tests performed on aquatic and/or terrestrial organisms, where available (e.g., acute or chronic aquatic toxicity data for fish, algae, crustaceans, and other plants; toxicity data on birds, bees, plants).
- Whether there is a potential for the chemical to persist and degrade in the environment either through biodegradation or other processes, such as oxidation or hydrolysis.
- Results of tests of bioaccumulation potential, referring to the octanol-water partition coefficient (Kow) and the bioconcentration factor (BCF), where available.
- The potential for a substance to move from the soil to the groundwater (indicate results from absorption studies or leaching studies).
- Other adverse effects (e.g., environmental fate, ozone layer depletion potential, photochemical ozone creation potential, endocrine-disrupting potential, and/or global warming potential).

Section 13: Disposal Considerations (non-mandatory)

This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices. To minimize exposure, this section should also refer the reader to Section 8 (Exposure Controls/Personal Protection) of the SDS. The information may include:

- Description of appropriate disposal containers to use.
- Recommendations for appropriate disposal methods to employ.
- Description of the physical and chemical properties that may affect disposal activities.
- Language discouraging sewage disposal.
- Any special precautions for landfills or incineration activities

Section 14: Transport Information (non-mandatory)

This section provides guidance on classification information for shipping and transporting of the hazardous chemical(s) by road, air, rail, or sea. The information may include:

- UN number (i.e., four-figure identification number of the substance)
- UN proper shipping name
- Transport hazard class(es)
- Packing group number, if applicable, based on the degree of hazard
- Environmental hazards (e.g., identify if it is a marine pollutant, according to the International Maritime Dangerous Goods Code (IMDG Code)).
- Guidance on transport in bulk (according to Annex II of MARPOL 73/783 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code)).
- Any special precautions which an employee should be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises (indicate when information is not available).

Section 15: Regulatory Information (non-mandatory)

This section identifies the safety, health, and environmental regulations specific for the product that is not indicated anywhere else on the SDS. The information may include:

- Any national and/or regional regulatory information of the chemical or mixtures (including any OSHA, Department of Transportation, Environmental Protection Agency, or Consumer Product Safety Commission regulations)

Section 16: Other Information

- This section indicates when the SDS was prepared or when the last known revision was made. The SDS may also state where the changes have been made to the previous version. You may wish to contact the supplier for an explanation of the changes. Other useful information also may be included here.

Employer Responsibilities

Employers must ensure that the SDSs are readily accessible to employees for all hazardous chemicals in their workplace. This may be done in many ways. For example, employers may keep the SDSs in a binder or on computers as long as the employees have immediate access to the information without leaving their work area when needed, and a back-up is available for rapid access to the SDS in the case of a power outage or other emergency. Furthermore, employers may want to designate a person(s) responsible for obtaining and maintaining the SDSs. If the employer does not have an SDS, the employer or designated person(s) should contact the manufacturer to obtain one.

Employee Use of SDS

For SDS use to be effective, employees must:

- Know the location of the SDS
- Understand the major points for each chemical
- Check SDS when more information is needed, or questions arise
- Be able to locate the emergency information on the SDS quickly
- Follow the safety practices provided on the SDS

Location of SDS

The supervisor of the jobsite will conduct a Hazardous Chemical Inventory. From this inventory, a Chemical Inventory List will be created. The Chemical List and SDSs will be kept in this binder following this plan.

TRAINING

Employees will be trained in hazard communication. The training will be documented on the Employee Training Record Form found in this program. Employees will be trained in the following areas:

a. Chemical Storage
b. Container Labels
c. Emergencies and Spills
d. Housekeeping
e. Safety Data Sheets (SDS)
f. General Chemical Usage
g. Specific Chemical Hazards and Precautions

Chemical Inventory List

Chemical Name	Storage Location	Quantity

File the Safety Data Sheets for the above chemicals in the same order following this list.

Heat Illness Safety Plan

We do not self-perform any work. This section is a resource guide only. All subcontractors, trade partners, suppliers and vendors are required to develop, implement and follow their own safety program, including providing the proper competent person(s) for the specific task they are responsible for.

PURPOSE

The company recognizes that jobs involving operations in hot environments have the potential to induce heat stress in workers.

Company projects should use the following safety guidelines as guidance for workers in hot environments. These guidelines contain references from the OSHA Technical Manual, Cal/OSHA, EPA, National Weather Service, and guidelines put forth by ANSI, ASSP, NIOSH, and ACGIH.

The effects of heat can range from a mild annoyance, such as heat rash, to death from heat stroke. With proper replacement of fluids and adherence to proper work/rest regimens, the adverse effects of working during hot weather can be prevented. The use of a Portable Outdoor canopies can aid in providing relief from direct sunlight.

Training of employees about heat related injuries shall be conducted prior to the assignment of the worker in high heat environment. This training should occur in early spring before the heat of the summer working months occurs and periodically in the summer months. Use of Safety Tool Box talks as well as this document may be utilized for this training.

DEFINITIONS

- "Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.
- "Heat Illness" means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.
- "Environmental risk factors for heat illness" means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.
- "Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.
- "Preventative recovery period" means a period of time to recover from the heat in order to prevent heat illness.
- "Shade" means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that sun blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow

the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.

PROJECT REQUIREMENTS

Provision of water

Employees and contract workers shall have access to cool drinking water free of charge. Where it is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour.

Access to shade and/or air conditioning

Employees suffering from heat illness or believing a preventative recovery period is needed shall 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. Such access to shade shall be permitted at all times. Cooling measures other than shade (e.g., use of misting machines) may be provided in lieu of shade if practical.

PREVENTING HEAT RELATED ILLNESS

- Train employees and contract workers to recognize signs & symptoms of heat related injuries.
- Use the buddy system (never work alone in hot areas) to monitor co-worker for heat stress.
- Dress for the heat. Wear lightweight, light-colored clothing. Light colors will reflect away some of the sun's energy. It is also a good idea to wear hats or to use an umbrella.
- Drink water Encourage workers to drink adequate replacement fluids. An average person should drink 1 1/2 gallons of water per day. (1 cup every 15 minutes). Salt pills or sport drinks with added salt are unnecessary as the typical American has enough salt in their diet. Drink continuously even if you do not feel thirsty. Avoid alcohol and caffeine, which dehydrate the body.
- Supervisors should schedule tasks during cooler parts of the day, and provide for alternate tasks when possible.
- Allow time for employee acclimation to hot environments. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.
- Slow down. Avoid strenuous activity. If you must do strenuous activity, do it during the coolest part of the day, which is usually in the morning between 4:00 a.m. and 7:00 a.m.
- Stay indoors when possible. Where practical, isolate, or even eliminate a source or heat and or humidity through environmental controls.
- Take regular breaks as necessary, and additional breaks for hydration.
- Encourage employees to maintain good physical fitness.

SIGNS & SYMPTOMS OF HEAT RELATED ILLNESSES

Symptoms of Heat Rash ("Prickly Heat")

- Tiny blister-like red spots on the skin; pricking sensation, this is an early signal of potential heat stress. It is commonly associated with hot, humid conditions in which skin and clothing remain damp due to unevaporated sweat. Heat rash may involve small areas of the skin or the entire torso.
- Even after the affected area of skin is healed, sweat production will not return to normal for another 4 to 6 weeks. Treatments include cleaning the affected area and applying mild lotions to it. Keeping the skin clean and dry for at least 12 hours each day will prevent severe heat rash.

Symptoms of Heat Cramps

- Painful spasms of leg, arm, or abdominal muscles heavy sweating, thirst occur during or after hard work.

Symptoms of Heat Exhaustion

- Fatigue, headache, dizziness, muscle weakness, loss of coordination, fainting, collapse
- Profuse sweating, pale, moist, cool skin; excessive thirst, dry mouth, dark yellow urine
- Fast pulse, if conscious
- Low or normal oral temperature
- May also have heat cramps, nausea, urge to defecate, rapid breathing, chills, tingling of the hands or feet
- Mood changes such as irritability or confusion, giddiness, slurred speech, irritability

Symptoms of Heat Stroke

- ***LIFE THREATENING MEDICAL EMERGENCY***
- Often occurs suddenly
- Headache, dizziness, confusion, irrational behavior, coma
- Sweating may slow down or stop
- Fast pulse, if conscious
- Rapid breathing
- Body Temp. Greater than 104 F
- May also have convulsions, nausea, incoherent speech, very aggressive behavior

WHAT TO DO FOR HEAT-RELATED ILLNESS

- Call 911 (or local emergency number) at once.
- While waiting for help to arrive
  - Move the worker to a cool, shaded area. Get inside air-conditioned building or vehicle.
  - Loosen or remove heavy clothing.
  - Wipe or spray his/her skin with cool water and fan him/her. You can use a piece of cardboard or other material as a fan.
  - Provide cool drinking water if possible

EMPLOYEE SAFETY HANDBOOK

This handbook contains many of the important elements of the company safety and health program. Each employee should be given a copy of this handbook, read the handbook, and return the Commitment to Work Safely form on the last page of this handbook. If the employee has any questions, they should discuss it with their supervisor. The full Safety & Health Program will be made available at any time by request.

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It is our Company's policy to perform its work in the safest manner possible, consistent with safe work practices, and according to all governing laws and regulations. The safety and health of our employees, subcontractors, and others who may be in our work areas is paramount. This program has total management support. Managers at every level are charged with the task of translating this policy into positive and productive action.

This Safety Program, as revised from time to time, contains safety and health policies and rules for the workplace. They represent a wealth of practical experience and have been tested on many successful projects. Putting these procedures to work can protect the well-being of our employees, preserve vital company resources, and minimize financial losses caused by accidents. We also require all subcontractors, trade partners, suppliers, and vendors to develop, implement and follow their specific safety program, including providing the proper, competent person(s) for the specific task for which they are responsible Therefore, as a condition of employment, each employee is required to study, understand and abide by these procedures. This Safety Program is provided for the sole purpose of improving safety and health conditions, and is NOT to be considered as an agreement or contract of employment.

This Safety Program follows the OSHA Safety and Health Program Management Guidelines, which provide for developing, implementing, and maintaining a program of policies, procedures, and practices that are adequate to protect employees from occupational safety and health hazards. Our program provides ways to systematically identify, evaluate, and prevent or control workplace hazards, specific task hazards, and hazards that could arise from operations. This Safety & Health Program is not a one-time plan but is a dynamic program that is always open to improvement.

Safety is as critical to our company's operations as planning, scheduling, and billing. Further, we believe that accidents are preventable and that it is up to each of us to ensure that we practice safety as a routine part of our daily work. Our primary goal is to have the best safety and health conditions possible in the workplace. To achieve that goal, we must first have a positive attitude towards safety. Then we must THINK SAFETY and WORK SAFELY.

WE BELIEVE IN SAFETY AND INSIST UPON IT

Sincerely,

_____

Company Name

COMPANY SAFETY GOALS

Managers and supervisors are accountable to the upper management for the successful achievement of targeted company safety and health goals. The project safety and health goals are:

- Have the best safety and health conditions possible in the workplace.
- Minimize all injury accidents and health impairment.
- Prevent any major fires, vehicle accidents, or property damage losses.
- Zero permanent disabilities.
- Zero environmental accidents.
- Zero fatalities.

These goals are implemented to prevent and control unplanned events on site, which can cause fatalities, injuries, illness, equipment damage, fire, and damage or destruction to property.

No phase of operations is more important than accident prevention. Each employee is expected to be aware of and actively pursue safety goals. There is only one way to do a job properly - THE SAFE WAY!

COMMITMENT

Company—the personal safety and health of each employee of this company are of primary importance. The prevention of occupational injuries and illness is so important that it is to have precedence over operating productivity whenever necessary. The company will, to the greatest degree possible, provide safe mechanical and physical facilities, provide for employee safety training, and implement safe work practices that will make our work areas safe places to work. The company is committed to a safety and health program that will reduce the number of injuries and illnesses to a minimum, not merely in keeping with, but hopefully surpassing, the best experience of similar industry operations.

Employees—this Safety Program conforms to the best practices of organizations in our industry. To make the program work, all employees must have positive attitudes towards preventing injury and illness. Success requires cooperation between each employee and his or her co-workers. With cooperative efforts and positive attitudes, the Safety Program will benefit all employees, our clients, and our visitors. Each employee is required, as a condition of employment, to read, understand, and sign the EMPLOYEE COMMITMENT TO WORK SAFELY, which will be kept in their personnel files.

ENFORCEMENT

General—all employees must understand that THE FIRST AND MOST IMPORTANT WORK RESPONSIBILITY IS TO BE RESPONSIBLE FOR ONE's OWN SAFETY! Disregarding safety and health guidelines provided for one's own benefit is not only dangerous to oneself, but also to those with whom one works. An employee who disregards safety is a significant liability to the company. Safety guidelines apply to all employees, without exception. The safety guidelines will be enforced by management. Warnings and reprimands will be issued for known violations of the safety guidelines as soon as the infraction is observed, and it will become part of an employee's work record.

Willfully Violating Safety Rules—any employee who refuses to work safely, refuses to observe the safety and health guidelines, refuses to use proper protective equipment, or who fails to obtain proper permits, where required, or fails to observe required procedures, will be subject to verbal and written warnings resulting in disciplinary action, which may lead to termination of his or her employment. The severity of disciplinary action will be determined by the frequency and severity of infractions, and may include reprimand, time off without pay, or termination. Willfully endangering one's life or the life of another person is gross misconduct and may be cause for immediate dismissal.

SAFETY PROGRAM LOCATION

This Safety Program, with its chemical inventory and Safety Data Sheets (SDS), is to be kept in the jobsite trailer for immediate availability to employees, emergency personnel, and regulatory agencies.

GENERAL RESPONSIBILITIES

EMPLOYEES—safety is a everyone’s responsibility; however, management cannot be solely responsible for every act of his or her employees. Therefore, each employee shall, as a condition of employment for which he or she is paid, be responsible for working safely, including but not limited to the following specific responsibilities and duties:

General Safety and Health:

a. Study, understand and comply with the requirements of the Safety Program and comply with any other laws or regulations which may apply to his or her work.
b. Work in a manner that will avoid self-injury and prevent injury to fellow workers.
c. Attend any required employee safety and health orientation, and any regular or special employee safety training.
d. Acknowledge, by personal signature, any training received.
e. Refuse to perform any potentially hazardous or non-routine task, or to use any hazardous material, until properly notified of the hazards involved, and trained to follow the proper safety and health procedures implemented for that task.
f. Properly use and care for personal protective equipment required for the task at hand.
g. Report any hazardous conditions to the employee's supervisor, including any negligent act, a physical or health hazard, any unsafe use of hazardous materials by employees, or by an employee of some other employer in the workplace.
h. Report any job-related injury or illness to the employee's supervisor and seek treatment immediately and in no case, more than 24 hours.
i. Know what emergency telephone numbers to call in the event of a fire, accident, or personal injury.
j. Help to maintain a safe and clean work area.

Hazard Communication:

a. Know the location of the written Hazard Communication Plan, the SDS Master list, and the SDS files with emergency contact numbers.
b. Refuse to use any hazardous material if not trained in its use. Request refresher training if unsure about the use, storage, handling, or personal protective equipment requirements.
c. Know how to read an SDS, the SDS Master List and labels.
d. Never remove nor deface hazardous chemical labels.
e. Know how to detect the presence of a hazardous chemical in the workplace by odor and/or appearance.
f. Properly dispose of hazardous materials. (i.e., do not dump hazardous materials on the ground, down a sink or storm drain, etc.)
g. Become trained in the proper use of required protective equipment, and wear or use such equipment properly while working with hazardous chemicals.
h. Be properly trained to identify hazards associated with any new or non-routine task.

SUPERVISORS—unless notified otherwise, the supervisor of each jobsite (Project Manager, Project Supervisor, Superintendent or foreman) is responsible for the implementation of the Safety Program at each workplace he or she supervises. Add the following supervisory duties to those he or she already has as an employee:

General Safety and Health:

a. Set the example for good safety and health practices.
b. Provide a bulletin board in each job trailer and display all required postings.
c. Establish and implement procedures for workplace safety, health, first aid, fire prevention, site security, environmental pollution control, and others that comply with Section 3: GENERAL SAFETY AND HEALTH GUIDELINES, contract documents and specifications, and with local, state and federal laws and regulations.
d. Conduct an employee Safety Orientation whenever a new employee comes into the workplace.
e. Prepare for job site Tool Box safety meetings, with rules and regulations for each site.
f. Train employees under his or her supervision about the provisions of Section 3: GENERAL SAFETY AND HEALTH GUIDELINES, workplace hazards, safe working procedures and policies, how working safely can prevent accidents, and how one can avoid injury and prevent property damage.
g. Monitor the safety and health performance of employees. Prepare written warnings and reprimands for violations of this Safety Program.
h. Monitor the status of the project safety and health, by personally conducting daily safety observations and by directing corrective action. Document these as needed.
i. Assure the availability of required safety equipment and personal protective equipment needed for the work being done, giving special attention to non-routine tasks.
j. Cooperate with other employers and subcontractors to improve overall safety and health conditions in the workplace.

k. When the company is working as a subcontractor, the supervisor is to provide a copy of the Safety Program, including the Hazard Communication portion, to the general contractor, and determine how this Safety Program will be coordinated with what is being provided by the general contractor.
l. Investigate and document accidents and losses immediately, analyze the causes, and prepare recommendations to prevent similar accidents in the future. Prepare reports for worker's compensation, employee reprimands or disciplinary action immediately following an incident. This must be completed within 24 hours of the accident or incident.
m. In the event of a serious accident or a government safety or environmental inspection, notify the SFI Compliance, Inc. and management ASAP.
n. Be familiar with the OSHA Standards for the Construction Industry and be able to find information in OSHA Standards when necessary. These are available at www.osha.gov or the reference programs normally on each site.

Hazard Communication:

a. Maintain the Hazard Communication Plan found in this program for each workplace supervised.
b. Conduct Hazardous Chemical Inventories. Maintain and preserve the SDS Master List within the Hazard Communication Plan.
c. Supervise the proper procurement of all hazardous chemicals to be present in the workplace. Receive and check all shipments of hazardous chemicals for SDS and labels.
d. Verify that labeling is properly done. Maintain a supply of labels and other hazard warnings.
e. During the employee Safety Orientation, make sure employees know where to find and how to read the Hazard Communication Plan. Explain labels and other hazard warnings, review the SDS Master List, and teach him or her how to read an SDS.
f. Train all employees under his or her supervision as required by this Hazard Communication Plan. Prepare a Training Report for each hazardous chemical training done, which certifies by each employee's signature, the training received. Keep the training record on file in this Safety Program.
g. Provide special training and equipment needed to perform non-routine tasks safely.
h. Coordinate hazard communication with other employers, such as subcontractors, in a company workplace, as needed to protect employees.
i. Direct the proper cleanup of any hazardous chemical spill, prepare required reports and notify management. Check your Storm Water Plan for local jurisdictions that may require notification of spills or unintentional releases

UPPER MANAGEMENT—Upper Management is responsible for providing direction, motivation, and accountability to ensure a dynamic safety and health program for all Company projects.

Specific responsibilities include:

a. Set the example for good safety and health practices.
b. Establish annual safety goals and objectives.
c. Establish an adequate budget to fund the safety program. Subcontractors, trade partners, suppliers, and vendors are also responsible for developing, implementing and following their

own safety program, including providing the proper funding to achieve the goals of the safety program successfully.

d. As part of performance evaluations, hold project supervisors accountable for the success or failure of achieving specific safety and health performance and insurance cost control goals.
e. Periodically take part in employee safety training.
f. Review all injury and accident reports and OSHA 300 Logs.

RELATED STANDARDS

The following Standards are incorporated herein by reference:

- OSHA Standard 29 CFR Part 1926 "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION," the latest edition

The requirements of the above standards are general. They contain far more detailed information than the Safety Program. Where information is lacking, or in the event of any conflict between the information in this program and the requirements of the OSHA standards, the OSHA Standards shall govern.

MODIFICATIONS, UPDATES AND EXPANSION

Local, State, and Federal regulations can change, and new and better safety and health procedures are often discovered. Such changes create, from time to time, a need to modify or update this Safety Program.

Because working conditions vary from site to site, some procedures may need to be changed to meet the site-specific safety needs for a particular project. The Project Supervisor, therefore, may modify or expand the procedures for his jobsite, as needed, with the prior, written approval of the SFI Compliance, Inc.

GENERAL SAFETY AND HEALTH GUIDELINES

FIRST AID AND MEDICAL TREATMENT

First aid supplies are provided at the project. Qualified personnel is available to render minor treatment and to maintain required records.

- Report all injuries immediately, no matter how minor, to your supervisor and or project office. Treatment will be forthcoming, and the incident will be recorded.
- You must notify your supervisor and/or the project office before leaving the project because of an injury or illness, whether personal or work-related.
- All medical treatment for work-related injuries must be obtained from the medical treatment facility authorized for the project unless you have received PRIOR WRITTEN AUTHORIZATION from the management to use another facility.
- Prior to returning to work after a lost-time injury or illness, you must present a medical clearance to the project office or safety department from the attending physician.

- If you have a physical handicap, such as diabetes, impaired eyesight, or hearing, back or heart trouble, hernia, or aversion to heights, tell your supervisor or safety department. You won't be expected to do a job, which might result in injury to yourself or someone else.
- Never move an injured or seriously ill person unless necessary to prevent further injury. Non-designated employees should not administer first aid except in cases of severe bleeding or cessation of breathing.
- When an accident is reported late, it will be challenged for that reason.

Post-Accident Substance Abuse Evaluations

For all accidents that result in injuries or property damage or that require off-site medical attention and evaluation, a Drug and Alcohol screening will be conducted. This screening is part of the company Drug-Free Workplace Program.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

The company provides all Employees with required PPE to suit the task and known hazards.

General Policy

Engineering controls shall be the primary methods used to eliminate or minimize hazard exposure in the workplace. When such controls are not practical or applicable, personal protective equipment shall be employed to reduce or eliminate personnel exposure to hazards. Personal protective equipment (PPE) will be provided, used, and maintained when it has been determined that its use is required and that such use will lessen the likelihood of occupational injuries and/or illnesses. Personal Protective Equipment that is recommended by SDS sheets or Tool Manufacturers must be adhered to. Company policy may dictate PPE, which exceeds the requirements of the sources, as mentioned above.

General Rules

All personal protective clothing and equipment will be of safe design and construction for the work to be performed. Only those items of protective clothing and equipment that meet the National Institute of Occupational Safety and Health (NIOSH) or American National Standards Institute (ANSI) standards will be procured or accepted for use.

In order to provide an effective means of protection, all PPE must be sized to fit the worker properly. If assigned PPE is improperly fitting, the worker must report the condition to their supervisor immediately, and before performing any work using the inappropriate PPE

Hazard assessment and equipment selection

Hazard analysis procedures shall be used to assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the following actions will be taken:

- Select, and have each affected employee use the proper PPE.
- Communicate selection decisions to each affected employee.
- Select PPE that properly fits each affected employee.

- Train each employee on proper use of assigned PPE.

Defective and damaged equipment

- Defective or damaged personal protective equipment shall not be used.

Head Protection

- Workers must wear hard hats when overhead, falling, or flying hazards exist or when the danger of electrical shock is present.
- Inspect hard hats routinely for dents, cracks, or deterioration.
- If a hard hat has taken a heavy blow or electrical shock, you must replace it even when you detect no visible damage.
- Maintain hard hats in good condition, do not drill, clean with strong detergents or solvents, apply paint, or store them in extreme temperatures.
- If helmets are in use, the chin strap must be used.

Eye and Face Protection

- Workers must wear safety glasses, goggles, and/or face shields for welding, cutting, nailing (including pneumatic), or when working with concrete and/or harmful chemicals.
- Eye and face protectors are designed for particular hazards, so be sure to select the type to match the hazard.
- Replace poorly fitting or damaged safety glasses.
- Prescription glasses are not acceptable unless lenses and frames are ANSI Z-87 rated, and that rating is stamped on the eyewear.

Hearing Protection / Conservation

- The company will use engineering and administrative controls to prevent exposure to loud noises.
- When engineering and administrative controls fail to reduce sound levels, ear protective devices (ear plugs, ear muffs) will be provided by your employer, and they must be used.
- Workers must wear and properly care for these ear protective devices as assigned.

Foot Protection

- Workers must wear shoes or boots with slip-resistant and puncture-resistant soles (to prevent slipping and puncture wounds).
- Safety-toed shoes are recommended to prevent crushed toes when working with heavy rolling equipment or falling objects.
- Specialty footwear (non-conductive, anti-static, conductive) must be worn as dictated by a specific task, exposure, or protocol.

Hand Protection

- Gloves must have an appropriate ANSI/ISEA cut resistance.
- Gloves should fit snugly.

- Glove gauntlets should be taped for working with fiberglass materials.
- Workers should always wear the right gloves for the job (for example, heavy-duty rubber for concrete work, welding gloves for welding).
- Ratings, from A-1 to A-9, indicate the level of cut resistance provided by the glove. The higher the number, the more cut resistance.
- Select gloves that are adequate for the exposure.

HOUSEKEEPING AND ACCESS

Attention to general cleanliness, storage, and housekeeping can prevent numerous accidents. This section covers items not discussed in other areas and is not intended to cover all specific housekeeping requirements. Good housekeeping efforts are a part of the company fire prevention and accident prevention program.

Hazard

- Slip & trip hazards.
- Fall hazards.
- Chemical exposure
- Contact with sharp objects.
- Fire & Explosion hazards
- Overloading of storage shelves and bins

Hazard Control

- Keep all walkways and stairways clear of trash/debris and other materials such as tools and supplies to prevent tripping.
- Keep boxes, scrap lumber, and other materials picked up. Put them in a dumpster or trash/debris area to prevent fire and tripping hazards.
- Provide enough light for workers to see and to prevent accidents.

SANITATION

Drinking Water

An adequate supply of potable drinking water should be provided for workers. If portable containers are used to dispense the water, they must be tightly closed, and water dispensed by a tap. Cups and/or water bottles shall not be dipped into the containers. Workers should have their own drinking cups; no shared cups are allowed. If single-use cups are provided, trash facilities must be provided as well.

Portable Toilets

An adequate supply of portable toilets shall be provided for workers. These toilets shall be maintained and serviced regularly to maintain sanitary conditions. The number of toilets shall meet this minimum:

Number of Employees	Number of Toilets
20 or less	1
20 or more	1 toilet seat and 1 urinal per 40 workers.

200 or more	1 toilet seat and 1 urinal per 50 workers.

OSHA 1926.51(c)(1) Table D-1

ILLUMINATION/TEMPORARY LIGHTING

Good illumination is important to maximize production and maintain quality control. Poor lighting on the project may lead to personal injury accidents: tripping, falling, and injuries from tools and equipment.

OSHA requires that all construction areas, including stairs, ramps, corridors, storage areas, shops, offices, etc. be lighted by natural or artificial illumination. Table D-3 in OSHA Standard 1926.56 indicates the intensities required for specific areas. OSHA uses a foot-candle measurement for determining the intensity of illumination. For general construction areas, illumination must be equal to 5-foot candles. If you can read drawings and follow layout marks without difficulty and use cutting tools effectively and with ease, there is sufficient lighting on the site. Plant and shop areas, first aid stations and offices require higher intensities of illumination.

Temporary lighting should follow these guidelines:

- All temporary wiring and lighting on the site must comply with the same codes as permanent wiring.
- Undersized wiring or overloaded circuits lead to work stoppages, electrical shocks and even fires.
- Be sure wiring is protected from damage in high traffic areas.
- Flexible cords used for temporary or portable lights must be designed for hard or extra-hard usage.
- All lamps for general illumination must be protected from accidental contact or breakage.
- Metal case sockets must be grounded.
- Temporary lights must not be suspended by their cords unless specifically designed for this means of suspension.
- 120-volt, portable lighting may be used in wet or other conductive locations such as vessels, drums and tanks but only if protected by a ground fault circuit interrupter, otherwise the maximum permitted is 12 volts or less.
- Temporary wiring must be removed immediately upon completion of construction.

FALL PROTECTION

Falls are the leading cause of death in the construction industry. OSHA requires fall protection be provided anytime a fall hazard of six (6) feet or more exists. OSHA recognizes conventional fall protection to be: Personal Fall Arrest Systems (PFAS), Guardrails and Safety Net Systems. Additional methods of fall protection include floor hole covers, fall restraint systems and administrative controls.

Prior to construction, the fall protection system utilized should be pre-planned and during construction, the fall protection system should be continually monitored and adjusted as necessary. The following hierarchy of fall protection should be followed:

- Hazard Elimination: eliminating the hazard is the first and most preferred option. Can the fall hazard be eliminated? Can a different process be used to keep the workers from being exposed to fall hazards?
- Passive Fall Protection: physical barriers such as guardrail systems and floor hole covers are considered passive fall protection. These systems, once installed, provide continued protection for the employees.
- Fall Restraint Systems: devices that prevent access to the fall area for the worker. These would physically limit a worker from getting to the edge of a roof or other fall hazard.
- Fall Arrest Systems: these are the traditional Personal Fall Arrest Systems that include an anchor point, full-body harness and lanyard/lifeline. A PFAS is designed to stop the worker after a fall. These devices have other issues because an injury can still occur to the worker during the fall, and once the fall has occurred, how are you going to rescue the worker?
- Administrative Controls: these are rules employees are expected to follow to prevent falls. These are the least likely to prevent a fall and the least preferred method. OSHA is likely to issue citations to companies that rely on administrative controls for their fall protection systems.

Personal Fall Arrest Systems (PFAS)

Personal Fall Arrest Systems consist of an anchorage point, full-body harness and lanyard/lifeline. If a personal fall arrest system is used for fall protection, it must do the following:

- Limit maximum arresting force on an employee to 1,800 pounds.
- Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level.
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet.
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet.
- Personal fall arrest systems must be inspected before each use for wear, damage, and other deterioration.
- Workers must be trained in the use and maintenance of the equipment they are using.
- Rescue planning should be undertaken before allowing any worker to work in a PFAS. Consideration should be given to the availability of rescue personnel, ladders, self rescue equipment, or other means for rescue.

Guardrails and Hole Covers

- Approved guardrails or covers must protect floor openings and/or holes. If covers are used, they must be able to support 2 times the intended loads imposed upon them, must be marked and must be secured to prevent accidental displacement.
- Do not remove covers on floor openings without approval from your supervisor. When a cover has been removed to bring in equipment or material, replace the opening immediately upon completion of material handling.
- Install guardrails around openings in floors and across openings in walls when the fall distance is 6 feet or more. Top rails must be able to withstand a 200-lb load.
- Construct guardrails with a top rail approximately 42 inches high with a midrail about half that high at 21 inches.

- Install toe boards when other workers are to be below the work area.

STAIRWAYS

- Install permanent or temporary stair rails on stairs before stairs are used for general access between levels to prevent someone from falling or stepping off edges.
- The top edge of the stair rails should be 36” above the stair tread and the midrail installed at 18”.
- Block off access to stairs that are not ready to be used, or where activity, such as welding, grinding, or scaffold use, create a hazard for other workers using the stairs.
- Pan stairs and landings must not be used until infilled, except during installation.
- Do not store materials on stairways that are used for general access between levels.
- Keep hazardous projections such as protruding nails, large splinters, etc. out of the stairs, treads, or handrails.
- Correct any slippery conditions on stairways before they are used.
- Stairs with 4 or more risers shall be equipped with at least one handrail at 36”.

LADDERS

- Ladders that your work requires should be available on the worksite. If the appropriate ladder is not available, discuss it with your supervisor.
- Keep all ladders in good condition and free of defects.
- Inspect ladders before use for broken rungs or other defects. Broken or damaged ladders must not be used. Repair or destroy them immediately. Ladders to be repaired must be tagged “DO NOT USE.” Ladders to be destroyed must be cut vertically down the middle of the rungs.
- Secure ladders near the top and/or at the bottom to prevent them from slipping.
- When you can't tie the ladder off, be sure the ladder is on a stable and level surface, so it cannot be knocked over or the bottom of it kicked out.
- Place ladders at the proper angle (1 foot out from the base for every 4 feet of vertical rise).
- Extend ladders at least 3 feet above the landing to provide a handhold or for balance when getting on and off the ladder from other surfaces.
- Do not set up a ladder near passageways or high traffic areas where it could be knocked over. Where a ladder must be used near a door, a sign must be placed on the opposite side of the door stating that a ladder is in use.
- The areas around the top and base of ladders must be free of tripping hazards such as loose materials, trash, and electrical cords.
- Use ladders only for what they were intended for and not as a platform, runway, or as scaffold planks. Extension ladders must never be used in a horizontal orientation.
- Always face the ladder and maintain 3 points of contact when climbing or descending a ladder.
- Be sure that your shoes are free of mud, grease, or other substances, which could cause a slip or fall.
- Do not carry materials up a ladder. Use a hand line or other means to get materials to a higher level.
- Always move the ladder to avoid overreaching; the midline of your body should never extend beyond the ladder's side rail.

- Always move the ladder from ground level. Do not “walk” the ladder or attempt to move a ladder while in use by another worker.
- Do not splice together short ladders to make a longer ladder.
- Stepladders must be fully opened to permit the spreader to lock; they are not allowed to lean on a wall, unless specifically designed and engineered to do so.
- You are prohibited from standing on the top two steps of a stepladder.
- Metal ladders must not be used for electrical work or in areas where they could contact energized wiring. The use of metal ladders is restricted to special applications where the heavier wooded ladders are not practical.
- Use only Type I or Type II ladders. Type III ladders are never to be used as they are designed for household use.

SCAFFOLDING

- Follow all local codes, ordinances, and regulations pertaining to scaffolding. Federal OSHA regulations are found in CFR Part 1926 Subpart L.
- Scaffolds shall be erected under the supervision of a competent person.
- Workers should only work on scaffolding or access scaffolding if they are authorized and have received scaffold user training.
- Be sure you inspect all equipment before use and daily thereafter. Check for cracks or bent parts, connectors, bracing, guard rails, access ladders, and especially footings. Never use any equipment that has been damaged. Be sure the scaffold is not overloaded.
- Inspections should be conducted by a competent person and documented.
- Never ride a rolling scaffold and be sure to lock or block the wheels after moving it.
- The working platform height of a rolling scaffold must not exceed 4 times the minimum base dimension.
- Keep platforms and the area around the scaffold free of debris and unnecessary material or other hazards that could cause you to trip or fall.
- Be sure to plank all work areas and only use lumber that is graded as scaffold plank.
- Never allow unsupported ends of planks to extend an unsafe distance beyond supports and be sure all planks are secured so they cannot be dislodged.
- Fasten all braces securely and do not mismatch side braces.
- Provide overhead protection if there is a hazard above the work area.
- Use toeboards where scaffold is greater than 10’ in height, and workers and/or points of building access are below.
- Don't use scaffolds near power lines.
- Make sure you have safe ladder access. Cross bracing or guardrails must never be used as a means of access.

CRANES & RIGGING

General Crane

- Only certified operators will be permitted to operate cranes.
- Operators are responsible for the exercise of caution necessary for the safe operation of their equipment.

- Operators shall immediately report unsafe conditions, including defects in the machine, to their supervisor.
- Operators shall not permit anyone to ride the hook or load.
- When the operator leaves his machine or repairs are being made, it is his/her responsibility to set the brakes, secure the boom, take the machine out of gear and turn off the engine.
- When making a lift, the operator will take operational signals only from the signal person authorized to give them. An emergency stop signal given by anyone will be acted upon by the operator.
- It is the joint responsibility of the operator and the qualified riggers to see that all hitches are secure and that all loose material is removed before the loads are lifted. The material should not be hoisted until it is ready to be put into place.
- Lifting hooks with proper latches shall be used on all operations where loads are being handled. Suspended loads shall be controlled by tag lines whenever necessary.
- Booms shall be equipped with a boom angle indicator and a device designed and constructed to prevent the boom from falling over backward. Boom heads, load blocks, and hooks shall be painted with high visibility paint.
- Where necessary to increase stability, cranes, except crawler cranes and boom type excavators, shall be equipped with outriggers of design and strength suitable for the work being performed.
- Hooks, wire rope, bearings, gears, friction clutches, chain drives, and other parts subject to wear must be inspected at regular intervals and repaired or replaced as required. The contractor shall maintain records of such inspections and resultant action taken.
- A thorough annual inspection of the hoisting machinery shall be made by a competent person or by a government or private agency recognized by the U.S. Department of Labor-OSHA. A record of these inspections must be maintained in office files.
- Crawler, truck, and locomotive cranes must be inspected monthly. Certification of the performance of these inspections is required.
- A designated competent person shall inspect machinery and equipment prior to each use, and during use, to make sure it is in safe operating condition.
- Rated load capacities, recommended operating speeds, special hazard warnings, or instructions shall be placed on all equipment so that it is visible to the operator while he/she is at his/her control station. Also, post hand signals for crane and derrick operators at the job site and on the equipment. Signals prescribed by applicable ANSI standards shall be used.
- Accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded to prevent employees from being struck or crushed by the crane.
- When loads are being hoisted, avoid walking under the lift or permitting an employee to be exposed to the swing of the lift.

Rigging

- Appoint one member of the crew to act as a signal person and instruct the crane operator not to accept signals from anyone else.
- The signal person must not order a move until getting an "all ready" from each crew member. Each worker, in turn, must be in the clear before giving an "all ready" to the signal person.

- If you must hold on to the chain, sling, choker, etc. to maintain tension, be sure your hands and feet are out of the way of pinch points before giving an "all ready."
- If it isn't possible to release the chain, sling, or choker, make sure your hand is clear of pinch points. Keep your hand far enough away so that a frayed wire or splinter on the chain can't catch your glove and jerk your hand into a pinch point.
- It's almost impossible to position the hook exactly over the load center, so watch out for a swing or roll. Anticipate the direction of the swing or roll and work away from it.
- Never place yourself between material, equipment, or other stationary objects and the load.
- Stay away from stacked material that may be knocked over by a swinging load.
- Never get under a suspended load, and keep out from under the crane's boom, too.
- When it's necessary to guide a load, use a tag line or hook. If you must walk with a load, keep it as close to the ground as possible.
- Beforehand, look over the spot where the load is to land. Remove unnecessary blocks or the objects that might fly up when struck by the load. When lowering or setting a load, keep your feet and all other parts of your body out from under. Set the load down easily and slowly. Then, if it rolls on the blocking, it will shift slowly, and you'll be able to get away.

