PetraBee
SAFETY PROGRAM

Updated: 01/04/2021

Jsedbrook@petrabeeconstruction.com

PETRABEE CONSTRUCTION 5856 S Lowell Blvd, Unit 32-410 Littleton, CO 80123

PetraBee construction

PetraBee Safety Program

Safety Director – Jimmy Sedbrook

PetraBee construction

[PetraBee Construction]
5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
720-957-8631

CORPORATE SAFETY POLICY

It is the policy of our organization to provide all of our employees a safe and healthful work environment. We know that our employees are our greatest resource and we will strive to prevent any possible injury or illness while our employees are working with us.

We believe that most accidents and injuries are preventable, and it should be clear that the responsibility for safety lies within all levels of employees at **[PetraBee Construction]**. We all need to work together to accomplish our goal of zero injuries. Therefore, safety rules and procedures shall be followed, and all hazardous conditions must be reported to management.

Our organization's safety manager is Jimmy Sedbrook. Please bring your safety and health concerns to our attention.

CEO

Maksim Avseev

Date

12/09/2021

PetraBee construction

[PetraBee Construction]
5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
720-957-8631

SAFETY COORDINATOR OBJECTIVES

James DiLucchio is the designated safety coordinator for **PetraBee Construction** and is the primary contact for safety-related matters. All employees will receive an orientation on this company's safety rules upon initial employment and are encouraged to bring to the attention of their supervisor any unsafe conditions or practices. Supervisors will communicate these concerns to the safety coordinator, who will respond to concerns within 24 hours.

The primary goals of the safety coordinator will be to:

- Oversee implementation of the organization's safety program.
- Annually review the organization's safety policy and safety rules.
- Maintain accurate records and annually report the results of workplace accident and injury trend analysis.
- Recommend actions to reduce the frequency and severity of accidents and illnesses.
- Integrate safety into the day-to-day activities of all employees.
- Coordinate the new employee orientation and safety training programs.
- Assist the organization in compliance with government standards concerning safety and health.
- Assist supervisors with accident investigation.
- Identify unsafe conditions and practices and determine remedies.
- Discuss with and make recommendations to management on matters pertaining to safety.

Safety Coordinator Date

James Sedlmeier 12-9-2020

PetraBee Construction

5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
303-997-7159

GENERAL SAFETY RULES

These general safety rules are designed to provide you with an understanding of the recognized and established safe practices and procedures that apply to many of the work situations you may encounter while employed at this organization. It would be impossible to cover every work situation. If you are in doubt about the safety of any condition, practice, or procedure, please be sure to consult your supervisor for guidance.

1. **ACCIDENT REPORTING:** Report all accidents or near misses to your supervisor as soon as it is safe to do so, either immediately or before the end of your shift. Falsification of company records, including safety documentation, will not be tolerated.
2. **HAZARD REPORTING:** Employees are responsible for notifying a supervisor immediately of any unsafe condition and/or practice.
3. **ALCOHOL OR ILLEGAL DRUGS:** No illegal drugs or alcohol will be allowed on the worksite. Employees should notify their supervisor of any prescription drugs that might affect their judgment.
4. **SEAT BELTS:** All employees who drive or ride in company vehicles or are on company business and drive their own vehicles must wear seat belts.
5. **HORSEPLAY:** Wrestling, running, pushing, throwing any item in play or other disorderly conduct is forbidden while on the job.
6. **MACHINERY:** Report broken or malfunctioning equipment to your supervisor immediately. Only trained, authorized employees are permitted to service or repair equipment and then only after deactivating all energy sources and locking out equipment. Only authorized machinery with all required guards will be used. If you are not familiar with the safety operation of a piece of machinery, ask your supervisor for instruction.
7. **HAZARDOUS MATERIALS:** Follow proper use and handling procedures for all hazardous materials. Do not use a chemical if you are not familiar with the hazardous properties or have not received and been trained on the required protective equipment.
8. **HOUSEKEEPING:** All employees are required to keep their work area clear of debris or other tripping or slipping hazards. All debris must be disposed of properly in designated areas.
9. **PERSONAL PROTECTIVE EQUIPMENT:** Employees must practice proper use, care and storage of personal protective equipment.
10. **SIGNS/LABELS:** Pay attention to all signs and labels. They are present as reminders for safety.
11. **DRINKING WATER:** Always drink from regular water fountains or approved water coolers. Water from any other source may be unsafe to drink.
12. **HYGIENE:** It is each employee's responsibility to maintain personal hygiene particularly when working with hazardous chemicals. Eat or smoke only in designated areas, and always wash your hands before eating/smoking.
13. **CONCENTRATE:** Most accidents can be avoided by concentrating on the job to be done. Always be aware of your surroundings and what is going on around you. Safety is a full-time job.

DATE POSTED: 12/09/2020

PetraBee construction

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Employee Signature_____Date _____

PetraBee construction

New Employee
Safety Orientation Review

Employee Name: _____ **Date of Review:** _____

Job Title: _____ **Supervisor Name:** _____

Supervisor Instructions: Check all boxes that apply. Review the duty requirements of the new employee and select safety topics that the employee must be trained on.

Safety Topics					
Accident Reporting		Fire Extinguisher		Lockout-Tagout Awareness	
Back Safety		First Aid kit		Machine Guarding	
Bloodborne Pathogens		Forklift Safety Awareness		New Products Safety	
Burn Safety		Fire Prevention		OSHA Record Keeping	
Chemical Safety		Flammable/Combustible Liquids		Personal Protective Equip.	
Compressed Gas Safety		Food/Drink Consumption		Respiratory Protection	
Confined Spaces		Hand and Power Tool Safety		Restricted Access	
Crane and Sling Safety		Hazard Markings		Slips, Trips, and Falls	
Disciplinary Actions for Unsafe Acts		Hazard Signage		Smoking Restrictions	
Electrical Safety		Hazard Communication		Spill Prevention Control	
Emergency Action Plan		Hearing Conservation		Violent Acts	
Eye and Face Protection		Heat Stress Issues		Waste Disposal Procedures	
Equipment Safety		Housekeeping Requirements		Weather Preparedness	
Fall Protection		Job Hazard Analysis Awareness			

Remarks: _____

_____

_____

_____

New Employee Name (Print) _____

*Signature*_____ *Date*_____

*Supervisor Name (Print)*_____

*Signature*_____ *Date* _____

PetraBee Construction
5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
303-997-7159

NEW/TRANSFER EMPLOYEE ORIENTATION CHECKLIST

Employee Name: _____ **Employee #:** _____

Date of Hire: _____ **Supervisor:** _____

The new/transfer employee and his/her supervisor must initial the following items.

		Supervisor	Employee
1.	I have read and/or someone has explained to me the safety rules for the organization and any specific rules for the jobsite.		
2.	I have been shown where the jobsite facilities are i.e., drinking water, and restroom.		
3.	I know where the first aid station is and where first aid kits are located.		
4.	I am familiar with the location of hazards on the jobsite and what areas to avoid.		
5.	I have received instruction on the use of fire extinguishers and their location.		
6.	I understand I must report all injuries to my supervisor immediately and/or any other claims management procedures.		
7.	I am familiar with my job assignment and any tasks I am expected to perform.		
8.	I understand what HAZCOM is and the location of the MSDS file.		
9.	The company disciplinary policies have been explained to me.		
10.	I have been issued the following equipment (initial if issued)		
	Hard Hat		
	Safety Glasses		
	Fall Protection Harness		
	Hearing Protection		
	Respirator		
11.	I have read and signed the Designated Medical Provider form.		
12.	The evacuation plan exit routes and the outside meeting point for employees have been explained to me.		

EMPLOYEE SIGNATURE: _____ **DATE:** _____

SUPERVISOR SIGNATURE: _____ **DATE:** _____

Form S.03 – New/Transfer Employee Project

Orientation Checklist

PetraBee Construction
5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
303-997-7159

DESIGNATED PROVIDER NOTIFICATION - POSTING

CONCENTRA MEDICAL CENTERS--CO-TECH CENTER 11877 E ARAPAHOE ROAD STE 100 CENTENNIAL, CO 80112 303-792-7368	**CONCENTRA MEDICAL CENTERS--CO-LAKEWOOD** 11185 W 6TH AVE LAKEWOOD, CO 80215 303-239-6060
CONCENTRA MEDICAL CENTERS--CO-ROCKRIMMON 5320 MARK DABLING BLVD STE 100 COLORADO SPRINGS, CO 80918 719-592-1584	**HIGH COUNTRY OCCUPATIONAL & TRAVEL MEDICINE LLC** 9800 PYRAMID CT STE 400 ENGLEWOOD, CO 80112 303-256-5719

To: All Employees
From: Management
Subject: Designated medical providers for work-related injuries and/or illnesses effective immediately.

In the event of a non-emergency, after-hours injury, contact one of the providers at the non-emergency numbers listed above.

In the event of a life- or limb-threatening emergency, seek attention at the nearest emergency medical facility. However, one of the medical providers designated above **must** provide all follow-up care.

If an unauthorized medical provider treats an employee, the employee will be responsible for payment of said treatment.

All employees must sign below, acknowledging this company policy.
I have read and am fully aware of the organization's policy regarding medical treatment for work-related injuries and/or illnesses. I further understand that I must immediately report any work-related injury and/or illness to my supervisor.

Posted: 12/09/2020

Form S.04 - Designated Provider Notification

PetraBee Construction

5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
303-997-7159

DESIGNATED PROVIDER NOTIFICATION - POSTING

CONCENTRA MEDICAL CENTERS--CO-TECH CENTER 11877 E ARAPAHOE ROAD STE 100 CENTENNIAL, CO 80112 303-792-7368	**CONCENTRA MEDICAL CENTERS--CO-LAKEWOOD** 11185 W 6TH AVE LAKEWOOD, CO 80215 303-239-6060
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If an unauthorized medical provider treats an employee, the employee will be responsible for payment of said treatment.

All employees must sign below, acknowledging this company policy.
I have read and am fully aware of the organization's policy regarding medical treatment for work-related injuries and/or illnesses. I further understand that I must immediately report any work-related injury and/or illness to my supervisor.

Employee Signature:_____ **Date:**_____

PetraBee Construction
5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
303-997-7159

MODIFIED DUTY PROCEDURES

If an employee sustains an on-the-job injury/illness and the employee is unable to perform their pre-injury/illness job functions, we will institute a modified duty assignment for the employee. The following is a description of the procedures for implementing a modified duty assignment:

- The employee shall be directed to our Designated Medical Providers for assessment and treatment.
- The designated provider will determine if any restrictions shall be placed on the employee.
- The medical restrictions will be evaluated by management, which will determine if the employee can return to their regular job duties.
- If the employee is unable to return to normal job duties, management will determine if the employee's position can be temporarily modified to accommodate the restrictions.
- If the job cannot be modified, the management will evaluate other tasks or positions the employee may be able to perform until the medical restrictions are lifted.
- If an employee declines any modified job duty offer, all applicable Rule VI paperwork shall be completed.

After each doctor's appointment, the modified duty assignment shall be evaluated to accommodate any changes in restrictions as determined by the Designated Medical Provider.