FORKLIFTS & AERIAL LIFTS

Forklifts

- A trained and certified operator should only operate a forklift. Never let someone operate a forklift that is not certified to operate a forklift. Forklift certification is good for no longer than 3 years; retraining is then required.
- Retraining is also required after an incident or accident, and/or when the worker is to operate a new piece of equipment.
- Inspect prior to use. Check the equipment for any broken or cracked weld-points. Be sure the forks are spaced apart equally and free from cracks. Check the tires for proper inflation and the fuel and hydraulic fluid levels.
- Some forklifts are battery-powered; others use gasoline or diesel, and some use propane. If the forklift is battery powered, make sure workers DO NOT SMOKE in the charging area. If the lift is propane powered, make sure to change the fuel cylinder outside, away from any buildings, and remember NO SMOKING is the rule. As always, NO SMOKING when refueling with gasoline or diesel.
- Avoid using gasoline or diesel powered forklifts indoors.
- Use the forklift only as it was designed. No workers are allowed to ride in or on the forklift—only the operator.
- Personnel platforms used to raise workers must be engineered and designed to be used with the specific forklift model. This requires manufacturer approval. Also, the workers in the personnel platform must always wear fall protection.
- Personnel platforms must be securely attached to the forks.
- The forklift shall not be moved horizontally while the platform is occupied.

Aerial Lifts

- Lift controls shall be tested each day before use to determine that such controls are in safe working condition.
- Only qualified persons shall operate an aerial lift.
- Using an adjacent pole, structure, or equipment to tie off to while working from an aerial lift shall not be permitted.
- Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
- A harness shall be worn, and a short lanyard attached to the manufacturers engineered anchor point when working from an aerial lift.
- Boom and basket load limits specified by the manufacturer shall not be exceeded.
- The brakes shall be set, and when outriggers are used, they shall be positioned on pads or a solid surface.
- Wheel chocks shall be installed before using an aerial lift on an incline provided, they can be safely installed.
- An aerial lift truck shall not be moved when the boom is elevated in a working position with men in the basket, except for equipment that is specifically designed for this type of operation in accordance with the provisions of 1926.556(a)(1) and (2).
- Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.

TRENCH & EXCAVATIONS

- Cave in protection must be provided in all trenches and excavations 5 feet deep or greater.
- Evaluation of shoring, sloping, or other means to eliminate the potential for cave-ins must be performed prior to the start of work by a competent person who is knowledgeable in the areas of soil analysis, the use of protective systems, and the requirements of applicable standards and regulations.
- Work in an excavation or trench must always be under the immediate supervision of a competent person.
- Excavated material, tools and equipment must be placed at least 2 feet from the edge of any trench or excavation.
- Adequate precautions must be taken to ensure that vibrating equipment and vehicular traffic do not cause a cave-in.
- Always consider groundwater seepage as a potential cause of the collapse of any trench or excavation.
- Safe access/egress must be provided (ladder, ramp, etc.). The access equipment must be securely fastened in place. Access must be provided and located so no worker must laterally

travel more than 25 feet to access the egress point in any trench or excavation deeper than four feet.
- There are specific standards for the materials used for shoring, and for the angles of slopes used to protect workers. All the protection methods depend on the composition of the soil.
- If you aren't certain that the shoring, benching, or sloping is adequate, stay out of the excavation. Entering an unprotected excavation or trench may be the last thing you ever do.

TOOLS

Hand & Power Tools

- Only tools in safe working condition should be used.
- Inspect your tools daily to ensure that they are in proper working order. Damaged or defective tools must be immediately removed from service until repaired or replaced.
- Power saws, grinders, and other power tools must have proper guards in place at all times.
- Power tools should be hoisted or lowered by a hand line, never by the cord or hose.
- Cords and hoses must be kept out of walkways and off stairs and ladders. They must be placed so as not to create a tripping hazard for employees or to be subjected to damage from equipment or materials.
- Electrically powered tools and equipment must be grounded at all times when in use.
- Hand tools should be used for their intended purpose only. Unauthorized attachments should not exceed the design capacity of hand tools.
- When using the tool listed below or working near others using such tools, you must use personal protective equipment. If you have questions about the protective equipment or safety rules, ask your foreman.
- Use GFCI protection at all times.

Pneumatic Tools

- Eye protection is required, and face protection is recommended for employees working with pneumatic tools.
- Working with noisy tools such as jackhammers requires the proper, effective use of hearing protection.
- Pneumatic tools are to be fastened securely to the hose to prevent them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool will serve as an added safeguard.
- A safety clip or retainer must be installed to prevent attachments, such as chisels on a chipping hammer, from being unintentionally shot from the barrel.
- Screens must be set up to protect nearby workers from being struck by flying fragments around chippers, riveting guns, staplers, or air drills.
- Compressed air guns should never be pointed toward anyone. Users should never "dead-end" it against themselves or anyone else.

Powder-Actuated Tools

- Powder-actuated tools must be operated only by specially trained employees.
- These tools should not be used in an explosive or flammable atmosphere.

- Before using the tool, the worker should inspect it to determine that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions.
- The tool should never be pointed at anybody.
- The tool should not be loaded unless it is to be used immediately. A loaded tool should not be left unattended.
- Powder actuated strips with unspent loads shall never be left unattended.
- Powder actuated strips with unspent loads shall be stored in their original container and secured from unauthorized access.
- Powder actuated strips with unspent loads shall not be discarded with general trash or debris. Refer to manufacturers' documentation, as well as local ordinances with regards to hazardous waste disposal.
- In the event of a misfire, wait 30 seconds before releasing the tool from its depressed condition. Then release the tool from the work surface without changing the direction the tool is pointing. Manually advance the strip one cartridge and use the remaining shots.
- Misfired charges must not be used again.
- Hands should be kept clear of the barrel's end.
- To prevent the tool from firing accidentally, two separate motions are required for firing: one to bring the tool into position, and another to pull the trigger. The tools must not be able to operate until they are pressed against the work surface with a force of at least 5 pounds greater than the total weight of the tool.

Hydraulic Power Tools

- The fluid used in hydraulic power tools must be an approved fire-resistant fluid and must retain its operating characteristics at the most extreme temperatures to which it will be exposed.
- The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters, and other fittings must not be exceeded.

Jacks

- All jacks - lever and ratchet jacks, screw jacks, and hydraulic jacks - must have a device that stops them from jacking up too high.
- The manufacturer's load limit must be permanently marked in a prominent place on the jack and should not be exceeded.
- A jack should never be used to support a lifted load. Once the load has been lifted, it must immediately be blocked up.
- Use wooden blocking under the base, if necessary, to make the jack level and secure. If the lift surface is metal, place a 1-inch-thick hardwood block or equivalent between it and the metal jack head to reduce the danger of slippage.

To set up a jack, make certain of the following:

- The base rests on a firm level surface,
- the jack is correctly centered,
- the jack head bears against a level surface, and
- The lift force is applied evenly.

All jacks must be inspected, at a minimum, every six months. If a jack is used outside of a controlled environment (warehouse, shop, etc.), it should be inspected prior to being sent out and after being returned. If a jack is subjected to an abnormal load or shock, it should be thoroughly examined to make sure it has not been damaged.

Hydraulic jacks exposed to freezing temperatures must be filled with adequate antifreeze liquid.

ELECTRICAL

This section is designed to prevent injuries and incidents related to worker exposure to electrical energy. Exercise caution when working with and around electricity.

Electricity flows through a wire or conductor, just as water flows through a hose. A conductor that forms a path from the source of electricity to tools and equipment, and back to the source is called a circuit or loop. When the loop is closed, the path along the conductor is unobstructed and the circuit is complete, and electricity can then be distributed to tools and other equipment on that loop.

Electrical current is always looking for the path of least resistance back to ground. Shocks and electrocution occur when the human body becomes part of that loop, and our bodies become the quickest path to ground for current to flow.

Below are steps to minimize exposure to hazardous electrical current.

Isolate

- Regularly inspect temporary and flexible cords for visible damage. Cords with damage to the outer jacket, damaged insulation around wires, missing ground prongs, spliced cords, and cords exposed to abnormal conditions should be removed from service until they can be repaired by a qualified electrician.
- Electrical tape or duct tape are NOT acceptable means of repair, as that material will not restore the original strength, flexibility, or insulation characteristics of that conductor.
- Use only 3-wire type extension cords designed for hard or junior hard service. (Look for any of the following letters imprinted on the casing: S, ST, SO, STO, SJ, SJT, SJO, SJTO.)
- Verify conductors are properly protected by means of outlet covers, intact knock outs, breaker panels, blanks, or other “dead front” devices.
- Utilize insulation barriers to prevent physical contact with conductors.

Distance

- Always maintain a minimum of 10’ from any energized overhead power lines when erecting or using scaffolding, using a ladder, or are in a situation where tools or material could potentially contact a power line. Always maintain a minimum of 20’ from any energized overhead power line when operating a crane nearby.
    - Refer to TABLE A in Subpart CC of the CFR 1926 Safety and Health Regulations for Construction for additional information on minimum distances required.
- Elevate cords when possible, including extension cords, power cords for tools, temporary light strings, portable distribution stations or “Spider Boxes”.

- Do not suspend cords by conductive material, such as nails, screws, or wire.
- Do not allow cords to come into contact with sharp edges, such as metal frame track or metal door sweeps.
- Do not allow cords to be pinched or crushed by vehicle or equipment traffic, or in closed doors or windows.

Control

- Deenergize and visibly ground electrical distribution and transmission lines.
- Utilize Ground Fault Circuit Interrupters (GFCI) on all temporary circuits.
    - Portable GFCI's must be used on all circuits that are not otherwise protected by nonportable GFCI's such as wall receptacle GFCI's.
    - If GCFIs are unavailable, an Assured Equipment Grounding Conductor Program (AEGCP) must be utilized.
- Implement a Lock Out/Tag Out (LOTO) program.
    - LOTO practices are a means to control hazardous energy (electrical, mechanical, hydraulic, etc.) at its source, so that it cannot be reintroduced during servicing or repair. A lockout device, such as a padlock or other specialized lockout device, will be used to physically isolate an energy source, such as circuit breaker, valve, wall switch, or disconnect switch, from the system or equipment that uses it. The tagout device is utilized to communicate information regarding why the equipment is locked out, and the individual who is responsible for installing and removing the tag.

FIRE PREVENTION

Hazards

Fire and explosion hazards can exist in almost any work area. Potential hazards include:

- Improper operation or maintenance of gas-fired equipment.
- Improper storage or use of flammable liquids.
- Smoking in prohibited areas.
- Accumulation of trash.
- Unauthorized Hot Work operations.

Hazard Control

Elimination of Ignition Sources

All nonessential ignition sources must be eliminated where flammable liquids are used or stored. The following is a list of some of the more common potential ignition sources:

- Open flames, such as cutting and welding torches, furnaces, matches, and heaters-these sources, should be kept away from flammable liquids operations. Cutting or welding on flammable liquids equipment should not be performed unless the equipment has been properly emptied and purged with a neutral gas such as nitrogen.

- Chemical sources of ignition such as d.c. motors, switched, and circuit breakers-these sources should be eliminated where flammable liquids are handled or stored. Only approved explosion-proof devices should be used in these areas.
- Mechanical sparks-these sparks can be produced as a result of friction. Only non-sparking tools should be used in areas where flammable liquids are stored or handled.
- Static sparks-these sparks can be generated as a result of electron transfer between two contacting surfaces. The electrons can discharge in a small volume, raising the temperature to above the ignition temperature. Every effort should be made to eliminate the possibility of static sparks. Also, proper bonding and grounding procedures must be followed when flammable liquids are transferred or transported.

Removal of Incompatibles

Materials that can contribute to a flammable liquid fire should not be stored with flammable liquids. Examples are oxidizers and organic peroxides, which, on decomposition, can generate large amounts of oxygen.

Control of Flammable Gases

Generally, flammable gases pose the same type of fire hazards as flammable liquids and their vapors. Many of the safeguards for flammable liquids should also be applied to flammable gases. Flammable gas could produce toxic combustion products, and other properties such as toxicity, reactivity, and corrosivity also must be taken into account.

Fire Extinguishers

A portable fire extinguisher is a "first aid" device and is very effective for use on small fires, and as a means to clear fire from exit routes in the event of a fire emergency. The use of a fire extinguisher that matches the class of fire, by a person who is well trained, can save both lives and property. Portable fire extinguishers must be installed in workplaces regardless of other firefighting measures. The successful performance of a fire extinguisher in a fire situation largely depends on its proper selection, inspection, maintenance, and distribution.

Classification of Fires and Selection of Extinguishers

Fires are classified into four general categories depending on the type of material or fuel involved. The type of fire determines the type of extinguisher that should be used to extinguish it.

- Class A fires involve materials such as wood, paper, and cloth that produce glowing embers or char.
- Class B fires involve flammable gases, liquids, and greases, including gasoline and most hydrocarbon liquids, which must be vaporized for combustion to occur.
- Class C fires involve fires in live electrical equipment or in materials near electrically powered equipment.
- Class D fires involve combustible metals, such as magnesium, zirconium, potassium, and sodium.

Extinguishers will be selected according to the potential fire hazard, the construction and occupancy of facilities, hazard to be protected, and other factors pertinent to the situation.

Employees should be trained to use the P.A.S.S. method to operate a fire extinguisher:

Employees should be trained to use the PASS method to extinguish a fire.

WELDING & BURNING OPERATIONS

Welding and burning operations have a high potential for personal injuries and fires. When doing either, you must follow these precautions:

- A hot work permit must be completed prior to the start of any hot work activity. The permit must be posted and available for review within the area where the hot work will be taking place.
- An individual shall be assigned to act as a fire watch. This person must be trained to properly operate portable fire extinguishers, and methods for activating any fire alarm system. Personnel engaged as the fire watch cannot perform other duties, as their sole duty is to watch for and respond to fires that occur during hot work, for a minimum of 60 minutes after hot work is complete.
- Before starting to burn or weld, you must inspect your work area to ensure that sparks or molten metal won't fall on combustible materials, or into adjacent work areas. Fire blankets must be used to prevent hot material from falling on people or combustible materials.
- When welding near others, they must be protected from the arc rays by noncombustible screens or must wear adequate eye protection. If you can't provide the necessary safeguards, check with your supervisor.
- Ensure ventilation is adequate to prevent exposure to fumes and gasses.
- Do not weld or burn in a hazardous area without obtaining written authorization from the responsible authority.
- Make certain that suitable fire extinguishing equipment is available in your work area.
- Be aware of the locations of fire alarms and emergency exits.
- Inspect equipment for excessive wear and tear, such as frayed wires or leaking hoses.
- Utilize appropriate PPE, including, but not limited to eye protection with suitable filter lenses and impact resistance ratings, flame resistant gloves and outerwear, and leather workboots.
- Keep all welding leads and burning hoses off floors, walkways, and stairways.
- Never weld or burn on barrels, tanks, piping, or other systems, which may have contained either combustible or unknown products without first obtaining approval from your Safety Representative or other responsible authority.

- The frames of all welding machines must be grounded (except reverse polarity types).
- Ensure ventilation is adequate to prevent exposure to fumes and gases.
- Do not use matches to light torches. Spark igniters must be used. Torches must not be used to light cigarettes, etc.
- When a crescent or special wrench is required to operate the acetylene cylinder valve, the wrench must be kept in position on the valve.

Storage & Handling of Cylinders

- The protective caps must be kept on all cylinders, not in actual use.
- Keep cylinder valves closed except when in use.
- All cylinders must be properly secured to prevent tipping.
- Do not lift cylinders by the caps.
- Cylinders must not be taken into confined spaces.
- Group and store compressed gases based on their hazard class. Provide adequate space or segregation, and post conspicuous signage in the area.
- Cylinders should not be exposed to temperatures above 125° F.
- Cylinders should be regularly inspected for exterior corrosion, denting, bulging, gouges, digs, or leaks, and be removed from service as needed.

CONCRETE & MASONRY

There are some unique safety hazards associated with concrete and masonry construction. Here are a few to always remember:

- Do not place loads on any portion of a concrete structure until it has been determined that the structure can support those loads. This determination must be based on information provided by someone who is qualified in structural design and engineering.
- All protruding reinforcing steel, onto and into which someone could fall, must be guarded to eliminate the hazard of impalement. Square caps, channels, or troughs should be used. Mushroom caps are not appropriate for use as impalement protection; they are there primarily to prevent scratch injuries.
- Workers are not permitted to work under concrete buckets or hoppers while they are being raised or lowered into position.
- Workers are not permitted to position themselves between concrete buckets or hoppers and an adjacent structure, such as a building or piece of equipment.
- Formwork must be designed, fabricated, erected, supported, and maintained so that it can support all loads, vertical & horizontal, that may be applied to it.
- If a masonry wall over 8 feet high is not adequately supported by itself or another structure, then it must be braced to prevent it from tipping over or collapsing.
- A limited access zone must be established before starting to construct a masonry wall. The zone must be equal to the height of the wall plus four feet, run the entire length of the wall and be on the un-scaffolded side of the wall. Only those employees who are actively engaged in constructing the wall may enter the zone. The limited access zone must remain until the wall is adequately supported to prevent overturning or collapse.

VEHICLES AND MOBILE EQUIPMENT

- Train workers to stay clear of backing and turning vehicles and equipment with rotating cabs.
- When possible, designated equipment routes should be established away from foot traffic.
- Workers must wear high visibility garments when working around equipment.
- Be sure that all vehicles have fully operational braking systems and brake lights.
- Ensure equipment on site is equipped with rollover protective structures (ROPS), as needed.
- Maintain back-up alarms for equipment with a limited rear view or use someone to help guide them back.
- Spotters, positioned in the driver's line of site, should be utilized in high traffic areas.
- Workers may only ride in designated passenger areas equipped with seatbelts. Riding in beds of pick up trucks, and on equipment fenders and steps is prohibited.
- Operators must be trained, qualified, and, depending on the equipment, certified. Operator training records must be reviewed prior to the start of their work.
- Operators should make adjustments to seat, mirrors, etc. prior to operating the equipment.
- Never leave unattended equipment running.
- When equipment is turned off, keys must be secured and parking brake set.
- Block up the raised bed when inspecting or repairing dump trucks.
- Maintain at least a 10-foot clearance from overhead power lines when operating equipment.
- Know the rated capacity of the crane and its attachments and use it accordingly.
- Ensure the stability of the crane.
  Use a tag line to control materials moved by a crane.

CONFINED SPACES

A confined space is a space that meets all three of these requirements:

1. Is large enough or so configured that an employee can bodily enter and perform work
2. Has limited or restricted means for entry or exit.
3. Is not designed for continuous employee occupancy.

Permit required confined space is a confined space that has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere.
- Contains a material that has the potential for engulfing an entrant.
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly covering walls or by a floor, which slopes downward and tapers to a smaller cross-section.
- Contains any other recognized serious safety or health hazard.

Confined spaces must only be entered after evaluation by a competent person. All entrants are required to be trained. Permit required confined spaces must be planned out and rescue provided. Qualified and trained workers should only undertake all of these tasks.

MATERIAL STORAGE & HANDLING

- All material must be properly stacked and secured to prevent sliding, falling, or collapse. Aisles, stairs, passageways must be kept clear at all times.
- Protruding nails must be bent or pulled when stripping forms or uncrating materials.
- Pipe, conduit and bar stock should be stored in racks or stacked and blocked to prevent movement.
- Materials or scrap should never be dropped from elevated levels without trash chutes.
- Stored materials must not block any exit from a building.

MANUAL LIFTING (BACK SAFETY)

- Lifting equipment, such as forklifts, cranes, lifting slings, hoists, jacks, skates, and hand trucks, must be used to lift heavy, awkward, or over sized pieces of material. This equipment will be provided to workers, as needed. When the use of lifting equipment is impractical or impossible, or a load cannot be broken down into smaller units, two-man lifts should be used.
- During a manual lift, follow these safe lifting techniques:
    - Stand or kneel close to the object.
    - If the object has handholds, use them.
    - With one knee resting on the floor, tighten your core muscles, and lift the object between your legs. Hold the object close to your body. Rest the object on your knee as you prepare to stand.
    - As you stand, use your leg muscles, not your back. Do not twist while lifting; step to the side if you need to turn.

ERGONOMICS

Ergonomics is a principle concerned with safely and efficiently fitting a person to a job. The intention is to protect workers from musculoskeletal disorders (MSDs), which typically manifest as injuries to soft tissues: muscles, nerves, blood vessels, ligaments, and tendons. These injuries can be caused by lifting heavy items, bending, reaching overhead, pushing or pulling objects, maintaining an awkward body posture, and performing repetitive motions.

MSD Prevention

Working conditions, including but not limited to work stations, tools, environment, material, frequency of movements, distance an object is to be moved, both horizontally and vertically, and quality of the grasp or handhold, must be assessed prior to the start of work to identify the potential for a MSD to occur. Work stations, processes, and company policies will be continually reviewed by supervision in order to identify areas where ergonomic safety can be improved.

<u>If a worker feels they cannot perform a specific task with the tools and processes provided, they must report this to their supervisor before continuing.</u>

Injury Reporting

In the event of an injury suspected to be caused by ergonomic contributing factors, an Injury Accident Investigation Report must be completed, with the involvement of both the supervisor and the affected employee. Any findings from that investigation should be incorporated into future safe work practices whenever possible.

VIOLENCE PREVENTION

The company recognizes that workplace violence is an occupational hazard and that a proactive approach in preventing workplace violence is necessary.

Policy

It is the policy of the company to provide a place of employment that is free from recognized hazards that cause or are likely to cause death or serious physical harm to employees or the public. The company is committed to maintaining a safe, healthful, and efficient working environment where employees and the public are free from the threat of workplace violence. When these workplace violence hazards are recognized and identified, then proper training and appropriate security measures will be implemented.

Prohibited Behavior

Prohibited behaviors are those behaviors that:

- Threaten the safety of an employee and/or customer.
- Affect the health, life, or well-being of an employee and/or customer.
- Result in damage to the company, employee, or public property (excluding vehicle and equipment accidents).

Such acts include, but are not limited to:

- Threatening, intimidating, coercing, harassing, or assaulting an employee or the public.
- Sexually harassing an employee or the public.
- Allowing unauthorized people access to buildings without management permission.
- Using, duplicating, or possessing keys to buildings or offices within the building without authorization.
- Damaging, or attempting to damage the property of the company, an employee, or the public.
- Carrying weapons (concealed or exposed) on company property.

Reporting & Investigation

Any employee (including a supervisor or manager) who has been threatened, is a victim of a violent act, witnesses any threats or violent acts, or learns of any threats or violent acts, is to report immediately such activity to their supervisor or the HR Manager. Each report will be promptly evaluated and investigated by the management to determine what follow-up actions are necessary. Management has the authority and responsibility to request law enforcement intervention if it is thought to be necessary.

Confidentiality

Information about an incident or threat will be disclosed only on a need-to-know basis, so that a fair and thorough investigation can be conducted, and appropriate corrective action can be taken. The company will make every effort to ensure the safety and privacy of the individuals involved.

Discipline

An employee who engages in prohibited behavior will be subject to appropriate disciplinary action, as determined by the findings of the investigation. Such discipline may include warnings, demotion, suspension, or immediate dismissal. In addition, certain actions may cause the employee to be held legally liable under state or federal law.

Retaliation

Episodes of workplace violence can only be eliminated if employees are willing and able to report threats, violent acts and other unsafe conditions. To encourage employees to come forward without the fear of retaliation, the company promises to promptly investigate all complaints of retaliation and impose appropriate disciplinary action, up to and including dismissal.

Counseling

Dealing with or being exposed to a violent or abusive situation can be emotionally unsettling. The company will provide appropriate counseling to reduce tension and stress. Follow-up counseling services may be provided and arranged by employees' supervisors as requested to affected employees. If employees prefer external counseling for emotional and/or family support, they should be encouraged to contact the HR Manager. In all instances, confidentiality is assured.

Violence Prevention Assessment

Evaluate the physical layout of the facility. Check for and consider the following:

- External lighting to cover walkways and parking areas.
- Controlled access to all building entry points
- Video surveillance cameras at critical points
- Procedures for allowing access to the facility.
- Number/gender of employees on-site between 10 p.m. and 5 a.m.
- Cash transactions conducted with the public during working hours.
- Safe or lock-box on the premises for temporary cash deposits
- Security history of the establishment and surrounding areas.
- Physical security measures and barriers
- Work practices implemented to increase security.
- Security training for employees
- Procedures to limit stress caused by workplace changes.
- Application of an Employee Assistance Program
- Termination procedures
- Pre-hire screening procedures
- Quarterly audits of this program including corrective actions

EMERGENCY PROCEDURES

Basic Procedures

- ALERT WORKERS—Use an air horn or similar emergency siren to alert all workers on the project of the emergency if evacuation of the site is needed.
- GIVE FIRST AID—Give first aid to the injured as soon as possible, if needed.
- CALL 911—Call an ambulance and any other emergency services that are required.
- GUIDE THE FIRST RESPONDERS—Meet and direct the ambulance, fire trucks, or other emergency response personnel to the accident scene.
- PROVIDE PROTECTION—Protect the accident scene from continuing or further hazards—for example, traffic, operating machinery, fire, or live wires.
- ISOLATE THE ACCIDENT SCENE—Barricade, rope off or post a guard at the scene to make sure that nothing is moved or changed until the authorities have completed their investigation.
- ADVISE MANAGEMENT—Inform senior management. They can then contact relatives, notify authorities, and start procedures for reporting and investigating the accident.

Fire Emergencies

- Use a fire extinguisher only if trained, and only to fight very small fires.
- Notify personnel in the room/area of the fire to evacuate immediately.
- Pull/activate the nearest fire alarm box, if available.
- Call the Fire Department by dialing 911.
- Turn off any gas being used.
- Walk to the nearest stairwell/exit and evacuate the building. DO NOT USE ELEVATORS.

Chemical Emergencies

- Notify personnel in the room/area of the spill to evacuate immediately.
- Close windows and doors to the room/area of the spill and evacuate.
- Call 911 and report the spill to the Fire Department.
- Remove clothing and wash all parts of the body, which may have come in contact with the chemical using copious amounts of water.
- Refer to the chemicals Safety Data Sheet for other specific first aid treatment.
- All personnel who may have been contaminated by the chemical should report to and remain in one safe location until the arrival of the Fire Department. This will decrease the chance of contaminating other personnel and other areas.
- Do not re-enter the room/area until the appropriate safety officials have determined that the area is safe to re-enter.

Bomb Threat

- Engage caller in conversation.
- Be calm and, if possible, take notes of the conversation.
- Try to determine:
    - The exact location of the bomb.
    - The source of the threat.

  - Time of the explosion.
  - Background noises on the phone.
  - Qualities of the caller's voice.
  - Sex and approximate age.
- If possible, have someone listen in on the call.
- Check CALLER ID or dial *69 to determine where the call originated.
- Call the Police by dialing 911.
- Notify Site Management.

Active Shooter

In the event of an active shooter incident:

- Remain calm and do your best to think rationally.
- Call 911.
- RUN. If it is safe to do so, get far away from the scene as quietly and quickly as possible.
- HIDE. Determine the best location to hide and get there quietly and quickly. Lock the door or room with anything that can be used if inside the building. Stay out of sight from windows, etc.
- FIGHT. This is the last resort but be prepared to defend yourself if necessary.
- Do not cause attention by sounding alarms, horns, yelling, etc.
- Try to notify other employees and workers inside the building via text or some other way without causing attention.
- Do not congregate in one area or at the emergency evacuation point.
- Make yourself available to First Response, Police, etc. when they arrive. They may need information about the buildings, site layout, headcounts of workers, etc.

Lightning

- Continually monitor weather forecasts and notify workers when the potential for inclement weather is present.
- Establish stop/resume work criteria for when lightning is present.
- Verify that means to notify workers of lightning safety warnings and alerts, such as an air horn, whistle, two-way radio, or telephone, are in place. Keep contact lists and team directories current.
- Designate locations as safe shelters. These should be fully enclosed indoor spaces, and never outdoors.
- If a worker has been struck by lightning, call 911 immediately.

Tornado Watches & Warnings

- When a tornado watch is announced, this means that conditions are right for the formation of tornadoes. When a tornado warning is issued, this means a tornado has been sighted in your vicinity, and you should take cover immediately.
- Seek shelter in a steel frame or reinforced concrete building.
- Always stay away from the windows, exterior walls, and exterior doors.

Earthquakes

- Stay calm. Don't panic. Stay where you are.
- If indoors, take cover under a desk, table, bench, or against an inside wall or in an interior doorway.
- Stay away from windows and exterior doors.
- If you are outside, move away from buildings and utility wires.
- Don't re-enter buildings until emergency response personnel advise it is safe.
- Be prepared for aftershocks (additional shaking).

Hurricanes

- Identify vulnerable work in progress and determine how to best protect it from damage, whether by boarding up windows, sandbags, capping pipes, buried incomplete underground, etc.
- Identify and avoid long-term material storage in areas prone to flooding.
- Ensure that all loose scrap material is gathered up and disposed of in the dumpsters.
- Ensure that all equipment is relocated out of excavations.
- Lower mobile crane booms.
- Raise the hook, trolley in and allow tower cranes to weathervane.
- Ensure backup electrical generator power as required.
- Turn off the power and water to the office trailers.

HAZARD COMMUNICATION PLAN

For additional information, please refer to the full Hazard Communication Plan within the Master Safety Program.

GENERAL CHEMICAL SAFETY

Assume all chemicals are hazardous. The number of hazardous chemicals and the number of reactions between them is so large that prior knowledge of all potential hazards cannot be assumed. Use chemicals in as small quantities as possible to minimize exposure and reduce possible harmful effects. Any employees who are required to use or handle hazardous chemicals will be trained in how to safely use those specific chemicals.

The following general safety rules shall be observed when working with chemicals:

- Read and understand the Safety Data Sheets (SDS).
- Keep the work area clean and orderly.
- Use the necessary safety equipment.
- Carefully label every container with the identity of its contents and appropriate hazard warnings.
- Store incompatible chemicals in separate areas.
- Substitute less toxic materials whenever possible.

- Limit the volume of volatile or flammable material to the minimum needed for short operation periods.
- Provide means of containing the material if equipment or containers should break or spill their contents.

Task Evaluation

Each task that requires the use of chemicals should be evaluated to determine the potential hazards associated with the work. This hazard evaluation must include the chemical or combination of chemicals that will be used in work, as well as other materials that will be used near the work. If a malfunction during the operation has the potential to cause serious injury or property damage, a Safe Operational Procedure (SOP) should be prepared and followed. Operations must be planned to minimize the generation of hazardous wastes.

Chemical Storage

The separation of chemicals (solids or liquids) during storage is necessary to reduce the possibility of unwanted chemical reactions caused by accidental mixing. Explosives should be stored separately outdoors. Use either distance or barriers (e.g., trays) to isolate chemicals into the following groups:

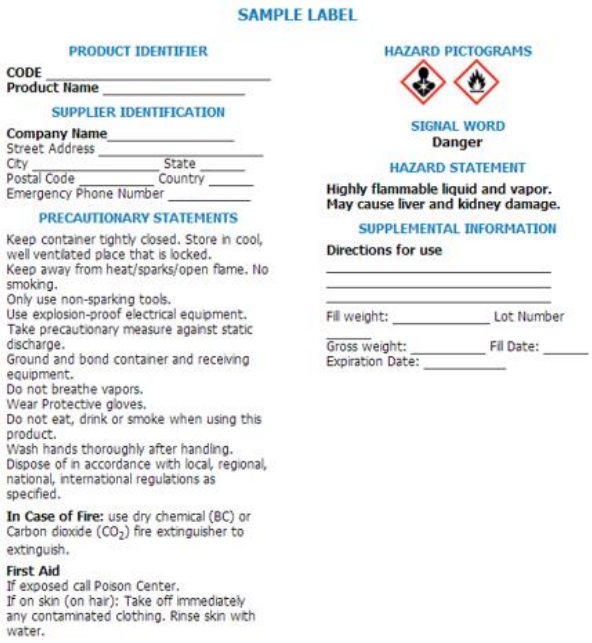
- Flammable Liquids: store in approved flammable storage lockers.
- Acids: treat as flammable liquids
- Bases: do not store bases with acids or any other material
- Other liquids: ensure other liquids are not incompatible with any other chemical in the same storage location.
- Lips, strips, or bars are to be installed across the width of storage shelves to restrain the chemical containers.
- Chemicals will not be stored in the same refrigerator used for food storage. A label on the door must appropriately identify refrigerators used for storing chemicals.
- Water, sports drink, or soft drink containers shall not be used as secondary containers.

Container Labels

It is extremely important that all containers of chemicals are properly labeled. This includes every type of container from a 5000-gallon storage tank to a spray bottle of degreaser. The following requirements apply:

- All containers will have the appropriate label; tag or marking prominently displayed that indicates the identity, safety, and health hazards.
- Portable containers, which contain a small amount of chemical, need not be labeled if they are used immediately that shift but must be under the strict control of the employee using the product.
- All warning labels, tags, etc., must be maintained in a legible condition and not be defaced. Weekly inspections will check for compliance of this rule.
- Incoming chemicals are to be checked for proper labeling.

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown on below:



SAMPLE LABEL

PRODUCT IDENTIFIER

CODE _____
Product Name _____

SUPPLIER IDENTIFICATION

Company Name_____
Street Address _____
City _____ State _____
Postal Code _____ Country _____
Emergency Phone Number _____

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.
Keep away from heat/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measure against static discharge.
Ground and bond container and receiving equipment.
Do not breathe vapors.
Wear Protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO_2) fire extinguisher to extinguish.

First Aid
If exposed call Poison Center.
If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

HAZARD PICTOGRAMS

SIGNAL WORD
Danger

HAZARD STATEMENT

Highly flammable liquid and vapor.
May cause liver and kidney damage.

SUPPLEMENTAL INFORMATION

Directions for use
_____
_____
_____

Fill weight: _____ Lot Number _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____

Hazard Communication Standard Pictogram

As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification. Pictograms and hazards are found below:

HCS Pictograms and Hazards

Health Hazard ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity	**Flame** ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides	**Exclamation Mark** ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder ▪ Gases Under Pressure	**Corrosion** ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals	**Exploding Bomb** ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides
Flame Over Circle ▪ Oxidizers	**Environment** (Non-Mandatory) ▪ Aquatic Toxicity	**Skull and Crossbones** ▪ Acute Toxicity (fatal or toxic)

Emergencies and Spills

In case of an emergency, implement the proper Emergency Action Plan.

- Evacuate people from the area.
- Isolate the area.
- If the material is flammable, turn off ignition and heat sources.
- Only personnel specifically trained in emergency response are permitted to participate in chemical emergency procedures beyond those required to evacuate the area.
- Call for Emergency Response Team assistance if required.

Housekeeping

- Maintain the smallest possible inventory of chemicals to meet immediate needs.
- Periodically review stock of chemicals on hand.
- Ensure that storage areas, or equipment containing large quantities of chemicals, are secure from accidental spills.
- Rinse emptied bottles that contain acids or inflammable solvents before disposal.
- Recycle unused laboratory chemicals wherever possible.
- DO NOT Place hazardous chemicals in salvage or garbage receptacles.
- DO NOT Pour chemicals onto the ground.
- DO NOT Dispose of chemicals through the storm drain system.
- DO NOT Dispose of highly toxic, malodorous chemicals down sinks or sewer drains.

Contractors

All outside contractors working inside Company Facilities are required to follow the requirements of this program. The Company will provide Contractor's information concerning:

- Location of SDS
- Precautions to be taken to protect contractor employees.
- Potential exposure to hazardous substances
- Chemicals used in or stored in areas where they will be working.
- Location and availability of Safety Data Sheets
- Recommended Personal Protective Equipment
- Labeling system for chemicals

SAFETY DATA SHEET (SDS) INFORMATION

The Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)), revised in 2012, requires that the chemical manufacturer, distributor, or importer provide Safety Data Sheets (SDSs), formerly known as MSDSs or Material Safety Data Sheets, for each hazardous chemical to downstream users to communicate information on these hazards. The information contained in the SDS is largely the same as the MSDS, except now the SDSs are required to be presented in a consistent user-friendly, 16-section format. This brief provides guidance to help workers who handle hazardous chemicals to become familiar with the format and understand the contents of the SDSs.

The SDS includes information such as the properties of each chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical. The information contained in the SDS must be in English (although it may be in other languages as well). In addition, OSHA requires that SDS preparers provide specific minimum information as detailed in Appendix D of 29 CFR 1910.1200. The SDS preparers may also include additional information in various sections.

Sections 1 through 8 contain general information about the chemical, identification, hazards, composition, safe handling practices, and emergency control measures (e.g., firefighting). This information should be helpful to those that need to get the information quickly. Sections 9 through 11 and 16 contain other technical and scientific information, such as physical and chemical properties, stability and reactivity information, toxicological information, exposure control information, and other information including the date of preparation or last revision. The SDS must also state that no applicable information was found when the preparer does not find relevant information for any required element.

The SDS must also contain Sections 12 through 15, to be consistent with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS), but OSHA will not enforce the content of these sections because they concern matters handled by other agencies.

A description of all 16 sections of the SDS, along with their contents, is presented below:

Section 1: Identification

This section identifies the chemical on the SDS as well as the recommended uses. It also includes the manufacturer or distributor name, address, and phone number, emergency phone number, and restrictions on use.

Section 2: Hazard(s) Identification

This section identifies the hazards of the chemical presented on the SDS and the appropriate warning information associated with those hazards.

Section 3: Composition/Information on Ingredients

This section identifies the ingredient(s) contained in the product indicated on the SDS, including impurities and stabilizing additives. This section includes information on substances, mixtures, and all chemicals where a trade secret is claimed.

Section 4: First-Aid Measures

This section describes symptoms/effects the chemical may have on an individual exposed to the chemical, and the initial care that should be given by untrained responders.

Section 5: Fire-Fighting Measures

This section provides recommendations for fighting a fire caused by the chemical.

Section 6: Accidental Release Measures

This section provides recommendations on the appropriate response to spills, leaks, or releases, including containment and cleanup practices to prevent or minimize exposure to people, properties, or the environment. It may also include recommendations distinguishing between responses for large and small spills where the spill volume has a significant impact on the hazard.

Section 7: Handling and Storage

This section provides guidance on the safe handling practices and conditions for safe storage of chemicals.

Section 8: Exposure Controls/Personal Protection

This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure.

Section 9: Physical and Chemical Properties

This section identifies physical and chemical properties associated with the substance or mixture.

Section 10: Stability and Reactivity

This section describes the reactivity hazards of the chemical and the chemical stability information.

Section 11: Toxicological Information

This section identifies toxicological and health effects information, including routes of exposure, related symptoms, acute and chronic effects, and numerical measures of toxicity, or indicates that such data are not available.

Section 12: Ecological Information (non-mandatory)

This section provides information to evaluate the environmental impact of the chemical(s) if it were released to the environment.

Section 13: Disposal Considerations (non-mandatory)

This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices. To minimize exposure, this section should also refer the reader to Section 8 (Exposure Controls/Personal Protection) of the SDS.

Section 14 : Transport Information (non-mandatory)

This section provides guidance on classification information for shipping and transporting hazardous chemical(s) by road, air, rail, or sea.

Section 15: Regulatory Information (non-mandatory)

This section identifies the safety, health, and environmental regulations specific for the product that is not indicated anywhere else on the SDS.

Section 16: Other Information

This section indicates when the SDS was prepared or when the last known revision was made. The SDS may also state where the changes have been made to the previous version. You may wish to contact the supplier for an explanation of the changes. Other useful information also may be included here.

Employer Responsibilities

Employers must ensure that the SDSs are readily accessible to employees for all hazardous chemicals in their workplace. This may be done in many ways. For example, employers may keep the SDSs in a binder or on computers as long as the employees have immediate access to the information without leaving their work area when needed and a back-up is available for rapid access to the SDS in the case of a power outage or other emergency. Furthermore, employers may want to designate a person(s) responsible for obtaining and maintaining the SDSs. If the employer does not have an SDS, the employer or designated person(s) should contact the manufacturer to obtain one.

Employee Use of SDS

For SDS use to be effective, employees must:

- Know the location of the SDS.
- Understand the major points for each chemical.
- Check SDS when more information is needed, or questions arise.
- Be able to quickly locate the emergency information on the SDS.
- Follow the safety practices provided on the SDS.

Location of SDS

The supervisor of the jobsite will conduct a Hazardous Chemical Inventory. From this inventory a Chemical Inventory List will be created. The Chemical List and SDSs will be kept in this binder following this plan.

TRAINING

Employees will be trained in hazard communication. The training will be documented on the Employee Training Record Form found in this program. Employees will be trained in the following areas:

a. Chemical Storage
b. Container Labels
c. Emergencies and Spills
d. Housekeeping
e. Safety Data Sheets (SDS)
f. General Chemical Usage
g. Specific Chemical Hazards and Precautions

VEHICLE SAFETY PLAN

PURPOSE

Vehicular accidents are the number one killer of workers in the United States. This program covers safe operation and maintenance of all company vehicles except those company vehicles regulated by the Interstate Commerce Commission or US Department of Transportation. Examples of vehicles covered include company-owned-or-leased passenger vehicles, pickup trucks, light trucks and vans that do not require a commercial driver's license for operation. Privately owned vehicles used during and for work purposes should also follow this plan.

POLICY

- All company vehicles will be operated only by employees authorized by company management for specific company purposes.
- Vehicles will be maintained in a safe condition at all times. In the event of an unsafe mechanical condition, the vehicle will be immediately placed out of service and the appropriate manager notified.
- Only qualified company vehicle mechanics or approved service facilities are permitted to perform maintenance on company vehicles.
- All vehicles will be operated, licensed and insured in accordance with applicable local, state and federal laws.
- All employees authorized to operate any company owned or leased vehicle will be included in the company random drug-testing program.
- Mobile phone use must be hands free. If hands free operation is not possible, the authorized employee will drive the vehicle to an off road location where the vehicle can be stopped.
- Sending or reviewing text messages or emails, or using other mobile devices, such as laptop computers or MP3 players, while driving is prohibited.
- All authorized employees must possess a valid state driver's license for the class vehicle authorized.
- Authorized employees must have a driving record at least equal to that required for maintaining a commercial driver's license.

RESPONSIBILITIES

Management

- Arrange for defensive driving training prior to initial authorization, and annually thereafter.
- Supplementary defensive driving training will be performed after any incident, or as deemed necessary by supervision.
- Train authorized employees on vehicle inspection and accident procedures.
- Arrange for required periodic maintenance checks in order to maintain company vehicles in a safe and operable condition.
- Immediately remove from service any vehicle with any safety defect.
- Maintain active insurance policies on all company vehicles.
- Allow only authorized employees to operate company vehicles.

- Maintain a list of authorized employees in their department.
- Not allow operation of any company vehicle by an authorized employee taking medication that warns of drowsiness, tiredness, or fatigue.
- Establish a key control program for all assigned vehicles.
- Establish a reprimand policy for drivers violating the company's Vehicle Safety Plan.

Authorized Employees

- Operate company vehicles in a safe, responsible manner and obey all traffic laws.
- Participate in driver-training programs.
- Participate in the company drug-testing program.
- Ensure all vehicle occupants use seatbelts before moving the vehicle.
- Follow safe fueling procedures.
- Conduct a pre-use inspection before any first daily use.
- Immediately report any safety defects or vehicle problems.
- Report use of all prescription medication.

TRAINING

All employees authorized to operate company-owned-or-leased vehicles will participate in initial and annual driver-safety training that will include:

- Defensive driving
- Vehicle inspection
- Accident procedures
- Hazardous weather driving
- Procedure for notification of unsafe vehicle
- Backing procedures (light truck & van operators)
- Cargo area storage (light truck & van operators)
- Loading & unloading (light truck & van operators)

VEHICLE INSPECTION

Driver Inspections- Prior to each first daily use the driver shall inspect the vehicle for proper operation of the following safety features, as applicable:

- Horn
- Backup warning
- Head, tail & signal lights.
- Windshield wipers
- Tire inflation (visual check)
- Brakes
- Steering control
- Mirrors
- No operational warning lights
- Accident kit in glove compartment

- Fire extinguisher (light trucks & vans)
- Broken glass

Mechanical Inspections - Every company vehicle will be inspected by a qualified vehicle mechanics at least every 6 months.

Inspection & maintenance points include:

- Road test
- Visual inspection of brake system - wheel removal required.
- Fluid system levels & visual inspection
- Brake pad wear.
- Belts & hoses
- Battery condition
- Filter replacement
- Lubrication
- Oil change
- Emissions systems visual inspection
- Tire treads

All vehicle inspections and maintenance records will be maintained in the vehicle and in the office.

DRIVING SAFELY

Starting

- Conduct pre-use inspection.
- Plan route prior to leaving. Check for adverse road or weather conditions.
- Use seatbelts at all times.
- Adjust seat & mirrors before starting vehicle.
- Allow a 15 second warm up time.
- Check for warning lights.

Driving

- Do not drive if drowsy.
- Think ahead - anticipate hazards.
- Don't trust the other driver to drive properly.
- Don't speed or tailgate.
- Drive slower in hazardous conditions or hazardous areas.
- Pass only in safe areas and when excessive speed is not required.
- No loose articles on floor.
- Do not read, write, apply make-up, drink, eat or use a phone while driving.
- Stay at least four seconds behind the vehicle ahead.
- Do not stop for hitchhikers or provide roadside assistance.

Backing

- Back slowly & be ready to stop.
- Do not back up if anyone is in path of vehicle travel.
- Check clearances.
- Don't assume people see you.
- Get out & check if you cannot see from the driver's seat.
- Utilize a spotter positioned on the driver’s side of the vehicle, if necessary.

Stopping

- Park only in proper areas, not roadsides.
- Use warning flashers & raise hood if vehicle becomes disabled.

Accidents

- Do not admit responsibility.
- Notify your company and law enforcement as soon as possible.
- Cooperate with any law enforcement officers.
- Move the vehicle only in the direction of a law enforcement officer.
- Fill out all sections of the accident report in the glove box.
- Do not sign any forms unless required by a law enforcement officer.
- At the scene get the following information:
    - Investigating officer name and law enforcement agency.
    - Make, Model & License Plate number of other vehicles.
    - Names, addresse and phone numbers of all witnesses.
    - Photos of the accident.
    - All 4 sides of all vehicles.
    - Roads and intersection at the scene.
    - Interior of all vehicles - seating & floor areas.
    - Name, address & license of other drivers.

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EMPLOYEE COMMITMENT TO WORK SAFELY

It is the policy of the company that every employee is entitled to work under the safest possible conditions in the construction industry. To this end, every reasonable effort shall be made in the interest of accident prevention to provide for safe and healthy working conditions and to eliminate hazards that can cause injury to workers or damage to property and equipment. Accident prevention is a field responsibility and as such, supervisory personnel and employees shall be accountable for the safe operation of their projects. Our policy is to develop and maintain an effective program for safe production. This policy illustrates Management's acceptance and recognition of the fact that accident prevention and production are synonymous. Therefore, planning for Accident Prevention will be incorporated in all phases of the company's work.

The company is sincerely interested in your safety. The policy of the company is to provide safe equipment, adequate tools, and the necessary protection equipment. It is your responsibility to follow the rules of safety as established for your protection and to use the protective devices which the company furnishes.

WE BELIEVE IN SAFETY AND INSIST UPON IT

I, _____ (PRINT NAME) HAVE READ AND UNDERSTAND THE COMPANY SAFETY PROGRAM. I UNDERSTAND THAT ANY QUESTIONS SHOULD BE DIRECTED TO MY SUPERVISOR. I AM FULLY COMMITTED TO WORK SAFELY AT ALL TIMES.

_____ _____

EMPLOYEE SIGNATURE DATE

_____ _____

INTERPRETER (if applicable) LANGUAGE

PROGRAMA DE SEGURIDAD MANUAL DEL EMPLEADO

Este manual contiene muchos de los elementos importantes del programa de seguridad de la empresa. Cada empleado debe recibir una copia de este manual, leer el manual y devolver el formulario de reconocimiento en la última página de este manual. Si el empleado tiene alguna pregunta, el programa de seguridad completo será puesto a disposición en cualquier momento mediante solicitud.

Esta página se ha dejado en blanco intencionalmente

Es política de nuestra empresa de realizar su trabajo de la manera más segura posible, en consonancia con las prácticas seguras de trabajo, y de acuerdo con todas las leyes y reglamentos que rigen. La seguridad y la salud de nuestros empleados, subcontratistas y otras personas que puedan estar en nuestras áreas de trabajo son de suma importancia. Este programa cuenta con el apoyo total de la Gerencia Administrativa. Los directivos de todos los niveles se encargan de la tarea de traducir esta política en acción positiva y productiva.

Este Programa de Seguridad, en su versión revisada de vez en cuando, contiene principios de seguridad y salud y las reglas para el lugar de trabajo. Representan una riqueza de experiencia práctica, y han sido probados en muchos proyectos exitosos. La aplicación de estos procedimientos en el trabajo puede proteger el bienestar de nuestros empleados, subcontratistas y otros; preservar los recursos fundamentales de la Compañía; y minimizar las pérdidas financieras causadas por accidentes. Por lo tanto, como una condición de empleo por la empresa se requiere que cada empleado estudie, entienda y cumpla con estos procedimientos. El único fin de proveer este Programa de Seguridad es de mejorar las condiciones de seguridad y salud en nuestra Compañía y no debe ser considerado como un acuerdo o contrato de empleo.

Este Programa de Seguridad sigue las normas de misión del programa de seguridad y salud de OSHA, los cuales ofrecen el desarrollo, implementación y mantención de un programa de políticas, procedimientos y prácticas que son adecuados para proteger a los empleados de los riesgos de seguridad y salud en el trabajo. Nuestro programa ofrece maneras de identificar, evaluar y prevenir o controlar sistemáticamente los riesgos laborales, riesgos de tareas específicos y los peligros que puedan derivarse de las operaciones de trabajo. Este Programa de Seguridad no es un plan de una sola vez, sino que es un programa dinámico que siempre está abierto para mejoramiento.

La Seguridad es tan crítica para las operaciones de nuestra Compañía como la planificación, la programación y la facturación. Además, la Compañía considera que los accidentes son evitables, y que le concierne a cada uno de nosotros de asegurar que las prácticas de seguridad sean parte de la rutina de nuestro trabajo diario. Uno de nuestros objetivos de seguridad es de tener las mejores condiciones posibles de seguridad y salud en el lugar de trabajo. Para lograr este objetivo, primero debemos tener una buena actitud acerca de la seguridad. Entonces debemos de PENSAR EN LA SEGURIDAD Y TRABAJAR CON SEGURIDAD.

CREEMOS EN LA SEGURIDAD E INSISTIMOS EN ELLA

Sinceramente,

Company Name (Nombre de empresa)

Objetivos de Seguridad de la Compañía

Los gerentes y supervisores son responsables ante la plana directiva de esta empresa para el logro de las metas de seguridad y salud específicas de la compañía. Los objetivos de seguridad y salud del proyecto de la Empresa son:

1. Tener las mejores condiciones de seguridad y salud posibles en el lugar de trabajo
2. Reducir al mínimo los accidentes con lesiones y deterioro de la salud.
3. Evitar incendios significativos, accidentes de vehículos o pérdidas de daños materiales.
4. Cero discapacidades permanentes.
5. Cero accidentes ambientales.
6. Cero fatalidades.

Estos objetivos se implementan para controlar y prevenir fallas en el sitio de construcción que causan muertes, lesiones, enfermedades, daños a maquinarias, incendios y daños o destrucción de la propiedad.

Ninguna fase de las operaciones de nuestra compañía es más importante que la prevención de accidentes. Se espera que cada empleado sea consciente y siga activamente los objetivos de seguridad. Hay una sola manera de hacer un trabajo correctamente - ¡DE LA MANERA SEGURO!

COMPROMISO

La Empresa— la seguridad personal y de salud de cada uno de los empleados de esta empresa es de importancia primordial. La prevención de lesiones y enfermedades ocupacionales son tan importante que tienen la prioridad sobre la productividad de funcionamiento, cuando sea necesario. La Compañía, en el mayor grado posible, proporcionara instalaciones mecánicas y físicas de seguridad, proporcionara capacitación en seguridad para los empleados y aplicara prácticas de trabajo seguro que harán que nuestras áreas de trabajo sean un lugar seguro para laborar. La empresa se ha comprometido a un programa de seguridad y salud que reducirá el número de lesiones y enfermedades a un mínimo, no sólo de acuerdo con, pero esperando que superara, la mejor experiencia de las operaciones similares de la industria.

Empleados— este Programa de Seguridad es conforme a las mejores prácticas de las organizaciones de nuestro sector. Para que el programa funcione, todos los empleados de la empresa deben tener buenas actitudes acerca de la prevención de lesiones y enfermedades. El éxito requiere la cooperación entre cada uno de los empleados y sus compañeros de trabajo. Con esfuerzo cooperativo y las actitudes positivas del Programa de Seguridad beneficiará a todos los empleados de la Compañía, nuestros clientes y nuestros visitantes. Se requiere que cada empleado, como condición de empleo con la Compañía, de leer, comprender y firmar el compromiso de los empleados para trabajar con seguridad, que se mantendrá en los archivos del personal.

EJECUCION

General— todos los empleados deben entender ¡QUE LA RESPONSABILIDAD NÚMERO UNO Y MÁS IMPORTANTE EN EL TRABAJO ES SER RESPONSABLE DE LA SEGURIDAD DE UNO MISMO! Sin tomar en cuenta las normas de seguridad y de salud previstos en beneficio propio no sólo es peligroso para uno mismo, sino que también a aquellos con los que se trabaja. Un empleado que no toma en cuenta la seguridad es una responsabilidad significativa para la Compañía. Las directrices de seguridad de la empresa se aplican a todos los empleados de la Compañía, sin excepción. Las directrices de seguridad de la compañía se harán cumplir por la plana directiva. Las advertencias y las amonestaciones serán emitidas por infracciones conocidas de las guías de seguridad tan pronto como se observa la infracción, y se convertirá en parte de los antecedentes laborales de un empleado.

Infringiendo las reglas de seguridad deliberadamente - cualquier empleado que se niega a trabajar con seguridad, o para observar las directrices de seguridad y salud de la Compañía, que se niega a usar el equipo de protección adecuado, o que no obtiene los permisos apropiados, cuando sea necesario, o no respete los procedimientos requeridos, estarán sujetos a advertencias verbal y escrita que resultaran en una acción disciplinaria, que puede llegar a la terminación de su relación laboral con la empresa. La gravedad de la acción disciplinaria será determinada por la frecuencia y gravedad de las infracciones, y puede incluir la reprimenda, el tiempo libre sin goce de sueldo, o despido. Poner en peligro la vida de uno o la vida de otra persona Intencionalmente, es una falta grave, y puede ser motivo de despido inmediato.

Infringiendo las reglas de seguridad deliberadamente — La Ley Estatal de Colorado indica que un trabajador que deliberadamente infringe una regla de seguridad en el lugar de trabajo, y al hacerlo, sufre una lesión, puede incurrir en un cincuenta por ciento (50%) de reducción de los beneficios por incapacidad de compensación para los trabajadores.

UBICACIÓN DEL PROGRAMA DE SEGURIDAD

El Programa de Seguridad, con su archivo de FDS (Ficha de Datos de Seguridad) (Siglas en Ingles-SDS), se debe de mantener en la oficina para la disponibilidad inmediata de los empleados, personal de emergencia y los organismos reguladores.

RESPONSABILIDADES GENERALES

EMPLEADOS— la seguridad es una responsabilidad de la plana directiva; Sin embargo, la administración no puede ser el único responsable de los actos de los empleados. Por lo tanto, cada empleado deberá, como condición de empleo para el cual él o ella es remunerado, será responsable de trabajar con seguridad incluyendo pero no limitado a las siguientes responsabilidades y funciones específicas:

La Seguridad y la Salud en General:

a. Analice, comprenda y cumpla con los requisitos del PROGRAMA DE SEGURIDAD y cumpla con cualesquiera otras leyes o reglamentos que aplican a su trabajo.
b. Trabajar de manera que se evite la lesión autónoma y a los compañeros de trabajo.
c. Asistir a la orientación de seguridad y salud requerida del empleado, y cualquier entrenamiento regular o especial de seguridad de los empleados.
d. Reconocer, mediante la firma personal, cualquier formación recibida.
e. Negarse a realizar cualquier tarea potencialmente peligrosa o no rutinaria, o utilizar cualquier material peligroso, sin recibir una formación adecuada sobre los riesgos involucrados, y seguir los procedimientos de seguridad y de salud adecuados
f. Usar y cuidar correctamente el equipo de protección personal requerido para la tarea en cuestión
g. Informar de cualquier situación de peligro al supervisor del empleado, incluyendo cualquier acto negligente, un peligro físico o de salud, cualquier uso inseguro de materiales peligrosos por empleados de la empresa o por un empleado de algún otro empleador en el lugar de trabajo
h. Reporte cualquier lesión relacionada con el trabajo o enfermedad al supervisor del empleado y buscar tratamiento inmediatamente y en ningún caso más de 24 horas.
i. Sepa los números de teléfono de emergencia para llamar en caso de incendio, accidente o daños personales.
j. Ayude a mantener un área de trabajo segura y limpia.

Comunicación de Riesgos:

a. Conozca la ubicación del Plan escrito de Comunicación de Riesgos, la lista Maestra de FDS (SDS) y los archivos FDS (SDS) con números de contacto de emergencia.
b. Negarse a usar cualquier material peligroso sin estar entrenado en su uso. Solicite una capacitación de actualización si no está seguro sobre el uso, almacenamiento, manipulación o los requisitos de protección personal del equipo.
c. Sepa cómo leer una FDS, la Lista Maestra de FDS y las etiquetas.
d. Nunca quite ni emborrone las etiquetas de los químicos peligrosos.
e. Sepa cómo detectar la presencia de una sustancia química peligrosa en el lugar de trabajo mediante el olor, la apariencia.

f. Nunca deseche los productos químicos peligrosos en el lugar de trabajo (es decir, NO VERTER materiales peligrosos en la tierra)
g. Sea capacitado en el uso adecuado del equipo de protección requerido, y lleve o utilice dichos equipos correctamente mientras se trabaja con productos químicos peligrosos.
h. Estar debidamente capacitados sobre los peligros de las tareas asignadas de trabajo, sobre el cual el empleado no ha sido entrenado previamente, antes de intentar realizar estas tareas "no rutinarias".

SUPERVISORES— a menos que se notifique de lo contrario, el supervisor de cada lugar de trabajo (puede ser un Gerente de Proyecto, Supervisor del Proyecto, Superintendente o Capataz) es responsable de la ejecución del Programa de Seguridad de la empresa en cada lugar de trabajo que él o ella supervisa. Agregue las siguientes funciones de supervisión a los que él o ella tiene como empleado:

La Seguridad y la Salud en General:

a. Dé el ejemplo de las buenas prácticas de seguridad y salud.
b. Proporcionar una ficha de anuncios en cada oficina de construcción y mostrar todos los carteles necesarios.
c. Establecer e implementar los procedimientos de seguridad y salud en el trabajo, primeros auxilios, prevención de incendios, la seguridad de la obra, control de la contaminación del medio ambiente, y otros que cumplan con la SEGURIDAD Y PAUTAS DE SALUD DE LA COMPAÑÍA, documentos contractuales y especificaciones, y con las leyes y regulaciones locales, estatales y federales.
d. Llevar a cabo una orientación de seguridad del empleado cada vez que un nuevo empleado entra en el lugar de trabajo.
e. Prepárese para las reuniones de charlas de seguridad, con las normas y reglamentos para cada obra.
f. Capacitar a los empleados bajo su supervisión sobre las disposiciones de estas DIRECTRICES DE SEGURIDAD Y SALUD, sobre los peligros del lugar de trabajo, procedimientos de trabajo seguros y políticas, y al trabajar con seguridad puede evitar accidentes, y cómo se puede evitar lesiones y prevenir daños a la propiedad.
g. Supervisar el funcionamiento de la seguridad y salud de los empleados. Preparar las advertencias y amonestaciones escritas para infracciones de este Programa de Seguridad.
h. Supervisar el estado de la seguridad y salud en el trabajo, mediante la realización personalmente de una inspección de seguridad diaria en el trabajo a través de medidas correctivas.
i. Asegurar la disponibilidad de los equipos de seguridad y el equipo de protección personal requeridos, que se necesita para el trabajo a realizar, dando atención especial a las tareas no rutinarias.

j. Cooperar con otros empleadores y subcontratistas para mejorar las condiciones generales de seguridad y de salud en el lugar de trabajo.
k. Cuando la compañía está trabajando como subcontratista, el supervisor es el debe proporcionar una copia de la parte de Comunicación de Riesgos del programa para el contratista general, y determinar cómo este programa de Seguridad y Salud se coordinará con lo que está siendo proporcionado por el contratista general, incluyendo la asistencia a las reuniones de seguridad conducidas por el contratista general.
l. Investigar y documentar de inmediato los accidentes y pérdidas, analizar las causas, y preparar recomendaciones para evitar accidentes similares en el futuro. Preparar los informes de compensación de los trabajadores, las reprimendas de empleados o acción disciplinaria inmediatamente después de un incidente. Esto debe ser completado dentro de 24 horas después del accidente o incidente.
m. En caso de un accidente grave o una inspección seguridad del gobierno o ambiental, notificar a la compañía SFI de Cumplimiento, Inc. y a la gerencia lo antes posible.
n. Estar familiarizado con las normas de OSHA para la Industria de la Construcción y ser capaz de encontrar información en las normas de OSHA cuando sea necesario. Estos están disponibles en http://www.osha.gov o los programas de referencia normalmente en cada sitio.

Comunicación de Riesgos:

a. Mantener el Plan de Comunicación de Riesgos en este programa para cada lugar de trabajo supervisado.
b. Realizar inventarios de productos químicos peligrosos. Mantener y preservar la Lista Maestra de FDS después del Plan de Comunicación de Riesgos.
c. Supervisar la adquisición correcta de todos los productos químicos peligrosos que están presente en el lugar de trabajo supervisado. Recibir y revisar todos los envíos de productos químicos peligrosos por las FDS y etiquetas.
d. Verifique que el etiquetado este correcto. Mantenga un suministro de etiquetas y otras advertencias de peligro.
e. Durante la orientación de seguridad de los empleados, asegúrese de que los empleados sepan dónde se encuentra el Plan de Comunicación de Riesgos, explicar las etiquetas y otras marcas de peligro y la Lista Maestra de FDS y enseñar cómo leer una FDS.
f. Capacitar a todos los empleados bajo su supervisión que se requiere bajo el Plan de Comunicación de Peligros. Prepare un Informe de Formación para cada entrenamiento de químicos peligrosos, el cual certifica mediante la firma de cada empleado, la formación recibida. Mantener el registro de entrenamiento en los archivos de este Programa de Seguridad.
g. Proporcionar formación especial y el equipo necesario para realizar con seguridad las tareas no rutinarias.

h. Coordinar la comunicación de peligros con otros empleadores, como subcontratistas, en un lugar de trabajo de la empresa, cuando sea necesario para proteger a los empleados de la compañía.
i. Dirija la limpieza adecuada de cualquier derrame de sustancias químicas peligrosas, preparar los informes requeridos y notificar a la gerencia. Revise su Plan de Aguas Pluviales para las jurisdicciones locales que pueden requerir la notificación de derrames o liberaciones no intencionales.

Plana Mayor — La Plana Mayor de la Compañía es responsable de proporcionar dirección, motivación y responsabilidad para garantizar un programa de seguridad y de salud dinámico para todos los proyectos de la Compañía. Las responsabilidades específicas incluyen:

Dé el ejemplo de las buenas prácticas de seguridad y salud.

a. Establecer metas y objetivos de seguridad anuales de la empresa.
b. Establecer un presupuesto adecuado para financiar el programa de seguridad.
c. Como parte de las evaluaciones de desempeño, mantenga los supervisores de obra responsables del éxito o el fracaso de lograr los objetivos de rendimiento de la salud y seguridad y control de costos de seguros específicos.
d. Periódicamente participar en el entrenamiento de seguridad de los empleados.
e. Revise todos los informes de lesiones y accidentes y los Diarios de OSHA 300.

NORMAS RELACIONADAS

Las siguientes normas se incorporan al presente por referencia:

- Norma de OSHA 29 CFR Parte 1926 "REGLAMENTO DE SEGURIDAD Y SALUD PARA LA CONSTRUCCIÓN", última edición

Los requisitos de las normas anteriores son generales. Contienen información mucho más detallada que el Programa de Seguridad. Cuando falte información o en el caso de cualquier conflicto entre la información contenida en este programa y los requisitos de las normas de OSHA, las normas de OSHA deberán regir.

PRIMEROS AUXILIOS Y TRATAMIENTO MÉDICO

Suministros de primeros auxilios se proporcionan en el sitio de trabajo. El personal calificado está disponible para hacer un tratamiento menor y para mantener los registros requeridos.

- Reporte todas las lesiones inmediatamente, no importa que tan insignificante, a su supervisor y oficina de construcción. El tratamiento se enviará en breve y el incidente será archivado.
- Usted debe notificar a su supervisor y a la oficina o al lugar de trabajo antes de abandonar el lugar de trabajo debido a una lesión o enfermedad, ya sea en relación al trabajo o personal.
- Todo el tratamiento médico por lesiones relacionadas con el trabajo debe ser obtenido de la planta de tratamiento médico autorizado para el lugar de trabajo, a menos que haya recibido AUTORIZACIÓN PREVIA POR ESCRITO de la administración para utilizar otro centro médico.
- Antes de regresar al trabajo después de una lesión de tiempo perdido o enfermedad, debe presentar una autorización médica a la oficina del lugar de trabajo o departamento de seguridad del médico tratante.
- Si usted tiene una discapacidad física, como la diabetes, problemas de vista o el oído, la espalda o problemas del corazón, hernia, o aversión a las alturas, informe a su supervisor o departamento de seguridad. No se le espera para hacer un trabajo, lo que podría resultar en lesiones a usted o a alguien más.
- Nunca mueva a una persona lesionada o gravemente enfermo a menos que sea necesario para prevenir una lesión mayor. Los primeros auxilios no debe ser administrado por los empleados no designados, salvo en casos de sangrado o cese severa de la respiración.
- Cuando un accidente se informa tarde, será desafiado por esa razón.

Evaluaciones de Abuso de Sustancias después de Accidentes

Para todos los accidentes que resultan en lesiones o daños a la propiedad o que requiere atención médica y / o evaluación fuera del sitio, se llevarán a cabo un chequeo por Drogas y Alcohol en conformidad con los procedimientos establecidos por el Programa de Compensación del Estado para los Trabajadores. Esta evaluación es parte del Programa de Trabajo Libre de Drogas de la empresa.

EQUIPO DE PROTECCIÓN PERSONAL (EPP) (SIGLAS EN INGLES PPE)

La empresa ofrece a todos los empleados con el EPP requerido para satisfacer la tarea y los peligros conocidos. Esta sección cubre los requisitos para equipo de protección personal, con la excepción del EPP usado para la conservación de la audición y protección respiratoria, las cuales están incluidas en secciones separadas.

Política General

Los controles de ingeniería serán los principales métodos utilizados para eliminar o minimizar la exposición a riesgos en el lugar de trabajo. Cuando tales controles no son prácticos o aplicables, se empleara el equipo de protección personal para reducir o eliminar la exposición de riesgos al personal. Equipo de protección personal (EPP) se proporcionará, se utilizará y mantendrá cuando se haya determinado que se requiere su uso y que tal uso disminuirá la probabilidad de lesiones y / o enfermedades ocupacionales. Equipo de protección personal deben ser respetados cuando lo recomiendan las hojas de las FDS o los Fabricantes de Herramientas. La política de la Empresa puede dictar EPP, que supera los requisitos de las fuentes mencionadas anteriormente.

Reglas Generales

Diseño

Toda la ropa de protección personal y equipos serán de diseño seguro y de construcción para la realización del trabajo. Sólo los artículos de ropa y equipo de protección que cumplan con el Instituto Nacional de Seguridad y Salud Ocupacional (siglas en Ingles NIOSH) o el Instituto Americano de Normas Nacionales (siglas en Ingles ANSI) serán adquiridos o aceptados para su uso.

Para proporcionar un medio de protección eficaz, todo el EPP debe tener el tamaño adecuado para adaptarse al trabajador. Si el PPE asignado no es el adecuado, el trabajador debe informar la condición a su supervisor inmediatamente y antes de realizar cualquier trabajo utilizando el PPE inadecuado.

Evaluación del peligro y la selección del equipo

Se utilizarán los procedimientos de análisis de peligros para determinar si los riesgos están presentes el lugar de trabajo, o puedan estar presentes, lo que requerirán el uso de equipo de protección personal (EPP). Si dichos riesgos están presentes, o que puedan estar presentes, se tomarán las siguientes acciones:

- Seleccionar, y hacer que cada Empleado afectado, use el EPP apropiado
- Comunicar las decisiones de selección a cada Empleado afectado
- Seleccione el EPP que ajuste adecuadamente a cada empleado afectado.

El equipo defectuoso y dañado

No se utilizará el equipo de protección personal defectuoso o dañado.

Protección de la Cabeza

- Los trabajadores deben usar cascos cuando existen peligros de objetos que caen o vuelan de arriba o cuando está presente peligro de descarga eléctrica.
- Inspeccione los cascos rutinariamente en busca de abolladuras, grietas o deterioro.
- Si un casco ha sufrido un golpe fuerte o choque eléctrico, debe reemplazarlo incluso cuando no se detecta ningún daño visible.
- Mantener los cascos en buenas condiciones; no taladre; limpiar con detergentes o disolventes fuertes; pintar; o almacenarlos en temperaturas extremas.

Protección de ojos y cara

- Los trabajadores deben usar lentes de seguridad o caretas para soldar, cortar, clavar (incluyendo neumáticas), o cuando se trabaja con hormigón y / o productos químicos nocivos.
- Los ojos y protectores faciales están diseñados para riesgos particulares así que asegúrese de seleccionar el tipo para que coincida con el peligro.
- Reemplace las gafas de seguridad mal ajustadas o dañadas.

Protección de los Pies

- Los trabajadores deben usar zapatos o botas antideslizante y resistente a los pinchazos en las suelas (para evitar heridas de resbalones y punzantes).
- Se recomiendan zapatos con punta de metal para prevenir los dedos aplastados cuando se trabaja con equipo pesado del balanceo o la caída de objetos.

Protección de las Manos

- Guantes de alta calidad pueden evitar lesiones.
- Los guantes deben estar bien ajustados.
- La manga de los guantes deben ser cubierta con cinta adhesiva cuando se trabaja con materiales de fibra de vidrio.
- Los trabajadores deben usar siempre los guantes adecuados para el trabajo (por ejemplo, de caucho de alta resistencia para el trabajo en concreto, guantes de soldadura para la soldadura).

LIMPIEZA Y ACCESO AL SITIO DE TRABAJO

La atención a la limpieza en general, almacenamiento y limpieza puede evitar muchos accidentes. Esta sección cubre los elementos que no se discuten en otras áreas y no se destina a cubrir todos los requisitos específicos de limpieza. Los buenos esfuerzos de limpieza son una parte de la prevención de incendios de la empresa y el programa de prevención de accidentes.

Peligros

Limpieza inadecuada y material de almacenamiento puede crear u ocultar numerosos peligros como:

- Resbalones y tropezones
- Exposición a sustancias químicas
- El contacto con objetos afilados
- Riesgos de incendio y explosión
- La sobrecarga de los estantes de almacenamiento y contenedores.

Control del peligro

- Mantenga los pasillos y las escalas libres de basura / escombros y otros materiales tales como herramientas y suministros para evitar tropiezos.
- Mantenga las cajas, restos de madera y otros materiales recogidos. Póngalos en un contenedor de basura o zona de basura / escombros para evitar incendios y peligros de tropiezos.
- Proporcionar suficiente luz para que los trabajadores vean y para prevenir accidentes.

ESCALAS

- Instale barandas permanentes o temporales en las escalas, antes de que las escalas se utilicen para el acceso general entre los niveles, para evitar que alguien se caiga o salga de los bordes.
- No almacene materiales en las escalas que se utilizan para el acceso general entre los niveles.
- Mantenga las proyecciones peligrosas tales como clavos salientes, astillas grandes, etc. fuera de las escalas, peldaños o pasamanos.
- Corregir las condiciones resbalosas en las escalas antes de que se utilizan.

APERTURAS EN EL PISO Y LA PARED

- Barandas o tapas deben proteger las aberturas y / o los agujeros de piso. Si se utilizan cubiertas, deben ser capaces de sostener 2 veces las cargas destinadas impuestas sobre ellos y deben ser aseguradas para evitar desplazamientos accidentales.
- No retire las cubiertas sobre aberturas en el piso sin la aprobación de su supervisor. Cuando una cubierta se ha quitado para poner un equipo o material, reemplace la apertura inmediatamente después de concluir el manejo de materiales.
- Instale barandas alrededor de las aberturas en los pisos y en las aberturas en las paredes cuando la distancia de caída es de 6 pies o más. Asegúrese de que los rieles superiores puedan resistir una carga de 200 libras.
- Construir barreras de protección con un riel superior de aproximadamente 42 pulgadas de alto con un riel al medio cerca de la mitad del riel superiora a las 21 pulgadas.
- Instale rodapiés cuando otros trabajadores estén laborando bajo la zona de trabajo.

ESCALERAS

Las escaleras que su trabajo requiere deberían estar disponibles en el sitio de trabajo. No hay excusa para el uso de un medio de acceso improvisado a un área de trabajo.

- Mantenga las escaleras prefabricadas y hechas en el trabajo en buenas condiciones y libres de defectos.
- Inspeccione las escaleras antes de su uso por peldaños dañados u otros defectos para que no ocurran caídas. No se deben utilizar las escaleras rotas o dañadas. Repare o destrúyalas inmediatamente. Escaleras para ser reparadas deben ser etiquetadas como "NO UTILIZAR".
- Asegure las escaleras cerca de la parte superior y en la parte inferior para evitar que se deslicen y causen caídas.
- Cuando no se puede atar la escalera, asegúrese de que la escalera está en una superficie estable y nivelada para que no se pueda volcar o la parte de abajo ser golpeada.
- Coloque las escaleras en el ángulo adecuado (1 pie fuera de la base por cada 4 pies de elevación vertical).
- Extender las escaleras por lo menos 3 pies sobre el descanso para proporcionar una agarradera o para mantener el equilibrio al subir y bajar de la escalera de otras superficies.
- No instale una escalera cerca de pasillos o áreas de alto tráfico en el que podría caerse.
- Las áreas alrededor de la parte superior y la base de las escaleras deben estar libres de riesgos de tropiezos tales como materiales sueltos, basura y cables eléctricos.

- Sólo use las escaleras para lo que se hicieron y no como una plataforma, tablones de pista, o como andamio.
- Siempre enfrente la escalera y mantenga 3 puntos de contacto al subir o bajar una escalera.
- Asegúrese de que sus zapatos no tengan lodo, grasa u otras sustancias, lo que podría causar un resbalón o caída.
- No lleve materiales en una escalera. Utilice una línea de mano.
- Siempre mueva la escalera para evitar el exceso de alcanzar.
- No empalme escaleras cortas para hacer una escalera más larga.
- Las escaleras de tijera deberán estar totalmente abiertas para permitir que el esparcidor se bloquee.
- Está prohibido el pararse en los dos primeros peldaños de una escalera de tijera.
- Las escaleras de metal no deben ser utilizadas para trabajos eléctricos o en áreas donde pudieran hacer contacto con cables energizados. El uso de escaleras metálicas se limita a aplicaciones especiales donde no son práctico las escaleras de madera que son más pesadas.
- Utilice solamente las escaleras de Tipo I o Tipo II. Nunca deben usarse las escaleras de Tipo III.

SEGURIDAD DE LAS HERRAMIENTAS

El uso de herramientas hace que muchas de las tareas sean más fáciles. Sin embargo, las mismas herramientas que nos ayudan, si se utilizan o se mantienen de forma incorrecta, pueden crear riesgos significativos en nuestras áreas de trabajo. Los empleados que usan las herramientas deben estar debidamente capacitados para utilizar, ajustar, almacenar y mantener las herramientas correctamente. Esta sección cubre las herramientas manuales y de fuerza, neumáticas, de pólvora impulsada, y la seguridad de herramientas hidráulicas.