Form S.05 – Certified Job-Offer Letter

PetraBee Construction

5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
303-997-7159

Certified Job-Offer Letter

Date:_____

Name of Employee:_____

Employee Address: _____

Claim #: _____

Date of Injury: _____

Certified Mail
Return Receipt Requested

Certified Mail # _____

Dear Employee:

Your treating physician, Dr. _____, has released you to modified work. We have identified a temporary position for you, which your physician states you will be able to perform. Please refer to the attached job task list

The job is:_____. You will receive $_____per (hour/week/month).

This modified duty job will begin at_____ on _____.

Please report for work on this date and time.
Time:_____Date:_____

Your work schedule is as follows:

Hours/day and days per week: _____Time: _____

Modified duty supervisor: _____Phone: _____

Work site location: _____

Employee Signature/Date:_____

Employer Signature/Date:_____

Enc.: Signed copy of Letter to Treating Provider with signature dated: _____
Cc: Pinnacol Assurance
Cc: Attorney, if appropriate

PetraBee construction

CLAIMS MANAGEMENT GUIDE

1. All employees should be provided with an explanation of the workers' compensation system and the benefits it will provide.

2. In the event of a work-related injury or illness, the injured employee must report it to their immediate supervisor or the safety coordinator before the end of the work shift.

3. If the injured employee needs immediate medical attention, they should be transported by emergency vehicle or, if unavailable, driven to the nearest appropriate hospital or clinic.

4. If the injury is not an emergency, an appointment will be made with one of the designated medical providers as soon as possible.

5. A formal accident investigation will be conducted following all work-related injuries. The supervisor or safety coordinator will be responsible for interviewing the injured employee and all witnesses. The safety coordinator will use the information from the accident investigation to identify changes that may help prevent future incidents.

6. The safety/claims coordinator will report the claim by Internet (www.pinnacol.com), phone (800) 873-7242, or fax (800) 361-5000 to Pinnacol Assurance within 24 hours of the accident.

7. If the injury is fatal, results in hospitalization, amputation and/or the loss of an eye, contact your insurance advisor immediately. OSHA may be notified by calling 1-800-321-6742 24 hours/day

8. The safety/claims coordinator will use information from the accident investigation to identify changes that may help prevent future incidents.

9. For lost time claims, the supervisor will contact the injured employee at least once a week to answer questions, keep the injured employee informed on organization activities, and discuss return to work options.

10. The safety/claims coordinator will contact the chosen medical provider after each appointment to keep current on the employees work status, medical progress, and to ensure that appointments are being kept.

The employee's supervisor who will determine if the employee can return to their regular job duties will evaluate the medical restrictions.

PetraBee Construction
5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
303-997-7159

INCIDENT AND/OR ACCIDENT INVESTIGATION

General Information:

Injured Employee: _____ **Position:**_____

Date of Injury:_____ **Location:** _____

Time:_____ **Witnesses:** _____

Time Work Began: _____**Last Day Worked:** _____

Incident and/or Accident Details:

Employee Description of Incident:

Supervisor Description of Incident:

Root Cause:

Recommendations:

Supervisor signature: _____
Department: _____
Date:_____

PetraBee Construction
Quality Control Plan - (Sample)

1. Person responsible of Quality in the field.

a. Superintendent – TBD

2. Organizational Chart.

a. Owner – Max V. Avseev
b. Director of Operations– James DiLucchio
c. Safety Director – Jimmy Sedbrook
d. Project Manager – TBD
e. Superintendent –TBD
f. Foreman – TBD

3. Materials Submitted.

a. The Materials submitted for this project are in accordance with the Technical Specification for masonry and stucco systems. For every type of material used documentation is submitted with specific product data and SDS Submittals.

4. Communicating with Engineer on Record.

a. Will not be communicating directly with engineer of record, all communication will go thru the General Contractor.

5. Documentation changes reaching field and incorporated into the work.

a. Superintendent on-site is also copied on all emails and notifications from the General Contractor.

6. Process for ensuring and documenting that work is installed per the contract documents and industry standards.

a. Superintendent and foreman on-site has reviewed all documents and will be inspecting all work completed on-site.

7. Process for ensuring that existing work completed by other contractors is not damage during installation of our work.

a. Superintendent and foreman will be present for all processes and will ensure protection of all other trades work in place.

PetraBee construction

JOB HAZARD ANALYSIS

(Sample)

REQUIRED PPE (HARD HAT, SAFETY VEST or Outer WEAR, SAFETY GLASSES, GLOVES AND WORK BOOTS) TO BE WORN AT ALL TIMES. ALL WORKERS TO TAKE PART IN MORNING STRETCH AND BEND.

Task/Activity	Hazards	Preventative Measures
Medical Emergency's	On the Job Injury	Critical Injury, Call 911
		All other injuries, contact supervisor and fill out First Report of Injury Form.
	Medical Care Post injury drug screens	Concentra - Urgent Care Address: 620 S Lemay Ave, Fort Collins, CO 80524 Phone: 970-221-5811 M-F 7am - 7 pm, S 9am-1pm
	Accident Investigation	Supervisor must fill out a first report of injury on all injuries.
Management Team	Not able to contact competent person.	PetraBee Construction - 303-997-7159
		Director of Operations - James DiLucchio - 303-957-8631
		Safety Director - Jimmy Sedbrook - 720-975-4908
		Project Manager - Fernando Zamora - 720-415-9549
		Superintendent -Ivan Toquinto - 720-827-4068
		Foreman - Melchor Armendariz - 720-219-1467
Drive Time	Traffic Road Rage	Be a defensive driver always, the driver is responsible that all passengers are using seatbelts.
	Vehicle catches on fire	Fire extinguishers in vehicles and forklifts
	Commuting to Job Site	All drivers must read and sign off on PetraBee's driver policy. Vehicle inspections must be performed each day and turned into PetraBee Construction.
		Seat belts must be worn while in travel
		Make sure all employees are wearing seat belts, and vehicle is in proper working order.
Training	Inability to recognize hazards in your working area or job site.	Competent person on site at all times.
		Weekly safety meetings must be conducted with each employee on site.
		Tool box talks, Safety Observations, and Daily Huddles.
Haz-Com	Employee exposure to chemicals	Safety Data Sheets (SDS) kept in GC job site office or in PetraBee job box, Conex or foremen's truck. All employee must be aware of SDS locations.
		Training done during weekly safety meetings
Proper PPE	Daily Required PPE	All employees will wear hard hat, safety glasses, boots, and proper clothing, as well as safety vest with PetraBee's logo.
Safety meetings	Toolbox talks	Need to be performed every Monday, copy of signed form to be given to General Contractor.
	Daily huddles	Use the daily huddles to discuss potential hazards of each day.

Task/Activity	Hazards	Preventative Measures
Housekeeping	Trips and Falls	Debris needs to be removed from scaffold platforms. Removed from the ladder area of scaffolding and underneath and around scaffolding. All work areas cleaned before the end of work day.
	Dumpsters	Maintain access around dumpsters for pick up.
	Site storage	Use area provided for site storage area for materials and equipment.
		Use caution when driving Forklift/Skid steer in storage area.
		Lined washout area set up in storage area.
Mixing Stations	Enclosed with plastic carbon monoxide poisoning	Cross ventilation on all sides of the mixing station.
		Hang a carbon monoxide detector(s) in each station.
		Must follow all Storm water management guidelines.
	Silica	Must follow Table 1.
Ladders	Fall, slip hazard	Instruct on proper set-up Ladder tied-off at top Proper angle 1:4 3 point contact while climbing
Scaffolding - Frame and Brace	Falls, falling objects, pinch points and improper build	Erect scaffold per Competent Person, OSHA standard 1926 sub part L-scaffold and manufacturer recommendation. Competent Person to perform daily inspection. Fall protection required when guardrails removed or over 6'. Ensure proper access. Do not point load scaffold. CAZ
CMU Install	Hand and eye injuries, back strains	Use proper lifting techniques (adjust scaffold so material is elevated to avoid bending). Load scaffold with electric pallet jack or forklift - interior and forlift or crane - exterior. Do not point load scaffold.
Cutting CMU	Hand and eye injuries, silica exposure and hazardous noise	Saw guards in place and in working condition. Use Silent Core blade. Use face shield when cutting (voluntary N-95 two string filtering face piece and ear plugs available if needed). All cuts are wet (if dry cut is necessary, use vacuum dust collection).
Cutting Rebar	Hand and eye injuries, impalement	Use electric/hydraulic cutter. Keep fingers away from cutter jaws. Cap all rebar.
Mixing Mortar	Hand and eye injuries, pinch points and silica exposure	Mixing station located outside. Mixer cover/grate and engine guard must be attached, working and down when mixing (voluntary N-95 two string filtering face piece and ear plugs available if needed). Industrial Hygiene reports available upon request.
Grout	Hand and eye injuries, back strains	Mixer - Mixing station located outside. Mixer cover/grate and engine guard must be attached, working and down when mixing (voluntary N-95 two string filtering face piece and ear plugs available if needed). Industrial Hygiene reports available upon request. Grout Pump - Use proper lifting techniques (handling hose). Pump cover/grate and engine guard must be attached. Hose clamps secure.
Brick Install	Hand and eye injuries, back strains	Use proper lifting techniques (adjust scaffold so material is elevated to avoid bending, when needed lift with legs not back). Use hoisting equipment when needed. Do not point load scaffold. CAZ

Task/Activity	Hazards	Preventative Measures
Cutting Brick	Hand and eye injuries, silica exposure	Saw guards in place and in working condition. Use Silent Core blade. Use face shield when cutting (voluntary N-95 two string filtering face piece and ear plugs available if needed). All cuts are wet (if dry cut is necessary, use vacuum dust collection).
Forklift	Property damage, personal injury and dropped loads	Proper training/certification. Perform daily inspection. When is use; wear seat belt, lights on at all times, keep loads close to ground (when moving), no personnel under loads and do not leave seat when load is in air.
	Equipment	Daily inspection of the forklift
	Pedestrians	Use caution when driving on public roads and/or around bike paths.

Employee Names of Training

Name	Signature

Competent Person Letter – (Sample)

(Date)

General Contractor
(Address)
(Address)

Job Name:

To Whom It May Concern:

PetraBee Construction has a written health and safety action program in place and all company employees working on this project have been trained in accordance with OSHA Standards for the Construction industry (29 CFR–Part 1926).
PetraBee Construction has designated these employees as competent persons and after hour emergency contacts for the (Job Name) job site.

- James DiLucchio – Director of Operations (303) 957-8631
- Fernando Zamora - Project Manager (720) 415-9549
- Ivan Toquinto - Site Superintendent (720) 827-4068
- Melchor Armendariz – Foreman (720) 219-1467

These employees have been by way of training and experience, are knowledgeable of applicable OSHA standards. They can identify workplace hazards relating to the specific operation and have authority to stop work and take corrective action.

Please feel free to call me at any time if you have any questions or concerns regarding safety on your job site 720-975-4908.