Herramientas Manuales y de Poder

Solamente deben ser utilizadas las herramientas en condiciones seguras de trabajo. (Usted debe observar las siguientes prácticas de seguridad):

- Inspeccione sus herramientas todos los días para asegurarse de que están en buenas condiciones de funcionamiento. Las herramientas dañadas o defectuosas deben ser devueltas inmediatamente.
- Sierras eléctricas, pulidoras y otras herramientas eléctricas deben tener protecciones adecuadas en su lugar en todo momento.
- Las herramientas eléctricas deben ser izadas o bajadas por una línea de mano, nunca del cable o la manguera.
- Los cables y mangueras deben mantenerse fuera de los pasillos y de las escaleras y escalas. Deben ser colocados de manera de no crear un peligro de tropiezo para los empleados o para ser sometido al daño de equipos o materiales.

- Las herramientas y equipos eléctricos, deberán estar conectados a tierra en todo momento cuando están en uso.
- Las herramientas de mano deben usarse sólo para el fin previsto. La capacidad de diseño de las herramientas de mano no debe superarse por accesorios no autorizados.
- Cuando utilice la herramienta detallada a continuación o trabaje cerca de otras personas que utilizan este tipo de herramientas, debe utilizar el equipo de protección personal. Si tiene preguntas sobre las reglas de equipos de seguridad o de protección, pregunte a su capataz.
- Utilice la protección de Interruptor de Falla a Tierra del Circuito (siglas en Ingles GFCI) en todo momento.

Herramientas Neumáticas

Las herramientas neumáticas funcionan con aire comprimido e incluyen trituradoras, taladros, martillos y lijadoras. Hay varios peligros encontrados en el uso de herramientas neumáticas. La principal es el peligro de ser golpeado por uno de los accesorios de la herramienta o por algún tipo de sujetador que el trabajador está usando con la herramienta. Se requiere protección ocular y se recomienda protección para la cara para los empleados que trabajan con herramientas neumáticas. Trabajar con herramientas ruidosas como martillos neumáticos requiere el uso adecuado y eficaz de protección para los oídos.

Al utilizar herramientas neumáticas, los empleados deben comprobar que están bien sujetos a la manguera para evitar que se desconecte. Un cable corto o dispositivo de bloqueo positivo de conectar una manguera de aire a la herramienta servirá como un resguardo adicional.

Un clip de seguridad o de retención deben ser instalados para evitar que los accesorios adjuntos, como cinceles en un martillo cincelador, de ser involuntariamente disparado desde el cañón.

Pantallas deben instaladas para proteger a los trabajadores cercanos al ser golpeado por los fragmentos que vuelan alrededor de las astilladoras, pistolas de remache, grapadoras, o taladros de aire comprimido.

Pistolas de aire comprimido nunca deben apuntarse a nadie. Los usuarios nunca deben de apuntarlas contra ellos mismos o a cualquier otra persona.

Herramientas Accionadas por Pólvora

Herramientas activadas por pólvora operan como un arma cargada y deben ser tratadas con el mismo respeto y precauciones. De hecho, son tan peligrosas que deben ser manejadas por empleados especialmente capacitados.

Seguridad de las Herramienta Accionadas por Pólvora:

- Estas herramientas no deben utilizarse en una atmósfera explosiva o inflamable.
- Antes de utilizar la herramienta, el trabajador debe inspeccionarla para determinar que está limpia, que todas las piezas móviles funcionen libremente, y que el barril esté libre de obstrucciones.
- La herramienta nunca debe apuntarse hacia nadie.
- La herramienta no debe ser cargada a menos que sea para su uso inmediato. Una herramienta cargada no debe dejarse sin vigilancia, especialmente en los que estaría disponible a personas no autorizadas.
- Las manos deben estar libres del fin del barril. Para evitar que la herramienta se dispare accidentalmente, se requieren dos movimientos separados para el disparo: uno para llevar la herramienta en su posición, y otro para apretar el gatillo. Las herramientas no deben ser capaces de operar hasta que se presionan contra la superficie de trabajo con una fuerza de al menos 5 libras que sobrepase el peso total de la herramienta.

Herramientas de Poder Hidráulicas

El fluido utilizado en las herramientas hidráulicas debe ser un fluido aprobado y resistente al fuego y debe conservar sus características de funcionamiento a las temperaturas más extremas a las que estará expuesta. No se debe sobrepasar la presión de operación segura recomendada por el fabricante de mangueras, válvulas, tuberías, filtros y otros accesorios.

Gatos

Todos los gatos - tomas de palanca y trinquete, gatos de tornillo y gatos hidráulicos - deben tener un dispositivo que les impide levantarlos demasiado altos. También, el límite de carga del fabricante debe estar marcado de forma permanente en un lugar prominente en el gato y no se debe de exceder.

Un gato nunca debe ser usado para sostener una carga elevada. Una vez que la carga se ha levantado, debe de ser bloqueada de inmediato.

Utilice un bloque de madera debajo de la base, si es necesario, para hacer que el gato este a nivel y seguro. Si la superficie de elevación es de metal, coloque un bloque de madera de 1 pulgada de espesor o equivalente entre ella y la cabeza del gato de metal, para reducir el peligro de deslizamiento.

Para configurar un gato, asegúrese de lo siguiente:

- la base descansa sobre una superficie firme y nivelada,
- que el gato esté correctamente centrado,
- la cabeza del gato se apoye contra una superficie plana, y
- la fuerza de elevación se aplica de manera uniforme.

El mantenimiento adecuado de los gatos es esencial para la seguridad. Todos los gatos deben ser inspeccionados antes de cada uso y lubricados con regularidad. Si un gato se somete a una carga excesiva o un choque, debe ser examinado a fondo para asegurarse de que no haya sufrido daños.

Los gatos hidráulicos expuestos a temperaturas de congelación deben de llenarse con líquido anticongelante adecuado.

SEGURIDAD ELÉCTRICA

Esta sección está diseñada para prevenir lesiones eléctricamente relacionadas y daños a la propiedad. Tenga cuidado al trabajar con y alrededor de la electricidad. Conocer la electricidad "dentro y fuera" es la única manera de estar seguro.

La "fuerza" realizada por la electricidad se mide en "VOLTIOS".

- Los Voltios proporcionan la energía para mantener las herramientas y máquinas funcionando.
- La mayoría de las herramientas eléctricas y aparatos funcionan con 120 voltios.

"La Corriente" es el "Flujo" de la electricidad.

- La intensidad de la corriente se mide en "Amperios" (Amps).
- La mayor parte de líneas eléctricas de los hogares y la industria pueden llevar con seguridad 15 a 20 amperios.
- Las líneas eléctricas necesitan tener alambres más gruesos para llevar más corriente (Amps).

No se necesita mucha corriente para causar una lesión grave.

- La exposición a 0,06 amperios (la electricidad necesaria para iluminar una bombilla de árbol de Navidad) puede ser fatal.

La electricidad "fluye" cuando se completa un “circuito cerrado”.

- Un circuito cerrado es un paso ininterrumpido de electricidad, desde la fuente de energía a las maquinarias y retorno.
- Cuando se termina un ciclo, las herramientas y las máquinas se prenden.
- Al activar un interruptor a una máquina, el circuito se cierra y fluye la electricidad. Cuando el interruptor se apaga, se corta el flujo de electricidad.

El flujo de la electricidad se puede parar con un "fusible" o un "Cortacircuitos".

- Estos dispositivos detienen el flujo de electricidad cuando los cables se sobrecargan.
- No trate de anular los sistemas de fusible o cortacircuitos mediante la instalación de fusibles o interruptores de mayor capacidad.
- Antes de encender un interruptor apagado, consulte a su supervisor.

La gravedad de la tierra está siempre tirando la electricidad hacia el suelo ("Conexión a tierra").

- Esto puede causar una sacudida eléctrica si se encuentra en su camino.

Conexión a tierra controlada proporciona una salvaguardia.

- Si hay una fuga de electricidad a través de cableado defectuoso en una herramienta, el "cable a tierra" dirigirá la electricidad de vuelta a la "tierra".
- El "cable a tierra" es fácilmente visible en los enchufes de tres puntas.
- Para que un "cable a tierra" sea eficaz, debe ser enchufado en una toma "a tierra".
- No se puede saber con sólo mirar si una toma eléctrica está conectada a tierra (debe ser probada).

"Interruptores de falla a tierra" (IFT) (siglas en Ingles GFI) proporcionan una seguridad adicional.

- Inmediatamente cierran el flujo de electricidad cuando detectan un cambio en la fuerza de la corriente.
- Si una herramienta defectuosa hace fugas de electricidad que podría causar un choque eléctrico, un IFT cortará la corriente.

Siguiendo Procedimientos de Trabajo Seguros es crítico cuando se trabaja alrededor de la electricidad.

- Recuerde que la electricidad puede ser peligrosa.

Los Peligros Eléctricos más a menudo resultan en:

- Incendios
- Choques eléctricos
- Quemaduras.

Una serie de peligros son el resultado de un cableado defectuoso.

- Revise todos los cables eléctricos por grietas y otros defectos.
- Informe de los problemas o remplacen los cables defectuosos o ponerlos en fuera de servicio.
- No sobrecargue los circuitos (demasiada corriente hará que el cableado se caliente).
- Limite el uso de cables de extensión a situaciones temporarias.
- Elija un cable de extensión que puede resistir el amperaje que está utilizando.

Recuerde que todo el equipo eléctrico debe ser conectado a tierra.

- Si está utilizando un adaptador "de dos puntas", conecte el cable de tierra.
- Nunca altere los enchufes de tres puntas para encajarlos en enchufes de dos puntas
- El alambrado provisional debe ser protegido por un IFTC (GFCI).

También debe tener cuidado en la selección y uso de aparatos eléctricos.

- Utilice herramientas "de doble aislamiento" siempre que sea posible.
- Busque por chispas alrededor de los equipos eléctricos.
- A menos que usted está calificado, no intente solucionar problemas por sí mismo.
- Informe a su supervisor y póngase en contacto con un técnico de reparación.

Los trabajadores "calificados" más a menudo desconectan todas las fuentes de energía antes de hacer reparaciones o ajustes en el equipo eléctrico.

- Esto significa practicar las técnicas adecuadas de Candado / Etiquetado
- Si una maquinaria ha sido bloqueada y etiquetada, no trate de restaurar el poder hasta que se realicen las reparaciones.
- Nunca invalide los dispositivos de seguridad especiales como los candados para conexión eléctricos.
- Consulte con su supervisor si tiene alguna pregunta acerca del Candado y Etiquetado.

Algunas de las cosas que usamos pueden conducir cantidades de electricidad peligrosas directamente a nosotros.

- Los llaveros, joyería de metal, delantales metalizados, o aparatos en la cabeza
- Materiales conductores sólo se deben usar si están aislados.

A menudo, cuando se trabaja con y alrededor de la electricidad, usted necesitará el equipo de seguridad.

- Guantes aislantes.
- Otros equipos.
- Hable con su supervisor sobre el EPP correcto para su trabajo.

Algunos trabajos tienen riesgos especiales.

- Estas situaciones requieren precauciones especiales.

El agua y la electricidad son una combinación peligrosa.

- El agua conduce la electricidad, y puede llevar a una sacudida eléctrica.
- Nunca conecte los cables que estén húmedos.
- No toque los equipos eléctricos con las manos mojadas.
- Si se encuentra con el agua, séquelo.
- Utilice los dispositivos de seguridad como herramientas de doble aislamiento e Interruptores de Falla a Tierra cuando se trabaja alrededor de agua.

Espacios Confinados también pueden causar riesgos eléctricos.

- Utilizar pantallas y barreras para evitar el contacto con las líneas eléctricas energizadas.
- Mantenga las puertas y paneles eléctricos asegurados (para que no se sepa que están trabajando con líneas eléctricas).

Trabajar alrededor de cables eléctricos por arriba también puede ser peligroso.

- Siempre mantenga una distancia de seguridad.
- Si usted no tiene experiencia de trabajo con alto voltaje, usted no debe acercarse a 10 pies de distancia de un cable de 50.000 voltios.
- Sólo los trabajadores "Calificados", en realidad, pueden trabajar en cables de alta tensión.

También es importante seleccionar el tipo correcto de Escalera cuando se trabaja en y alrededor de la electricidad.

- No use escaleras de metal cerca de cables eléctricos, el cableado o maquinaria con energía.
- Use fibra de vidrio o escaleras de madera.
- Asegúrese de que las escaleras tengas rieles laterales no conductivos.

Todos los cables eléctricos y herramientas deben estar en buenas condiciones.

- No empalme cables de 120v o 220v.
- Las herramientas que han tenido sus cables eléctricos sustituidos deberán ser remplazados con cables de fábrica, no repare la herramienta con un cable de extensión.
- No se debe exponer los alambres. Esto incluye los alambres de tierra.
- Los cables de extensión que van a través de puertas o ventanas deberán ser protegidos de ser "pinchado".
- La iluminación temporaria se colgara según las normas de OSHA y los fabricantes.
- Todos los sistemas de 120v serán protegidos por un interruptor de circuito y un IFTC – (GFCI).
- Utilice únicamente los cables de extensión de 3 hilos diseñados para uso duro o liviano. (Busque cualquiera de las siguientes letras impresas en la envoltura: S, ST, SO, STO, SJ, SJT, SJO, SJTO).

PREVENCIÓN DE INCENDIOS

Peligros

Los riesgos de incendio y explosión pueden existir en casi cualquier área de trabajo. Los peligros potenciales incluyen:

- El inadecuado funcionamiento o mantenimiento de los equipos a gasolina
- El almacenamiento o el uso inadecuado de líquidos inflamables
- Fumar en zonas prohibidas
- La acumulación de basura
- Las operaciones no autorizadas de Trabajo Caliente (el que produce fuegos)

Control del Peligro

Eliminación de las Fuentes de Ignición

Todas las fuentes de ignición, no esenciales, deben ser eliminadas cuando se utilicen o almacenen líquidos inflamables. La siguiente es una lista de algunas de las fuentes de ignición potenciales más comunes:

- Las llamas abiertas, tales como soldadura, sopletes, hornos, cerillos, y calentadores - Estas fuentes deben mantenerse alejados de las operaciones de líquidos inflamables. El corte o la soldadura en equipos con líquidos inflamables no se deben realizar a menos que el equipo se haya vaciado correctamente y se purga con un gas neutro, tal como nitrógeno.
- Las fuentes químicas de ignición como motores c.d. e interruptores de circuitos - Estas fuentes deben ser eliminadas donde se manipulan o almacenan los líquidos

inflamables. Solamente los dispositivos a prueba de explosiones, se deben de utilizar en estas áreas.

- Las chispas mecánicas-estas chispas se pueden producir como resultado de la fricción. Únicamente las herramientas que no produzcan chispas deben utilizarse en zonas en las que se almacenen o manipulen líquidos inflamables.
- Las chispas estáticas - estas chispas pueden generarse como consecuencia de la transferencia de electrones entre dos superficies en contacto. Los electrones pueden descargar en un pequeño volumen, aumentando la temperatura por encima de la temperatura de ignición. Se debe hacer todo lo posible para eliminar la posibilidad de chispas estáticas. También los procedimientos adecuados de unión y puesta a tierra se deben seguir cuando se transfieren o transportan líquidos inflamables.

La Eliminación de Incompatibles

Los materiales que pueden contribuir a un fuego de líquido inflamable no deben de almacenarse con líquidos inflamables. Tenemos como ejemplos los oxidantes y peróxidos orgánicos, que al descomponerse pueden generar grandes cantidades de oxígeno.

El Control de Gases Inflamables

En general, los gases inflamables plantean el mismo tipo de riesgos de incendio como los líquidos inflamables y sus vapores. Muchas de las salvaguardias para líquidos inflamables se aplican también a los gases inflamables, otras propiedades como la toxicidad, reactividad y corrosividad también deben ser tenidos en cuenta. Además, un gas que es inflamable podría producir productos de combustión tóxicos.

Extinguidores de Incendios

Un extinguidor portátil es un dispositivo de "primeros auxilios" y es muy eficaz cuando se utiliza mientras que el fuego sea pequeño. El uso del extinguidor que coincida con la clase de fuego, por una persona que está bien entrenado, puede salvar vidas y propiedades. Los extinguidores portátiles deben estar instalados en lugares de trabajo sin tener en cuenta otras medidas para combatir los incendios. El desempeño exitoso de un extinguidor en una situación de incendio depende en gran medida de su selección, inspección, mantenimiento y distribución.

Clasificación de los Fuegos y Selección del Extinguidor

Los incendios se clasifican en cuatro categorías generales en función del tipo de material o combustible involucrado. El tipo de fuego determina el tipo de extinguidor que se debe utilizar para extinguirlo.

Los incendios de Clase A incluyen materiales como la madera, el papel y la tela que producen brasas o carbón.

Los incendios de Clase B involucran gases inflamables, líquidos y aceites, incluyendo la gasolina y la mayoría de los hidrocarburos líquidos que deben ser vaporizados para que se produzca la combustión.

Los incendios de Clase C implican incendios en equipos eléctricos o en los materiales cerca de los equipos eléctricos.

Los incendios de clase D implican metales combustibles, tales como magnesio, circonio, potasio, y sodio.

Los extinguidores serán seleccionados según el riesgo potencial del incendio, la construcción y ocupación de las instalaciones, peligro para ser protegidos, y otros factores pertinentes a la situación.

Los Empleados deben de ser entrenados en cómo usar un Extinguidor de Incendios

VEHÍCULOS Y EQUIPOS MÓVILES

- Capacitar a los trabajadores en mantenerse alejados de los vehículos que marchan hacia atrás, que están doblando y maquinarias con cabinas giratorias.
- Asegúrese de que toda la maquinaria pesada que está en el lugar de trabajo sea equipada con protección antivuelco (ROPS).
- Mantener las alarmas de retroceso, en maquinarias con visión trasera limitada o utilizar a alguien para ayudarlos en el retroceso.
- Asegúrese de que todos los sistemas de frenos y luces en los vehículos estén funcionando bien.
- Utilice cinturones de seguridad cuando se transportan a los trabajadores en los vehículos motorizados y de la construcción.
- Mantenga una distancia de 10 pies por lo menos de los cables de alta tensión al operar la maquinaria
- Bloquee la cama levantada al inspeccionar o reparar camiones de volteo.
- Conocer la capacidad nominal de la grúa y utilizarla en acuerdo.
- Asegurar la estabilidad de la grúa.
- Utilice una soga de guía para controlar materiales movidos por una grúa.
- Verifique la experiencia o proporcione la capacitación a los operadores de grúas y maquinaria pesada.

SOLDADURA & OPERACIONES DE QUEMADURA

Las operaciones de soldadura y de quemadura tienen un alto potencial de lesiones personales e incendios. Cuando se combinan las dos, se debe seguir estas precauciones:

- Antes de comenzar a quemar o soldar, debe inspeccionar el área de trabajo para asegurarse de que las chispas o metal fundido no caerán sobre materiales combustibles. Si no puede proporcionar las garantías necesarias, consulte con su supervisor.
- No se debe soldar o usar el soplete en un área peligrosa sin obtener la autorización por escrito de la autoridad responsable.
- Debe asegurarse de que el equipo adecuado de extinción de incendios está disponible en su área de trabajo.
- Usted es responsable de mantener sus equipos de soldadura y sopletes en condiciones óptimas de funcionamiento.
- Durante la quemadura o la soldadura, se debe usar protección para los ojos, con lentes de filtro adecuados.
- Mantenga todos los cables de soldadura y mangueras levantado de los pisos, pasillos y escalas. Usted es responsable de que su equipo cumple con las prácticas de seguridad en todo momento.

- Nunca suelde o queme en barriles, tanques, tuberías, u otros sistemas, que pueden haber contenido algún producto combustible o desconocido, sin obtener primero la aprobación de su Representante de Seguridad u otra autoridad responsable.
- Se deben de utilizar las mantas contra incendios para evitar que el material caliente caiga sobre las personas o materiales combustibles.

Soldadura

- Si sus ojos están expuestos a objetos voladores al cepillar pedazos de fierro caliente u otra actividad de limpieza de soldadura, debe usar protección ocular aprobada.
- Cuando se está soldando cerca de otros trabajadores, estos deben ser protegidos de los rayos del destello por pantallas incombustibles o deben utilizar protección adecuada para los ojos.
- Los marcos de todas las máquinas de soldadura deben estar conectados a tierra (excepto tipos de polaridad inversa).

Quemando

- No use cerillas para encender los sopletes. Se debe de utilizar el encendido de chispa mecánicos. Los sopletes no se deben utilizar para encender cigarrillos, etc.
- Debe usar guantes apropiados.
- Cuando se requiere una llave para tuercas o una llave especial para operar la válvula del cilindro de acetileno, la llave debe mantenerse en la posición de la válvula.

Almacenamiento & Manejo de Cilindros

- Las tapas de protección deben mantenerse en todos los cilindros, a excepción cuando se están usando.
- Todos los cilindros deben ser asegurados adecuadamente para evitar que se vuelquen.
- Los cilindros no deben ser llevados a espacios confinados.

MANEJO DE MATERIALES & ALMACENAMIENTO

- Todo el material debe ser apilado y asegurado correctamente para evitar el deslizamiento y la caída. Los pasillos, las escaleras, las pasarelas deberán mantenerse libres en todo momento.
- Los clavos que sobresalgan deben estar doblados o removidos al sacar las formas o materiales de desembalaje.
- La tubería, los conductos y las barras deben ser almacenados en bastidores o apilados y bloqueados para evitar el movimiento.
- Los materiales de desecho o restos nunca deben ser tirados de niveles elevados sin rampas de basura.
- Los materiales almacenados no deben bloquear cualquier salida de un edificio.

LEVANTAMIENTO MANUAL

- Los músculos de las piernas son más fuertes que los músculos de la espalda. Levante con las piernas, no con la espalda. Doble las rodillas, mantenga la espalda recta.
- Planee antes de levantar, considere el peso, tamaño, forma, ruta de viaje, y establecer la ubicación.
- Proteja sus manos y los dedos de los bordes ásperos, esquinas afiladas, correas metálicas. Mantenga las manos y los dedos alejados de los puntos de pellizco entre la carga y otros objetos.

PREVENCIÓN DE LA VIOLENCIA

La compañía reconoce que la violencia en el trabajo es un riesgo laboral y que un enfoque proactivo es necesario en la prevención de violencia en el trabajo.

Política

Es la política de la compañía para proporcionar un lugar de trabajo que esté libre de riesgos reconocidos que causen o puedan causar la muerte o daños físicos graves a los empleados o al público. La empresa se compromete a mantener un ambiente de trabajo seguro, saludable y eficiente donde los empleados y el público están libres de la amenaza de la violencia en el trabajo. Cuando estos peligros de violencia laboral se reconocen y se identifican como a continuación, se llevarán a cabo una formación y medidas de seguridad adecuadas.

Conducta Prohibida.

Las conductas prohibidas son aquellos comportamientos que:

- Amenazan la seguridad de un empleado y / o el cliente.
- Afectan a la salud, la vida o el bienestar de un empleado y / o el cliente.
- Resulta en daños a la empresa, los empleados, o la propiedad pública (excluyendo los accidentes de vehículos y maquinaria).

Tales actos incluyen, pero no se limitan a:

- Amenazar, intimidar, coaccionar, acosar o agredir a un empleado o al público.
- Acosar sexualmente a un empleado o al público.
- Permitir que las personas no autorizadas tengan acceso a los edificios sin permiso de la gerencia.
- Uso, duplicación o poseer llaves de los edificios u oficinas dentro del edificio sin autorización.
- Dañar o intentar dañar, la propiedad de la empresa, un empleado, o al público.
- Llevar armas (oculto o expuesto) en la propiedad de la empresa.

La Denuncia y la Investigación

Cualquier empleado (incluyendo un supervisor o gerente) que ha sido amenazado, es víctima de un acto violento, es testigo de amenazas o actos de violencia, o se entera de cualquier amenaza o actos violentos, debe de informar de inmediato dicha actividad a su supervisor o al Director de Recursos Humanos. Cada informe será evaluado e investigado por la gerencia, para determinar con prontitud las medidas de seguimiento necesarias. La administración tiene la autoridad y la responsabilidad para solicitar la intervención de la ley si se piensa que es necesario.

La Confidencialidad

La información sobre un incidente o amenaza será revelada sólo en una base de las necesidades de conocer, de manera que una investigación imparcial y exhaustiva se pueda realizar y tomar la acción correctiva apropiada. La empresa hará todo lo posible para garantizar la seguridad y la privacidad de las personas involucradas.

Disciplina

Un empleado que se involucre en comportamientos prohibidos estará sujeto a una acción disciplinaria apropiada, según lo determinado por los resultados de la investigación. Tal disciplina puede incluir advertencias, el descenso de categoría, la suspensión o el despido inmediato. Además, determinadas acciones pueden causar que el empleado será legalmente responsable bajo la ley estatal o federal.

Represalias

Los episodios de violencia en el trabajo sólo pueden ser eliminados si los empleados están dispuestos y son capaces de reportar amenazas, actos de violencia y otras condiciones inseguras. Para alentar a los empleados a que presente sin el temor a las represalias, la empresa se compromete a investigar, sin demora todas las denuncias de represalias e imponer las medidas disciplinarias correspondientes, hasta e incluyendo el despido.

Consejería

Tratar con o estar expuesto a una situación violenta o abusiva puede ser emocionalmente perturbadora. La empresa proporcionará el asesoramiento adecuado para reducir la tensión y el estrés. Seguimiento de los servicios de asesoramiento se pueden proporcionar y pueden ser organizados por los supervisores de los empleados conforme a lo solicitado por los empleados afectados. Si los empleados prefieren el asesoramiento externo de apoyo emocional y / o de la familia, deben ser animados a ponerse en contacto con el Director de Recursos Humanos. En todos los casos, se garantiza una confidencialidad.

Evaluación de Prevención de la Violencia

Evalue el diseño físico de la instalación. Revise y considere lo siguiente:

- La iluminación externa para cubrir los pasillos y zonas de aparcamiento.
- El acceso controlado a todos los puntos de entrada del edificio
- Las cámaras de vigilancia en los puntos críticos
- Los procedimientos para permitir el acceso a la instalación
- El número / sexo de los empleados en el lugar de trabajo de 10 p.m.-05 a.m.
- Las transacciones en efectivo realizadas con el público durante las horas de trabajo
- La caja de seguridad o bloqueo de la caja en el edificio para los depósitos en efectivo.
- Los antecedentes de Seguridad del establecimiento y sus alrededores.
- Las medidas de seguridad y las barreras físicas
- Las prácticas de trabajo implementados, para aumentar la seguridad
- La formación en seguridad para los empleados
- Los procedimientos para limitar el estrés causado por los cambios en el lugar de trabajo
- La Aplicación de un Programa de Asistencia al Empleado
- Los procedimientos de despido
- Los procedimientos de selección antes del contrato
- Las auditorías trimestrales de este programa, incluyendo las acciones correctivas.

PROCEDIMIENTOS DE EMERGENCIA.

Si una emergencia ocurriera en un lugar de construcción, los empleados deberían saber cómo manejar ciertas situaciones. Los procedimientos básicos son los siguientes:

- TOMAR EL COMANDO - asignar los siguientes deberes a personal específico.
- BRINDAR PROTECCION - Proteja la escena del accidente de continuar o avanzar el peligro - como por ejemplo: tránsito, maquinaria en operación, incendio o cables con corriente.
- PROVEA PRIMEROS AUXILIOS – Proporcione primeros auxilios a heridos lo más pronto posible
- LLAME A UNA AMBULANCIA - Llame a una ambulancia y otros servicios de emergencia que se requieran
- GUIE A LA AMBULANCIA – Encuentre y dirija la ambulancia a la escena del accidente
- OBTENGA EL NOMBRE DEL HOSPITAL - Para el seguimiento, averigüe dónde se está tomando la persona lesionada
- INFORME A LA GERENCIA- Informe a la gerencia administrativa. A continuación, ellos pueden ponerse en contacto con familiares, notificar a las autoridades, y comenzar los procedimientos para reportar e investigar el accidente.
- AISLAR LA ESCENA DEL ACCIDENTE – Poner una barricada, acordonar o apostar un guardia en el lugar del accidente para asegurarse de que nada se mueva o se cambie hasta que las autoridades hayan terminado su investigación.

Emergencias Médicas

- Llame al 911 para ponerse en contacto con los Servicios Médicos de Emergencia (SME) (siglas en Ingles EMS).
- A menos que sea entrenado, no intente rendir ningún primer auxilio sin ser adiestrado.
- No intente mover a una persona lesionada.
- Limite su comunicación con la persona enferma o herida para tranquilizarla solamente.
- Después que se hayan atendido las necesidades inmediatas de la persona, permanezca para ayudar al oficial de investigación con la información pertinente sobre el incidente.
- Si la víctima es un empleado, el supervisor de la víctima debe llenar el informe de la investigación de accidentes y primer informe de lesión.
- Planificación para tales emergencias incluye ser entrenado en procedimientos de primeros auxilios y la Resucitación Cardiopulmonar(RCP) (siglas en Ingles CPR)

Emergencias de Incendios.

En caso de un incendio:

- Notificar al personal en la sala / área del incendio para evacuar inmediatamente.
- Tirar / activar la caja de la alarma de bomberos más cercana si está disponible.
- Llame a los Bomberos marcando el 911.
- Apague cualquier gas que se utilizando.
- Guarde los materiales peligrosos en armarios.
- Camine hasta donde está la escala / salida más cercana y evacue el edificio.
- NO use los ascensores.

Emergencias químicas

En el caso de un derrame de sustancias químicas:

- Notificar al personal en la sala / área del derrame para evacuar inmediatamente.
- Cierre las ventanas y las puertas de la sala / área del derrame y evacuar.
- Llame al 911 y reporte el derrame al Departamento de Bomberos.
- Quítese la ropa y lavase todas las partes del cuerpo, lo que puede haber entrado en contacto con el producto químico usando copiosas cantidades de agua.
- Todo el personal que puedan haber sido contaminado por el producto químico debe informar y permanecer en un lugar seguro hasta la llegada de los bomberos. Esto disminuirá la posibilidad de contaminación de otros miembros del personal y otras áreas.
- No vuelva a entrar en la sala / zona hasta que los funcionarios de seguridad apropiados hayan determinado que el área está segura para volver a entrar.

Las Alertas y Vistazos de los Tornados

- Cuando se anuncia un alerta de tornado, esto significa que las condiciones son adecuadas para la formación de tornados. Mantenga su radio, la televisión o la radio meteorológica de la NOAA (La Administración Nacional para la Atmosfera y los Océanos) o sintonizado a una estación local para obtener información actualizada y asesoramiento del servicio meteorológico.
- Cuando se emite una advertencia de tornado, esto significa que un tornado ha sido avistado cerca de usted y usted debería ponerse a cubierto inmediatamente.
- Busque refugio en marco de acero o edificio de hormigón armado. Vaya al sótano, pasillo interior en el nivel más bajo. Los armarios o cuartos de baño en el centro del edificio ofrecen la mayor protección.
- Siempre manténgase alejado de las ventanas, paredes exteriores y puertas exteriores.
- Evite los auditorios, gimnasios y habitaciones amplias de tipo conferencia.
- Si se encuentra en un vehículo, no intente seguir en frente de un tornado. Deje su vehículo inmediatamente. Si usted no puede encontrar refugio en un edificio, acuéstese en una zanja, alcantarilla o la zona más baja. Cubra la parte posterior de la cabeza con las manos.
- Después de que el tornado haya pasado, sea muy cauteloso. Esté atento a los cables de alta tensión en el suelo, líneas de gas rotas, vidrios rotos, etc.

Terremotos

- Mantenga la calma. No entre en pánico. Quédese donde está. Si afuera, permanezca afuera. Si está adentro, permanezca en el interior. La mayoría de las lesiones ocurren cuando las personas están entrando o saliendo de los edificios.
- Si ocurre un terremoto mientras usted está en el interior, busque refugio debajo de un escritorio, mesa, banco o contra una pared interior o en una puerta interior. Aléjese de las ventanas y puertas exteriores
- Si se encuentra en un edificio de gran altura, use la escala en lugar del ascensor; puede haber una falla de energía y usted podría quedar atrapado en el ascensor. No se sorprenda si se activan las alarmas de incendio o los extinguidores de agua. Si tiene que salir del edificio, elija su salida cuidadosamente.
- Si se encuentra en un vehículo en marcha, deténgalo lo más rápidamente con seguridad y permanezca en su vehículo. Su vehículo puede agitar y va a estar en mejor situación si permanece en su vehículo hasta que pase el temblor. Evite detenerse cerca o debajo de edificios, vías elevadas y cables de servicios públicos.
- Si usted está afuera, aléjese de los edificios y cables de servicios públicos. Permanezca en un área abierta hasta que pase el temblor.
- Después de un terremoto, revise por lesiones. No trate de mover a una persona gravemente herida a menos que estén en peligro inmediato de sufrir más lesiones. Llame al 911 para asistencia

- No vuelva a entrar en los edificios hasta que el personal de emergencias aconsejan que es seguro.
- Esté preparado para los temblores secundarios (sacudida adicional).

Amenaza de Bomba -Explosiones

En caso de una amenaza de bomba o un incidente explosivo:

- Involucre a la persona que llama en conversación.
- Mantenga la calma y, si es posible, tome notas de la conversación.
- Trate de determinar;
    - La ubicación exacta de la bomba.
    - La fuente de la amenaza.
    - La hora de la explosión.
    - Ruidos en exterior de la llamada por teléfono.
    - Cualidades de la voz de la persona que llama.
    - El sexo y edad aproximada.
- Si es posible tener a alguien que escuche en la llamada.
- Comprobar el “ID DE LLAMADAS "o marque * 69 para determinar dónde se originó la llamada.
- Llame a la policía marcando 911.
- Notificar al Superintendente.

CÓDIGO DE PRÁCTICAS SEGURAS EN EL DE TRABAJO

Este documento contiene guías generales de seguridad y de salud para este sitio. Las directrices completas se encuentran en el Programa de Seguridad de la Compañía. Ponga una copia de este documento en un lugar prominente.

- Todas las personas deberán seguir las siguientes reglas prácticas de seguridad, rendir toda la ayuda posible para que las operaciones sean seguras, y reportar todas las condiciones o prácticas inseguras al supervisor o al superintendente.
- Los supervisores deberán insistir que los empleados observen y obedezcan todas las ordenanzas locales, estatales o regulaciones federales que sean necesarias para la realización segura de la obra, y adoptarán las medidas necesarias para lograr el cumplimiento.
- Cualquier persona que se encuentre bajo la influencia de drogas o sustancias intoxicantes que deterioran la capacidad del empleado para realizar con seguridad las tareas asignadas no se permitirá en el trabajo.
- Las payasadas, el forcejeo, y otros actos que tiendan a tener una influencia adversa a la seguridad o el bienestar de los empleados, está completamente prohibido.
- El trabajo deberá ser bien planificado y supervisado para evitar lesiones en el manejo de los materiales y en el trabajo con maquinarias.
- Nadie a sabiendas se permitirá o se requerirá que trabaje mientras que la capacidad o el estado de alerta del empleado este afectado por la fatiga, la enfermedad, u otras causas que expongan innecesariamente al empleado u otras personas a lesiones.
- Protección contra Caídas será utilizada por los empleados cuando están expuestos a una posible caída.
- Los empleados no deberán ingresar en espacios cerrados a menos que se haya determinado que es seguro entrar. Un permiso de entrada deberá completarse antes de la entrada en espacios que requieren permiso.
- Los empleados deben ser instruidos para asegurarse de que todos los protectores y otros dispositivos de protección adecuados están en lugares y ajustados, y se informarán las deficiencias sin demora al supervisor o al superintendente.
- Los trabajadores no deberán manejar o manipular cualquier equipo eléctrico, maquinaria, mangueras de aire o de agua que no es parte del ámbito de sus funciones, a menos que hayan recibido instrucciones por parte del superintendente.
- Todas las lesiones se comunicarán oportunamente al supervisor o superintendente de manera que se puedan hacer arreglos para el tratamiento de asistencia médica o primeros auxilios. Todos los incidentes deben ser investigados y los hallazgos documentados. Se aplicarán las medidas correctivas para prevenir accidentes en el futuro.
- Al levantar objetos pesados utilicen los músculos grandes de la pierna en lugar de los músculos más pequeños de la espalda.
- El calzado inapropiado o zapatos con suelas delgadas o mal gastados no deben ser usados

- Materiales, herramientas u otros objetos no serán arrojados desde edificios o estructuras hasta que se tomen las precauciones necesarias para proteger a otras personas de los objetos que caen.
- Los empleados deben de limpiarse a fondo después de la manipulación de sustancias peligrosas y siga las instrucciones especiales de fuentes autorizadas.
- Cualquier daño a los andamios, el trabajo falso, u otras estructuras de soporte, se notificará inmediatamente al supervisor y se reparara antes de usarlo
- El trabajo se hará de un modo que los empleados sean capaces de enfrentar una escalera y usar ambas manos al subir.
- La gasolina no se utilizará para fines de limpieza.
- No quemar, soldar o se aplicará otra fuente de ignición hasta que primero se haya determinado que no exista ninguna posibilidad de explosión y un permiso de trabajo en caliente se obtendrá del supervisor o superintendente.

SEGURIDAD QUÍMICA EN GENERAL

Suponga que todos los productos químicos son peligrosos. El número de productos químicos peligrosos y el número de reacciones entre ellos es tan grande que no se puede asumir el conocimiento previo de todos los riesgos potenciales. Utilice productos químicos en pequeñas cantidades cuando sea posible para minimizar la exposición y reducir los posibles efectos nocivos. Cualquier empleado que está obligado a utilizar o manipular productos químicos peligrosos será entrenado en cómo utilizar de forma segura los productos químicos específicos.

Se observarán las siguientes reglas generales de seguridad cuando se trabaja con productos químicos:

- Lea y comprenda las Fichas de Datos de Seguridad.
- Mantenga el área de trabajo limpia y ordenada.
- Utilice el equipo de seguridad necesario.
- Etiquetar cuidadosamente cada recipiente con la identidad de sus contenidos y de peligro correspondientes.
- Almacene los productos químicos incompatibles en áreas separadas.
- Substituya los materiales menos tóxicos siempre que sea posible.
- Limite la cantidad de material volátil o inflamable al mínimo necesario para periodos de funcionamiento cortos.
- Proporcionar medios para contener el material si el equipo o los recipientes se rompen o derraman su contenido.