Jimmy Sedbrook,

Jimmy Sedbrook
Safety Director
PetraBee Construction

PetraBee Construction Emergency Response Contact Numbers (Sample)

PetraBee Construction - **303-997-7159**
Safety Director - Jimmy Sedbrook: **720-975-4908**
Director of Operations - James DiLucchio: **303-957-8631**
Project Manager - Fernando Zamora: **720-415-9549**
Superintendent - Ivan Toquinto: **720-827-4068**
Foreman - Melchor Armenariz: **720-219-1467**
Emergency: **911**

Concentra - Urgent Care

Downtown Denver
1730 Blake Street Ste. 100
Denver, CO 80202
Mon - Fri: 8:00 am - 6:00 pm
Phone: (303) 296-2273
Web Address: Concentra.com

Daily Report

PetraBee construction

Job Name: _____ Job # _____

Contractor: _____ Date: _____

Prepared by: _____ Report # _____

Weather: ☐ Sunny ☐ Fair ☐ Cloudy ☐ Rain _____ inches ☐ Snow _____ inches

Max. Wind: _____ mph Max/Min Temp. deg F/ _____ deg F/ _____

DAILY ACTIVITIES WITH LOCATION	SHIFT START _____ STOP _____	Shipments Received
1		1
2		2
3		3
4		4
5		5
6		6
7		7

Work Delayed and Reason	Equipment on Site	
	Description	Number
Rework and Reason		
Potential Future Delays	**Materials Needed**	**Quantity**
Problems and Unusual Conditions		
Direction Received BY: Company:	**Tools/Equipment Needed**	**Quantity**
Safety Issues		

CERTIFIED BY:

PetraBee Construction Representative: _____ Signature: _____

Contractor Representative: _____ Signature: _____

April 16, 2020

PetraBee Construction
8000 S. Lincoln Street
Littleton, CO 80122

Subject: **PetraBee – Protocols for COVID-19**

PetraBee Employees and Subcontractors,

This letter is in response to the COVID-19 (Coronavirus) Pandemic. While operating within the current CDC guidelines, Government directives, and Executive Order D 2020 017 issued by the State of Colorado PetraBee Construction will continue operations. Every project will be individually reviewed with the Competent Person on-site. PetraBee Construction will continue to educate employees and implementing "Best Practices" on how to protect themselves and reduce the spread of COVID-19.

In an effort to maintain health and well-being of the entire project teams, PetraBee Construction is requiring cooperation with the jobsites specific guidelines and the Multi-Industry Construction Guidance (Attached) issued by the State of Colorado to minimize exposure and risk from the ongoing pandemic known as COVID-19 or Coronavirus. Healthy personal hygiene practices, such as handwashing, social distancing, and staying home when sick, are some of the most important steps to prevent the spread of infectious diseases like the flu and COVID-19. Maintaining a healthy work site is just as important.

If you have any questions or need more information, please contact one of the following:

Operations Manager**: James DiLucchio – 720-810-2801**
General Manager: **Max Avseev – 720-320-0297**

Respectfully,

Max V. Avseev
Max V. Avseev
General Manager
PetraBee Construction

8000 S. Lincoln Street, Suite 208, Littleton, CO 80122
Phone: 720-320-0297 Office: 303-997-7159 E-mail: max@petrabeeconstruction.com

March 26, 2020

PetraBee Construction
8000 S. Lincoln Street
Littleton, CO 80122

Subject: **Critical Business Letter**

PetraBee Employees and Subcontractors,

This letter is in response to the Executive Order D 2020 017 issued by the State of Colorado. The construction industry in considered essential and qualifies as "Critical Business" under Public Health Order 20-24. While operating within the current CDC guidelines and Government directives, PetraBee Construction will continue operations. All of PetraBee Construction jobsites are open and operating. Employees and subcontractors working for PetraBee Construction will continue operating to keep projects on schedule.

In an effort to maintain health and well-being of the entire project teams, PetraBee Construction is requesting cooperation with the jobsites specific guidelines to minimize exposure and risk from the ongoing pandemic known as COVID-19 or Coronavirus. Healthy personal hygiene practices, such as handwashing, social distancing, and staying home when sick, are some of the most important steps to prevent the spread of infectious diseases like the flu and COVID-19. Maintaining a healthy work site is just as important.

If you have any questions or need more information, please contact one of the following:

Operations Manager**: James DiLucchio – 720-810-2801**
General Manager: **Max Avseev – 720-320-0297**

Respectfully,

Max V. Avseev

Max V. Avseev

General Manager
PetraBee Construction

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Coronavirus Disease 2019

COVID-19

MULTI-INDUSTRY CONSTRUCTION GUIDANCE

Introduction

Due to the unique issues related to supply chain, financing, contract deadlines, and public need, construction may continue under Governor Polis' stay-at-home order as long as Social Distancing Requirements are followed on construction worksites. This is intended to allow for continuity of operations on critical infrastructure such as roads, rails, airports, housing (especially low-income housing), energy infrastructure and water infrastructure. However, as is reinforced by this guidance, construction projects and companies in their supply chain are **Not Exempt** from social distancing requirements, even if compliance means added cost. Hygiene protocols are **strictly required.** Moreover, people who are sick or at high risk of severe illness from COVID-19 **must not travel to work, even if they work for a Critical Business.** The state also urges any small scale construction projects (e.g. home renovations) to be reasonably deferred without penalty. For large scale and public investment, projects should be evaluated on a case by case basis, in light of the guidance below, related to the stay-at-home order.

Social distancing on construction worksites

Critical functions including construction work **MUST** comply with social distancing requirements. The following practices are important for applying social distancing to a construction worksite setting:

- **Reduce size of work crews:** Teams should reduce the number of people in each work crew to the minimum number of people possible to perform the task safely, even if the reduction of crew size means the job takes longer.
- **Minimize interaction between work teams:** Even groups within the same project should avoid interaction across groups, to minimize possible viral spread if one worker contracts COVID-19. Approaches to avoiding contact between groups may include staggered shifts, compressed work weeks where different teams work different days, and maximizing geographic distance between different teams working on the same project.
- **Avoid contact with visitors:** Visitors outside the typical work crew should avoid interaction with the team wherever possible. For example, if an inspector or materials delivery needs to enter the site, they should alert the work team (e.g. by honking the horn of their vehicle twice or through another established communication means) so that the work team can vacate the site while the external parties are present.
- **Maintain a 6 foot distance between employees wherever possible:** Construction teams should make every effort to limit activities that cannot be performed within 6 feet of distance between

workers. However, some core construction activities may require some proximity to complete (e.g., concrete pours, utility potholing, work in cranes, drainage pipe construction, among others). In these cases, construction crews must employ other aggressive measures to limit contact. Examples include requiring employees to face away from each other, the use of supplemental Personal Protection Equipment (PPE) like face shields or respirators, minimizing the number of people on a team, and retaining consistency within work teams to limit contact with parties external to that team.

- **Office work should be done remotely, whenever possible:** Office functions associated with a project (e.g. accounting or records) should be done from home to the maximum extent practicable.

- **In-person meetings should be avoided**: Office meetings and consultations should take place virtually, with participants working from home or their work truck, whenever possible. If an in-person meeting is absolutely necessary, that must be limited to fewer than ten people, and participants must maintain 6 foot distance at all times during the meetings. All surfaces should be wiped down before and after the meeting, and hand washing should also occur before and after the meeting.

- **Workers must not congregate during breaks:** Construction workers should not congregate for lunch or other breaks.

- **Activity specific work plans:** Contractors should consider all job activities and review how they can be accomplished using necessary social distancing and sanitation protocols.

Hygiene protocols

Strict hygiene protocols must be utilized with all equipment and surface areas that are commonly touched. Operators of light and heavy duty equipment, specifically, must:

- **Clean commonly touched surfaces before and after operation:** ***Cleaning:*** refers to the removal of germs, dirt, and impurities from surfaces. Cleaning does not kill germs, but by removing them, it lowers their numbers and the risk of spreading infection. Cleaning is typically performed using soap, detergents, cleansers and clean water before using a disinfecting method. Commonly touched surfaces, include but are not limited to: door handles and grab bars, instrument panels, steering wheels, devices such as cell phones;

- **Follow cleaning activities with an approved disinfectant:** refers to using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection. Disinfecting is typically performed using approved commercial or household disinfecting solutions. For a list of CDC-approved disinfectants against viruses (including COVID-19 virus), see: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

- **Use of personal protective equipment for hygiene and safety:** employees should wear all standard worksite personal protective equipment (PPE), especially eye protection and gloves, as well as other standard safety equipment (e.g. reflective vests or jackets). Face masks should be limited to specific activities for which they are typically needed, because of a national supply shortage. **PPE may not be shared between members of a work team.**

Monitoring employee health and avoiding travel for high risk personnel

- It is critical that individuals DO NOT report to work while they are experiencing illness symptoms including any of the following symptoms:such as; fever, cough, shortness of breath, sore throat, runny/stuffy nose, body aches, nausea, chills, or fatigue. If an employee does experience any of these symptoms, they will notify their foreman or supervisor immediately so that appropriate follow-up actions can be taken. A screening tool for employees can be found here.
- People at high risk of severe illness from COVID-19 are urged to stay in their **Residence at all times** except as necessary to seek medical care. People who are sick must stay in their Residence except as necessary to seek medical care and must not go to work, even at a **Critical Business**.
- **Any worker displaying possible COVID symptoms may not participate in construction work.**
- Employees should monitor their health at the beginning of each work day and are strongly encouraged to check their temperature at the start of the work day (although some COVID-19 cases do not experience a fever).
- Individuals should also seek medical attention if they develop these symptoms by first calling their primary care provider or urgent care center.
- A sick employee must not return to work until they have been asymptomatic for 72 hours. If an employee is diagnosed as positive for COVID-19, they should not return to work until a medical professional has provided written notice that it is safe to do so.

Focus on critical activities

- **Focus on activities that are truly critical:** Not all construction activities are of equal urgency. When considering whether a project is critical, please consider factors such as:
    - Whether the project is under construction already and thus requires active traffic management (in the case of a transportation project) or other work zone safety measures that benefit from ongoing activity;
    - Whether deferral of a start date on a project would undermine public safety or continuity of operations for critical infrastructure;
    - Whether the project can feasibly be done with social distancing measures as detailed above.
- **Encouraging deferral of non-essential work:** All project sponsors, public and private, are encouraged to provide flexibility to construction contractors to enable them to delay work during the period of the Governor's stay at home order. For small projects, especially residential projects such as home renovations, businesses and homeowners are strongly encouraged to provide construction contractors with flexibility to defer work until after the stay at home order is lifted.
- **Safe shutdown of work**:When a project or project phase must be shut down due to the pandemic, care should be taken that the project site is left in a safe condition. Traffic control devices must continue to be inspected and maintained, so it is a best practice to minimize their need and use when a project is temporarily inactive.

U.S. Department of Homeland Security
Cybersecurity & Infrastructure Security Agency
Office of the Director
Washington, DC 20528

March 28, 2020

ADVISORY MEMORANDUM ON IDENTIFICATION OF ESSENTIAL CRITICAL INFRASTRUCTURE WORKERS DURING COVID-19 RESPONSE

FROM: Christopher C. Krebs
Director
Cybersecurity and Infrastructure Security Agency (CISA)

As the Nation comes together to slow the spread of COVID-19, on March 16th the President issued updated Coronavirus Guidance for America that highlighted the importance of the critical infrastructure workforce.

The Cybersecurity and Infrastructure Security Agency (CISA) executes the Secretary of Homeland Security's authorities to secure critical infrastructure. Consistent with these authorities, CISA has developed, in collaboration with other federal agencies, State and local governments, and the private sector, an "Essential Critical Infrastructure Workforce" advisory list. This list is intended to help State, local, tribal and territorial officials as they work to protect their communities, while ensuring continuity of functions critical to public health and safety, as well as economic and national security. Decisions informed by this list should also take into consideration additional public health considerations based on the specific COVID-19-related concerns of particular jurisdictions.

This list is advisory in nature. It is not, nor should it be considered, a federal directive or standard. Additionally, this advisory list is not intended to be the exclusive list of critical infrastructure sectors, workers, and functions that should continue during the COVID-19 response across all jurisdictions. Individual jurisdictions should add or subtract essential workforce categories based on their own requirements and discretion.

The advisory list identifies workers who conduct a range of operations and services that are typically essential to continued critical infrastructure viability, including staffing operations centers, maintaining and repairing critical infrastructure, operating call centers, working construction, and performing operational functions, among others. It also includes workers who support crucial supply chains and enable functions for critical infrastructure. The industries they support represent, but are not limited to, medical and healthcare, telecommunications, information technology systems, defense, food and agriculture, transportation and logistics, energy, water and wastewater, law enforcement,

and public works.

State, local, tribal, and territorial governments are responsible for implementing and executing response activities, including decisions about access and reentry, in their communities, while the Federal Government is in a supporting role. Officials should use their own judgment in issuing implementation directives and guidance. Similarly, while adhering to relevant public health guidance, critical infrastructure owners and operators are expected to use their own judgement on issues of the prioritization of business processes and workforce allocation to best ensure continuity of the essential goods and services they support. All decisions should appropriately balance public safety, the health and safety of the workforce, and the continued delivery of essential critical infrastructure services and functions. While this advisory list is meant to help public officials and employers identify essential work functions, it allows for the reality that some workers engaged in activity determined to be essential may be unable to perform those functions because of health-related concerns.

CISA will continue to work with our partners in the critical infrastructure community to update this advisory list if necessary as the Nation's response to COVID-19 evolves.

Should you have questions about this list, please contact CISA at CISA.CAT@cisa.dhs.gov.

Attachment: "Guidance on the Essential Critical Infrastructure Workforce: Ensuring Community and National Resilience in COVID-19 Response Version 2.0"

Guidance on the Essential Critical Infrastructure Workforce: Ensuring Community and National Resilience in COVID-19 Response

Version 2.0 (March 28, 2020)

THE IMPORTANCE OF ESSENTIAL CRITICAL INFRASTRUCTURE WORKERS

Functioning critical infrastructure is imperative during the response to the COVID-19 emergency for both public health and safety as well as community well-being. Certain critical infrastructure industries have a special responsibility in these times to continue operations.

This advisory guidance and accompanying list are intended to support state, local, tribal, territorial and industry partners in identifying the critical infrastructure sectors and the essential workers needed to maintain the services and functions Americans depend on daily and that need to be able to operate resiliently during the COVID-19 pandemic response.

This document gives advisory guidance on defining essential critical infrastructure workers. Promoting the ability of such workers to continue to work during periods of community restriction, access management, social distancing, or closure orders/directives is crucial to community resilience and continuity of essential functions.

CISA will continually solicit and accept feedback on the list and will evolve the list in response to stakeholder feedback. We will also use our various stakeholder engagement mechanisms to work with partners on how they are using this list and share those lessons learned and best practices broadly. Feedback can be sent to CISA.CAT@CISA.DHS.GOV.

CONSIDERATIONS FOR GOVERNMENT AND BUSINESS

This list was developed in consultation with federal agency partners, industry experts, and State and local officials, and is based on several key principles:

1. Response efforts to the COVID-19 pandemic are locally executed, state managed, and federally supported.
2. Everyone should follow guidance from the CDC, as well as State and local government officials, regarding strategies to limit disease spread.
3. Workers should be encouraged to work remotely when possible and focus on core business activities. In-person, non-mandatory activities should be delayed until the resumption of normal operations.
4. When continuous remote work is not possible, businesses should enlist strategies to reduce the likelihood of spreading the disease. This includes, but is not necessarily limited to, separating staff by off-setting shift hours or days and/or social distancing. These steps can preserve the workforce and allow operations to continue.
5. All organizations should implement their business continuity and pandemic plans or put plans in place if they do not exist. Delaying implementation is not advised and puts at risk the viability of the business and the

health and safety of the employees.

6. Reliance on technology and just-in-time supply chains means that certain workers must be able to access certain sites, facilities, and assets to ensure continuity of functions.

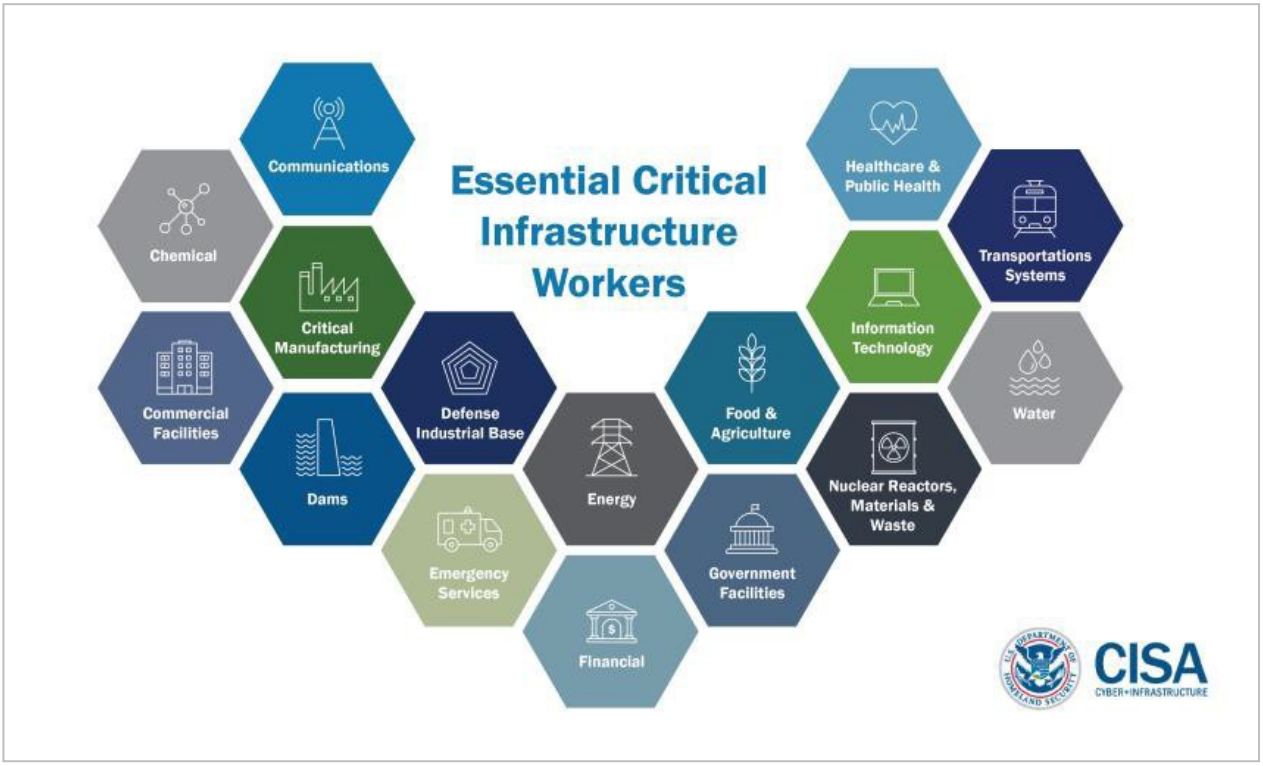
7. Government employees, such as emergency managers, and the business community need to establish and maintain lines of communication.

8. When government and businesses engage in discussions about essential critical infrastructure workers, they need to consider the implications of business operations beyond the jurisdiction where the asset or facility is located. Businesses can have sizeable economic and societal impacts as well as supply chain dependencies that are geographically distributed.

9. Whenever possible, jurisdictions should align access and movement control policies related to critical infrastructure workers to lower the burden of workers crossing jurisdictional boundaries.

IDENTIFYING ESSENTIAL CRITICAL INFRASTRUCTURE WORKERS

The following list of identified essential critical infrastructure workers is intended to be overly inclusive reflecting the diversity of industries across the United States.



HEALTHCARE / PUBLIC HEALTH

- Workers who perform critical clinical research, development, and testing needed for COVID-19 response.
- Healthcare providers and Caregivers including physicians, dentists, psychologists, mid-level practitioners, nurses and assistants, infection control and quality assurance personnel, pharmacists, physical and occupational therapists and assistants, social workers, optometrists, speech pathologists, chiropractors, and diagnostic and therapeutic technicians and technologists.
- Hospital and laboratory personnel (including accounting, administrative, admitting and discharge, engineering, epidemiological, source plasma and blood donation, food service, housekeeping, medical records, information technology and operational technology, nutritionists, sanitarians, respiratory therapists, etc.).
- Workers in other medical and biomedical facilities (including Ambulatory Health and Surgical, Blood Banks, Clinics, Community Mental Health, Comprehensive Outpatient rehabilitation, End Stage Renal Disease, Health Departments, Home Health care, Hospices, Hospitals, Long Term Care, Nursing Care Facilities, Organ Pharmacies, Procurement Organizations, Psychiatric Residential, Rural Health Clinics and Federally Qualified Health Centers, and retail facilities specializing in medical good and supplies).
- Manufacturer workers for health manufacturing (including biotechnology companies), materials and parts suppliers, logistics and warehouse operators, distributors of medical equipment (including those who test and repair), personal protective equipment (PPE), isolation barriers, medical gases, pharmaceuticals (including materials used in radioactive drugs), dietary supplements, blood and blood products, vaccines, testing materials, laboratory supplies, cleaning, sanitizing, disinfecting or sterilization supplies, and tissue and paper towel products.
- Public health / community health workers, including those who compile, model, analyze and communicate public health information.
- Blood and plasma donors and the employees of the organizations that operate and manage related activities.
- Workers who manage health plans, billing, and health information, who cannot practically work remotely.
- Workers who conduct community-based public health functions, conducting epidemiologic surveillance, compiling, analyzing and communicating public health information, who cannot practically work remotely.
- Workers performing information technology and cybersecurity functions at healthcare and public health facilities, who cannot practically work remotely.
- Workers performing security, incident management, and emergency operations functions at or on behalf of healthcare entities including healthcare coalitions, who cannot practically work remotely.
- Pharmacy employees necessary to maintain uninterrupted prescription filling.
- Workers performing mortuary funeral, cremation, burial, cemetery, and related services, including funeral homes, crematoriums, cemetery workers, and coffin makers.
- Workers who coordinate with other organizations to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/behavioral health services to the family members, responders, and survivors of an incident.