Evaluación de Tareas

Cada tarea que requiera el uso de productos químicos debe ser evaluada para determinar los posibles peligros relacionados con el trabajo. Esta evaluación de riesgos debe incluir el producto químico o una combinación de sustancias que se utilicen en el trabajo, así como otros materiales que se utilizarán cerca de la obra. Si hay una falla durante la operación que tenga el potencial de causar lesiones graves o daños a la propiedad, un Procedimiento Operativo Seguro (POS) (siglas en Ingles SOP) deberá elaborarse y seguir. Las operaciones deben ser planificadas para minimizar la generación de desechos peligrosos.

Almacenamiento de Productos Químicos

La separación de productos químicos (sólidos o líquidos) durante el almacenamiento es necesario para reducir la posibilidad de reacciones químicas no deseadas causadas por la mezcla accidental. Los explosivos deben almacenarse por separado al aire libre. Utilice las distancias o los obstáculos (por ejemplo, bandejas) para aislar las sustancias químicas en los siguientes grupos:

- Los líquidos Inflamables: manténgalos en contenedores inflamables aprobados.
- Los ácidos: trátelos como líquidos inflamables
- Las bases: no almacenen las bases con ácidos o cualquier otro material
- Otros líquidos: aseguren que otros líquidos no sean incompatibles con cualquier otro producto químico en el mismo lugar de almacenamiento.
- Tiras o barras deben ser instalados a través de la anchura de los estantes de almacenamiento para contener los productos químicos en caso de un terremoto.
- Los productos químicos no se almacenarán en el mismo refrigerador utilizado para el almacenamiento de alimentos. Los refrigeradores utilizados para el almacenamiento de productos químicos deberán estar debidamente identificados con una etiqueta en la puerta.

Etiquetas de los Envases

Es extremadamente importante que todos los envases de productos químicos se etiqueten correctamente. Esto incluye todo tipo de contenedor desde un estanque de almacenamiento de 5,000 galones a una botella de rocío de desengrasante. Se aplican los siguientes requisitos:

- Todos los contenedores tendrán la etiqueta apropiada; los rótulos o las marcaciones de manera destacada que indica la identidad y los peligros de seguridad y salud.
- Los contenedores portátiles, que contienen una pequeña cantidad de producto químico, no necesitan ser etiquetados si se utilizan inmediatamente en el turno de trabajo, pero deben estar bajo el control estricto del empleado mientras esté usando el producto.
- Todas las etiquetas de advertencia, rótulos, etc., deben mantenerse en un estado legible y no ser borrados. Los supervisores haciendo inspecciones semanales, en las instalaciones, comprobaran el cumplimiento de esta norma.
- Los productos químicos entrantes van a ser revisados por el etiquetado correcto.

OSHA ha actualizado los requisitos para el etiquetado de productos químicos peligrosos en virtud de su Norma de Comunicación de Peligros (HCS). A partir del 1ero de junio de 2015, se exigirá que todas las etiquetas tengan pictogramas, una palabra de señal, peligro y consejos de advertencia, el identificador del producto, y la identificación del proveedor. Una muestra de etiqueta revisada de la Norma de Comunicación de Riesgos NCR (siglas en Ingles HCS) revisada, la identificación de los elementos de la etiqueta exigidos, se muestra en el siguiente:

Pictogramas de la Norma de Comunicación de Riesgos

A partir del 1ero de junio de 2015, la Norma de Comunicación de Riesgos (HCS) requerirá pictogramas en las etiquetas para advertir a los usuarios de los peligros químicos a los que puedan estar expuestos. Cada pictograma representa un peligro definido y consiste en un símbolo sobre un fondo blanco enmarcado con un borde rojo. La clasificación del peligro químico determina el pictograma que muestra la etiqueta. Los Pictogramas y peligros se encuentran a continuación:

Pictogramas y peligros según la HCS

Peligro para la salud  ▪ Carcinógeno ▪ Mutagenicidad ▪ Toxicidad para la reproducción ▪ Sensibilización respiratoria ▪ Toxicidad especifica de órganos Diana ▪ Peligro por aspiración	**Llama**  ▪ Inflamables ▪ Pirofóricos ▪ Calentamiento espontáneo ▪ Desprenden gases inflamables ▪ Reaccionan espontáneamente (autorreactivas) ▪ Peróxidos orgánicos	**Signo de exclamación**  ▪ Irritante (piel y ojos) ▪ Sensibilizador cutáneo ▪ Toxicidad aguda (dañino) ▪ Efecto narcótico ▪ Irritante de vías respiratorias ▪ Peligros para la capa de Ozono (no obligatorio)
Botella de gas  ▪ Gases a presión	**Corrosión**  ▪ Corrosión o quemaduras cutáneas ▪ Lesion ocular ▪ Corrosivo para los metales	**Bomba explotando**  ▪ Explosivos ▪ Reaccionan espontáneamente (autorreactivas) ▪ Peróxidos orgánicos
Llama sobre círculo  ▪ Comburentes	**Medio ambiente** (No Obligatorio)  ▪ Toxicidad acuática	**Calavera y tibias cruzadas**  ▪ Toxicidad aguda (mortal o tóxica)

Emergencias y Derrames.

En caso de una emergencia, aplicar el Plan de Acción de Emergencia apropiada.

- Evacuar la gente de la zona.
- Aislar la zona.
- Si el material es inflamable, apague las fuentes de ignición y de calor.
- Sólo el personal específicamente capacitado en respuesta de emergencia se les permite participar en los procedimientos de emergencia químicas más allá de las necesarias para evacuar la zona.
- Llame a la asistencia del Equipo de Respuesta de Emergencia en caso necesario.

La Limpieza

- Mantener el más pequeño inventario posible de sustancias químicas para satisfacer las necesidades inmediatas.
- Revisar periódicamente la provisión de productos químicos a mano.
- Asegurarse que las áreas de almacenamiento, o equipos que contengan grandes cantidades de productos químicos, son seguros de derrames accidentales.
- Enjuagar botellas vacías que contienen ácidos o disolventes inflamables antes de su eliminación.
- Siempre recicle los productos químicos de laboratorio sin uso cuando sea posible.
- NO coloque productos químicos peligrosos en receptáculos de salvamento o de basura.
- NO vierta productos químicos en el suelo.
- NO se deshaga de los productos químicos a través del sistema de drenaje de aguas pluviales.
- NO se deshaga de los productos químicos, malolientes y altamente tóxicos en los fregaderos o desagües del alcantarillado.

Los Contratistas

Se requiere que todos los contratistas externos que trabajan dentro de la Instalaciones de la empresa sigan los requisitos de este programa. La Compañía proporcionará a los Contratistas la información relativa a:

- La ubicación de las FDS
- Las precauciones a tomar para proteger a los empleados de los contratistas
- La exposición potencial a sustancias peligrosas
- Los productos químicos utilizados o almacenados en las zonas donde se va a trabajar
- La Ubicación y la disponibilidad de fichas de seguridad
- La recomendación del Equipo de Protección Personal
- El sistema de etiquetado para los productos químicos.

Definiciones

- Químico: cualquier elemento, compuesto químico o mezcla de elementos y / o compuestos.
- Líquido combustible: cualquier líquido que tiene un punto de inflamación igual o superior a 100 grados. F (37,8 °. C), pero por debajo de 200 grados. F (93,3 °. C), excepto cualquier mezcla que tenga componentes con puntos de inflamación de 200 grados. F (93,3 °. C), o superior, el volumen total de las cuales constituyen el 99 por ciento o más del volumen total de la mezcla.
- Gas comprimido: cualquier compuesto que exhibe:
  (i) Un gas o mezcla de gases que tienen, en un recipiente, una presión absoluta superior a 40 psi (por pie cuadrado) a 70 grados. F.
  (ii) Un gas o mezcla de gases que tiene, en un recipiente, una presión absoluta superior a 104 psi (ppc) a 130 grados. F. independientemente de la presión a 70 grados. F.
  (iii) Un líquido que tiene una presión de vapor inferior o igual a 40 psi (ppc) a 100 grados. F.
- Contenedor: cualquier bolsa, barril, botella, caja, lata, cilindro, tambor, recipiente de reacción, tanque de almacenamiento, o similar que contiene una sustancia química peligrosa. Para propósitos de esta sección, tuberías o sistemas de tuberías y motores, tanques de combustible, u otros sistemas operativos en un vehículo, no se consideran contenedores.
- Empleado: un trabajador que puede estar expuesto a sustancias químicas peligrosas en condiciones normales de funcionamiento o en caso de emergencia previsible. Los trabajadores, como los trabajadores de oficinas o cajeros de los bancos que tengas contacto con productos químicos peligrosos en casos aislados y no rutinarios, no están cubiertos.
- Empleador: una persona dedicada a un negocio donde se utilizan productos químicos, se distribuyen, o se producen para el uso o la distribución, incluyendo un contratista o subcontratista.
- Explosivo: un producto químico que causa la liberación repentina, casi instantánea de la presión, el gas y el calor cuando se somete a choques bruscos, presión o alta temperatura.
- Exposición o expuesto: un empleado que es sometido en el curso del empleo a una sustancia química que tenga peligro físico o de salud, e incluye el potencial (por ejemplo, accidental o posible) de exposición. Sometidos en términos de riesgos para la salud incluye cualquier ruta de entrada (por ejemplo, inhalación, ingestión, contacto con la piel o absorción.)
- Inflamable: un producto químico que cae en una de las siguientes categorías:
  (I) "Aerosol inflamable" significa un aerosol que produce una proyección de llama superior a 18 pulgadas en la apertura total de la válvula, o una llama que se devuelve a la válvula en cualquier grado de apertura de la válvula;
  (ii) "Gas inflamable" significa: (A) Un gas que, a temperatura y presión ambiental, forma una mezcla inflamable con el aire a una concentración de trece (13) por ciento en volumen o menos; o (B) Un gas que, a temperatura y presión ambiental, forma una gama de mezclas inflamables con el aire más ancha que doce (12) por ciento en volumen, independientemente del límite inferior;
  (iii) "Líquido inflamable" significa cualquier líquido con un punto de inflamación inferior a 100 grados. F., excepto cualquier mezcla que tenga componentes con puntos de inflamación de 100 grados. F. o superior, el total de los cuales constituyen el 99 por ciento o más del volumen total de la mezcla.

(iv) "Sólido inflamable" significa un sólido, con excepción de un agente detonante o explosivo según lo definido en 1910.109 (a), es susceptible a provocar un incendio debido a la fricción, la absorción de la humedad, el cambio químico espontáneo, o el calor retenido de la fabricación o del proceso, o que puede ser encendido fácilmente y cuando las quemaduras se encienden, se quema tan vigorosa y persistente como para crear un riesgo serio. Una sustancia química se considera que es un sólido inflamable si se inflama y arde con una llama autónoma a una tasa superior de la décima parte de una pulgada por segundo a lo largo de su eje mayor.

- Punto de inflamación: la temperatura mínima a la cual un líquido desprende un vapor en concentración lo suficiente como para encender.
- Químico peligroso: cualquier producto químico, que es un riesgo físico o un peligro para la salud.
- Advertencia de Peligro: cualquier palabra, imágenes, símbolos, o la combinación que aparece en una etiqueta u otra forma apropiada de alerta que transmiten el peligro específico físico y de salud, incluyendo los órganos a afectar, los químicos en los recipientes. (Vea las definiciones de "riesgo físico" y "peligro para la salud" para determinar los riesgos que deberán ser cubiertos).
- Riesgo para la Salud: una sustancia química por la cual hay evidencia de que se produzcan efectos agudos o crónicos para la salud en los empleados expuestos. El término "riesgo para la salud" incluye los productos químicos que son carcinógenos, agentes tóxicos o altamente tóxicos, toxinas reproductivas, irritantes, corrosivas, sensibilizadoras, hepatotoxinas, nefrotoxinas y neurotoxinas, agentes que actúan sobre el sistema hematopoyético, y agentes que dañan los pulmones, la piel, los ojos o las membranas mucosas.
- Identidad: cualquier nombre químico o común, que se indica en la ficha de datos de seguridad (FDS) para el producto químico. La identidad utilizada deberá permitir referencias relacionadas que se harán en la lista requerida de productos químicos peligrosos, la etiqueta y la FDS.
- El uso inmediato: la sustancia química peligrosa estará bajo el control y será usado solamente por la persona que lo transfiere desde un recipiente etiquetado y sólo dentro de la jornada de trabajo.
- Etiqueta: cualquier escrito, impreso o gráfico que se muestre en los contenedores de productos químicos peligrosos.
- Ficha de datos de seguridad (SDS): material escrito o impreso, relativa a un producto químico peligroso, que se prepara de acuerdo con los requisitos la norma OSHA 1910.1200.
- Mezcla: cualquier combinación de dos o más productos químicos si la combinación no es, en su totalidad o en parte, el resultado de una reacción química.
- Oxidante: significa un químico que no sea un agente detonante o explosivo según lo definido en 1910.109 (a), que inicia o favorece la combustión de otros materiales, lo que provoca el fuego en sí mismas o mediante la liberación de oxígeno u otros gases.
- Riesgo físico: un producto químico que es un líquido combustible, un gas comprimido, un peróxido explosivo, inflamables orgánicos, un oxidante, un pirofórico, inestable (reactivo) o reactivo al agua.
- Pirofórico: una sustancia química que se inflama espontáneamente en el aire a una temperatura de 130 grados. F. o menos.
- Identidad específica del químico: el nombre del químico, el Número de Registro del Servicio de Químicos Abstractos, o cualquier otra información que revele la designación química precisa de la sustancia.

- Inestable (reactivo): un producto químico que en el estado puro, o como se produce o se transporta, se polimeriza vigorosamente, se descompone, se condensa, o va a ser auto-reactivo bajo condiciones de choques, de presión o de temperatura.
- Uso: para empaquetar, manipular, reaccionar, emitir, extraer, se genera como subproducto, o transferencia.
- Que reacciona con el agua: una sustancia química que reacciona con el agua para liberar un gas que ya sea inflamable o presenta un peligro para la salud.
- Area de trabajo: una habitación o espacio definido en un lugar de trabajo donde se producen o utilizan productos químicos peligrosos, y donde los empleados están presentes.
- Lugar de trabajo: un establecimiento, obra o proyecto, en una ubicación geográfica que contiene una o más áreas de trabajo.

INFORMACIÓN DE LA FICHAS DE DATOS DE SEGURIDAD (FDS).

La Norma de Comunicación de Riesgos (HCS) (29 CFR 1910.1200 (g)), revisada en 2012, exige que el fabricante de productos químicos, distribuidor o importador proporcionen Fichas de Datos de Seguridad (FDS) (anteriormente conocidas como MSDS o Hojas del Material de Seguridad) para cada químico peligroso de los usuarios intermedios para comunicar la información sobre estos peligros. La información contenida en la FDS (SDS) es en gran parte el mismo que el MSDS, excepto que ahora la FDS (SDS) se requiere que sean presentados en un formato de 16 secciones de fácil manejo y consistente. Este breve proporciona una orientación para ayudar a los trabajadores que manipulan productos químicos peligrosos de familiarizarse con el formato y comprender el contenido de la FDS.

La FDS incluye información como las propiedades de cada producto químico; la física, la salud y los riesgos de salud ambiental; medidas de protección; y medidas de seguridad para el manejo, almacenamiento y transporte de productos químicos. La información contenida en las FDS debe estar en inglés (aunque también puede ser en otros idiomas). Además, OSHA requiere que los preparadores de las FDS proporcionan información mínima específica, según se detalla en el Anexo D de 29 CFR 1910.1200. Los preparadores las FDS también pueden incluir información adicional en varias secciones.

Las secciones 1 a 8 contienen información general acerca de la química, la identificación, los riesgos, la composición, las prácticas de manejo seguro y las medidas de control de emergencia (por ejemplo, de extinción de incendios). Esta información debe ser útil para aquellos que necesitan de obtener la información rápidamente. Secciones 9 a 11 y 16 contienen otra información técnica y científica, como las propiedades físicas y químicas, información sobre la estabilidad y la reactividad, la información toxicológica, la información de control de exposición y otra información, incluyendo la fecha de formulación o de la última revisión. La FDS debe también indicar que no se encontró información aplicable cuando el preparador no encuentra la información relevante para cualquier elemento requerido.

La FDS también debe contener las secciones 12 a 15, para ser coherente con el Sistema Globalmente Armonizado de las Naciones Unidas de Clasificación y Etiquetado de Productos Químicos (GHS), pero OSHA no hará cumplir el contenido de estas secciones porque se refieren a asuntos tratados por otras agencias.

Una descripción de todas las 16 secciones de la FDS, junto con su contenido, se presenta a continuación:

Sección 1: Identificación

Esta sección identifica el producto químico en la FDS, así como los usos recomendados. También proporciona la información de contacto esencial del proveedor. La información requerida se compone de:

- Identificador del producto utilizado en la etiqueta y otros nombres o sinónimos comunes por los que se conoce la sustancia.
- Nombre, dirección, número de teléfono del fabricante, importador, u otras partes responsables, y número de teléfono de emergencia.
- Uso recomendado del producto químico (por ejemplo, una breve descripción de lo que realmente hace, como por ejemplo un retardante de llama) y restricciones de uso (incluidas las recomendaciones dadas por el proveedor).

Sección 2: Riesgo (s) de Identificación

Esta sección identifica los peligros de la sustancia química que se presenta en la FDS y la información adecuada de cautela asociada a esos peligros. La información requerida se compone de:

- La clasificación de peligro de la sustancia química (por ejemplo, líquido inflamable, categoría1).
- Palabra de advertencia.
- Indicación de peligro (s).
- Pictogramas (los pictogramas o símbolos de peligro pueden presentarse como reproducciones gráficas de los símbolos en blanco y negro o ser una descripción del nombre del símbolo (por ejemplo, el cráneo y las tibias cruzadas, la llama).
- Consejos de precaución (s).
- Descripción de cualquier peligro no clasificado de otra manera.
- Para una mezcla que contiene un ingrediente (s) con toxicidad desconocida, una declaración que describe la cantidad (porcentaje) de la mezcla que se consiste de ingrediente (s) con toxicidad aguda desconocida. Tenga en cuenta que este es un porcentaje total de la mezcla y no atado a cada ingrediente (s).

Sección 3: Composición / información sobre los Ingredientes.

Esta sección identifica el ingrediente (s) contenido en el producto indicado en la FDS, incluidas las impurezas y aditivos estabilizantes. Esta sección incluye información sobre las sustancias, mezclas y todos los productos químicos, donde se reclama un secreto comercial. La información requerida se compone de:

- Sustancias
  - El nombre químico.
  - El nombre común y sinónimo.
  - El número del Servicio de Químicos Abstractos (SQA) (siglas en Ingles CAS) y otros identificadores únicos.
  - Impurezas y aditivos estabilizadores que estén a su vez clasificados y que contribuyan a la clasificación del producto químico.
- Mezclas
  - La misma información requerida para las sustancias.
  - El nombre químico y la concentración (es decir, porcentaje exacto) de todos los ingredientes clasificados como riesgos para la salud y que están:
  - Presentes por encima de sus límites de corte / concentración o
  - Presentan un riesgo para la salud por debajo de los límites de corte / concentración.
  - La concentración (porcentajes exactos) de cada ingrediente debe especificarse excepto los intervalos de concentración pueden ser utilizados en las siguientes situaciones:
  - Se hace un reclamo del secreto comercial,
  - Existe una variación de lote a lote, o
  - La FDS se usa para un grupo de mezclas sustancialmente similares.
- Productos químicos donde se reclama un secreto comercial.
  - Una declaración de que la identidad química específica y / o porcentaje exacto (concentración) de composición ha sido retenido ya que se requiere un secreto comercial.

Sección 4: Medidas de Primeros Auxilios

En esta sección se describe la atención inicial que se debe dar a los respondedores sin capacitación a un individuo que ha sido expuesto a la sustancia química. La información requerida se compone de:

- Las instrucciones necesarias de primeros auxilios por vías de exposición pertinentes (inhalación, contacto con la piel, los ojos e ingestión).
- Descripción de los síntomas más importantes o efectos y síntomas que son agudos o retrasados.
- Recomendaciones para la atención médica inmediata o tratamiento especial, cuando sea necesario.

Sección 5: Medidas de Combate de Incendios

Esta sección proporciona las recomendaciones de combates de un incendio provocado por la sustancia química. La información requerida se compone de:

- Las recomendaciones de los equipos de extinción adecuada, y la información sobre el equipo que no es apropiado para una situación particular de extinción.
- El asesoramiento sobre los riesgos específicos que se desarrollan del químico durante el incendio, tales como los productos de combustión peligrosos, creados por las quemaduras químicas.
- Recomendaciones sobre equipos de protección especial o precauciones para los bomberos.

Sección 6: Medidas de Liberación Accidental

Esta sección proporciona recomendaciones sobre la respuesta apropiada a los derrames, fugas o pérdidas, incluidas las prácticas de contención y de limpieza para prevenir o minimizar la exposición a las personas, propiedades o al medio ambiente. También puede incluir recomendaciones para distinguir entre las respuestas para grandes y pequeños derrames, cuando el volumen del derrame tiene un impacto significativo en el riesgo. La información requerida puede consistir en recomendaciones para:

- El uso de las precauciones personales (como la eliminación de las fuentes de ignición o proporcionar ventilación suficiente) y el equipo de protección para evitar la contaminación de la piel, los ojos y la ropa.
- Los procedimientos de emergencia, incluidas las instrucciones para evacuaciones, consulta a expertos cuando sea necesario, y ropa de protección adecuada.
- Métodos y materiales utilizados para la contención (por ejemplo, que cubren los desagües y los métodos de revestimiento).
- Procedimientos de limpieza (por ejemplo, las técnicas apropiadas para la neutralización, la descontaminación, la limpieza o pasar la aspiradora, materiales adsorbentes, y / o el equipo necesario para la contención / limpieza).

Sección 7: Manipulación y Almacenamiento.

En esta sección se ofrece orientación sobre las prácticas de manejo seguro y las condiciones de almacenamiento seguro de los productos químicos. La información requerida se compone de:

- Las precauciones para una manipulación segura, incluyendo las recomendaciones para el manejo de productos químicos incompatibles, minimizando la liberación de la sustancia química en el medio ambiente, y la prestación de asesoramiento sobre las prácticas generales de higiene (por ejemplo, está prohibido comer, beber y fumar en áreas de trabajo).
- Las recomendaciones sobre las condiciones de almacenamiento seguro, incluidas posibles incompatibilidades. Proporcionar asesoramiento sobre los requisitos de almacenamiento específicos (por ejemplo, requisitos de ventilación).

Sección 8: Controles de Exposición / Protección Personal.

Esta sección indica los límites de exposición, controles de ingeniería, y medidas de protección personal que se pueden utilizar para reducir al mínimo la exposición del trabajador. La información requerida se compone de:

- Los Límites de Exposición Permisibles (LEP) (siglas en ingles PEL) de OSHA, la Conferencia Americana de Higienistas Industriales Gubernamentales (ACGIH) los Valores de Limite del Umbral (TLV), y cualquier otro límite de exposición usado o recomendado por el fabricante, importador o empleador que prepara la ficha de datos de seguridad, cuando estén disponibles.
- Los controles técnicos apropiados (por ejemplo, use ventilación de escape local o lo utilice solamente en un sistema cerrado).
- Las recomendaciones para medidas de protección personal para prevenir enfermedades o lesiones por exposición a sustancias químicas, tales como equipos de protección personal (EPP) (por ejemplo, los tipos adecuados de protección de los ojos, la cara, la piel o la protección respiratoria basadas sobre los peligros y la exposición potencial).
- Cualquier requisito especial para el EPP, ropa protectora o respiradores (por ejemplo, el tipo de material de los guantes, como el PVC o guantes de nitrilo, y tiempo de penetración del material de los guantes).

Sección 9: Propiedades Físicas y Químicas.

Esta sección identifica las propiedades físicas y químicas asociadas con la sustancia o mezcla. La información mínima requerida consiste en:

- Aspecto (estado físico, color, etc.);
- Los límites superior / inferior de inflamabilidad o explosión;
- El Olor;
- La presión del vapor;
- El umbral del olor;
- La densidad del vapor;
- El pH;
- La densidad relativa;
- El punto de fusión / punto de congelación;
- La solubilidad (es);
- El punto de ebullición inicial e intervalo de ebullición;
- El punto de inflamación;
- La tasa de evaporación;
- La inflamabilidad (sólido, gas);
- Los límites superior / inferior de inflamabilidad o explosión;
- La presión del vapor;
- La densidad del vapor;

- La densidad relativa;
- L solubilidad (es);
- El coeficiente de partición n-octanol / agua;
- La temperatura de auto-ignición;
- La temperatura de descomposición; y
- La viscosidad.

La FDS puede no contiene todos los elementos de la lista anterior ya que la información no puede ser relevante o no está disponible. Cuando esto ocurre, una anotación a tal efecto se debe hacer para la propiedad química. Los fabricantes también pueden añadir otras propiedades relevantes, tales como el índice de deflagración de polvo (KST) de polvo combustible, que se utiliza para evaluar el potencial explosivo de un polvo.

Sección 10: Estabilidad y Reactividad

Esta sección describe los peligros de reactividad del químico y la información de la estabilidad química. Esta sección se divide en tres partes: reactividad, estabilidad química, y otras. La información requerida se compone de:

- Reactividad.
    - Descripción de los datos de las pruebas específicas para el químico (s). Estos datos pueden ser de una clase o de la familia del químico cuando estos datos representan adecuadamente el peligro previsto de la sustancia química (s), donde esté disponible.
- Estabilidad química.
    - La indicación de que si el producto químico es estable o inestable a temperatura ambiente normal y condiciones mientras están almacenados y siendo manejados.
    - La descripción de los estabilizadores que pueden ser necesarios para mantener la estabilidad química.
    - La indicación de todos los problemas de seguridad que pueden surgir si el producto cambia en el aspecto físico.
- Otros
    - La indicación de la posibilidad de reacciones peligrosas, incluyendo una declaración de que si el producto químico reacciona o se polimeriza, lo que podría liberar el exceso de presión o calor, o crear otras condiciones peligrosas. También, en las que se puede producir una descripción de las condiciones de descomposición peligrosos.
    - La lista de todas las condiciones que se deben evitar (por ejemplo, descarga estática, choque, vibraciones, o condiciones ambientales que pueden dar lugar a condiciones peligrosas).

- La lista de todas las clases de materiales incompatibles (por ejemplo, clases de productos químicos o sustancias específicas) con la que el producto químico puede reaccionar para producir una situación peligrosa.
- La lista de los productos de descomposición peligrosos conocidos o previstos que se pudieran producir por el uso, almacenamiento o calefacción. (Productos de combustión peligrosos también deben incluirse en la sección 5 (Medidas de combatir incendios) de la FDS.).

Sección 11: Información Toxicológica.

En esta sección se identifica la información de los efectos toxicológicos y de salud o indica que estos datos no están disponibles. La información requerida se compone de:

- La información sobre las rutas probables de exposición (inhalación, ingestión, contacto con la piel y los ojos). La FDS debe indicar si la información es desconocida.
- La descripción de los efectos retardados, inmediatos o crónicos producidos por una exposición a corto y largo plazo.
- Las medidas numéricas de toxicidad (por ejemplo, las estimaciones de toxicidad aguda, como la DL50 (dosis letal media)) - la cantidad estimada [de una sustancia] esperados para matar el 50% de los animales de prueba en una sola dosis.
- Descripción de los síntomas. Esta descripción incluye los síntomas asociados con la exposición a la sustancia química incluyendo síntomas del más bajo la exposición más severa.
- Indicación si el producto químico aparece en el Informe del Programa Nacional de Toxicología (PNT) (siglas en Ingles NTP) sobre los agentes carcinógenos (última edición) o ha sido encontrada para ser un carcinógeno potencial en la Agencia Internacional para la Investigación sobre el Cáncer (AIIC) (IARC) (últimas ediciones) o encontrado que es un agente carcinógeno potencial por la OSHA.

Sección 12: Información Ecológica (no obligatorio).

Esta sección proporciona información para evaluar el impacto ambiental del agente química (s), si se libera al medio ambiente. La información puede incluir:

- Los datos de los estudios de toxicidad realizados con organismos acuáticos y / o terrestres, cuando sea disponible (por ejemplo, los datos acuáticos agudos o crónicos de la toxicidad para los peces, algas, crustáceos y otras plantas; información de toxicidad en pájaros, abejas, plantas).
- Si hay un potencial para el producto químico que persiste y se degrada en el medio ambiente, ya sea mediante la biodegradación o por otros procesos, como la oxidación o la hidrólisis.

- Los resultados de las pruebas del potencial de la bioacumulación, haciendo referencia al coeficiente de la división del octanol/agua (Kow) y el factor de la bioconcentración (BCF), cuando sea disponible.
- El potencial para que una sustancia se mueva del suelo al agua subterránea (indica los resultados de estudios de la adsorción o lixiviación).
- Otros efectos adversos (por ejemplo, el destino ambiental, el potencial de la debilitación de la capa de ozono, el potencial de creación de ozono fotoquímico, el potencial de alteración endocrina, y / o el potencial de calentamiento del planeta).

Sección 13: Consideraciones de la Eliminación (no obligatorio).

En esta sección se ofrece la orientación sobre las prácticas adecuadas de eliminación, reciclado o regeneración del químico (s) o su recipiente, y las prácticas de manejo seguro. Para minimizar la exposición, esta sección también referirá al lector a la Sección 8 (Controles de exposición / Protección Personal) de la FDS. La información puede incluir:

- La descripción del uso apropiado de los envases de desecho.
- Las recomendaciones para el uso adecuado de los métodos de eliminación.
- La descripción de las propiedades físicas y químicas que pueden afectar a las actividades de eliminación.
- Lenguaje de la disposición de aguas residuales.
- Precauciones especiales para los rellenos sanitarios o actividades de incineración.

Sección 14: Información de Transporte (no obligatorio)

En esta sección se ofrece la orientación sobre la información clasificada para el envío y transporte de productos químicos peligrosos (s) por carretera, aéreo, por ferrocarril o marítimos. La información puede incluir:

- Número de la ONU (es decir, número de identificación de cuatro dígitos de la sustancia) 1.
- El número de la ONU para el envío apropiado 1
- Clase (es) de peligro para el transporte 1.
- Número de grupo de embalaje, si es aplicable, basado en el grado de peligro 2.
- Peligros para el medio ambiente (por ejemplo, identificar si es un agente contaminador marino según el Código Internacional de Mercaderías Marítimas Peligrosas (Código IMDG)).
- La orientación sobre el transporte a granel (con arreglo al anexo II del Convenio MARPOL 73/783 y el Código internacional para la Construcción y el Equipo de Buques que Transporten Productos Químicos peligrosos a Granel (Por Código Internacional de Productos Químicos a Granel (CIPQG)
- Las precauciones especiales que un empleado debe ser enterado o necesita cumplir en relación con el transporte dentro y fuera de sus instalaciones (indicar cuando la información no está disponible).

Sección 15: Información Reguladora (no obligatorio)

En esta sección se identifica la seguridad, la salud y la normativa ambiental específica para el producto que no se indica en ningún otro lugar en la FDS. La información puede incluir:

- Cualquier información normativa nacional y / o regional de los químicos o mezclas (incluyendo cualquiera OSHA, Departamento de Transporte, la Agencia de Protección del Medio Ambiente, o regulaciones de la Comisión de Seguridad de Productos del Consumidor).

Sección 16: Otra Información.

- En esta sección se indica cuando la FDS fue preparada o cuando se hizo la última revisión conocida. La FDS también puede indicar donde se han realizado los cambios a la versión anterior. Es posible que desee ponerse en contacto con el proveedor para obtener una explicación de los cambios. Otra información de interés también se puede incluir aquí.

Responsabilidades del Empleador.

Los empleadores deben asegurarse de que las FDS sean fácilmente accesibles a los empleados de todos los productos químicos peligrosos en su lugar de trabajo. Esto se puede hacer de muchas maneras. Por ejemplo, los empleadores pueden mantener las FDS en un archivo o en la computadora, siempre y cuando los empleados tengan acceso inmediato a la información, sin salir de su área de trabajo cuando sea necesario y una copia de seguridad esté disponible para el acceso rápido a la FDS en el caso de un corte de energía u otra emergencia. Además, los empleadores pueden querer designar a una persona (s) responsable de la obtención y el mantenimiento de la FDS. Si el empleador no tiene una FDS, el empresario o la persona designada (s) debe ponerse en contacto con el fabricante para obtener uno.

El Uso de la FDS por Empleado

Para que el uso de la FDS sea eficaz, los empleados deben:

- Conocer la ubicación de la FDS
- Comprender los puntos principales de cada producto químico
- Revisar la FDS cuando se necesita más información o surgen preguntas
- Ser capaz de localizar rápidamente la información de emergencia en la FDS
- Siga las prácticas de seguridad previstas en la FDS.

Ubicación de la FDS.

El supervisor del lugar de trabajo realizará un inventario de los productos químicos peligrosos. A partir de este inventario, se creará una Lista Maestra de la FDS. La Lista Maestra de la FDS y la FDS se mantendrán en este archivo siguiendo este programa.

CAPACITACION

Los empleados serán capacitados en la comunicación de riesgos. El entrenamiento será documentado en el formulario de Registro de Capacitación del Empleado que se encuentra en este programa. Los empleados serán instruidos en las siguientes áreas:

a. Almacenamiento de los Productos Químicos
b. Las etiquetas de los Envases
c. Emergencias y Derrames
d. Servicio de limpieza
e. Fichas de Datos de Seguridad (FDS)
f. Uso General del Producto Químico
g. Los Peligros y las Precauciones Específicas de Químicos

Es la política de la empresa que cada empleado tiene el derecho a trabajar en las mejores condiciones de seguridad en la industria de la construcción. Para ello, se harán todos los esfuerzos razonables en el interés de la prevención de accidentes para ofrecer condiciones de trabajo seguro y saludable y para eliminar los peligros que pueden causar lesiones a los trabajadores o daños a la propiedad y la maquinaria. La prevención de accidentes es una responsabilidad en el campo de trabajo y, los supervisores y los empleados, como tal, serán responsable de la operación segura de sus proyectos. Nuestra política consiste en desarrollar y mantener un programa efectivo para la producción segura. Esta política ilustra la aceptación de la gerencia y reconocimiento del hecho de que la prevención y la producción de accidentes son sinónimos. Por lo tanto, la planificación para la Prevención de Accidentes se incorporará en todas las fases de trabajo de la empresa.

La compañía está sinceramente interesado en su seguridad. La política de la compañía es proporcionar un equipo seguro, herramientas adecuadas y el equipo de protección necesario. Es su responsabilidad de seguir las reglas de seguridad establecidas para su protección y para utilizar los dispositivos de protección, que la empresa le proporciona.

CREEMOS EN LA SEGURIDAD E INSISTIMOS EN ELLA

YO, _____ (SU NOMBRE Y APELLIDO) HE LEIDO Y ENTIENDO EL MANUAL DEL EMPLEADO DEL PROGRAMA DE SEGURIDAD DE LA COMPAÑÍA. ENTIENDO QUE CUALQUIER PREGUNTA DEBE DIRIGIRSE A MI SUPERVISOR. TAMBIEN ENTIENDO QUE EL PROGRAMA COMPLETO ESTARA DISPONIBLE A PETICION.

_____ _____

FIRMA DEL EMPLEADO **FECHA**

Una vez que este formulario este completo, por favor corte y regrese a su gerente.

Employee Safety Violation Reprimand Policy

All workers are expected to comply with safety rules and regulations related to their work and work areas. Violations of these rules will not be tolerated. Workers shall follow these steps to remain safe and avoid this policy:

- Workers shall not undertake a job until they have received appropriate instructions and are satisfied that they can do the job properly and safely. A worker should speak up if they are not ready.
- No worker shall undertake a job that appears to be unsafe.
- No worker shall undertake any job or use any machinery while under the influence of illegal and/or legal drugs, alcohol or a prescription or over the counter drug that impairs the worker's ability to work safely.
- No worker shall perform any work without using the required personal protective equipment.
- All workers must report every accident, including injuries, property damages, and near misses to their supervisor.

Speak up if you feel something is unsafe. Discuss with your immediate supervisor or their supervisor if you don't get an appropriate response. Workers who raise safety concerns will not be subject to retaliation.

The company wants its employees and subcontractors to work in a positive, productive atmosphere. However, employees and/or subcontractors who violate safety rules must be disciplined to protect their own safety and the safety of their coworkers. Supervisors should follow the following procedures:

EMPLOYEES

Employees of the company may be reprimanded in the following manner:

	Minor Violation →	Major Violation
1st Violation	Verbal Warning	Suspension for 1 day
2nd Violation	Written Warning	Suspension for 1 week
3rd Violation		Termination

Violations will reset to zero after 12 months without additional violations.

MINOR VIOLATIONS

This list of minor violations is provided as examples and is not a complete list of what could be considered a minor violation. A minor violation is one that would not result in a serious injury.

- Violation of personal protective equipment policy that does not result in injury to oneself or others
- Poor housekeeping
- Failure to participate in safety meetings
- Failure to properly and immediately report any accident or injury
- Failure to perform inspections of tools or machinery
- Failure to report machine or tool deficiencies
- Failure to learn company safety rules and regulations
- Failure to report conditions that one believes to be unsafe
- Smoking or eating in an unauthorized area

MAJOR VIOLATIONS

This list of major violations is provided as examples and is not a complete list of what could be considered a major violation. A major violation is one that would typically result in a serious injury.

- Violation that results in damages property
- Violation that endangers the safety of others
- Speeding or unsafe operation of a forklift or any other company vehicle
- Driving a forklift or any other machinery without the required approval
- Refusal to obey a supervisor's safety instructions
- Refusal to abate a safety violation

Employee Disciplinary Action Form

Employee Name		Date of Violation	
Supervisor		Jobsite	
Description of Violation			
Method and Date of Abatement			
Previous Offenses of Same or Similar	☐ 1st Offense ☐ 2nd Offense ☐ 3rd Offense	Previous Offense Date: Previous Offense Date:	
Reprimand for This Violation			
Employee Comments			

Signature of Supervisor: _____ Date:_____

Signature of Employee: _____ Date:_____

Re-Training for Violation	Supervisor should describe and date the training that took place to prevent re-occurrence of this violation.