LAW ENFORCEMENT, PUBLIC SAFETY, AND OTHER FIRST RESPONDERS

- Public, private, and voluntary personnel (front line and management) in emergency management, law enforcement, fire and rescue services, emergency medical services, and private security, to include public and private hazardous material responders, air medical service providers (pilots and supporting technicians), corrections, and search and rescue personnel.
- 911 call center employees and Public Safety Answering Points who can't perform their duties remotely.
- Fusion Center employees.
- Workers – including contracted vendors -- who maintain, manufacture, or supply equipment and services supporting law enforcement emergency service and response operations (to include electronic security and life safety security personnel).
- Workers supporting the manufacturing of safety equipment and uniforms for law enforcement, public safety personnel, and first responder.
- Workers supporting the operation of firearm or ammunition product manufacturers, retailers, importers, distributors, and shooting ranges.
- Public agency workers responding to abuse and neglect of children, elders, and dependent adults.
- Workers who support weather disaster / natural hazard mitigation and prevention activities.
- Security staff to maintain building access control and physical security measures.

FOOD AND AGRICULTURE

- Workers supporting groceries, pharmacies, convenience stores, and other retail (including unattended and vending) that sells human food, animal/pet food and pet supply, and beverage products, including retail customer support service and information technology support staff necessary for online orders, pickup and delivery.
- Restaurant carry-out and quick serve food operations, including dark kitchen and food prep centers, and carry-out and delivery food employees.
- Food manufacturer employees and their supplier employees—to include those employed in food ingredient production and processing facilities; livestock, poultry, seafood slaughter facilities; pet and animal feed processing facilities; human food facilities producing by-products for animal food; beverage production facilities; and the production of food packaging.
- Farmers, farm workers, and agribusiness support services to include those employed in auction and sales: grain and oilseed handling, processing and distribution; animal food, feed, and ingredient production, packaging, and distribution; manufacturing, packaging, and distribution of veterinary drugs; truck delivery and transport; farm and fishery labor needed to produce our food supply domestically and for export.
- Farmers, farm workers, support service workers, and their supplier employees to include those engaged in producing and harvesting field crops; commodity inspection; fuel ethanol facilities; biodiesel and renewable diesel facilities; storage facilities; and other agricultural inputs.
- Employees and firms supporting the distribution of food, feed, and beverage and ingredients used in these products, including warehouse workers, vendor- managed inventory controllers and blockchain managers.
- Workers supporting the sanitation and pest control of all food manufacturing processes and operations from wholesale to retail.
- Employees in cafeterias used to feed employees, particularly employee populations sheltered against COVID-19.
- Workers in animal diagnostic and food testing laboratories in private industries and in institutions of higher education.

- Government, private, and non-governmental organizations' workers essential for food assistance programs (including school lunch programs) and government payments.
- Employees of companies engaged in the production, storage, transport, and distribution of chemicals, medicines, vaccines, and other substances used by the food and agriculture industry, including seeds, pesticides, herbicides, fertilizers, minerals, enrichments, and other agricultural production aids.
- Animal agriculture workers to include those employed in veterinary health (including those involved in supporting emergency veterinary or livestock services); raising of animals for food; animal production operations; livestock markets; slaughter and packing plants, manufacturers, renderers, and associated regulatory and government workforce.
- Transportation supporting animal agricultural industries, including movement of animal medical and reproductive supplies and materials, animal vaccines, animal drugs, feed ingredients, feed, and bedding, live animals, animal by-products, and deceased animals for disposal.
- Workers who support sawmills and the manufacture and distribution of fiber and forest products, including, but not limited to timber, paper, and other wood and fiber products.
- Employees engaged in the manufacture and maintenance of equipment and other infrastructure necessary for agricultural production and distribution.

ENERGY

- Workers supporting the energy sector, regardless of the energy source (including but not limited to nuclear, fossil, hydroelectric, or renewable), segment of the system, or infrastructure the worker is involved in, or who are needed to monitor, operate, engineer, and maintain the reliability, safety, environmental health, and physical and cyber security of the energy system.
- Energy/commodity trading/scheduling/marketing functions, who can't perform their duties remotely.
- IT and OT technology for essential energy sector operations including support workers, customer service operations; energy management systems, control systems, and Supervisory Control and Data Acquisition SCADA systems, and energy sector entity data centers; cybersecurity engineers; and cybersecurity risk management.
- Workers supporting the energy sector through renewable energy infrastructure (including, but not limited to wind, solar, biomass, hydrogen, ocean, geothermal, and/or hydroelectric), including those supporting construction, manufacturing, transportation, permitting, operation/maintenance, monitoring, and logistics.
- Workers and security staff involved in nuclear re-fueling operations.
- Providing services related to energy sector fuels (including, but not limited, petroleum (crude oil), natural gas, propane, natural gas liquids, other liquid fuels, nuclear, and coal), supporting the mining, processing, manufacturing, construction, logistics, transportation, permitting, operation/maintenance, security, waste disposal and storage, and monitoring of support for resources.
- Environmental remediation/monitoring, limited to immediate critical needs technicians.
- Manufacturing and distribution of equipment, supplies, and parts necessary to maintain production, maintenance, restoration, and service at energy sector facilities (across all energy sector segments).

Electricity industry:

- Workers who maintain, ensure, or restore, or are involved in the development, transportation, fuel procurement, expansion, or operation of the generation, transmission, and distribution of electric power, including call centers, utility workers, engineers, retail electricity, constraint maintenance, and fleet maintenance technicians- who cannot perform their duties remotely.
- Workers at coal mines, production facilities, and those involved in manufacturing, transportation, permitting, operation/maintenance and monitoring at coal sites which is critical to ensuring the reliability of the electrical system.

- Workers who produce, process, ship and handle coal used for power generation and manufacturing.
- Workers needed for safe and secure operations at nuclear generation to include but not limited to, the broader nuclear supply chain, parts to maintain nuclear equipment, fuel manufacturers and fuel components used in the manufacturing of fuel.
- Workers at renewable energy infrastructure (including, but not limited to wind, solar, biomass, hydrogen, geothermal, and/or hydroelectric), including those supporting construction, manufacturing, transportation, permitting, operation/maintenance, monitoring, and logistics.
- Workers at generation, transmission, and electric black start facilities.
- Workers at Reliability Coordinator, Balancing Authorities, and primary and backup Control Centers, including but not limited to independent system operators, regional transmission organizations, and local distribution control centers.
- Mutual assistance personnel which may include workers from outside of the state or local jurisdiction.
- Vegetation management and traffic control for supporting those crews.
- Environmental remediation/monitoring workers limited to immediate critical needs technicians.
- Instrumentation, protection, and control technicians.
- Essential support personnel for electricity operations.
- Generator set support workers such as diesel engineers used in power generation including those providing fuel.

Petroleum industry:

- Workers for onshore and offshore petroleum drilling operations; platform and drilling construction and maintenance; transportation (including helicopter operations), maritime transportation, supply, and dredging operations; maritime navigation; well stimulation, intervention, monitoring, automation and control, extraction, production; processing; waste disposal, and maintenance, construction, and operations.
- Workers for crude oil, petroleum and petroleum product storage and transportation, including pipeline, marine transport, terminals, rail transport, storage facilities and racks and roadtransport for use as end-use fuels such as gasoline, diesel fuel, jet fuel, and heating fuels or feedstocks for chemical manufacturing.
- Petroleum and petroleum product security operations center employees and workers who support maintenance and emergency response services.
- Petroleum and petroleum product operations control rooms/centers and refinery facilities.
- Retail fuel centers such as gas stations and truck stops, and the distribution systems that support them.
- Supporting new and existing construction projects, including, but not limited to, pipeline construction.

Natural Gas, Natural Gas Liquids (NGL), Propane, and other liquid fuels

- Workers who support onshore and offshore drilling operations, platform and drilling construction and maintenance; transportation (including helicopter operations); maritime transportation, supply, and dredging operations; maritime navigation; natural gas and natural gas liquid production, processing, extraction, storage and transportation; well intervention, monitoring, automation and control; waste disposal, and maintenance, construction, and operations.
- Transmission and distribution pipeline workers, including compressor stations and any other required, operations maintenance, construction, and support for natural gas, natural gas liquid, propane, and other liquid fuels.
- Natural gas, propane, natural gas liquids, and other liquid fuel processing plants, including construction, maintenance, and support operations.
- Natural gas processing plants workers, and those that deal with natural gas liquids.
- Workers who staff natural gas, propane, natural gas liquids, and other liquid fuel security operations centers, operations dispatch and control rooms/centers, and emergency response and customer emergencies (including leak calls) operations.
- Drilling, production, processing, refining, and transporting natural gas for use as end-use fuels, feedstocks for

chemical manufacturing, or use in electricity generation.

- Dispatch and control rooms and emergency response and customer emergencies, including propane leak calls.
- Propane gas service maintenance and restoration, including call centers.
- Propane, natural gas liquids, and other liquid fuel distribution centers.
- Propane gas storage, transmission, and distribution centers.
- Supporting new and existing construction projects, including, but not limited to, pipeline construction.
- Ethanol and biofuel production, refining, and distribution.
- Workers in fuel sectors (including, but not limited to nuclear, coal, and gas types and liquid fuels) supporting the mining, manufacturing, logistics, transportation, permitting, operation/maintenance, and monitoring of support for resources.

WATER AND WASTEWATER

Employees needed to operate and maintain drinking water and wastewater/drainage infrastructure, including:

- Operational staff at water authorities.
- Operational staff at community water systems.
- Operational staff at wastewater treatment facilities.
- Workers repairing water and wastewater conveyances and performing required sampling or monitoring, including field staff.
- Operational staff for water distribution and testing.
- Operational staff at wastewater collection facilities.
- Operational staff and technical support for SCADA Control systems.
- Chemical and equipment suppliers to water and wastewater systems and personnel protection.
- Workers who maintain digital systems infrastructure supporting water and wastewater operations.

TRANSPORTATION AND LOGISTICS

- Employees supporting or enabling transportation functions, including truck drivers, bus drivers, dispatchers, maintenance and repair technicians, warehouse workers, truck stop and rest area workers, Department of Motor Vehicle (DMV) employees, towing/recovery services, roadside assistance workers, intermodal transportation personnel, and workers who maintain and inspect infrastructure (including those that require cross-jurisdiction travel).
- Workers supporting the distribution of food, pharmaceuticals (including materials used in radioactive drugs) and other medical materials, fuels, chemicals needed for water or water treatment and energy Maintenance and operation of essential highway infrastructure, including roads, bridges, and tunnels (e.g., traffic operations centers and moveable bridge operators).
- Employees of firms providing services, supplies, and equipment that enable warehouse and operations, including cooling, storing, packaging, and distributing products for wholesale or retail sale or use. Includes cold- and frozen-chain logistics for food and critical biologic products.
- Mass transit workers and providing critical transit services and/or performing critical or routine maintenance to mass transit infrastructure or equipment.
- Employees supporting personal and commercial transportation services – including taxis, delivery services, vehicle rental services, bicycle maintenance and car-sharing services, and transportation network providers.
- Workers responsible for operating and dispatching passenger, commuter and freight trains and maintaining rail infrastructure and equipment.
- Maritime transportation workers, including dredgers, port workers, mariners, ship crewmembers, ship pilots and tug boat operators, equipment operators (to include maintenance and repair, and maritime-specific medical

providers), ship supply, chandler, and repair companies.