Employee Training Record Form

Date/Time		**Instructor**	
Topic			

Print Name	**Signature**

As a Home Builder, we rely on subcontractors, trade partners, vendors and suppliers to construct our homes. These individual companies are required to have their own safety and health programs for the safety and health of their employees and any subcontractors who may work under them. We will not dictate the elements of their safety and health programs, but we require that those programs cover all areas of exposure for their work area and are in compliance with local, state and federal laws as applicable.

We require them to maintain the safety or their workers on our jobsites at all times. This is part of their contractual requirements as well as industry practice. In addition to those requirements, each subcontractor on our jobsite shall fill out the following forms:

- Subcontractor Safety Agreement: this agreement describes some of the guidelines subcontractors need to follow on the jobsite. This section is per OSHA standards.
- Subcontractor Fall Protection Checklist: as fall protection is the number 1 cause of death in the construction industry, this form details the requirements to make sure the subcontractors are planning fall protection on the jobsite.
- Subcontractor Safety Violation Reprimand/Fine Policy: this policy is used to reprimand any subcontractor who is not following safety and health rules while on the jobsite. It is important for reprimands to escalate. Unsafe subcontractors should not be allowed to work on the jobsite. The reprimand and fine policy is listed below.

These forms should be filled out and returned to the superintendent prior to starting work on the jobsite.

Safety Reprimand Policy-Subcontractors

All workers are expected to comply with safety rules and regulations related to their work and work areas. Violations of these rules will not be tolerated. Workers shall follow these steps to remain safe and avoid this policy:

- Workers shall not undertake a job until they have received appropriate instructions and are satisfied that they can do the job properly and safely. Workers should speak up if they are not ready.
- No worker shall undertake a job that appears to be unsafe.
- No worker shall undertake any job or use any machinery while under the influence of illegal and/or legal drugs, alcohol or a prescription or over the counter drug that impairs the worker's ability to work safely.
- No worker shall perform any work without using the required personal protective equipment.
- All workers must report every accident, including injuries, property damage and near misses to their supervisor.

Speak up if you feel something is unsafe. Discuss with your immediate supervisor or their supervisor if you don't get an appropriate response. Workers who raise safety concerns will not be subject to retaliation.

The company wants its employees and subcontractors to work in a positive, productive atmosphere. However, employees and/or subcontractors who violate safety rules must be disciplined to protect their own safety and the safety of their coworkers. The following procedures should be followed by supervisors:

Subcontractors—Violations by subcontractors of the company should be handled in the following manner:

- Minor Violations: Company supervisor should stop work and request correction by subcontractor. If subcontractor does not correct the issue when requested by supervisor, this moves to a major violation.
- Major Violations: Company supervisor should stop the work. Subcontractor management should be contacted to come to site and ensure the violation is corrected. Work is not allowed to continue until corrections are properly completed. The company has the option to use the following reprimands: send worker home, issue fines to subcontractor up to the amount in contract, require additional training, etc. A safety violation form should be filled out for this violation and kept on file. Continual major violations by the subcontractor may result in meetings with upper management to determine how to stop future violations. The results of these meetings could include termination of contract.

Minor Violations:

This list of minor violations is provided as examples and is not a complete list of what could be considered a minor violation. A minor violation is one that would not result in a serious injury.

- Violation of personal protective equipment policy that does not result in injury to oneself or others.
- Poor housekeeping
- Failure to participate in safety meetings.
- Failure to properly and immediately report any accident or injury.
- Failure to perform inspections of tools or machinery.
- Failure to report machine or tool deficiencies.
- Failure to learn company safety rules and regulations.
- Failure to report conditions that one believes to be unsafe.
- Smoking or eating in unauthorized areas.

Major Violations:

This list of major violations is provided as examples and is not a complete list of what could be considered a major violation. A major violation is one that would typically result in a serious injury.

- Violation that results in damage to property
- Violation that endangers the safety of others
- Speeding or unsafe operation of a forklift or any other company vehicle
- Driving a forklift or any other machinery without required approval.
- Refusal to obey a supervisor's safety instructions.
- Refusal to abate a safety violation.

Subcontractor Safety Agreement

SUBCONTRACTOR NAME: _____

Dear Subcontractor:

As part of our Safety Program and compliance on your part, there are requirements you must abide by in order to be on our jobsites. All OSHA requirements must be met. All insurance and safety compliance forms must be at our corporate office before starting work. This agreement should be completed and signed on page 3. A copy of the agreement should be returned to management.

WE BELIEVE IN SAFETY AND INSIST UPON IT

We require the following and will not tolerate anything less:

- ☐ The competent person(s) for our company is/are: _____
- ☐ If you change who the competent person is, you must notify site management prior.
- ☐ A copy of your complete Company Safety & Hazard Communication Program with SDSs must be provided to site management prior to you starting work on our sites.
- ☐ Your company's weekly safety meetings must be made available upon request.
- ☐ Your employees must understand that HARD HATS are required on our jobsites.
- ☐ Your employees must respect and obey all safety rules.
- ☐ Your employees must respond to and abate any safety violations they are issued immediately.
- ☐ A rep from your company MUST attend all Safety Meetings while your company is on the job site.
- ☐ If your employees will be exposed to falls on this site, you must also complete our subcontractor fall protection plan checklist and return this to site management.
- ☐ If you plan to use a crane while on this site, you must provide all required documentation to the site management prior to starting work. This includes but is not limited to: Crane Inspection/Certification, Certified Crane Operator documentation and documentation of qualified signal persons and riggers.
- ☐ All scaffolds used onsite must be inspected prior to use and after any changes by a competent person. We expect you to use scaffold inspection tags at all times.
- ☐ A Hot Work Permit must be used when any hot work is performed.
- ☐ You agree that your company is aware of the OSHA training requirements on various pieces of equipment and that you only allow trained employees to operate these types of equipment on our job sites. This applies if you own, rent, lease or borrow this equipment. Some examples of this equipment include but are not limited to: forklifts, aerial lifts, skid steers, scaffolding and fall protection.
- ☐ As the employer, you will be held responsible for the actions of your subs and employees while on the job site, as well as any damage that may be imposed upon the project or the equipment that your subs or employees may be operating.

Fall Protection Checklist

QUESTION	YES	NO
Are your employees and/or subcontractors ever exposed to fall hazards? If yes, please complete the rest of this checklist, if no, please sign below and return to management.		
Do you have a written fall protection program? Please provide a copy to the management.		
Is your program consistent with the OSHA fall protection standard?		
Have you received a citation from OSHA for fall protection before?		
Have you trained all employees and subcontractors in fall protection?		
Can you provide documents verifying this fall protection training?		
Have you provided fall protection equipment for your employees?		
Have you ensured that all subcontractors have fall protection?		
Do your employees/subs understand that a proper personal fall arrest system (PFAS) consists of a 3-point system: • separate anchor point for each worker meeting 5000 lb. requirement • lanyard with shock absorber or self-retracting lifeline • full body harness proper fit and adjusted		
Do your employees/subs know how to inspect all components of their PFAS?		
Have your employees/subs been trained on proper anchor placement?		
Do your employees/subs understand that a proper guardrail system includes: • Top rail at 42” • Mid rail at 21” • Toe boards installed. • Supports at least 200 lbs. in all directions. • Vertical supports no farther than 8 feet apart		
Do you understand our reprimand policy on fall protection?		

Safety Reprimand Policy-Subcontractors

All workers are expected to comply with safety rules and regulations related to their work and work areas. Violations of these rules will not be tolerated. Workers shall follow these steps to remain safe and avoid this policy:

- Workers shall not undertake a job until they have received appropriate instructions and are satisfied that they can do the job properly and safely. Workers should speak up if they are not ready.
- No worker shall undertake a job that appears to be unsafe.
- No worker shall undertake any job or use any machinery while under the influence of illegal and/or legal drugs, alcohol or a prescription or over the counter drug that impairs the worker’s ability to work safely.
- No worker shall perform any work without using the required personal protective equipment.

- All workers must report every accident, including injuries, property damage and near misses to their supervisor.

Speak up if you feel something is unsafe. Discuss with your immediate supervisor or their supervisor if you don't get an appropriate response. Workers who raise safety concerns will not be subject to retaliation.

The company wants its employees and subcontractors to work in a positive, productive atmosphere. However, employees and/or subcontractors who violate safety rules must be disciplined to protect their own safety and the safety of their coworkers. The following procedures should be followed by supervisors:

Subcontractors—Violations by subcontractors of the company should be handled in the following manner:

- Minor Violations: Company supervisor should stop work and request correction by subcontractor. If subcontractor does not correct the issue when requested by supervisor, this moves to a major violation.
- Major Violations: Company supervisor should stop the work. Subcontractor management should be contacted to come to site and ensure the violation is corrected. Work is not allowed to continue until corrections are properly completed. The company has the option to use the following reprimands: send worker home, issue fines to subcontractor up to the amount in contract, require additional training, etc. A safety violation form should be filled out for this violation and kept on file. Continual major violations by the subcontractor may result in meetings with upper management to determine how to stop future violations. The results of these meetings could include termination of contract.

Minor Violations:

This list of minor violations is provided as examples and is not a complete list of what could be considered a minor violation. A minor violation is one that would not result in a serious injury.

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- Poor housekeeping
- Failure to participate in safety meetings.
- Failure to properly and immediately report any accident or injury.
- Failure to perform inspections of tools or machinery.
- Failure to report machine or tool deficiencies.
- Failure to learn company safety rules and regulations.
- Failure to report conditions that one believes to be unsafe.
- Smoking or eating in unauthorized areas.

Major Violations:

This list of major violations is provided as examples and is not a complete list of what could be considered a major violation. A major violation is one that would typically result in a serious injury.

- Violation that results in damage to property
- Violation that endangers the safety of others
- Speeding or unsafe operation of a forklift or any other company vehicle
- Driving a forklift or any other machinery without required approval.
- Refusal to obey a supervisor's safety instructions.
- Refusal to abate a safety violation.

My signature below demonstrates that I understand and agree with this safety agreement.

Subcontractor Signature: _____ Date: _____

Subcontractor Fall Protection Checklist

Subcontractor		Competent Person	
Checklist Completed by		Date	

Fall Protection Checklist

QUESTION	YES	NO
Are your employees and/or subcontractors ever exposed to fall hazards? If yes, please complete the rest of this checklist, if no, please sign below and return to management.		
Do you have a written fall protection program? Please provide a copy to the management.		
Is your program consistent with the OSHA fall protection standard?		
Have you received a citation from OSHA for fall protection before?		
Have you trained all employees and subcontractors in fall protection?		
Can you provide documents verifying this fall protection training?		
Have you provided fall protection equipment for your employees?		
Have you ensured that all subcontractors have fall protection?		
Do your employees/subs understand that a proper personal fall arrest system (PFAS) consists of a 3-point system: • separate anchor point for each worker meeting 5000 lb. requirement • lanyard with shock absorber or self-retracting lifeline • full body harness proper fit and adjusted		
Do your employees/subs know how to inspect all components of their PFAS?		
Have your employees/subs been trained on proper anchor placement?		
Do your employees/subs understand that a proper guardrail system includes: • Top rail at 42” • Mid rail at 21” • Toe boards installed. • Supports at least 200 lbs. in all directions. • Vertical supports no farther than 8 feet apart		
Do you understand our reprimand policy on fall protection?		

Your signature below states you have discussed the expectations of fall protection on this site. You and your employees/subs MUST use conventional fall protection at all times. Conventional fall protection consists of Personal Fall Arrest Systems, Guardrail Systems and Safety Net Systems.

Subcontractor Signature: _____ Date: _____

Subcontractor Safety Violation Reprimand Policy

The company wants its employees and subcontractors to work in a positive, productive atmosphere. However, employees and/or subcontractors who violate safety rules must be disciplined to protect their own safety and the safety of their coworkers. The following procedures should be followed by supervisors:

Subcontractors—Violations by subcontractors of the company should be handled in the following manner:

- Minor Violations: Company supervisor should stop work and request correction by subcontractor. If subcontractor does not correct the issue when requested by supervisor, this moves to a major violation.
- Major Violations: Company supervisor should stop the work. Subcontractor management should be contacted to come to site and ensure the violation is corrected. Work is not allowed to continue until corrections are properly completed. The company has the option to use the following reprimands: send worker home, issue fines to subcontractor up to the amount in contract, require additional training, etc. A safety violation form should be filled out for this violation and kept on file. Continual major violations by the subcontractor may result in meetings with upper management to determine how to stop future violations. The results of these meetings could include termination of contract.

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- Speeding or unsafe operation of a forklift or any other company vehicle
- Driving a forklift or any other machinery without required approval.
- Refusal to obey a supervisor's safety instructions.
- Refusal to abate a safety violation.

Subcontractor Disciplinary Action Form

Company Name	
Jobsite Name	

Subcontractor	
Violators Name	
Date / Time	

Violation Description			
Abatement Date and Method			
Previous Offenses of Same or Similar	☐ 1st Offense ☐ 2nd Offense ☐ 3rd Offense	Previous Offense Date: Previous Offense Date:	
Reprimand for this Violation			

Signature of Superintendent: _____ Date: _____

Signature of Subcontractor Management: _____ Date: _____

Vehicle Safety Plan

PURPOSE

Vehicular accidents are the number one killer of workers in the United States. This program covers safe operation and maintenance of all company vehicles except those company vehicles regulated by the Interstate Commerce Commission or US Department of Transportation. Examples of vehicles covered include company-owned-or-leased passenger vehicles, pickup trucks, light trucks and vans that do not require a commercial driver's license for operation. Privately owned vehicles used during and for work purposes should also follow this plan.

POLICY

- All company vehicles will be operated only by employees authorized by company management for specific company purposes.
- Vehicles will be maintained in a safe condition at all times. In the event of an unsafe mechanical condition, the vehicle will be immediately placed out of service and the appropriate manager notified.
- Only qualified company vehicle mechanics or approved service facilities are permitted to perform maintenance on company vehicles.
- All vehicles will be operated, licensed and insured in accordance with applicable local, state and federal laws.
- All employees authorized to operate any company owned or leased vehicle will be included in the company random drug-testing program.
- All authorized employees must possess a valid state driver's license for the class vehicle authorized.
- Authorized employees must have a driving record at least equal to that required for maintaining a commercial driver's license.

RESPONSIBILITIES

Management

- Provide annual defensive-driver training for all employees authorized to operate company vehicles.
- Train authorized employees on vehicle inspection and accident procedures.
- Maintain company vehicles are a safe condition.
- Maintain active insurance policies on all company vehicles.
- Allow only authorized employees to operate company vehicles.
- Arrange for defensive driving training prior to initial authorization
- Maintain a list of authorized employees in their department.
- Arrange for required periodic maintenance checks on assigned vehicles.
- Immediately remove from service any vehicle with any safety defect.
- Not allow operation of any company vehicle by an authorized employee taking medication that warns of drowsiness.
- Establish a key control program for all assigned vehicles.

Authorized Employees

- Operate company vehicles in a safe, responsible manner and obey all traffic laws.
- Participate in driver-training programs.
- Participate in the company drug-testing program.
- Ensure all vehicle occupants use seatbelts before moving the vehicle.
- Follow safe fueling procedures.
- Conduct a pre-use inspection before any first daily use.
- Immediately report any safety defects or vehicle problems.
- Report use of all prescription medication.

TRAINING

All employees authorized to operate company-owned-or-leased vehicles will participate in initial and annual driver-safety training that will include:

- Defensive driving
- Vehicle inspection
- Accident procedures
- Hazardous weather driving
- Procedure for notification of unsafe vehicle
- Backing procedures (light truck & van operators)
- Cargo area storage (light truck & van operators)
- Loading & unloading (light truck & van operators)

VEHICLE INSPECTION

Driver Inspections- Prior to each first daily use the driver shall inspect the vehicle for proper operation of the following safety features, as applicable:

- ☐ Horn
- ☐ Backup warning
- ☐ Head, tail & signal light
- ☐ Windshield wipers
- ☐ Tire inflation (visual check)
- ☐ Brakes
- ☐ Steering control
- ☐ Mirrors
- ☐ No operational warning lights
- ☐ Accident kit in glove compartment
- ☐ Fire extinguisher (light trucks & vans)
- ☐ Broken glass

Mechanical Inspections - Every company vehicle will be inspected by a qualified vehicle mechanics at least every 6 months.

Inspection & maintenance points include:

- ☐ Road test
- ☐ Visual inspection of brake system - wheel removal required
- ☐ Fluid system levels & visual inspection
- ☐ Brake pad wear
- ☐ Belts & hoses
- ☐ Battery condition
- ☐ Filter replacement
- ☐ Lubrication
- ☐ Oil change
- ☐ Emissions systems visual inspection
- ☐ Tire treads

All vehicle inspections and maintenance records will be maintained by in the vehicle and in the office.

Driving Safely

Starting

- Conduct pre-use inspection
- Use seatbelts at all times
- Adjust seat & mirrors before starting vehicle
- Allow a 15 second warm up time
- Check for warning lights

Driving

- Do not drive if drowsy
- Think ahead - anticipate hazards
- Don't trust the other driver to drive properly
- Don't speed or tailgate
- Drive slower in hazardous conditions or hazardous areas
- Pass only in safe areas and when excessive speed is not required
- No loose articles on floor
- Do not read, write, apply make-up, drink, eat or use a phone while driving
- Stay at least four seconds behind the vehicle ahead
- Do not stop for hitchhikers or to provide roadside assistance

Backing

- Back slowly & be ready to stop
- Do not back up if anyone is in path of vehicle travel
- Check clearances
- Don't assume people see you
- Getting out & check if you cannot see from the driver's seat

Stopping

- Park only in proper areas, not roadsides
- Use warning flashers & raise hood if vehicle becomes disabled

Accidents

- Do not admit responsibility
- Notify your company and law enforcement as soon as possible
- Cooperate with any law enforcement officers
- Move the vehicle only at the direction of a law enforcement officer
- Fill out all sections of the accident report in the glove box
- Do not sign any forms unless required by a law enforcement officer
- At the scene get the following information
    - Investigating officer name and law enforcement agency
    - Make, Model & License Plate number of other vehicles
    - Names, addressed and phone numbers of all witnesses
    - Photos of accident
    - All 4 sides of all vehicles
    - Roads and intersection at the scene
    - Interior of all vehicles - seating & floor areas
    - Name, address & license of other drivers

We do not self-perform any work. This section is a resource guide only. All subcontractors, trade partners, suppliers, and vendors are required to develop, implement and follow their own safety program, including providing the proper competent person(s) for the specific task they are responsible for.

PURPOSE

The purpose of this safety policy and procedure is to establish guidelines for the protection of company employees and subcontractors who work on scaffold work surfaces.

APPLICABILITY

Scaffolding has a variety of applications. It is used in new construction, alteration, routine maintenance, renovation, painting, repairing, and removal activities. Scaffolding offers a safer and more comfortable work arrangement compared to leaning over edges, stretching overhead, and working from ladders. Scaffolding provides employees safe access to work locations, level, and stable working platforms and temporary storage for tools and materials for performing immediate tasks. Scaffolding accidents primarily involve personnel falls and falling materials caused by equipment failure, incorrect operating procedures, and environmental conditions.

Additionally, scaffolding overloading is a frequent single cause of major scaffold failure. This safety policy and procedure provide guidelines for the safe use of scaffolds. It includes training provisions and guidelines for scaffold erection and use.

REFERENCE

This scaffold safety plan is established in accordance with the Occupational Safety and Health Standards for General Industry (29 CFR 1910.28) and Occupational Safety and Health Standards for Construction Industry (29 CFR1926.451).

POLICY

Scaffolds shall be erected, moved, dismantled, or altered only under the supervision of a competent person and will have guardrails and toeboards installed. When scaffolding hazards exist that cannot be eliminated, then engineering practices, administrative practices, safe work practices, Personal Protective Equipment (PPE), and proper training regarding scaffolds will be implemented. These measures will be implemented to minimize those hazards to ensure the safety of employees and the public.

RESPONSIBILITIES

It is the responsibility of each supervisor and employee to ensure the implementation of this scaffold safety plan. It is also the responsibility of each employee to report immediately any unsafe act or condition to his or her supervisor.

DEFINITIONS

Brace: A tie that holds one scaffold member in a fixed position with respect to another member. Brace also means a rigid type of connection holding a scaffold to a building or structure.

Coupler: A device for locking together the component tubes of a tube and coupler scaffold.

Harness: A design of straps which is secured around the employee in a manner to distribute the arresting forces over at least the thighs, shoulders, and pelvis, with provisions for attaching a lanyard, lifeline, or deceleration device.

Hoist: A mechanical device to raise or lower a suspended scaffold. It can be mechanically powered or manually operated.

Maximum Intended Load: The total load of all employees, equipment, tool, materials, transmitted, wind, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

Mechanically Powered Hoist: A hoist which is powered by other than human energy.

Outriggers: The structural member of a supported scaffold used to increase the base width of a scaffold in order to provide greater stability for the scaffold.

Platform: The horizontal working surface of a scaffold.

Safety Harness: A device with means for securing around the waist and body and for attaching to a lanyard, lifeline, or deceleration device.

Scaffold: Any temporary elevated or suspended platform and its supporting structure used for supporting employees or materials or both. This term does not include crane or derrick suspended personnel platforms.

TRAINING

Affected employees will receive instruction on the particular types of scaffolds which they are to use. Training should focus on proper erection, handling, use, inspection, and care of the scaffolds. Training must also include the installation of fall protection, guardrails, and the proper use and care of fall arrest equipment.

Training should be done upon the initial job assignment. When job conditions change, retraining is necessary, and periodic refresher training shall be conducted at the discretion of the supervisor.

Designated “competent person(s)” will receive additional training regarding the selection of scaffolds, recognition of site conditions, recognition of scaffold hazards, protection of exposed personnel and public, repair and replacement options, and requirements of standards.

SAFE SCAFFOLD ERECTION AND USE

Safe scaffold erection and use are important in minimizing and controlling the hazards associated with their use. Scaffold work practices and rules should be based on:

- Sound design
- Selecting the right scaffold for the job
- Assigning personnel
- Fall protection
- Guidelines for proper erection
- Guidelines for use
- Guidelines for alteration and dismantling
- Inspections
- Maintenance and storage

TYPES OF SCAFFOLDS

There are a variety of different types of scaffolds used in construction. The three major categories are:

- Self-supporting scaffolds
- Suspension scaffolds
- Special use scaffolds

Self-supporting scaffolds are one or more working platforms supported from below by outriggers, brackets, poles, legs, uprights, posts, frames, or similar supports. The types of self-supporting scaffolds include:

- Fabricated Frame
- Tube and Coupler
- Mobile
- Pole

Suspension scaffolds are one or more working platforms suspended by ropes or other means from an overhead structure(s). The types of suspension scaffolds include:

- Single-Point Adjustable (Boatswain's Chairs)
- Two-Point Adjustable (Swing Stage)
- Multiple-Point Adjustable
- Multi-Lend
- Category
- Float (Ship)
- Interior Hung
- Needle Beam

Special use scaffolds and assemblies are capable of supporting their own weight, and at least 4 times the maximum intended load. The types of special use scaffolds include:

- Form and Carpenter Bracket
- Roof Bracket
- Outrigger
- Pump Jack
- Ladder Jack
- Window Jack
- Horse
- Crawling Boards
- Step, Platforms, and Trestle Ladder

RESPONSIBILITIES

Management—management ensure adequate funds are available and budgeted for the purchase of scaffolds in their areas. They will also identify the employees affected by this safety policy and procedure. Managers/Unit Heads will obtain and coordinate the required training for the affected employees. Managers/Unit Heads will also ensure compliance with this safety policy and procedure through their auditing process.

Supervisors—supervisors will not allow any employee who has not received the required training to perform any of the tasks or activities related to scaffold erection and/or dismantling. Supervisors will communicate appropriate needs to managers/unit heads and/or supervisors. Supervisors will ensure that employees are provided with PPE as necessary for their job. Supervisors will make certain that a competent person is in charge of scaffold erection according to the manufacturer's specifications.

Competent Person—the competent person will oversee the scaffold selection, erection, use, movement, alteration, dismantling, maintenance, and inspection. The competent person should be knowledgeable about proper selection, care, and use of the fall protection equipment. Additionally, the competent person shall assess hazards. **A documented inspection is required by the competent person each day prior to use.** This inspection shall be documented. The scaffolding inspection requirements and a scaffolding inspection form can be found at the end of this section.

Employees—employees shall comply with all applicable guidelines contained in this safety policy and procedure. Employees will report damaged scaffolds, accessories, and missing or lost components. Employees will assist with inspections as requested.

SAFETY REQUIREMENTS FOR SCAFFOLDS

- The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks shall not be used to support scaffolds or planks.
- No scaffold shall be erected, moved, dismantled, or altered except under the supervision of competent persons or as requested for corrective reasons by Safety and Loss Control Personnel.
- Guardrails and toeboards shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor, except needle beam scaffolds and floats. Scaffolds 4 feet to 10 feet in height, having a minimum horizontal dimension in either direction of less than 45 inches shall have standard guardrails installed on all open sides and ends of the platform.
- Guardrails must be 2 X 4 inches, or the equivalent, not less than 38 inches or more than approximately 42 inches high, with a midrail, when required, of 1 X 4-inch lumber, or the equivalent. Supports must be at intervals, not to exceed 8 feet. Toeboards and the guardrail shall extend along the entire opening.
- Scaffolds and their components must be capable of supporting without failure at least 4 times the maximum intended load.
- Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, couplers, etc., damaged or weakened from any cause must be repaired or replaced immediately and shall not be used until repairs have been completed.
- All load-carrying timber members of scaffold framing shall be a minimum of 1,500 fiber (Stress Grade) construction grade lumber.
- All planking must be Scaffold Grade, or equivalent, as recognized by approved grading rules for the species of wood used.
- The maximum permissible span for 1-1/4 X 9 inch or wider plank of full-thickness shall be 4 feet with medium-duty loading of 50 p.s.i.
- All planking or platforms must be overlapped (minimum 12 inches) or secured from movement.
- An access ladder or equivalent safe access must be provided.
- Scaffold plank must extend over their end supports not less than 6 inches or more than 18 inches.
- The poles, legs, or uprights of scaffolds must be plumb and securely and rigidly braced to prevent swaying and displacement.
- Overhead protection must be provided for men on a scaffold exposed to overhead hazards.
- Slippery conditions on scaffolds shall be eliminated immediately after they occur.
- No welding, burning, riveting, or open flame work shall be performed on any staging suspended by means or fiber of synthetic rope. Only treated or protected fiber or synthetic ropes shall be used for or near any work involving the use of corrosive substances or chemicals.
- Wire, synthetic, or fiber rope used for scaffold suspension shall be capable of supporting at least 6 times the intended load.
- Scaffolds shall be provided with a screen between the toe board and guardrail, extending along the entire opening, consisting of No. 18 gauge U.S. Standard wire one-half inch mesh or the equivalent, when personnel is required to work or pass underneath the scaffolds.
- A safe distance from energized power lines shall be maintained.
- Tag lines shall be used to hoist materials to prevent contact.

- Suspension ropes shall be protected from contact with heat sources (welding, cutting, etc.) and from acids or other corrosive substances.
- Scaffolds shall not be used during high wind and storms.
- Ladders and other devices shall not be used to increase working heights on scaffold platforms.
- Scaffolds shall not be moved while employees are on them.
- Loose materials, debris, and/or tools shall not be accumulated to cause a hazard.
- Employees working on suspended scaffolds shall employ a fall-arrest system.
- Scaffold components shall not be mixed or forced to fit, which may reduce design strength.
- Scaffolds and components shall be inspected at the erection location. Scaffolds shall be inspected before each work shift, after changing weather conditions, or after prolonged work interruptions.
- Casters and wheel stems shall be pinned or otherwise secured in scaffold legs. Casters and wheels must be positively locked if in a stationary position.
- Tube and coupler scaffolds shall be tied to and securely braced against the building at intervals not to exceed 30 feet horizontally and 26 feet vertically.

SCAFFOLDING INSPECTION REQUIREMENTS

A competent person must inspect all scaffolding before use and after any changes to the scaffolding. Employees are not allowed to work on the scaffolding until they have received the authorization from the competent person. Scaffolding inspections shall be documented. The following method should be used for inspections:

- Initial Inspection after Erection of Scaffolding: use a scaffolding inspection form such as the form on the following page.
- Daily scaffolding inspections: Use scaffold inspection tags. At a minimum, green and red tags must be used:
    - Red Tag: Scaffold not complete…do not use.
    - Green Tag: Scaffold complete…okay to use.
- Scaffolding inspection tags shall be placed on each ladder or other prominent location and shall be dated and initialed.

SCAFFOLDING INSPECTION FORM

Date of Inspection:	Time:
Location of Scaffold:	
Inspected by (Designated Competent Person):	

	Before Using the Scaffolding
☐	Has this work location been examined before the start of work operations, and have all the appropriate precautions been taken? e.g., checking for: overhead objects, falling or tripping hazards, uneven ground, opening onto a door.
☐	Will fall protection be required when using this scaffold?
☐	Has the scaffold been setup according to manufacturer's instructions?

General Rules for All Scaffolds	**YES**	**NO**	**N/A**
Scaffold components can support at least four times their maximum intended load.			
Scaffold is fully planked- No more than 1" gap between planks.			
Platform is at least 18 inches wide (12 inches on pump jacks).			
Guardrails are used or, personal fall arrest system is used if work height is >10 feet. Guardrail system: ☐ Toprail ☐ Midrail ☐ Toeboard ☐ Posts			
Scaffold is 14" or less from face of work if workers remove front guardrails (18" for plasterers).			
Planks do not extend past the ends of the scaffold frames more than 12 inches.			
Casters are locked before work begins.			
Work platform free of clutter, mud, snow, oil, or any tripping hazard.			
Minimum power line clearance (10 feet)			
If the scaffold is defective, has it been removed from service and tagged out?			
General Rules for Supported Scaffolds			
Height to base width ratio is: Less than 4:1 (no guying, ties, or braces required)			
Over 4:1 scaffolds are restrained from tipping by guying, tying, or bracing.			
All scaffold frames and uprights use base plates (mud sills required if on dirt)			
Footings are level, sound, and rigid. No settling has occurred.			
Unstable objects such as blocks, bricks, buckets, etc. are not used as work platforms or to support scaffolds.			
Are riggers secured and installed correctly?			
General Rules for Access			
No more than 2' step up or down or a 14" step across to get on or off a platform.			
Ladder first rung is not more than 24" above the ground.			
Hook-on and attachable ladders are designed for the scaffold.			
Add-on ladders must have a rung length of at least 11 ½."			
Built-in ladders (part of the scaffold frames) must have a rung length of at least 8".			
Rungs line-up vertically for the entire height of the scaffold.			
Cross braces are not used for climbing up or down from the scaffold.			

Signature of Designated Competent Person: _____ Date: _____

We do not self-perform any work. This section is a resource guide only. All subcontractors, trade partners, suppliers, and vendors are required to develop, implement and follow their own safety program, including providing the proper competent person(s) for the specific task they are responsible for.

PURPOSE

Material handling is a significant safety concern. During the movement of products and materials, there are numerous opportunities for personal injury and property damage if proper procedures and caution are not used. This program applies to all powered industrial trucks, hoists & lifting gear. The information in this section shall be used to train prospective industrial truck operators and provide the basis for training and retraining. OSHA reference for Powered Industrial Trucks is 1910.178. For clarification, Powered Industrial Trucks include Forklifts used at the workplace.

RESPONSIBILITIES

Management

- Provide adequate training in the safe operation of all equipment used to move or access materials
- Provide equipment that is safe to operate
- Implement an "Out of Service" program for damaged equipment
- Not allow modification to equipment except those authorized in writing by the equipment manufacturer
- Establish safe operating rules and procedures

Supervisors

- Monitor safe operations of material handling equipment
- Ensure all equipment is safety checked daily
- Tag "Out of Service" any damaged equipment

Employees

- Operate only that equipment for which they have been specifically trained and authorized
- Conduct required daily pre-use inspections
- Report any equipment damage of missing safety gear
- Follow all safety rules and operating procedures

HAZARDS

- Falling loads
- Overloading of equipment
- Impact with equipment
- Piercing of containers
- Loading dock roll-off
- Chemical contact - battery acid
- Fires during refueling

HAZARD CONTROLS

- Control of equipment keys
- Authorized fueling & recharge areas
- Proper palletizing of material
- Marked travel lanes
- Equipment warning lights
- Seat belts
- Mounted fire extinguishers

PRE-QUALIFICATION

All candidates for Powered Industrial Truck (PIT) operators must meet the following basic requirements prior to starting initial or annual refresher training:

- No adverse vision problems that cannot be corrected by glasses or contacts
- No adverse hearing loss that cannot be corrected with hearing aids
- No physical impairments that would impair safe operation of the PIT
- No neurological disorders that affect balance or consciousness
- Not taking any medication that affects perception, vision, or physical abilities

TRAINING

Training for Powered Industrial Truck (PIT) Operators shall be conducted by an experienced trainer who is selected by management. All operational training shall be conducted under close supervision. All training and evaluation must be completed before an operator is permitted to use a Powered Industrial Truck (forklift, etc.) without continual & close supervision. Training consists of:

Trainees may operate a powered industrial truck only:

- Under the direct supervision of persons, selected by management, who have the knowledge, training, and experience to train operators and evaluate their competence
- If the operation does not endanger the trainee or other employees.

Training Content

Training consists of a combination of formal instruction, practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

Initial Training: Powered industrial truck operators shall receive initial training in the following topics:

Truck-related training topics:

- Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate
- Differences between the truck and the automobile
- Truck controls and instrumentation: where they are located, what they do, and how they work
- Engine or motor operation
- Steering and maneuvering
- Visibility (including restrictions due to loading)
- Fork and attachment adaptation, operation, and use limitations
- Vehicle capacity
- Vehicle stability
- Any vehicle inspection and maintenance that the operator will be required to perform
- Refueling and/or charging and recharging of batteries
- Operating limitations
- Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

Workplace-related topics:

- Surface conditions where the vehicle will be operated
- Composition of loads to be carried and load stability
- Load manipulation, stacking, and unstacking
- Pedestrian traffic in areas where the vehicle will be operated
- Narrow aisles and other restricted places where the vehicle will be operated
- Hazardous (classified) locations where the vehicle will be operated
- Ramps and other sloped surfaces that could affect the vehicle's stability
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation

Retraining and evaluation:

Refresher training, including an evaluation of the effectiveness of that training, shall be conducted to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely. Refresher training in relevant topics shall be provided to the operator when:

- The operator has been observed to operate the vehicle in an unsafe manner
- The operator has been involved in an accident or near-miss incident
- The operator has received an evaluation that reveals that the operator is not operating the truck safely
- The operator is assigned to drive a different type of truck
- A condition in the workplace changes in a manner that could affect the safe operation of the truck
- Not less often than once every 3 years, an evaluation will be conducted of each powered industrial truck operator's performance.

SAFE OPERATING PROCEDURES (SOP) & RULES

- Only authorized and trained personnel will operate PITs.
- All PITs will be equipped with a headache rack, fire extinguisher, rotating beacon, back-up alarm, and seat belts. Seat belts will be worn at all times by the operator.
- The operator will perform daily pre- and post-trip inspections.
- Any safety defects (such as hydraulic fluid leaks, defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up alarm) will be reported for immediate repair or have the PIT taken "Out of Service".
- Operators will follow the proper recharging or refueling safety procedures.
- Loads will be tilted back and carried no more than 6 inches from the ground. Loads that restrict the operator's vision will be transported backward.
- PITs will travel no faster than 5 mph or faster than a normal walk.
- PIT Operators will wear hard hats in high lift areas.
- Operator will sound the horn and use extreme caution when meeting pedestrians, making turns, and cornering.
- Passengers may not ride on any portion of a PIT. Only the operator will ride PITs. "NO PASSENGERS" decals will be affixed on all PITs.
- If PITs are used as a man lift, an appropriate man lift platform (cage with standard rails and toe-boards) will be used.
- Aisle will be maintained free from obstructions, marked and wide enough (six feet minimum) for vehicle operation.
- Lift capacity will be marked on all PITs. Operator will assure load does not exceed rated weight limits.
- When un-attended, PITs will be turned off, forks lowered to the ground, and parking brake applied.
- All PITs (except for pallet jacks) will be equipped with a multi-purpose dry chemical fire extinguisher. (Minimum rating; 2A:10B:C)

- Operators are instructed to report all accidents, regardless of fault and severity, to Management. An accident investigation will be conducted by management.
- When loading rail cars and trailers, dock plates will be used. Operators will assure dock plates are in good condition and will store on edge when not in use.
- Rail cars and trailers will be parked squarely to the loading area and have wheels chocked in place. Operators will follow established Docking/Un-Docking Procedures.

Changing and Charging Storage Batteries

- Battery charging installations shall be located in areas designated for that purpose.
- Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.
- A conveyor, overhead hoist, or equivalent material handling equipment shall be provided for handling batteries.
- Reinstalled batteries shall be properly positioned and secured in the truck.
- A carboy tilter or siphon shall be provided for handling electrolyte.
- When charging batteries, acid shall be poured into water; water shall not be poured into acid.
- Trucks shall be properly positioned, and brake applied before attempting to change or charge batteries.
- Care shall be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) shall be open to dissipate heat.
- Smoking is prohibited in the charging area.
- Precautions shall be taken to prevent open flames, sparks, or electric arcs in battery charging areas.
- Tools and other metallic objects shall be kept away from the top of uncovered batteries.

Trucks and Railroad cars

- The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weaknesses before they are driven on top of.
- The brakes of highway trucks shall be set, and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.
- Wheel stops, or other recognized positive protection should be provided to prevent railroad cars from moving during loading or unloading operations.
- Fixed jacks may be necessary to support a semi-trailer and prevent upending during the loading or unloading when the trailer is not coupled to a tractor.
- Positive protection shall be provided to prevent railroad cars from being moved while dock boards or bridge plates are in position.

Operations

- If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.
- Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.
- No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
- Unauthorized personnel shall not be permitted to ride on powered industrial trucks.
- Arms or legs shall not be placed between the uprights of the mast or outside the running lines of the truck.
- When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.
- A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock or platform or freight car. Trucks shall not be used for opening or closing freight doors.
- There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler systems, etc.
- An overhead guard shall be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.
- A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.
- Trucks shall not be parked to block fire aisles, access to stairways, or fire equipment.

Traveling

- All traffic regulations shall be observed, including authorized speed limits. A safe distance shall be maintained approximately three truck lengths from the truck ahead, and the truck shall be kept under control at all times.
- The right of way shall be yielded to ambulances, fire trucks, or other vehicles in emergencies.
- Other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations shall not be passed.
- The driver shall be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.
- Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.
- The driver shall be required to look in the direction of and keep a clear view of the path of travel.

- Grades shall be ascended or descended slowly. When ascending or descending grades, more than 10 percent, loaded trucks shall be driven with the load upgrade. On all grades, the load and load engaging means shall be tilted back if applicable and raised only as far as necessary to clear the road surface.
- Under all travel conditions, the truck shall be operated at a speed that will permit it to be brought to a stop safely.
- Stunt driving and horseplay shall not be permitted.
- The driver shall be required to slow down for wet and slippery floors.
- Dock board or bridge plates, shall be properly secured before they are driven over. Dock board or bridge plates shall be driven over carefully and slowly, and their rated capacity never exceeded.
- Running over loose objects on the roadway surface shall be avoided.
- While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

Loading

- Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads, which cannot be centered.
- Only loads within the rated capacity of the truck shall be handled.
- The long or high (including multiple-tiered) loads, which may affect capacity, shall be adjusted.
- Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.
- A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.
- Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

Fueling Safety

- Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided.
- Spillage of oil or fuel shall be carefully washed away or completely evaporated, and the fuel tank cap replaced before restarting the engine.
- No truck shall be operated with a leak in the fuel system until the leak has been corrected.
- Open flames shall not be used for checking electrolyte levels in storage batteries or gasoline levels in fuel tanks.

Maintenance of Powered Industrial Trucks

- Any power-operated industrial truck not in safe operating condition shall be removed from service. Authorized personnel shall make all repairs.
- Those repairs to the fuel and ignition systems of industrial trucks, which involve fire hazards, shall be conducted only in locations designated for such repairs.
- Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.
- All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent to safety with those used in the original design.
- Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter-weighting of fork trucks shall not be done unless approved by the truck manufacturer.
- Industrial trucks shall be examined before being placed in service and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Where industrial trucks are used on a round-the-clock basis, they shall be examined before use each shift. Defects, when found, shall be immediately reported and corrected.
- When the temperature of any part of any truck is found to be more than its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been eliminated.
- Industrial trucks shall be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 deg. F.) solvents shall not be used. High flash point (at or above 100 deg. F.) solvents may be used.

Safe Operation Procedure for Charging LPG Tank

1. No Smoking.
2. Move LPG PIT outside for refueling.
3. Turn off PIT.
4. LPG tanks will be removed in the following order:
    1. shut off the service valve
    2. disconnect tank from the hose
    3. unbuckle and remove the tank from bracket
    4. LPG tanks will be replaced in the following order:
        a. place tank in bracket and re-buckle
        b. reconnect the hose to the tank and tighten firmly
        c. open the valve slowly and assure proper seal

NOTE: Federal Law Prohibits dispensing an improper fuel type into any vehicle or into a non-approved fuel container.

In Case of LPG Leaks or Tank Rupture

1. DO NOT start or move the PIT.
2. If fuel hose is leaking, close valve immediately
    1. place PIT "Out of Service" until repaired.
    2. If tank ruptures, warn others, immediately leave the area (at least 50 feet), and notify management. Do not re-enter the area until cleared by management.

Powered Industrial Truck Pre-Use Checklist

A check of the following items (as applicable) is to be conducted by the operator before use each shift.

- ❑ Lights
- ❑ Horn
- ❑ Brakes
- ❑ Leaks
- ❑ Warning Beacon
- ❑ Backup Warning Alarm
- ❑ Fire Extinguisher

If any deficiencies are found, the unit is to be placed OUT OF SERVICE until the problem has been corrected. Additionally, it is the operators' responsibility to notify the immediate supervisor and fill out a maintenance request.

We do not self-perform any work. This section is a resource guide only. All subcontractors, trade partners, suppliers and vendors are required to develop, implement and follow their own safety program, including providing the proper competent person(s) for the specific task they are responsible for.

PURPOSE

The objective of this program is to provide methods for protecting employees against cave-ins and describes safe work practices for employees. This shall be accomplished by providing specific standards regarding Excavation and Trenching, as well as ensuring that each employee is adequately trained and fully aware of safety procedures associated with Excavation and Trenching. Elimination of injuries and illnesses improves employee morale, improves customer service, improves product quality, and reduces Workers' Compensation costs.

The company requires that excavation and trenching procedures be provided to and utilized by employees in the prevention of occupational injuries and illnesses.

A competent person and shall conduct routine safety inspections of jobsites to ensure compliance with this program. The competent person has the authority to enforce this program in accordance with any and all safety rules and applicable OSHA regulations. Additional competent persons shall be designated by management as necessary to assure compliance with the requirements of the applicable OSHA standards.

Employees are required to comply with the guidelines set forth, and to comply with the instruction of the competent person. In the event an unsafe condition arises in the absence of the competent person, employees shall alert the lead person on the jobsite and coworkers immediately of any unsafe conditions that arise. All work shall cease in the area of concern and be evacuated immediately upon such notification. Work shall not resume until the unsafe conditions are corrected and the competent person clears the area for work resumption.

Any employee or subcontractor who disobeys and/or disregards the guidelines set forth in this program or the company's safety program shall be subject to disciplinary action.

The Excavation and Trenching Safety Program is managed by a Competent Person(s). The designated Competent Person(s) will be shown on the competent person roster in this safety program.

RESPONSIBILITIES

Management

- Make sure that the program is keeping employees safe, and that the departments are doing excavation work in a safe manner.
- Help departments select equipment that will protect workers.
- Train Project Managers and help the Project Managers train other departmental employees.
- Review and update the program as needed.

Competent Person

- Evaluate the site prior to any excavation activities.
- Plan out all cave in protections to be used—classify the soil according to OSHA regulations.
- Inspect the excavation prior to work each day and after any activity such as rain that can change the cave in potential.

Employees

- Follow established procedures
- Enter an excavation only after receiving training and clearance by competent person
- Demonstrate a complete understanding of the safe work practices that are to be followed while working in an excavation.

TRENCH VS. EXCAVATION

OSHA regulations apply to all open excavations made in the earth's surface, which includes trenches.

A “trench” is defined as a narrow excavation made below the surface of the ground in which the depth is greater than the width and the width does not exceed 15 feet. An excavation is any man-made cut, cavity, trench, or depression in the earth's surface formed by earth removal. This can include excavations for anything from cellars to highways.

PLANNING FOR SAFETY

Many on-the-job accidents are a direct result of inadequate initial planning. Correcting mistakes in shoring and/or sloping after work has begun slows down the operation, adds to the cost, and increases the possibility of an excavation failure. The company will examine these major areas during our planning phase:

- Traffic
- Nearness of structures and their conditions
- Soil
- Surface and ground water
- The water table
- Overhead and underground utilities
- Weather

Before any excavation actually begins, the competent person shall determine the estimated location of utility installations-sewer, telephone, fuel, electric, water lines, or any other underground installations that may be encountered during digging. Also, before starting the excavation, the company will contact the utility companies or owners involved and inform them, within established or customary local response times, of the proposed work, and request the utility companies or owners to find the exact location of the underground installations. If they cannot respond within 24 hours (unless the period required by state or local law is longer), or if they cannot find the exact location of the utility installations, work may proceed with caution, with the approval of the Competent Person and senior management of the company.

Workers shall use acceptable means to find the exact location of underground installations. If underground installations are exposed, the competent person shall assure that they be removed, protected or properly supported.

When all the necessary specific information about the job site is assembled, the competent person will specify the amount, kind, and cost of the safety equipment needed. A careful inventory of the safety items on hand should be made before deciding what additional safety material must be acquired. Each job will be approached with the utmost care and preparation.

Before beginning work, the company shall provide employees who are exposed to public vehicular traffic with warning vests or other suitable garments marked with or made of reflectorized or high-visibility material and ensure that they wear them.

TRAINING

All applicable employees shall be trained on the elements of this program prior to engaging in any activities associated with trenching and excavation. All workers in excavations shall comply with this program. Specific training shall be conducted in the following areas:

- Safe work practices to be followed when working in excavations
- The use of personal protective equipment required during work in excavations, such as safety shoes and hardhats
- Safe work practices to be followed if a hazardous atmosphere is present in an excavation
- Emergency rescue methods and procedure for calling rescue services

ON-THE-JOB EVALUATION

The competent person shall inspect, on a daily basis, excavations and the adjacent areas for possible cave-ins, failures of protective systems and equipment, hazardous atmospheres, or other hazardous conditions. If these conditions are encountered, exposed employees must be removed from the hazardous area until the necessary safety precautions have been taken. Inspections are also required after natural (e.g., heavy rains) or man-made events such as blasting that may increase the potential for hazards. An inspection form can be found at the end of this section.

The job supervisor of the company will conduct independent safety inspections, investigate accidents, and anticipate hazards. They will also ensure that employees receive on-the-job safety and health training. Additionally, the supervisor will review and strengthen overall safety and health precautions to guard against potential hazards, get the necessary worker cooperation in safety matters, and make frequent reports to the contractor.

Managers and supervisors shall set the example for safety at the job site. When visiting the job site, all managers, regardless of status, shall wear the prescribed personal protective equipment such as safety shoes safety glasses, hard hats, and other necessary gear.

CAVE-IN PROTECTION

Excavation workers are exposed to many hazards, but the chief hazard is danger of cave-ins. The company requires in excavations 5 feet or deeper or if the excavation shows signs of collapse that employees exposed to potential cave-ins must be protected by sloping or benching the sides of the excavation; supporting the sides of the excavation or placing a shield between the side of the excavation and the work area.

The protective system shall be designed in consideration of factors involved, including soil classification, depth of cut, water content of soil, changes due to weather and climate, or other operations in the vicinity. Soil classification and observed condition shall be used as primary factors to develop methods and approaches, with benching, shoring, and trench boxes being the options for designing protective systems that can be used to provide the required level of protection against cave-ins.

Soil classification shall be determined by the designated competent person (see 29CFR1926 Subpart P for acceptable soil type classification methodologies). Any unclassified soil shall be considered Type C. One method of ensuring the safety and health of workers in an excavation is to slope the sides to an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal). These slopes must be excavated to form configurations that are in accordance with those for Type C soil (found in Appendix B of 29CFR1926 Subpart P). A slope of this gradation or less is considered safe for any type of soil (see Figure 1). All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1 1/2:1. Notes: 1) Benching is not allowed in Type C soil, 2) Trenches deeper than 20’ must be approved by a registered professional engineer (PE).

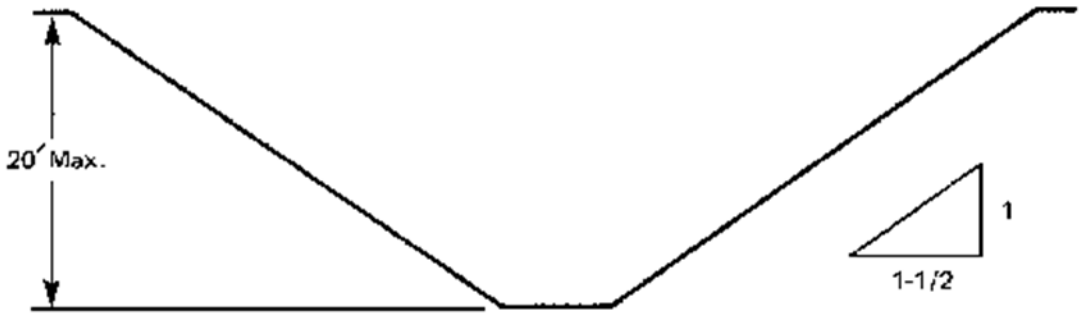

Figure 1. Excavations Made in Type C Soil

The company may use a trench box that is either designed or approved by a registered professional engineer or is based on tabulated data prepared or approved by a registered professional engineer. A trench box, or multiple trench boxes, may be utilized either alone or in conjunction with sloping or benching.

The company will not normally install and use of a protective system when an excavation (1) is made entirely in stable rock, or (2) is less than 5 feet deep and a competent person has examined the ground and found no indication of a potential cave-in.

The company shall provide support systems such as shoring, bracing, or underpinning to ensure the stability of adjacent structures such as buildings, walls, sidewalks or pavements.

The company shall not excavate below the level of the base or footing of any foundation or retaining wall until (1) a support system such as underpinning is provided, (2) the excavation is in stable rock, or (3) a registered professional engineer determines that the structure is sufficiently removed from the excavation and that excavation will not pose a hazard to employees.

Excavations under sidewalks and pavements shall not be performed until an appropriately designed support system is provided or another effective method is used.

Excavation of 2 feet or less below the bottom of the shield system of a trench shall be conducted only if (1) the system is designed to resist the forces calculated for the full depth of the trench, and (2) there are no indications, while the trench is open, of a possible cave-in below the bottom of the support system.

The excavation will be back-filled as soon as possible after work is completed and the trench box is removed.
The company is responsible for the safe condition of materials and equipment used for protective systems. Defective and damaged materials and equipment can result in the failure of a protective system and cause excavation hazards.

To avoid possible failure of a protective system, the competent person will ensure that (1) materials and equipment are free from damage or defects, (2) manufactured materials and equipment are used and maintained in a manner consistent with the recommendations of the manufacturer and in a way that will prevent employee exposure to hazards, and (3) while in operation, damaged materials and equipment are examined by the competent person to determine if they are suitable for continued use. Damaged or otherwise unsafe materials and equipment shall be removed from service immediately and tagged or otherwise clearly marked as being out of service. Such materials or equipment shall not be returned to service until proper evaluation and approval by a PE.

Secondary hazards to be considered and controlled by the company include exposure to falls, falling loads, and mobile equipment. To protect employees from these hazards, the company shall take the following precautions:

- Keep materials or equipment that might fall or roll into an excavation at least 2 feet from the edge of excavations, or have retaining devices, or both.
- Provide warning systems such as mobile equipment, barricades, hand or mechanical signals, or stop logs, to alert operators of the edge of an excavation. If possible, keep the grade away from the excavation.
- Provide scaling to remove loose rock or soil or install protective barricades and other equivalent protection to protect employees against falling rock, soil, or materials.

- Prohibit employees from working on faces of sloped or benched excavations at levels above other employees unless employees at lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment.
- Prohibit employees under loads that are handled by lifting or digging equipment. To avoid being struck by any spillage or falling materials, require employees to stand away from vehicles being loaded or unloaded. If cabs of vehicles provide adequate protection from falling loads during loading and unloading operations, the operators may remain in them.

The company shall not allow employees to work in excavations where water has accumulated or is accumulating until after adequate protection has been implemented to assure worker safety. If water removal equipment is used to control or prevent water from accumulating, the equipment and operations of the equipment will be monitored by a competent person to ensure proper use.

A competent person may prescribe utilization of diversion ditches, dikes, or other suitable means to be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. This is especially applicable in the event of excavations subject to runoffs from heavy rains.

A competent person shall test excavations greater than 4 feet in depth, as well as ones of lesser depth where oxygen deficiency or a hazardous atmosphere exists or could reasonably be expected to exist, before an employee enters the excavation. If hazardous conditions are detected, controls such as proper respiratory protection or ventilation will be provided. The competent person shall conduct regular tests of all areas where controls are being used to reduce atmospheric contaminants to acceptable levels.

Where adverse atmospheric conditions may exist or develop in an excavation, the company shall provide and ensure that emergency rescue equipment, (e.g., breathing apparatus, a safety harness and line, basket stretcher, etc.) is readily available. This equipment must be attended when used.

The company shall assure an employee wears a harness with a lifeline whenever entering bell-bottom pier holes and similar deep and confined footing excavations. The lifeline shall be securely attached to the harness and must be separate from any line used to handle materials. An observer shall be present to ensure that the lifeline is working properly and to maintain communication with the employee while the employee wearing the lifeline is in the excavation.

Safe access and egress shall be provided for all excavations, especially when employees are required to be in trench excavations 4’ deep or more. Under such conditions, adequate means of exit, such as ladders, steps, ramps or other safe means of egress, shall be provided and be within 25 feet of lateral travel.

If structural ramps are used as a means of access or egress, they shall be designed by a competent person if used for employee access or egress, or a competent person qualified in structural design if used by vehicles. Also, structural members used for ramps or runways shall be uniform in thickness and joined in a manner to prevent tripping or displacement.

RESIDENTIAL BASEMENT EXCAVATIONS

Because of some unique conditions with residential basement excavations, OSHA wrote a letter that changed the standard specifically for Residential Basement Excavations. This letter has commonly been referred to as the "Stanley Memo" based on the author. The following is rules apply only for residential basement excavations. These rules do not apply to other ancillary excavations such as water/sewer installations.

- The house foundation/basement excavation is less than seven and one-half feet in depth or is benched for at least two (2) feet horizontally for every five (5) feet or less of vertical height;
- The minimum horizontal width (excavation face to formwork/wall) at the bottom of the excavation is as wide as practicable but not less than two (2) feet;
- There is no water, surface tension cracks, nor other environmental conditions present that reduce the stability of the excavation;
- There is no heavy equipment operating in the vicinity that causes vibration to the excavation while employees are in the excavation;
- All soil, equipment, and material surcharge loads are no closer in distance to the top edge of the excavation than the excavation is deep; however, when front end loaders are used to dig the excavations, the soil surcharge load shall be placed as far back from the edge of the excavation as possible, but never closer than two (2) feet.
- Work crews in the excavation are the minimum number needed to perform the work; and
- The work has been planned and is carried out in a manner to minimize the time employees are in the excavation.

This policy applies to all such house foundation/basement excavations including those which become trenches by definition when formwork, foundations, or walls are constructed. This policy does not apply to utility excavations (trenches) where 29 CFR 1926.652 shall remain applicable.

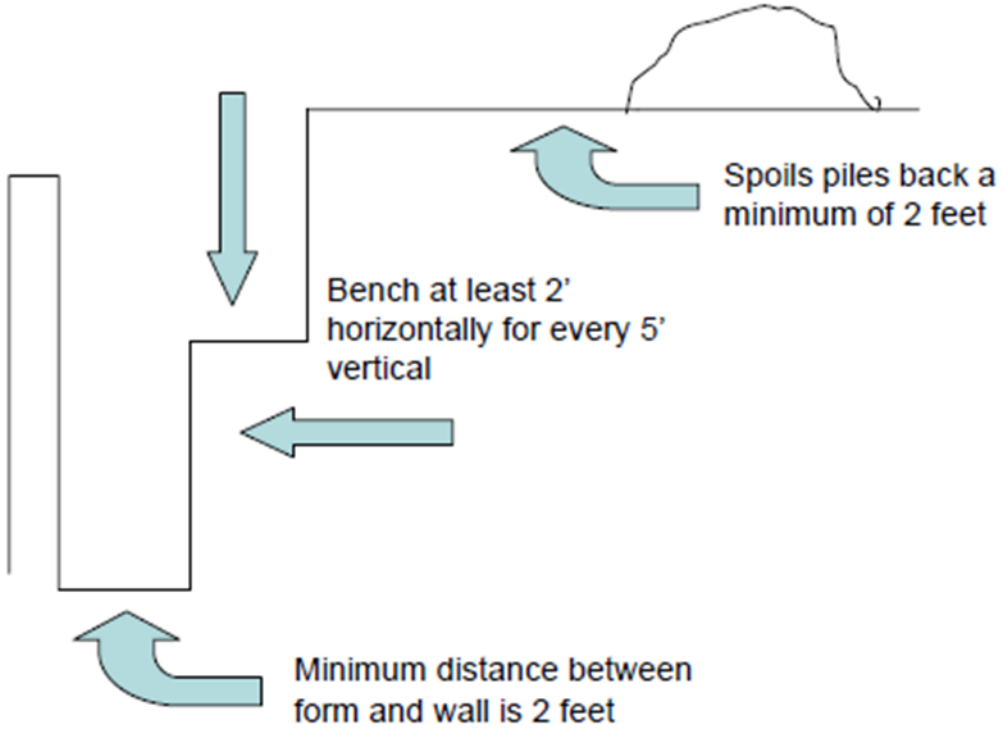

Figure 2. Stanley Memo Diagram for Residential Basement Excavations

PROTECTION OF THE PUBLIC

Protection of the public is an important part of any safety program. Liability is a huge risk that is often overlooked, misunderstood, or understated. The following practices should be performed, at a minimum, to protect the company from unnecessary liability:

- The competent person shall assure that barricades, walkways, lighting and signs are used as needed to protect the public during excavation work.
- An "Open Excavation" sign or other warning system shall be installed in front of every basement excavation and remain in place until the hazard is eliminated.
- Guardrails, fences, or barricades shall be used at excavations next to walkways or driveways used by pedestrians or vehicles. Warning lights and area lighting shall be used from sunset to sunrise as needed to protect the public and employees.
- Wells, holes, pits, shafts and similar excavations shall be barricaded or covered and posted as needed to prevent unauthorized access. All temporary excavations of this type shall be backfilled as soon as possible.
- Walkways or bridges with guardrails shall be used where the general public is permitted to cross over excavations.

(This is to be completed by the competent person for each excavation/trench and turned into the jobsite superintendent at the start of each work day and /or prior to working in the trench)

Company Name: _____Site Name:_____

Date/Time: _____Weather:_____Previous Rain/Snow: _____

Competent Person Name: _____

Excavation/Trench Location: _____

SOILS

Classification: A ___B ___C ___ Determined by: Visual Test ____Manual Test _____Penetrometer _____

- _____Soil layered?
- _____Zones of weak soils or fracture planes in the material?
- _____Evidence of shrinkage cracks in or on trench walls?
- _____Evidence of possible cave-in or side?

PROPOSED SAFETY SYSTEM

- _____Slope or bench (circle one)
- _____Shoring system (describe)
- _____Trench Box (describe)
- _____Shield System (describe)
- _____ Other (describe in detail, use back side of inspection form

HAZARDS

1.	Proper barricades, cones, warning vests, or other devices in use as needed?	Yes	No	N/A
2.	All underground utilities located and marked?	Yes	No	N/A
3.	All surface encumbrances removed, braced, or protected?	Yes	No	N/A
4.	Trenches >4’ in depth have ladders at no more than 25’ travel distance?	Yes	No	N/A
5.	Trenches >5’ in depth have a protective system in place? (as indicated above)	Yes	No	N/A
6.	If sloped, is it at the correct slope per soils class?	Yes	No	N/A
7.	All spoils at least 2’ from the edge of the trench?	Yes	No	N/A
8.	Adjoining buildings, walls, pavements and sidewalks braced or protected?	Yes	No	N/A
9.	Guardrails installed at walkways across trench?	Yes	No	N/A
10.	Any oxygen deficiency or toxic gas hazards in the trench?	Yes	No	N/A
11.	Any confined space requirements in the trench?	Yes	No	N/A
12.	Has a barricade, stop log, or hand signals been provided when equipment works close to the trench edge?	Yes	No	N/A
13.	Is water accumulating in the trench?	Yes	No	N/A
14.	If water is in the trench, is it being removed before the crew enters	Yes	No	N/A

Comments: _____

Competent Person Signature _____

We do not self-perform any work. This section is a resource guide only. All subcontractors, trade partners, suppliers, and vendors are required to develop, implement and follow their safety program, including providing the proper competent person(s) for the specific task they are responsible for.

Purpose

The purpose of the fall protection program is to:

- Ensure all construction areas are free from uncontrolled fall hazards.
- Ensure all exposed employees are adequately trained in fall prevention and protection.
- Ensure fall prevention systems are inspected and monitored.

Policy

It is the policy of the company to take all practical measures possible to prevent employees from being injured by falls. We will take the necessary steps to eliminate, prevent, and control fall hazards. We will comply fully with the OSHA Fall Protection standard (CFR 1926, Subpart M, Fall Protection). Priority is given to the elimination of fall hazards. If a fall hazard cannot be eliminated, effective fall protection will be planned, implemented, and monitored to control the risks of injury resulting from falls.

All employees exposed to potential falls from heights will be trained to minimize the exposures. Fall protection equipment will be provided and its use is required by all employees. Superintendents will be responsible for the implementation of this fall protection program at their job site.

Hazard Identification

The superintendent, safety manager, or other individual deemed competent by the employer in fall hazard identification, will be responsible for identifying fall hazards on their job site. These individuals will be referred to herein after as the “competent person.” The competent person will evaluate each situation or work procedure where employees may be exposed to a fall of 6 feet or more. The competent person will be responsible for developing a plan to eliminate the exposures, if possible, or to select the appropriate fall protection systems and equipment.

Hazard Control

Engineering Controls

- Personal Fall Protection
- Guard Rail Systems
- Positioning Devices
- Warning Line Systems
- Floor Opening Covers

Administrative Controls

- Controlled access zones
- Employee training
- Audits
- Inspections

- Supervision
- Signs

Fall Protection Required

The following are examples of situations where fall protection would be needed. This listing is by no means complete, and there are many other situations where a fall of 6 feet or more is possible. It should be noted that ladders and scaffolding are not included in this list because they are covered by other OSHA standards and other requirements of our safety program.

Wall Openings

Each employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 6 feet (1.8 meters) or more above lower levels, and the inside bottom edge of the wall opening is less than 39 inches (1.0 meter) above the walking/working surface must be protected from falling by the use of a guardrail system, a safety net system, or a personal fall arrest system.

Holes

Personal fall arrest systems, covers, or guardrail systems shall be erected around holes (including skylights) that are more than 6 feet (1.8 meters) above lower levels.

Leading Edges

Each employee who is constructing a leading edge 6 feet (1.8 meters) or more above lower levels shall be protected by guardrail systems, safety net systems, or personal fall arrest systems.

Excavations

Each employee at the edge of an excavation 6 feet (1.8 meters) or deeper shall be protected from falling by guardrail systems, fences, barricades, or covers. Where walkways are provided to permit employees to cross over excavations, guardrails are required on the walkway if it is 6 feet (1.8 meters) or more above the excavation.

Formwork and Reinforcing Steel

For employees, while moving vertically and/or horizontally on the vertical face of rebar assemblies built in place, fall protection is not required when employees are moving. OSHA considers the multiple handholds and footholds on rebar assemblies as providing similar protection as provided by a fixed ladder. No fall protection is necessary while moving point to point for heights below 24 feet (7.3 meters). An employee must be provided with fall protection when climbing or otherwise moving at a height more than 24 feet (7.3 meters), the same as for fixed ladders.

Hoist Areas

Each employee in a hoist area shall be protected from falling 6 feet (1.8 meters) or more by guardrail systems or personal fall arrest systems. If guardrail systems (or chain gate or guardrail) or portions thereof must be removed to facilitate hoisting operations, or a worker must lean through the access

opening or out over the edge of the access opening to receive or guide equipment and materials, then that employee must be protected by a personal fall arrest system.

Overhand Bricklaying and Related Work

Each employee performing overhand bricklaying and related work 6 feet (1.8 meters) or more above lower levels shall be protected by guardrail systems, safety net systems, or personal fall arrest systems, or shall work in a controlled access zone. All employees reaching more than 10 inches (25 cm) below the level of a walking/working surface on which they are working shall be protected by a guardrail system, safety net system, or personal fall arrest system.

Precast Concrete Erection and Residential Construction

Each employee who is 6 feet (1.8 meters) or more above lower levels while erecting precast concrete members and related operations such as grouting of precast concrete members and each employee engaged in residential construction, shall be protected by guardrail systems, safety net systems, or personal fall arrest systems.

Ramps, Runways, and Other Walkways

Each employee using ramps, runways, and other walkways shall be protected from falling 6 feet (1.8 meters) or more by guardrail systems.

Low-slope Roofs

Each employee engaged in roofing activities on low-slope roofs (roofs having a slope of less than or equal to 4 inches of vertical rise for every 12 inches horizontal length) with unprotected sides and edges 6 feet (1.8 meters) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems or a combination of a warning line system and guardrail system, warning line system and safety net system, warning line system and personal fall arrest system, or warning line system and safety monitoring system. On roofs, 50 feet (15.24 meters) or less in width, the use of a safety monitoring system without a warning line system will be permitted.

Steep Roofs

Guardrail systems shall protect each employee on a steep roof (roofs having a slope greater than 4 inches of vertical rise for every 12 inches horizontal length) with unprotected sides and edges 6 feet (1.8 meters) or more above lower levels with toeboards, safety net systems, or personal fall arrest systems.

FALL PROTECTION SYSTEMS

When there is a potential fall of 6 feet or more, we will utilize one or more of the following means of providing protection:

Guardrail Systems

Guardrail systems must meet the following criteria: Top rails and midrails of guardrail systems must be at least one-quarter inch (0.6 centimeters) nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it must be flagged at no more than 6 feet intervals (1.8

meters) with high-visibility material. Steel and plastic banding cannot be used as top rails or midrails. Manila, plastic, or synthetic rope used for top rails or midrails must be inspected as frequently as necessary to ensure strength and stability.

The top edge height of top rails, or (equivalent) guardrails must be 42 inches (1.1 meters) plus or minus 3 inches (8 centimeters), above the walking/working level. When workers are using stilts, ladders, scaffolding, or work other work platforms near guardrails, the top edge height of the top rail, or equivalent member, must be increased an amount equal to the height gained by stilts, scaffolding, etc.

Screens, midrails, mesh, intermediate vertical members, or equivalent intermediate structural members must be installed between the top edge of the guardrail system and the walking/working surface when there are no walls or parapet walls at least 21 inches (53 centimeters) high. When midrails are used, they must be installed to a height midway between the top edge of the guardrail system and the walking/working level.

When screens and mesh are used, they must extend from the top rail to the walking/working level and along the entire opening between top rail supports. Intermediate members, such as balusters, when used between posts, shall not be more than 19 inches (48 centimeters) apart.

Other structural members, such as additional midrails and architectural panels, shall be installed so that there are no openings in the guardrail system more than 19 inches (48 centimeters).

The guardrail system must be capable of withstanding a force of at least 200 pounds (890 newtons) applied within 2 inches of the top edge in any outward or downward direction. When the 200-pound (890 newtons) test is applied in a downward direction, the top edge of the guardrail must not deflect to a height less than 39 inches (1 meter) above the walking/working level.

Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall withstand a force of at least 150 pounds (667 newtons) applied in any downward or outward direction at any point along the midrail or another vertical member.

Guardrail systems shall be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.

The ends of top rails and midrails must not overhang terminal posts, except where overhang does not constitute a projection hazard.

When guardrail systems are used at hoisting areas, a chain, gate, or removable guardrail section must be placed across the access opening between guardrail sections when hoisting operations are not taking place.

At holes, guardrail systems must be set up on all unprotected sides or edges. When holes are used for the passage of materials, the hole shall have no more than two sides with removable guardrail sections. When the hole is not in use, it must be covered or provided with guardrails along all unprotected sides or edges.

If guardrail systems are used around holes that are access points (such as ladderways), gates must be used, or the point of access must be offset to prevent accidental walking into the hole.

If guardrails are used at unprotected sides or edges of ramps and runways, they must be erected on each unprotected side or edge.

Personal Fall Arrest Systems

Personal Fall Arrest Systems (PFAS) consist of an anchorage, connectors, and a full-body harness and may include a deceleration device, lifeline, or suitable combinations. Anchorage must include an engineered anchor device such as an anchor plate, anchor strap, fixed anchor point, etc. If a personal fall arrest system is used for fall protection, it must do the following:

- Limit maximum arresting force on an employee to 1,800 pounds (8 kilonewtons) when used with a body harness.
- Be rigged so that an employee can neither free fall more than 6 feet (1.8 meters) nor contact any lower level.
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet (1.07 meters)
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling 6 feet (1.8 meters) or the free fall distance permitted by the system, whichever is less.

Personal fall arrest systems must be inspected before each use for wear damage, and other deterioration. Defective components must be removed from service.

Positioning Device Systems

Body harness systems are to be set up so that a worker can free fall no farther than 2 feet (0.6 meters). They shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds (13.3 kilonewtons), whichever is greater.

Safety Net Systems

Safety nets must be installed as close as practicable under the walking/working surface on which employees are working and never more than 30 feet (9.1 meters) below such levels. Defective nets shall not be used. Safety nets shall be inspected at least once a week for wear, damage, and other deterioration. Safety nets shall be installed with sufficient clearance underneath to prevent contact with the surface or structure below.

Items that have fallen into safety nets, including, but not restricted to, materials, scrap, equipment, and tools must be removed as soon as possible and at least before the next work shift.

Warning Line Systems

Warning line systems consist of ropes, wires, or chains, and supporting stanchions and are set up as follows:

- Flagged at no more than 6-foot (1.8 meters) intervals with high-visibility material.

- Rigged and supported so that the lowest point including sag is no less than 34 inches (0.9 meters) from the walking/working surface and its highest point is no more than 39 inches (1 meter) from the walking/working surface.
- Stanchions, after being rigged with warning lines, shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches (0.8 meters) above the walking/working surface, perpendicular to the warning line and in the direction of the floor, roof, or platform edge
- The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions must support without breaking the load applied to the stanchions as prescribed above.
- Shall be attached to each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.

Warning lines shall be erected around all sides of roof work areas. Warning lines shall be set away from the edge of the roof as follows:

- 6’ warning line from unprotected edge – for roofers only.
- 10’ warning line for mechanical equipment being used, parallel & perpendicular.
- 15’ warning line for all other trades or work being done, i.e., iron workers, HVAC, plumbing, framing, fire suppression, gutters.

PFAS must protect workers outside of the warning line system.

Covers

Covers located in roadways and vehicular aisles must be able to support at least twice the maximum axle load of the largest vehicle to which the cover might be subjected. All other covers must be able to support at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time. To prevent accidental displacement resulting from wind, equipment, or worker's activities, all covers must be secured. All covers shall be color-coded or bear the markings "HOLE" or "COVER."

Protection from Falling Objects

When guardrail systems are used to prevent materials from falling from one level to another, any openings must be small enough to prevent the passage of potential falling objects. No materials or equipment except masonry and mortar shall be stored within 4 feet (1.2 meters) of working edges. Excess mortar, broken or scattered masonry units, and all other materials and debris shall be kept clear of the working area by removal at regular intervals.

During roofing work, materials and equipment shall not be stored within 6 feet (1.8 meters) of a roof edge unless guardrails are erected at the edge, and materials piled, grouped, or stacked near a roof edge must be stable and self-supporting.

Training

Employees must be trained in Fall Protection. The training will be documented on the Employee Training Record Form found in this program. Employees will be trained in the following areas:

- The nature of fall hazards in the work area
- The correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems.
- The use and operation of controlled access zones and guardrail, personal fall arrest, safety net, warning line, and safety monitoring systems
- The role of each employee in the safety monitoring system when the system is in use.
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs
- The correct procedures for equipment and materials handling and storage and the erection of overhead protection
- Employees role in fall protection plans

Subcontractor Fall Protection

If the company uses a subcontractor to perform work where the subcontract employees will be exposed to falls, the Subcontractor Fall Protection Plan Checklist, found in the subcontractor safety agreement section of this program, shall be used.

FALL PROTECTION RESCUE PLAN

When using a Personal Fall Arrest System (PFAS) for elevated work, having rescue procedures in place is an important requirement. Even when a PFAS works properly, the fallen worker is still in danger. The worker's body weight places pressure on the harness straps, which can compress veins and arteries, causing reduced blood flow through the body. This condition is called suspension trauma. If the pressure is not reduced promptly, the worker can lose consciousness within minutes. It is imperative that rescue is performed as quickly as possible while maintaining the safety of the rescue personnel and the person being rescued.

This fallen worker rescue plan addresses the planning, personnel, procedures, and equipment needed to ensure that rescue is performed quickly and efficiently when a fall occurs.

Planning

All personnel working onsite must be trained in the emergency procedures in case a fall occurs and be prepared to make quick decisions with the means available to them. This includes knowledge in the use of equipment and how to access the equipment. The competent person for this project will determine which aided rescue method will be used.

Emergency Response

If a fall occurs onsite and a safety harness suspends the worker, the following procedures must be followed.

- The competent person onsite will take charge of the rescue procedures and identify any further hazards that could arise and ways to mitigate those hazards quickly.
- All workers in the vicinity of the incident must stop work and move to a safe zone until the rescue is complete.
- Competent person will quickly determine the best means to provide rescue and the required personnel to perform the rescue with minimal delay.
- First responders are notified promptly if it is determined that their assistance is required.

Rescue Procedures

Fallen worker rescue can be accomplished using two different techniques: self-rescue, and aided rescue. Self-rescue methods allow a fallen worker to temporarily relieve pressure on the legs or, in some cases, to even lower himself or herself to a lower level. A worker who is suspended from a lifeline and cannot perform self-rescue will need help from trained rescuers using appropriate equipment, including proper fall protection. The competent person onsite will determine the most appropriate aided rescue option for the project and complete the form provided, as well as any additional info for the project.

Self-Rescue

Most fall protection gear used in construction does not come with self-rescue equipment installed; however, some harnesses do have equipment built in for such circumstances. If a fall occurs, deploy suspension trauma straps if equipped. Deploy a self-rescue device if equipped.

If fall protection equipment is not equipped with a self-rescue device, workers can follow the steps below to attempt to climb or lower themselves to a nearby landing/ground level.

Note*. This should only be attempted in the rare circumstances when the suspended worker is* unable *to get immediate help due to there not being any witness to the incident or no rescue equipment available.*

If anchored above a nearby landing platform, the worker may attempt to pull themselves up by "climbing" their lifeline. This should only be attempted if there is a landing platform in very close proximity to the suspended worker. This option is achievable when using a self-retracting lanyard as this equipment typically limits the fall distance to under 2'. If using a lifeline with an adjustable rope grab, and there is a landing platform underneath the worker, he/she may attempt to lower themselves to that platform. While grasping the lifeline above the rope grab with one hand, the worker would slide the rope grab down about 2 feet with their free hand, and repeat the procedure alternating hands, gradually lowering themselves to the platform/ground level below.

Aided Rescue

The options for assisted rescue are listed in order from the most preferred to the least preferred based on the logistics of the project and the equipment available.

Mobile Elevated Work Platform Rescue

Mobile Elevated Work Platform (MEWP), more commonly referred to as aerial lifts, should be used if available and if site logistics allows for the machine to be positioned directly underneath the suspended worker. Follow the steps below when performing rescue:

1. Ensure that the rescue workers are wearing the required fall protection for the MEWP used.
2. Ensure that the load capacity of the machine is adequate for the weight of the rescuers and the worker being rescued.
3. Position the MEWP directly underneath the suspended worker and raise the platform to the necessary height.
4. Do not disconnect the worker's lanyard until he/she has secured footing on the MEWP.
5. Reattach the worker's lanyard to an engineered anchor point on the MEWP if required.
6. Lower the worker to a safe location.
7. Perform an assessment of the worker and provide first aid treatment if necessary. Be prepared to contact 911 immediately if the worker's condition is life-threatening.