- Workers including truck drivers, railroad employees and contractors, maintenance crew, and cleaners supporting transportation of chemicals, hazardous, medical, and waste materials to support critical infrastructure, capabilities, functions, and services, including specialized carriers, crane and rigging industry workers.
- Bus drivers and workers who provide or support intercity, commuter and charter bus service in support of other essential services or functions.
- Automotive repair, maintenance, and transportation equipment manufacturing and distribution facilities (including those who repair and maintain electric vehicle charging stations).
- Transportation safety inspectors, including hazardous material inspectors and accident investigator inspectors.
- Manufacturers and distributors (to include service centers and related operations) of packaging materials, pallets, crates, containers, and other supplies needed to support manufacturing, packaging staging and distribution operations.
- Postal, parcel, courier, last-mile delivery, and shipping and related workers, to include private companies.
- Employees who repair and maintain vehicles, aircraft, rail equipment, marine vessels, bicycles, and the equipment and infrastructure that enables operations that encompass movement of cargo and passengers.
- Air transportation employees, including air traffic controllers and maintenance personnel, ramp workers, aviation and aerospace safety, security, and operations personnel and accident investigations.
- Workers who support the operation, distribution, maintenance, and sanitation, of air transportation for cargo and passengers, including flight crews, maintenance, airport operations, those responsible for cleaning and disinfection, and other on- and off- airport facilities workers.
- Workers supporting transportation via inland waterways such as barge crew, dredging, river port workers for essential goods.
- Workers critical to rental and leasing of vehicles and equipment that facilitate continuity of operations for essential workforces and other essential travel.
- Warehouse operators, including vendors and support personnel critical for business continuity (including HVAC & electrical engineers; security personnel; and janitorial staff) and customer service for essential functions.

PUBLIC WORKS AND INFRASTRUCTURE SUPPORT SERVICES

- Workers who support the operation, inspection, and maintenance of essential public works facilities and operations, including bridges, water and sewer main breaks, fleet maintenance personnel, construction of critical or strategic infrastructure, traffic signal maintenance, emergency location services for buried utilities, maintenance of digital systems infrastructure supporting public works operations, and other emergent issues.
- Workers such as plumbers, electricians, exterminators, builders, contractors, HVAC Technicians, landscapers, and other service providers who provide services that are necessary to maintaining the safety, sanitation, and essential operation of residences, businesses and buildings such as hospitals, senior living facilities, any temporary construction required to support COVID-19 response.
- Workers who support, such as road and line clearing, to ensure the availability of and access to needed facilities, transportation, energy and communications.
- Support to ensure the effective removal, storage, and disposal of residential and commercial solid waste and hazardous waste, including landfill operations.
- Workers who support the operation, inspection, and maintenance of essential dams, locks and levees.
- Workers who support the inspection and maintenance of aids to navigation, and other government provided services that ensure continued maritime commerce.

COMMUNICATIONS AND INFORMATION TECHNOLOGY

Communications:

- Maintenance of communications infrastructure- including privately owned and maintained communication systems- supported by technicians, operators, call -centers, wireline and wireless providers, cable service providers, satellite operations, Internet Exchange Points, Points of Presence, Network Access Points, back haul and front haul facilities, and manufacturers and distributors of communications equipment.
- Government and private sector employees (including government contractors) with work related to undersea cable infrastructure and support facilities, including cable landing sites, beach manhole vaults and covers, submarine cable depots and submarine cable ship facilities.
- Government and private sector employees (including government contractors) supporting Department of Defense internet and communications facilities.
- Workers who support radio, television, and media service, including, but not limited to front-line news reporters, studio, and technicians for newsgathering, and reporting, and publishing news.
- Network Operations staff, engineers and/or technicians to include IT managers and staff, HVAC & electrical engineers, security personnel, software and hardware engineers, and database administrators that manage the network or operate facilities.
- Engineers, technicians and associated personnel responsible for infrastructure construction and restoration, including contractors for construction and engineering of fiber optic cables, buried conduit, small cells, other wireless facilities, and other communications sector-related infrastructure. This includes construction of new facilities and deployment of new technology as these are required to address congestion or customer usage due to unprecedented use of remote services.
- Installation, maintenance and repair technicians that establish, support or repair service as needed.
- Central office personnel to maintain and operate central office, data centers, and other network office facilities, critical support personnel assisting front line employees.
- Customer service and support staff, including managed and professional services as well as remote providers of support to transitioning employees to set up and maintain home offices, who interface with customers to manage or support service environments and security issues, including payroll, billing, fraud, logistics, and troubleshooting.
- Workers providing electronic security, fire, monitoring and life safety services, and to ensure physical security, cleanliness and safety of facilities and personnel, including temporary licensing waivers for security personnel to work in other States of Municipalities.
- Dispatchers involved with service repair and restoration.
- Retail customer service personnel at critical service center locations for onboarding customers, distributing and repairing equipment and addressing customer issues in order to support individuals' remote emergency communications needs, supply chain and logistics personnel to ensure goods and products are on-boarded to provision these front-line employees.
- External Affairs personnel to assist in coordinating with local, state and federal officials to address communications needs supporting COVID-19 response, public safety, and national security.

Information Technology:

- Workers who support command centers, including, but not limited to Network Operations Command Centers, Broadcast Operations Control Centers and Security Operations Command Centers.
- Data center operators, including system administrators, HVAC & electrical engineers, security personnel, IT managers and purchasers, data transfer solutions engineers, software and hardware engineers, and database administrators, for all industries (including financial services).

- Workers who support client service centers, field engineers, and other technicians and workers supporting critical infrastructure, as well as manufacturers and supply chain vendors that provide hardware and software, support services, research and development, and information technology equipment (to include microelectronics and semiconductors), and HVAC and electrical equipment for critical infrastructure, and test labs and certification agencies that qualify such equipment(to include microelectronics, optoelectronics, and semiconductors) for critical infrastructure, including data centers.
- Workers needed to preempt and respond to cyber incidents involving critical infrastructure, including medical facilities, SLTT governments and federal facilities, energy and utilities, and banks and financial institutions, securities/other exchanges, other entities that support the functioning of capital markets, public works, critical manufacturing, food & agricultural production, transportation, and other critical infrastructure categories and personnel, in addition to all cyber defense workers (who can't perform their duties remotely).
- Suppliers, designers, transporters and other workers supporting the manufacture, distribution and provision and construction of essential global, national and local infrastructure for computing services (including cloud computing services and telework capabilities), business infrastructure, financial transactions/services, web-based services, and critical manufacturing.
- Workers supporting communications systems and information technology- and work from home solutions- used by law enforcement, public safety, medical, energy, public works, critical manufacturing, food & agricultural production, financial services, education, and other critical industries and businesses.
- Employees required in person to support Software as a Service businesses that enable remote working, performance of business operations, distance learning, media services, and digital health offerings, or required for technical support crucial for business continuity and connectivity.

OTHER COMMUNITY- OR GOVERNMENT-BASED OPERATIONS AND ESSENTIAL FUNCTIONS

- Workers to ensure continuity of building functions, including but not limited to security and environmental controls (e.g., HVAC), the manufacturing and distribution of the products required for these functions, and the permits and inspections for construction supporting essential infrastructure.
- Elections personnel to include both public and private sector elections support.
- Workers supporting the operations of the judicial system.
- Federal, State, and Local, Tribal, and Territorial employees who support Mission Essential Functions and communications networks.
- Trade Officials (FTA negotiators; international data flow administrators).
- Employees necessary to maintain news and media operations across various media.
- Employees supporting Census 2020.
- Weather forecasters.
- Clergy for essential support.
- Workers who maintain digital systems infrastructure supporting other critical government operations.
- Workers who support necessary credentialing, vetting and licensing operations for critical infrastructure workers.
- Customs and immigration workers who are critical to facilitating trade in support of the national emergency response supply chain.
- Educators supporting public and private K-12 schools, colleges, and universities for purposes of facilitating distance learning or performing other essential functions.
- Staff at government offices who perform title search, notary, and recording services in support of mortgage and real estate services and transactions.

- Residential and commercial real estate services, including settlement services.
- Workers supporting essential maintenance, manufacturing, design, operation, inspection, security, and construction for essential products, services, and supply chain and COVID 19 relief efforts.

CRITICAL MANUFACTURING

- Workers necessary for the manufacturing of metals (including steel and aluminum), industrial minerals, semiconductors, materials and products needed for medical supply chains, and for supply chains associated with transportation, energy, communications, information technology, food and agriculture, chemical manufacturing, nuclear facilities, wood products, commodities used as fuel for power generation facilities, the operation of dams, water and wastewater treatment, processing and reprocessing of solid waste, emergency services, and the defense industrial base. Additionally, workers needed to maintain the continuity of these manufacturing functions and associated supply chains, and workers necessary to maintain a manufacturing operation in warm standby.
- Workers necessary for the manufacturing of materials and products needed to manufacture medical equipment and personal protective equipment (PPE).
- Workers necessary for mining and production of critical minerals, materials and associated essential supply chains, and workers engaged in the manufacture and maintenance of equipment and other infrastructure necessary for mining production and distribution.
- Workers who produce or manufacture parts or equipment that supports continued operations for any essential services and increase in remote workforce (including computing and communication devices, semiconductors, and equipment such as security tools for Security Operations Centers (SOCs) or datacenters).

HAZARDOUS MATERIALS

- Workers who manage hazardous materials associated with any other essential activity, including but not limited to healthcare waste (medical, pharmaceuticals, medical material production), testing operations (laboratories processing test kits), and energy (nuclear facilities) Workers at nuclear facilities, workers managing medical waste, workers managing waste from pharmaceuticals and medical material production, and workers at laboratories processing tests Workers who support hazardous materials response and cleanup.
- Workers who maintain digital systems infrastructure supporting hazardous materials management operations.

FINANCIAL SERVICES

- Workers who are needed to provide, process and maintain systems for processing, verification, and recording of financial transactions and services, including payment, clearing, and settlement; wholesale funding; insurance services; consumer and commercial lending; and capital markets activities).
- Workers who are needed to maintain orderly market operations to ensure the continuity of financial transactions and services.
- Workers who are needed to provide business, commercial, and consumer access to bank and non-bank financial services and lending services, including ATMs, lending and money transmission, and to move currency, checks, securities, and payments (e.g., armored cash carriers).
- Workers who support financial operations and those staffing call centers, such as those staffing data and security operations centers, managing physical security, or providing accounting services.
- Workers supporting production and distribution of debit and credit cards.
- Workers providing electronic point of sale support personnel for essential businesses and workers.

CHEMICAL

- Workers supporting the chemical and industrial gas supply chains, including workers at chemical manufacturing plants, workers in laboratories, workers at distribution facilities, workers who transport basic raw chemical materials to the producers of industrial and consumer goods, including hand sanitizers, food and food additives, pharmaceuticals, paintings and coatings, textiles, building materials, plumbing, electrical, and paper products.
- Workers supporting the safe transportation of chemicals, including those supporting tank truck cleaning facilities and workers who manufacture packaging items.
- Workers supporting the production of protective cleaning and medical solutions, personal protective equipment, disinfectants, fragrances, and packaging that prevents the contamination of food, water, medicine, among others essential.
- Workers supporting the operation and maintenance of facilities (particularly those with high risk chemicals and/or sites that cannot be shut down) whose work cannot be done remotely and requires the presence of highly trained personnel to ensure safe operations, including plant contract workers who provide inspections.
- Workers who support the production and transportation of chlorine and alkali manufacturing, single-use plastics, and packaging that prevents the contamination or supports the continued manufacture of food, water, medicine, and other essential products, including glass container manufacturing.