Ladder Rescue

When a MEWP is not available or cannot be positioned underneath the suspended worker, use ladder rescue by following the steps below:

1. Set a ladder to reach the suspended worker.
2. Provide fall protection equipment to the rescuer if exposed to a fall to a level lower than where the ladder is setup.
3. Attempt to move/swing the worker to a nearby landing platform if available.
4. If unable to move/swing worker, attach a lowering line anchored overhead to the worker's harness.
5. Disconnect the worker's lifeline only when the lowering line is anchored and securely attached to the worker's harness. If using an adjustable lifeline, do not disconnect, assist the suspended worker in adjusting his/her rope grab while the worker is gradually being lowered.
6. Help guide the suspended worker to the ground as he/she is being lowered.
7. Perform an assessment of the worker and provide first aid treatment if necessary, including arranging transportation to the hospital if required.

Rescue from an Adjacent Platform

If a worker is suspended near a platform such as an elevated deck, and can be safely reached from that platform, follow the steps below:

1. Ensure that required fall protection is in place for rescuers on the platform.
2. If possible, attach a second lifeline to the worker's harness and attempt to pull the worker to the platform. If the suspended worker is not within reach, throw a lifeline to the worker and have them attach to their harness themselves.
3. Perform an assessment of the worker and provide first aid treatment if necessary. Be prepared to contact 911 immediately if the worker's condition is life-threatening.

Please fill out the form below for this project.

Project Name	
Aided Rescue Option to be used on this project	
Additional Site-Specific Information	
Competent Person Name	
Competent Person Signature	
Date	

Post Rescue

After the rescue is complete, and the safety of the rescued worker as well as those working in the vicinity have been assured, the competent person will perform an accident investigation. This will include a sequence of events, causal factors, corrective action recommendations to prevent future occurrences, and any necessary modifications to this plan. Fall protection equipment used to arrest the fall will be taken out of service immediately and sent to the manufacturer for further evaluation.

PURPOSE

This section is designed to review fire protection and fire prevention methods when using flammable liquids and liquified petroleum gas (LP-gas) on a job site. Various fire extinguishing methods will be discussed along with temporary heating devices. This section also includes a hot work written procedure to prevent the outbreak of fire, fire alarm activations, smoke and odor migration in buildings resulting from any temporary operation involving the use of open flames or which produces heat and/or sparks. This includes, but is not limited to brazing, grinding, cutting, torch soldering, thawing pipes, torch applied roofing and welding.

DEFINITIONS

Combustion

Any chemical process that involves oxidation sufficient to produce light or heat.

Flammable

Capable of being easily ignited, burning intensely, or having a rapid rate of flame spread.

Safety Can

An approved closed container, or not more than 5-gallon capacity, having a flash-arresting screen, spring closed lid and spout cover and so designed that it will safely relieve internal pressure when subjected to fire exposure.

Hot Work

Any operation producing flames, sparks or heat including, but not limited to: cutting, welding, brazing, grinding, sawing, torch soldering, thawing frozen pipes, applying roof covering, etc.

Hot Work Permit

A Hot Work Permit is a special permit which authorizes “Hot Work” activities at a specific location and time. The permit shall be completed daily, displayed in the area where the hot work is taking place, and returned to the supervisor when the hot work is complete. Permits contain a checklist to be completed prior to commencing hot work activities.

Fire Watch

A trained individual stationed in the hot work area who monitors the work area for the beginning of potential, unwanted fires both during and after hot work. Individuals must be trained and familiar with the operation of portable fire extinguishers and methods to activate building fire alarm systems. Personnel engaged as the fire watch cannot perform other duties, as their sole duty is to watch for and respond to fires that occur during hot work, for a minimum of 60 minutes after hot work is complete.

GENERAL FIRE PROTECTION REQUIREMENTS

This fire protection plan shall be implemented and enforced throughout all phases of construction and demolition work. As fire hazards occur, there shall be no delay in providing the appropriate firefighting equipment. Only employees trained in firefighting shall attempt to extinguish a fire. If the fire is too large or bigger than the training received, the workers should leave it for the local fire department. Firefighting equipment shall be checked periodically to verify good working order and shall be placed conspicuously. Underground water mains should be utilized as soon as practicable. Local fire departments should be contacted and informed of the project under construction as they will act as your local fire brigade in the case of a large-scale fire. Evacuation routes and muster points shall be discussed and reviewed by every worker on the site.

FIRE EXTINGUISHERS

Fire extinguishers often will be the most common method of firefighting on new construction job sites. A fire extinguisher, rated no less than 2A, shall be provided for each 3,000 square feet of protected building or majority protected building. Travel distance from any point within the protected area to the nearest fire extinguisher shall not exceed 100 feet. Each floor shall have a minimum of 1 fire extinguisher on each floor with at least one fire extinguisher located near a stairwell. A fire extinguisher, rated no less than 10B, shall be located within 50 feet of any container of flammable liquid or flammable gas with 5 gallons or more of fuel. This does include generators and gas powered compressors but does not include motor vehicles.

Fire Extinguisher UL Rating

Fire extinguishers have indicators that tell you water equivalence and square footage of coverage they can handle. A fire extinguisher with a rating of 4A:20B:C indicates the following:

1. The A rating is a water equivalency rating. Each A is equivalent to 1¼ gallons of water. 4A = 5 gallons of water.
2. The B:C rating is equivalent to the amount of square footage that the extinguisher can cover. 20 B = 20 square feet of coverage
3. C indicates it is suitable for the use on electrically energized equipment.
4. The following is a chart that may be used for selecting the appropriate fire extinguisher for the job.

Table F-1 Fire Extinguishers Data

	WATER TYPE				FOAM	CARBON DIOXIDE	DRY CHEMICAL			
							SODIUM OR POTASSIUM BICARBONATE		MULTI-PURPOSE ABC	
	STORED PRESSURE	CARTRIDGE OPERATED	WATER PUMP TANK	SODA ACID	FOAM	CO_2	CARTRIDGE OPERATED	STORED PRESSURE	STORED PRESSURE	CARTRIDGE OPERATED
CLASS A FIRES WOOD, PAPER, TRASH HAVING GLOWING EMBERS	YES	YES	YES	YES	YES	NO (Not effective on small surface fires)	NO (Not effective on small surface fires)	NO (Not effective on small surface fires)	YES	YES
CLASS B FIRES FLAMMABLE LIQUIDS, GASOLINE, OIL, PAINTS, GREASE, ETC.	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES
CLASS C FIRES ELECTRICAL EQUIPMENT	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES
CLASS D FIRES COMBUSTIBLE METALS	SPECIAL EXTINGUISHING AGENTS APPROVED BY RECOGNIZED TESTING LABORATORIES									
METHOD OF OPERATION	PULL PIN – SQUEEZE HANDLE	TURN UPSIDE DOWN AND BUMP	PUMP HANDLE	TURN UPSIDE DOWN	TURN UPSIDE DOWN	PULL PIN – SQUEEZE LEVER	RUPTURE CARTRIDGE – SQUEEZE LEVER	PULL PIN – SQUEEZE HANDLE	PULL PIN – SQUEEZE HANDLE	RUPTURE CARTRIDGE – SQUEEZE LEVER
RANGE	30' - 40'	30' - 40'	30' - 40'	30' - 40'	30' - 40'	3' - 8'	5' - 20'	5' - 20'	5' - 20'	5' - 20'
MAINTENANCE	CHECK AIR PRESSURE GAUGE MONTHLY	WEIGH GAS CARTRIDGE – ADD WATER IF REQUIRED ANNUALLY	DISCHARGE AND FILL WITH WATER ANNUALLY	DISCHARGE ANNUALLY – RECHARGE	DISCHARGE ANNUALLY – RECHARGE	WEIGH SEMI-ANNUALLY	WEIGH GAS CARTRIDGE – CHECK CONDITION OF DRY CHEMICAL ANNUALLY	CHECK PRESSURE GAUGE AND CONDITION OF DRY CHEMICAL ANNUALLY	CHECK PRESSURE GAUGE AND CONDITION OF DRY CHEMICAL ANNUALLY	WEIGH GAS CARTRIDGE – CHECK CONDITION OF DRY CHEMICAL ANNUALLY

SPRINKLER PROTECTION

If the project under construction includes the installation of automatic sprinkler protection, the installation shall be placed in service as soon as applicable local jurisdiction permits. During demolition or alternations, all existing automatic sprinkler installations shall be retained in service as long as reasonable. If modifications of the sprinkler systems are needed, alterations shall be expedited so that the system can be returned to service as quickly as possible. In areas where the fire sprinkler system is offline, a roaming fire watch shall be in place until the system is restored.

FIRE PREVENTION

Ignition Sources

- Electrical wiring and equipment for light, heat, or power purposes shall be installed according to subpart K of Part 1926 of the OSHA Construction Standards.
- Internal combustion engines shall be located in a manner that the exhausts are well away from combustible materials. These devices shall not be located inside of any building.
- Smoking is prohibited at all times on the construction site. Smoking areas well away from the building may be established.
- Cooking devices such as hot plates are prohibited at all times on the construction site.
- Portable battery powered lighting equipment used in connection with flammable gases or liquids shall be used in accordance with the manufacturer and approved for the hazardous location.

Temporary Buildings

- No temporary building shall be erected where it will adversely affect any means of egress, emergency response access roads, fire hydrants, or fire department connections.
- When located within another building, temporary buildings shall be constructed of noncombustible material or material with a fire rating of no less than 1 hour.
- When located outside of another building and not being used for storage, handling, or use of flammable gases/liquids shall be located at a distance of no less than 10 feet from the adjacent building.

Open Yard Storage

- Combustible materials shall be piled no higher than 20 feet high and with stability in mind.
- Traffic isles between piles shall be at least 15 feet wide and free of debris.
- The entire storage site must be kept free from the accumulation of unnecessary combustible materials. Weeds and grass shall be kept down.
- When there is a danger of underground fire, that land shall not be used for the storage of combustible of flammable storage.
- No combustible material shall be stored outdoors within 10 feet of buildings or structures.
- Portable fire extinguishers must be within 100 feet of the combustible and suitable for the potential fire hazard.

Indoor Storage

- Storage shall not impede a means of exit.
- Noncompatible materials shall be separated by a fire-resistant barrier of at least 1 hour rating.
- Materials that are piled will be maintained to prevent internal spreading of fire and will allow enough access for firefighting.
- Clearance of at least 36 inches shall be maintained between the top level of the pile and the sprinkler deflectors.
- Clearance shall be maintained around lights and heating units to prevent ignition.
- Materials shall not be stored within 36 inches of fire door opening.

FLAMMABLE LIQUIDS

Flammable liquids are used to fuel machinery, tools, and generators on the jobsite. Only approved containers and portable tanks shall be used for the storage and handling of flammable liquids. For quantities of one gallon or less, the original container may be used for storage, handling, and use. One of the most used flammable liquids on a job site is gasoline. Gasoline needs to be stored in a safety can of not more than 5 gallons capacity, equipped with a flash-arresting screen, and spring closing lid.

For sites needing to store large quantities of flammable liquids indoors, please consider the following:

1. No more than 25 gallons of flammable liquid may be stored in a room outside of an approved storage cabinet.
2. Quantities more than 25 gallons shall be stored in an approved storage cabinet and clearly labeled “Flammable- Keep away from open flame.”
3. Materials that react with water shall not be stored in the same room as other flammable liquids.
4. All inside storage rooms must meet local fire resistance codes to ensure safe storage.
5. Some type of firefighting method shall be in place within the storage area (i.e., fire extinguisher, overhead sprinkler, water tanks, etc.)

For sites needing to store large quantities of flammable liquids outdoors, please consider the following:

1. Storage containers shall not exceed 1,100 gallons in any one area or pile. If multiple piles exist, they must be separated by 5-foot clearance and at a minimum of 20 feet away from any building.
2. It is recommended all outdoor storage areas have a secondary containment if the primary storage container/tank leaks.
3. A firefighting method must be present near all outdoor storage areas that can adequately handle the quantities stored.

LIQUEFIED PETROLEUM GAS (LP-GAS)

LP-Gas is commonly stored in cylinders on the job site. All cylinders shall meet the Department of Transportation requirements and shall have containers, valves, connectors, manifold valve assemblies, and regulators in good working order. Each container will be equipped with shutoff valves and safety relief valves. LP-Gas containers are said to be in use when connected to the appropriate device for gas dispensing (i.e., temporary heater, welder, etc.). LP-Gas containers shall never be stored indoors. Storage outside of buildings shall be adherent to the following chart.

Quantity of LP-Gas Stored	Distance (Feet)
500 lbs. or less	0
501 lbs. – 6,000 lbs.	10
6,001 lbs. -10,000 lbs.	20
Over 10,000 lbs.	25

TEMPORARY HEATING DEVICES

When using temporary heaters on the job site, ventilation must be adequate. If there is a natural means of fresh air ventilation that is adequate, then mechanical ventilation isn't required. When heaters are used in confined spaces special care needs to be taken to ensure sufficient ventilation is being maintained to protect the health of workers, limit the temperature rise, and ensure proper combustion of the heater. All temporary heaters must be placed on a fire-resistant barrier at a minimum of 1 inch in thickness and extend 2 feet in all directions of the heating device.

Fire extinguishers with a rating of at least 20-ABC should be readily available near each heating unit. These extinguishers should stay near the heating units at all times and should not be repurposed for use in other activities in the area, such as grinding, welding, or other hot work. Those tasks must have fire extinguishers of their own that are of the appropriate size and type for those exposures.

OSHA Inspection Procedures

ARRIVAL OF THE COMPLIANCE OFFICER

- Verify the Compliance Officer's credentials—look at ID and business card.
- Determine why the Compliance Officer wants to inspect the project, i.e. complaint, accident, programmed, imminent danger, follow-up.
    - If a complaint inspection, ask to have a copy of the complaint.
    - If a programmed inspection, ask for a focused inspection.
- Tell OSHA that your company policy is to contact your Management prior to starting the inspection. Have OSHA wait in the construction office while you are making phone calls.

Upper management is ultimately responsible for giving permission for OSHA to inspect. It is not advisable to tell OSHA they cannot inspect your site. OSHA should wait a reasonable amount of time onsite prior to starting the inspection to allow your upper management or their representatives to arrive onsite.

Brief your SFI Safety Consultant on the situation, and then ask OSHA if they will speak to your SFI Safety Consultant.

The following is to be done when the OSHA inspector conducts the inspection.

- Request an opening conference if the Compliance Officer does not call for one.
- Have the project superintendent and/or the project manager present.
- Take detailed notes of everything discussed.
- Keep all publications and documents given to you by the Compliance Officer and note who gave it to you and the date of its receipt.
- If more than one Compliance Officer is involved, find out if they plan to make the inspection in one group or split into two or more groups to make the inspection. If they want to divide into two or more groups, tell the Compliance Officer you will have an employer representative with each group.
- Be cooperative with the Compliance Officer. At all times prior to, during and after the inspection, act in a professional businesslike manner. Never enter personal arguments with the Compliance Officer.
- Tell the Compliance Officer that you expect him/her to advise the company of all suspected violations, and the standard involved. Tell the Compliance Officer that you will be taking notes of all the suspected violations he/she informs you of so that there will be no dispute as to whether the company was informed.

RECORDS REVIEW

- Allow the Compliance Officer to look only at your Site-Specific Safety Program.
- Do not volunteer to give or let the Compliance Officer look at any safety inspection reports other than those reports required by OSHA (such as scaffolding inspection forms). This includes not giving or letting the Compliance Officer look at any such reports that have been made on subcontractor's activities.

WALK AROUND INSPECTION

General

- Have the company representative accompany the Compliance Officer at all times. Never leave the Compliance Officer to have free and unlimited access to your work without the company representative.
- Control the inspection. Treat the Compliance Officer as you would a guest in your house; they are there with permission and will be expected to follow all instructions given to them and will be required to conduct the inspection in such a manner that it does not disrupt the scheduled work. Remember, it is the company's construction project, not OSHA's. The Compliance Officer is to be treated as any other visitor—under your control while on our project. Tell them that you need to take your own notes, pictures, and gather information at the same time.
- Refer all questions the Compliance Officer asks to the Subcontractors Representative when possible.
- Take detailed notes of everything seen, discussed, and done by the Compliance Officer.
- Take photographs of everything the Compliance Officer photographs. If the equipment, work area, etc., can be photographed from a more favorable position (different angle, greater distance, etc.) photograph it from the different position.
- Do not allow any employee to perform demonstrations for the Compliance Officer. Example—if a truck is idle and the Compliance Officer asks you or an employee to operate it, so he can see if the horn or backup alarm is working, refuse to do it. Allow the Compliance Officer to see the work as it is normally being done only.
- Do not volunteer any information. Refer all questions the Compliance Officer asks to the Subcontractors Representative when possible. The Compliance Officer is trained to obtain admissions from companies. Be careful answering questions. When in doubt, ask them to restate the question. Do not admit to a violation. State the facts only, not your opinion. Do not lie to the Compliance Officer at any time.
- Do not issue orders, such as "clean up the trash", during the inspection to have conditions corrected that have not been noticed by the Compliance Officer. The immediate abatement of an alleged violation will not preclude being cited by the Compliance Officer and may alert them to the condition.
- Make sure you fully understand everything the Compliance Officer does or comments on. If you do not understand everything they say and do, ask questions. Insist on having time to record all facts, even if the inspection is slowed down.

OSHA INTERVIEWS

OSHA may want to interview multiple individuals during the inspection. The following rules should be followed when being interviewed by OSHA.

Rules for Being Interviewed

1. Tell the Truth
2. Make sure you understand the question.
3. Just answer the question, nothing else

4. Answer based on your knowledge only …don't guess or speculate.

Employee Interviews

- The Compliance Officer may interview any employee privately.
- For interviews held with employees in our presence, record the names and companies of all employees interviewed. Record the content of the conversations with the employees.
- We have the right to be in attendance with management personnel.

CLOSING CONFERENCE

- Have the designated company representative present for the closing conference.
- Take notes of everything discussed and record what documents were distributed by the Compliance Officer.
- Make sure that no questions you have concerning the inspection go unanswered. If the Compliance Officer feels that violations exist on the project, find out exactly why they feel that way. Tell them that you are noting every potential violation that they advise may exist so there will be no dispute at a later conference or hearing. Hand the list back and ask if that is everything, ask what other items may exist. If they are unsure or do not list any others, tell them that you are noting that no additional items were included in response to your questions.
- Don't give any estimates of abatement time needed to correct any alleged violations.

AFTER THE CLOSING CONFERENCE

- Prepare a detailed report of your inspect notes. Include photos and any other relevant information. Send report to your management.
- Keep all notes and pictures taken on file.

OSHA Inspection Report

Date(s) of Inspection: _____

Time Arrived Onsite: _____

For specific procedures for an OSHA inspection, please refer to the previous section of this program.

Pre-Inspection

1. Who did the OSHA Compliance Officer first contact at the jobsite?

   Name: _____ Title: _____

2. Location where first contact was made _____

3. Did the Compliance Officer show his or her credentials? Yes_____ No _____

4. Compliance Officer Name: _____

   Area Office: _____

5. Did the Compliance Office state why he/she was onsite? Yes_____ No _____

   Reason:

6. Was off-site video or pictures taken? Yes_____ No _____

   What did the Compliance Officer see while off-site?

Opening Conference

1. Was an opening conference held? Yes_____ No _____ Who attended?

Name	Company

2. What was the purpose of the inspection as explained by the Compliance Officer?

3. Did the Compliance Officer review any on-site paper work? Yes_____ No _____

   What was reviewed?

4. Were any copies taken? Yes_____ No _____

5. Other comments:

Walk Around Inspection

1. List people present during the walk around inspection:

2. Comments by compliance officer during inspection:

3. Was video or pictures taken during the inspection? Yes_____ No _____
   (Attach photo log with description)

4. Was any portion of the jobsite shut down? Yes_____ No _____
   Describe shut down including employees and subcontractors involved:

5. Were employees interviewed? Yes_____ No _____
   Who was interviewed? Were they recorded?

6. Were subcontractors interviewed? Yes_____ No _____
   Who was interviewed? Were they recorded?

Closing Conference

Date: _____ Time: _____

1. Was a closing conference held? Yes_____ No _____ Who attended?

Name	Company

2. Were any alleged violations discussed? Yes_____ No _____

   Describe alleged violations:

3. Other Comments:

Incident Investigation Procedures

PURPOSE

This incident investigation procedure provides an approach to determine initiating events, contributing events, root cause, and contributing causes. The investigation must identify appropriate recommendations that address the problems and identify root causes. These may include, but are not limited to, engineering controls, personal protective equipment, and/or training for affected employees. The intent of this procedure is to help prevent and/or mitigate similar incidents and accidents in the future.

POLICY

All safety incidents, including work-related injuries, accidents, regulatory violations, and near misses, will be investigated to determine the root causes. Recommendations will be developed and implemented to prevent recurrence of the accident/incident. (A near miss is a condition or an incident where injury or property damage could have occurred.)

ROLES AND RESPONSIBILITIES

Management

1. Review all OSHA recordable injuries, vehicular accidents, accidents involving property damage, and near miss events to assess cause and prevention.
2. Monitor corrective actions as appropriate.
3. Ensure correct documentation and report results of the incident investigation, including findings and recommendations to upper management.
4. Notify field and office personnel of the event.

Site Supervisors

1. Immediately report accidents and near miss incidents to the management
2. Perform an initial investigation, and timely submit Accident/Injury Reports and Near Miss Incident reports to the management within 24 hours.
3. Review all accident/injuries and assess corrective action(s) and the need for safety modification and/or employee training.

Employees

1. Immediately inform site supervisors of accidents, near miss incidents, unsafe conditions and unsafe practices.
2. Do not disturb area, but control area to allow for investigation.
3. Participate in the incident investigation.

INVESTIGATION PROCEDURES

All incidents are to be investigated in a timely manner to determine the root cause(s) and contributing factors involved. The extent of the investigation will be dependent upon the severity or potential severity of the incidents.

Site supervisors are responsible for performing an initial investigation immediately upon finding out about the incident to determine the root cause(s) of the incident. Management will be contacted as needed to assist in the completion of the investigation. The purpose of the investigation is not to fix or find blame, but to identify the root cause and determine preventative measures that can help to prevent future accidents/incidents.

Investigation Guidelines

Injury Accident	Non-Injury Near Miss	Property Damage Incident
Provide for immediate medical attention		
Secure area to preserve accident scene	Secure area to preserve incident scene	Secure area to preserve incident scene
Report the incident to management	Report the incident to management.	Report the incident to management.
Assemble and complete necessary reporting and investigation forms	Assemble and complete necessary reporting and investigation forms	Assemble and complete necessary reporting and investigation forms
Interview injured personnel and witnesses	Interview witnesses	Interview witnesses
Examine the accident work area for causative factors and take pictures	Examine incident area for causative factors and take pictures	Examine incident area for causative factors and take pictures
Review established procedures to ensure they are adequate and were followed	Review established procedures to ensure they are adequate and were followed	Review established procedures to ensure they are adequate and were followed
Review training records of affected individuals	Review training records of affected individuals	Review training records of affected individuals
Determine all contributing causes to the accident	Determine all contributing causes to the near miss	Determine all contributing causes to the property damage incident
Take corrective actions, in consultation with management	Take corrective actions, in consultation with management.	Take corrective actions, in consultation with management.
Record all findings and actions taken or to be taken	Record all findings and actions taken or to be taken	Record all findings and actions taken or to be taken
Communicate “lessons learned” in safety training/meetings	Communicate “lessons learned” in safety training/meetings	Communicate “lessons learned” in safety training/meetings

Note: The guidelines listed provide a checklist for the initial investigation. Additional or modified steps should be used as appropriate to the situation.

The site supervisor's initial findings and any immediate corrective actions must be documented on the appropriate forms and sent to management within 24 hours of notification of the incident.

The site supervisors should work with management to establish action deadlines. Corrective actions must be completed according to the plan.

Forms used for investigations are found following these procedures:

- Injury Accident Investigation Report
- Non-Injury Near Miss Investigation Report
- Property Damage Incident Investigation Report
- Incident Witness Statement Form

Injury Accident Investigation Report

Date of Accident		Time of Accident					
Company Name		Location					
Site Supervisor		Phone #					
Injured Person's Employer		Employer's Address					
Supervisor Name		Phone #					
Name of Injured Person				Sex		Age	
Contact Info for Injured Person		Injured Person's Occupation					
Employment Category	□ Regular, full-time □ Regular, part-time □ Temporary □ Seasonal	Length of Employment	□ Less than 6 months □ 6 months to 1 year □ 1 year to 5 years □ Greater than 5 years	Time in Occupation	□ Less than 6 months □ 6 months to 1 year □ 1 year to 5 years □ Greater than 5 years		
Names of others Injured in same Accident		Names of Witness' to this Accident					
Nature of Injury and Body Part(s) Injured		Severity of Injury	□ Fatality □ Inpatient Hospitalization □ Medical Treatment □ First Aid Treatment □ Other				
Task and Activity at time of the Accident	General Task			Supervision at time of Accident	□ Directly Supervised □ Indirectly Supervised □ Not Supervised □ Supervision not feasible		
	Specific Activity						
	Employee working	□ Alone □ With fellow co-worker(s)					
Specific location of Accident		Weather conditions at time of the Accident					

Injury Accident Investigation Report

Describe how the Accident occurred		
Accident Sequence (Describe in reverse order of occurrence events preceding the injury and accident. Starting with the injury and moving backward in time, reconstruct the sequence of events that led to the injury.)	Injury Event	
	Accident Event	
	Preceding Event #1	
	Preceding Event #2	
Causal Factors (Events and conditions that contributed to the accident. Be sure and describe in detail if the proper safety equipment was being used and if it was used correctly.)		
Corrective Actions (Those that have been, or will be, taken to prevent recurrence.)		

Pictures of Accident		

Name of Investigator		Company Name	
Signature		Date	

Property Damage Incident Investigation Report

Date of Incident		Time of Incident	
Company Name		Location	
Site Supervisor		Phone #	

Names and contact information for individuals involved in Incident		Names and contract information for Witness' to this Incident	
Individuals taken for Drug/Alcohol Testing		Company names of individuals taken for Drug/ Alcohol Testing	
Specific location of Incident		Weather conditions at time of the Incident	
Describe how the Incident occurred			

Draw a picture that shows how the property damage incident occurred.	
Describe the property damage that occurred.	
Describe who owns the property that was damaged.	

Pictures of Incident		

Name of Investigator		Company Name	
Signature		Date	

Incident Witness Statement Form

Date of Incident		Time of Incident	
Company Name		Location	
Site Supervisor		Phone #	

Witness Name and Contact Information		Employer's Name and Address	
Supervisor Name		Phone #	
Describe the Incident.			
Immediately before the incident, what did you see? Did you notice anyone doing anything wrong? Did you warn them? Where were you at? How far away? What did you see?			

Incident Witness Statement Form

During the incident, what did you see?	
Immediately after the incident, what did you see?	
Have you spoken with anyone else concerning this incident?	
Additional Comments	

Witness Signature		Date	
Name of Investigator		Company Name	
Signature		Date	

Non-Injury Near Miss Investigation Report

Date of Incident		Time of Incident	
Company Name		Location	
Site Supervisor		Phone #	

Names and contact information for individuals involved in Incident		Names and contract information for Witness' to this Incident	
Individuals taken for Drug/Alcohol Testing		Company names of individuals taken for Drug/ Alcohol Testing	
Task and Activity at time of the Incident	General Task		Supervision at time of Incident: □ Directly Supervised □ Indirectly Supervised □ Not Supervised □ Supervision not feasible
	Specific Activity		
	Employee working	□ Alone □ With fellow co-worker(s)	
Specific location of Incident		Weather conditions at time of the Incident	

Describe how the Incident occurred		
Incident Sequence (Describe in reverse order of occurrence events preceding the incident. Starting with the injury and moving backward in time, reconstruct the sequence of events that led to the incident.)	Incident Event	
	Preceding Event #1	
	Preceding Event #2	
	Preceding Event #3	
Causal Factors (Events and conditions that contributed to the incident. Be sure and describe in detail if the proper safety equipment was being used and if it was used correctly.)		
Corrective Actions (Those that have been, or will be, taken to prevent recurrence.)		

Pictures of Incident		

Name of Investigator		Company Name	
Signature		Date	

SAFETY INSPECTION CHECKLIST

Date/Time: _____ Inspector Name: _____

Describe activity taking place at time of inspection (includes trades on site): _____

_____

_____

CATEGORY	MEETS REQUIREMENTS			HAZARD DESCRIPTION	HOW ABATED?	DATE ABATED
	YES	NO	N/A			
PPE						
Fall Protection						
Guardrails / Handrails						
Scaffolding						
Stairways						
Ladders						
Electrical						
Excavation/Trenching						
Heat Illness Prevention						
Crane/Rigging/Signaling						
Equipment						
Tools						
Confined Space						
Access / Egress						
Housekeeping						
Impalement Protection						
Fire Protection						
Traffic						
Haz Com						
Lock Out / Tag Out						
Other:						

Additional Comments/Recommendations: _____

_____

_____

Inspector Signature: _____

AN UNPROTECTED TRENCH IS AN EARLY GRAVE

Make sure that trenches are protected from cave-ins by:

Sloping or benching trench walls, or

Shoring trench walls with supports, or

Shielding trench walls with trench boxes.

Photo courtesy of Speed Shore Corp.

Inspect trenches at the start of each shift and as needed, throughout the workday.

Provide safe entry and exit through the use of ladders, ramps or stairways.

Know where underground utilities are located before digging.

Keep all equipment, materials and spoil piles at least 2 feet back from trench edges.

U.S. Department of Labor

For assistance, contact us. We are OSHA. We can help. It's confidential.

1-800-321-OSHA (6742)
TTY 877-889-5627
www.osha.gov

OSHA®
Occupational Safety and Health Administration

OSHA 3215-08R-11

UNA ZANJA SIN PROTECCIÓN ES COMO LA TUMBA PARA UNA MUERTE PREMATURA

Asegúrese de que las zanjas tengan protección contra derrumbes:

Angulo de Inclinación o excavación escalonada en las paredes de las zanjas, o

Apuntalando las paredes de la zanja con soportes, o

Sistema protector para las paredes de las zanjas con cajas de trinchera.

La foto es cortesía de Speed Shore Corp.

Inspeccione las zanjas al comienzo de cada turno y cada vez que sea necesario a lo largo del día de trabajo.

Proporcione una entrada y salida segura usando escaleras, rampas o escalones.

Sepa donde están localizadas las utilidades soterradas antes de cavar.

Mantenga todos los equipos, materiales y material excavado a por lo menos 2 pies de distancia desde la orilla de la zanja.

Departamento de Trabajo de los EE. UU.

Para recibir ayuda, comuníquese con nosotros. Somos OSHA. Podemos ayudarle. Es confidencial.

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Administración de Seguridad y Salud Ocupacional

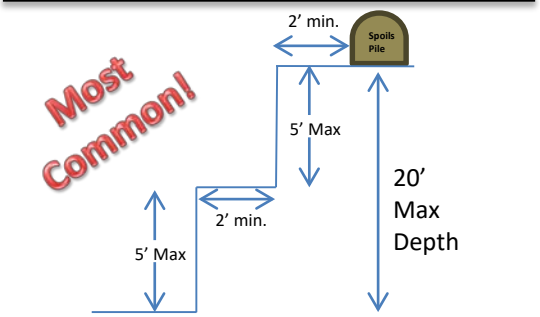
OSHA 3255-08R-11

Residential Excavation Safety "Cheat Sheet"

This "Cheat Sheet" is for Residential Foundation Excavations only. This is based on an OSHA Memo dated June 30, 1995. This allows the diagrams shown to the right to be used for residential foundation excavations. If those cannot be attained, the 3 options below can be used as detailed in CFR 1926 Subpart P. These are not the only options, just the most common. Refer to Subpart P for more info.

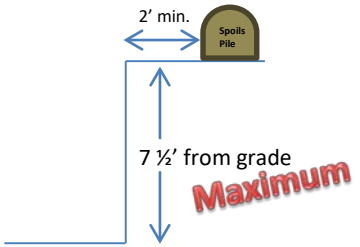
"Stanley Memo"

'A' or 'B' Soil Type over 7 ½' from Grade (Benching)



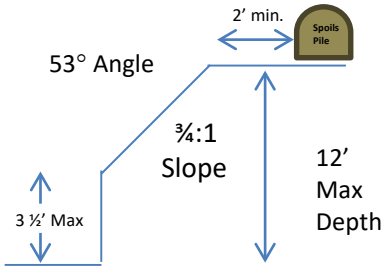
"Stanley Memo"

Residential Foundation Excavation Only

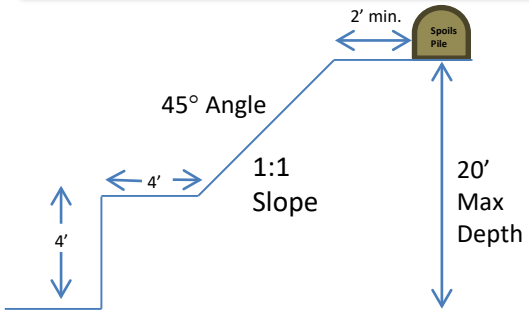


-only 'A' or 'B' Type Soil
-No Fissures / Cracks & No Moisture

'A' Soil Type—over 7 ½' from Grade (Sloping)

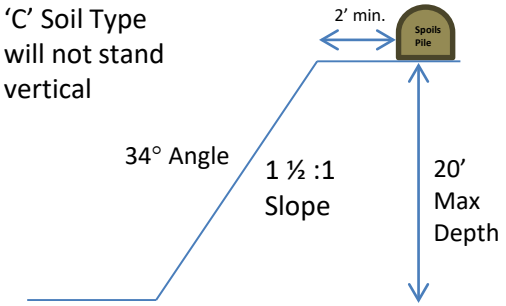


'B' Soil Type—over 7 ½' from Grade (Single Bench/Slope)



'C' Soil Type

'C' Soil Type will not stand vertical



Excavations 20' deep and greater:

Cave-In Protection must be designed by a Registered Professional Engineer.

Other Types of Cave-In Protection:

- **Timber Shoring***
- **Shot-Crete***
- **Shoring Piers(Caisson) ***
- **Sheet Pile Shoring***

***All must be engineered systems**

If you are unsure, call for help: SFI Compliance, Inc.

Toll Free: 800-727-5051
Colorado: 303-649-1304
Texas: 214-646-1496
Washington DC: 202-417-3923

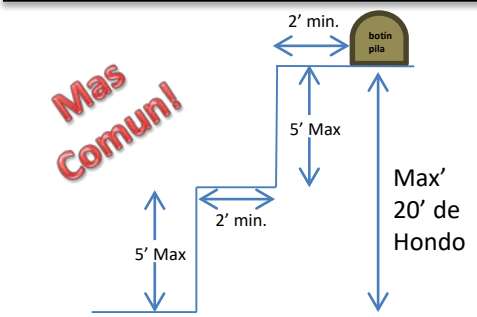
www.sficompliance.com

“Hoja de Ayunda” de Seguiridad para la Excavación Residencial

Esta "hoja de ayunda" es para los Cimientos de Excavaciónes Residenciales. Esto se basa en un Memo OSHA de fecha 30 de junio de 1995. Esto permite que los diagramas que aparecen a la derecha se utilicen para los cimientos de excavación residencial. Si esos no se puede realizar, las 3 opciones siguientes se pueden utilizar como se detalla en la Subparte P del CFR 1926. Estas no son las únicas opciones, sólo los más comunes. Consulte la Subparte P, para más información.

“Stanley Memo”

Tierra tipo ‘A’ or ‘B’ unicamente
Arriba de 7 ½’ del terreno (Escalon)

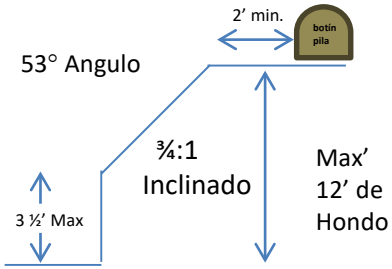


“Stanley Memo”

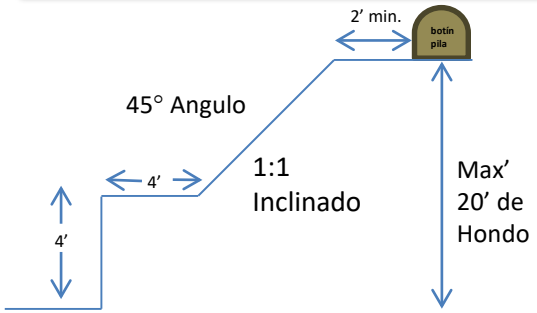
Excavaciones solo en Cimientos Residenciales

-Tierra tipo ‘A’ or ‘B’ Solamente-
-No Greitas / Partiduras & No Humedad

Tierra tipo ‘A’—arriaba de 7 ½’ pies del terreno (Inclinado)

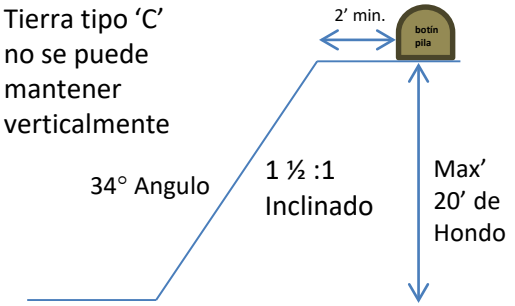


Tierra Tipo ‘B’—arriba de 7 ½’ pies del Terreno (Escalon /Inclinado)



Tierra tipo ‘C’

Tierra tipo ‘C’ no se puede mantener verticalmente



Excavaciones de 20’ pies o mas de hondo:

Proteccion contra derrumbes debe ser desiñado por un Ingeneiro Profesional Registrado.

Otros tipos proteccion en el barranco:

- Soportes de Madera *
- Rocío de Cemento *
- Columnas de Concreto *
- Hojas de Madera*

*Deven ser de sistemas de ingeniria

Si no esta seguro pida ayuda: SFI Compliance, Inc.

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