DEFENSE INDUSTRIAL BASE

- Workers who support the essential services required to meet national security commitments to the federal government and U.S. Military. These individuals include, but are not limited to, space and aerospace; mechanical and software engineers (various disciplines), manufacturing/production workers; IT support; security staff; security personnel; intelligence support, aircraft and weapon system mechanics and maintainers; and sanitary workers who maintain the hygienic viability of necessary facilities.
- Personnel working for companies, and their subcontractors, who perform under contract or sub-contract to the Department of Defense, as well as personnel at government-owned/contractor- operated and government-owned/government-operated facilities, and who provide materials and services to the Department of Defense, including support for weapon systems, software systems and cybersecurity, defense and intelligence communications and surveillance, space systems and other activities in support of our military, intelligence and space forces.

COMMERCIAL FACILITIES

- Workers who support the supply chain of building materials from production through application/installation, including cabinetry, fixtures, doors, cement, hardware, plumbing, electrical, heating/cooling, refrigeration, appliances, paint/coatings, and employees who provide services that enable repair materials and equipment for essential functions.
- Workers supporting ecommerce through distribution, warehouse, call center facilities, and other essential operational support functions.
- Workers in hardware and building materials stores, consumer electronics, technology and appliances retail, and related merchant wholesalers and distributors - with reduced staff to ensure continued operations.
- Workers distributing, servicing, repairing, installing residential and commercial HVAC systems, boilers, furnaces and other heating, cooling, refrigeration, and ventilation equipment.

RESIDENTIAL/SHELTER FACILITIES AND SERVICES

- Workers in dependent care services, in support of workers in other essential products and services.

- Workers who support food, shelter, and social services, and other necessities of life for needy groups and individuals, including in-need populations and COVID-19 responders (including travelling medical staff).
- Workers in animal shelters.
- Workers responsible for the leasing of residential properties to provide individuals and families with ready access to available housing.
- Workers responsible for handling property management, maintenance, and related service calls who can coordinate the response to emergency "at-home" situations requiring immediate attention, as well as facilitate the reception of deliveries, mail, and other necessary services.
- Workers performing housing construction related activities to ensure additional units can be made available to combat the nation's existing housing supply shortage.
- Workers performing services in support of the elderly and disabled populations who coordinate a variety of services, including health care appointments and activities of daily living.
- Workers supporting the construction of housing, including those supporting government functions related to the building and development process, such as inspections, permitting and plan review services that can be modified to protect the public health, but fundamentally should continue and serve the construction of housing (e.g., allow qualified private third-party inspections in case of government shutdown).

HYGIENE PRODUCTS AND SERVICES

- Workers who produce hygiene products.
- Workers in laundromats, laundry services, and dry cleaners.
- Workers providing personal and household goods repair and maintenance.
- Workers providing disinfection services, for all essential facilities and modes of transportation, and supporting the sanitation of all food manufacturing processes and operations from wholesale to retail.
- Workers necessary for the installation, maintenance, distribution, and manufacturing of water and space heating equipment and its components.
- Support required for continuity of services, including commercial disinfectant services, janitorial/cleaning personnel, and support personnel functions that need freedom of movement to access facilities in support of front-line employees.

Guidance on Preparing Workplaces for COVID-19

OSHA 3990-03 2020

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www.osha.gov

Occupational Safety and Health Act of 1970

"To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health."

This guidance is not a standard or regulation, and it creates no new legal obligations. It contains recommendations as well as descriptions of mandatory safety and health standards. The recommendations are advisory in nature, informational in content, and are intended to assist employers in providing a safe and healthful workplace. The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved state plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

This information will be made available to sensory-impaired individuals upon request. Voice phone: (202) 693-1999; teletypewriter (TTY) number: 1-877-889-5627.

Guidance on Preparing Workplaces for COVID-19

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

OSHA 3990-03 2020

U.S. Department of Labor

Contents

Introduction

Coronavirus Disease 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus. It has spread from China to many other countries around the world, including the United States. Depending on the severity of COVID-19's international impacts, outbreak conditions—including those rising to the level of a pandemic—can affect all aspects of daily life, including travel, trade, tourism, food supplies, and financial markets.

To reduce the impact of COVID-19 outbreak conditions on businesses, workers, customers, and the public, it is important for all employers to plan now for COVID-19. For employers who have already planned for influenza pandemics, planning for COVID-19 may involve updating plans to address the specific exposure risks, sources of exposure, routes of transmission, and other unique characteristics of SARS-CoV-2 (i.e., compared to pandemic influenza viruses). Employers who have not prepared for pandemic events should prepare themselves and their workers as far in advance as possible of potentially worsening outbreak conditions. Lack of continuity planning can result in a cascade of failures as employers attempt to address challenges of COVID-19 with insufficient resources and workers who might not be adequately trained for jobs they may have to perform under pandemic conditions.

The Occupational Safety and Health Administration (OSHA) developed this COVID-19 planning guidance based on traditional infection prevention and industrial hygiene practices. It focuses on the need for employers to implement engineering, administrative, and work practice controls and personal protective equipment (PPE), as well as considerations for doing so.

This guidance is intended for planning purposes. Employers and workers should use this planning guidance to help identify risk levels in workplace settings and to determine any appropriate control measures to implement. Additional guidance may be needed as COVID-19 outbreak conditions change, including as new information about the virus, its transmission, and impacts, becomes available.

The U.S. Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) provides the latest information about COVID-19 and the global outbreak: www.cdc.gov/coronavirus/2019-ncov.

The OSHA COVID-19 webpage offers information specifically for workers and employers: www.osha.gov/covid-19.

This guidance is advisory in nature and informational in content. It is not a standard or a regulation, and it neither creates new legal obligations nor alters existing obligations created by OSHA standards or the *Occupational Safety and Health Act* (OSH Act). Pursuant to the OSH Act, employers must comply with safety and health standards and regulations issued and enforced either by OSHA or by an OSHA-approved State Plan. In addition, the OSH Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. OSHA-approved State Plans may have standards, regulations and enforcement policies that are different from, but at least as effective as, OSHA's. Check with your State Plan, as applicable, for more information.

About COVID-19

Symptoms of COVID-19

Infection with SARS-CoV-2, the virus that causes COVID-19, can cause illness ranging from mild to severe and, in some cases, can be fatal. Symptoms typically include fever, cough, and shortness of breath. Some people infected with the virus have reported experiencing other non-respiratory symptoms. Other people, referred to as *asymptomatic cases*, have experienced no symptoms at all.

According to the CDC, symptoms of COVID-19 may appear in as few as 2 days or as long as 14 days after exposure.

How COVID-19 Spreads

Although the first human cases of COVID-19 likely resulted from exposure to infected animals, infected people can spread SARS-CoV-2 to other people.

The virus is thought to spread mainly from person-to-person, including:

- Between people who are in close contact with one another (within about 6 feet).
- Through respiratory droplets produced when an infected person coughs or sneezes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.

Medium exposure risk jobs include those that require frequent and/or close contact with (i.e., within 6 feet of) other people who may be infected with SARS-CoV-2.

It may be possible that a person can get COVID-19 by touching a surface or object that has SARS-CoV-2 on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the primary way the virus spreads.

People are thought to be most contagious when they are most symptomatic (i.e., experiencing fever, cough, and/or shortness of breath). Some spread might be possible before people show symptoms; there have been reports of this type of asymptomatic transmission with this new coronavirus, but this is also not thought to be the main way the virus spreads.

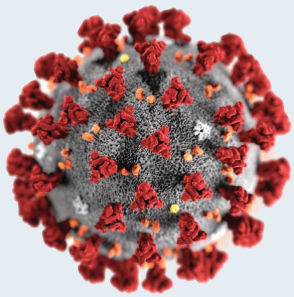
Although the United States has implemented public health measures to limit the spread of the virus, it is likely that some person-to-person transmission will continue to occur.

The CDC website provides the latest information about COVID-19 transmission: www.cdc.gov/coronavirus/2019-ncov/about/transmission.html.

How a COVID-19 Outbreak Could Affect Workplaces

Similar to influenza viruses, SARS-CoV-2, the virus that causes COVID-19, has the potential to cause extensive outbreaks. Under conditions associated with widespread person-to-person spread, multiple areas of the United States and other countries may see impacts at the same time. In the absence of a vaccine, an outbreak may also be an extended event. As a result, workplaces may experience:

- **Absenteeism.** Workers could be absent because they are sick; are caregivers for sick family members; are caregivers for children if schools or day care centers are closed; have at-risk people at home, such as immunocompromised family members; or are afraid to come to work because of fear of possible exposure.
- **Change in patterns of commerce.** Consumer demand for items related to infection prevention (e.g., respirators) is likely to increase significantly, while consumer interest in other goods may decline. Consumers may also change shopping patterns because of a COVID-19 outbreak. Consumers may try to shop at off-peak hours to reduce contact with other people, show increased interest in home delivery services, or prefer other options, such as drive-through service, to reduce person-to-person contact.
- **Interrupted supply/delivery.** Shipments of items from geographic areas severely affected by COVID-19 may be delayed or cancelled with or without notification.



This illustration, created at the Centers for Disease Control and Prevention (CDC), reveals ultrastructural morphology exhibited by the 2019 Novel Coronavirus (2019-nCoV). Note the spikes that adorn the outer surface of the virus, which impart the look of a corona surrounding the virion, when viewed electron microscopically. This virus was identified as the cause of an outbreak of respiratory illness first detected in Wuhan, China.

Photo: CDC / Alissa Eckert & Dan Higgins

Steps All Employers Can Take to Reduce Workers' Risk of Exposure to SARS-CoV-2

This section describes basic steps that every employer can take to reduce the risk of worker exposure to SARS-CoV-2, the virus that causes COVID-19, in their workplace. Later sections of this guidance—including those focusing on jobs classified as having low, medium, high, and very high exposure risks—provide specific recommendations for employers and workers within specific risk categories.

Develop an Infectious Disease Preparedness and Response Plan

If one does not already exist, develop an infectious disease preparedness and response plan that can help guide protective actions against COVID-19.

Stay abreast of guidance from federal, state, local, tribal, and/or territorial health agencies, and consider how to incorporate those recommendations and resources into workplace-specific plans.

Plans should consider and address the level(s) of risk associated with various worksites and job tasks workers perform at those sites. Such considerations may include:

- Where, how, and to what sources of SARS-CoV-2 might workers be exposed, including:
  - The general public, customers, and coworkers; and
  - Sick individuals or those at particularly high risk of infection (e.g., international travelers who have visited locations with widespread sustained (ongoing) COVID-19 transmission, healthcare workers who have had unprotected exposures to people known to have, or suspected of having, COVID-19).
- Non-occupational risk factors at home and in community settings.

- Workers' individual risk factors (e.g., older age; presence of chronic medical conditions, including immunocompromising conditions; pregnancy).
- Controls necessary to address those risks.

Follow federal and state, local, tribal, and/or territorial (SLTT) recommendations regarding development of contingency plans for situations that may arise as a result of outbreaks, such as:

- Increased rates of worker absenteeism.
- The need for social distancing, staggered work shifts, downsizing operations, delivering services remotely, and other exposure-reducing measures.
- Options for conducting essential operations with a reduced workforce, including cross-training workers across different jobs in order to continue operations or deliver surge services.
- Interrupted supply chains or delayed deliveries.

Plans should also consider and address the other steps that employers can take to reduce the risk of worker exposure to SARS-CoV-2 in their workplace, described in the sections below.

Prepare to Implement Basic Infection Prevention Measures

For most employers, protecting workers will depend on emphasizing basic infection prevention measures. As appropriate, all employers should implement good hygiene and infection control practices, including:

- Promote frequent and thorough hand washing, including by providing workers, customers, and worksite visitors with a place to wash their hands. If soap and running water are not immediately available, provide alcohol-based hand rubs containing at least 60% alcohol.
- Encourage workers to stay home if they are sick.
- Encourage respiratory etiquette, including covering coughs and sneezes.

- Provide customers and the public with tissues and trash receptacles.
- Employers should explore whether they can establish policies and practices, such as flexible worksites (e.g., telecommuting) and flexible work hours (e.g., staggered shifts), to increase the physical distance among employees and between employees and others if state and local health authorities recommend the use of social distancing strategies.
- Discourage workers from using other workers' phones, desks, offices, or other work tools and equipment, when possible.
- Maintain regular housekeeping practices, including routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment. When choosing cleaning chemicals, employers should consult information on Environmental Protection Agency (EPA)-approved disinfectant labels with claims against emerging viral pathogens. Products with EPA-approved emerging viral pathogens claims are expected to be effective against SARS-CoV-2 based on data for harder to kill viruses. Follow the manufacturer's instructions for use of all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE).

Develop Policies and Procedures for Prompt Identification and Isolation of Sick People, if Appropriate

- Prompt identification and isolation of potentially infectious individuals is a critical step in protecting workers, customers, visitors, and others at a worksite.
- Employers should inform and encourage employees to self-monitor for signs and symptoms of COVID-19 if they suspect possible exposure.
- Employers should develop policies and procedures for employees to report when they are sick or experiencing symptoms of COVID-19.

- Where appropriate, employers should develop policies and procedures for immediately isolating people who have signs and/or symptoms of COVID-19, and train workers to implement them. Move potentially infectious people to a location away from workers, customers, and other visitors. Although most worksites do not have specific isolation rooms, designated areas with closable doors may serve as isolation rooms until potentially sick people can be removed from the worksite.
- Take steps to limit spread of the respiratory secretions of a person who may have COVID-19. Provide a face mask, if feasible and available, and ask the person to wear it, if tolerated. Note: A face mask (also called a surgical mask, procedure mask, or other similar terms) on a patient or other sick person should not be confused with PPE for a worker; the mask acts to contain potentially infectious respiratory secretions at the source (i.e., the person's nose and mouth).
- If possible, isolate people suspected of having COVID-19 separately from those with confirmed cases of the virus to prevent further transmission—particularly in worksites where medical screening, triage, or healthcare activities occur, using either permanent (e.g., wall/different room) or temporary barrier (e.g., plastic sheeting).
- Restrict the number of personnel entering isolation areas.
- Protect workers in close contact with (i.e., within 6 feet of) a sick person or who have prolonged/repeated contact with such persons by using additional engineering and administrative controls, safe work practices, and PPE. Workers whose activities involve close or prolonged/repeated contact with sick people are addressed further in later sections covering workplaces classified at medium and very high or high exposure risk.

Develop, Implement, and Communicate about Workplace Flexibilities and Protections

- Actively encourage sick employees to stay home.
- Ensure that sick leave policies are flexible and consistent with public health guidance and that employees are aware of these policies.
- Talk with companies that provide your business with contract or temporary employees about the importance of sick employees staying home and encourage them to develop non-punitive leave policies.
- Do not require a healthcare provider's note for employees who are sick with acute respiratory illness to validate their illness or to return to work, as healthcare provider offices and medical facilities may be extremely busy and not able to provide such documentation in a timely way.
- Maintain flexible policies that permit employees to stay home to care for a sick family member. Employers should be aware that more employees may need to stay at home to care for sick children or other sick family members than is usual.
- Recognize that workers with ill family members may need to stay home to care for them. See CDC's Interim Guidance for Preventing the Spread of COVID-19 in Homes and Residential Communities: www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html.
- Be aware of workers' concerns about pay, leave, safety, health, and other issues that may arise during infectious disease outbreaks. Provide adequate, usable, and appropriate training, education, and informational material about business-essential job functions and worker health and safety, including proper hygiene practices and the use of any workplace controls (including PPE). Informed workers who feel safe at work are less likely to be unnecessarily absent.

- Work with insurance companies (e.g., those providing employee health benefits) and state and local health agencies to provide information to workers and customers about medical care in the event of a COVID-19 outbreak.

Implement Workplace Controls

Occupational safety and health professionals use a framework called the "hierarchy of controls" to select ways of controlling workplace hazards. In other words, the best way to control a hazard is to systematically remove it from the workplace, rather than relying on workers to reduce their exposure. During a COVID-19 outbreak, when it may not be possible to eliminate the hazard, the most effective protection measures are (listed from most effective to least effective): engineering controls, administrative controls, safe work practices (a type of administrative control), and PPE. There are advantages and disadvantages to each type of control measure when considering the ease of implementation, effectiveness, and cost. In most cases, a combination of control measures will be necessary to protect workers from exposure to SARS-CoV-2.

In addition to the types of workplace controls discussed below, CDC guidance for businesses provides employers and workers with recommended SARS-CoV-2 infection prevention strategies to implement in workplaces: www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-business-response.html.

Engineering Controls

Engineering controls involve isolating employees from work-related hazards. In workplaces where they are appropriate, these types of controls reduce exposure to hazards without relying on worker behavior and can be the most cost-effective solution to implement. Engineering controls for SARS-CoV-2 include:

- Installing high-efficiency air filters.
- Increasing ventilation rates in the work environment.
- Installing physical barriers, such as clear plastic sneeze guards.

- Installing a drive-through window for customer service.
- Specialized negative pressure ventilation in some settings, such as for aerosol generating procedures (e.g., airborne infection isolation rooms in healthcare settings and specialized autopsy suites in mortuary settings).

Administrative Controls

Administrative controls require action by the worker or employer. Typically, administrative controls are changes in work policy or procedures to reduce or minimize exposure to a hazard. Examples of administrative controls for SARS-CoV-2 include:

- Encouraging sick workers to stay at home.
- Minimizing contact among workers, clients, and customers by replacing face-to-face meetings with virtual communications and implementing telework if feasible.
- Establishing alternating days or extra shifts that reduce the total number of employees in a facility at a given time, allowing them to maintain distance from one another while maintaining a full onsite work week.
- Discontinuing nonessential travel to locations with ongoing COVID-19 outbreaks. Regularly check CDC travel warning levels at: www.cdc.gov/coronavirus/2019-ncov/travelers.
- Developing emergency communications plans, including a forum for answering workers' concerns and internet-based communications, if feasible.
- Providing workers with up-to-date education and training on COVID-19 risk factors and protective behaviors (e.g., cough etiquette and care of PPE).
- Training workers who need to use protecting clothing and equipment how to put it on, use/wear it, and take it off correctly, including in the context of their current and potential duties. Training material should be easy to understand and available in the appropriate language and literacy level for all workers.

Safe Work Practices

Safe work practices are types of administrative controls that include procedures for safe and proper work used to reduce the duration, frequency, or intensity of exposure to a hazard. Examples of safe work practices for SARS-CoV-2 include:

- Providing resources and a work environment that promotes personal hygiene. For example, provide tissues, no-touch trash cans, hand soap, alcohol-based hand rubs containing at least 60 percent alcohol, disinfectants, and disposable towels for workers to clean their work surfaces.
- Requiring regular hand washing or using of alcohol-based hand rubs. Workers should always wash hands when they are visibly soiled and after removing any PPE.
- Post handwashing signs in restrooms.

Personal Protective Equipment (PPE)

While engineering and administrative controls are considered more effective in minimizing exposure to SARS-CoV-2, PPE may also be needed to prevent certain exposures. While correctly using PPE can help prevent some exposures, it should not take the place of other prevention strategies.

Examples of PPE include: gloves, goggles, face shields, face masks, and respiratory protection, when appropriate. During an outbreak of an infectious disease, such as COVID-19, recommendations for PPE specific to occupations or job tasks may change depending on geographic location, updated risk assessments for workers, and information on PPE effectiveness in preventing the spread of COVID-19. Employers should check the OSHA and CDC websites regularly for updates about recommended PPE.

All types of PPE must be:

- Selected based upon the hazard to the worker.
- Properly fitted and periodically refitted, as applicable (e.g., respirators).

- Consistently and properly worn when required.
- Regularly inspected, maintained, and replaced, as necessary.
- Properly removed, cleaned, and stored or disposed of, as applicable, to avoid contamination of self, others, or the environment.

Employers are obligated to provide their workers with PPE needed to keep them safe while performing their jobs. The types of PPE required during a COVID-19 outbreak will be based on the risk of being infected with SARS-CoV-2 while working and job tasks that may lead to exposure.

Workers, including those who work within 6 feet of patients known to be, or suspected of being, infected with SARS-CoV-2 and those performing aerosol-generating procedures, need to use respirators:

- National Institute for Occupational Safety and Health (NIOSH)-approved, N95 filtering facepiece respirators or better must be used in the context of a comprehensive, written respiratory protection program that includes fit-testing, training, and medical exams. See OSHA's Respiratory Protection standard, 29 CFR 1910.134 at www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134.
- When disposable N95 filtering facepiece respirators are not available, consider using other respirators that provide greater protection and improve worker comfort. Other types of acceptable respirators include: a R/P95, N/R/P99, or N/R/P100 filtering facepiece respirator; an air-purifying elastomeric (e.g., half-face or full-face) respirator with appropriate filters or cartridges; powered air purifying respirator (PAPR) with high-efficiency particulate arrestance (HEPA) filter; or supplied air respirator (SAR). See CDC/NIOSH guidance for optimizing respirator supplies at: www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy.

- Consider using PAPRs or SARs, which are more protective than filtering facepiece respirators, for any work operations or procedures likely to generate aerosols (e.g., cough induction procedures, some dental procedures, invasive specimen collection, blowing out pipettes, shaking or vortexing tubes, filling a syringe, centrifugation).
- Use a surgical N95 respirator when both respiratory protection and resistance to blood and body fluids is needed.
- Face shields may also be worn on top of a respirator to prevent bulk contamination of the respirator. Certain respirator designs with forward protrusions (duckbill style) may be difficult to properly wear under a face shield. Ensure that the face shield does not prevent airflow through the respirator.
- Consider factors such as function, fit, ability to decontaminate, disposal, and cost. OSHA's Respiratory Protection eTool provides basic information on respirators such as medical requirements, maintenance and care, fit testing, written respiratory protection programs, and voluntary use of respirators, which employers may also find beneficial in training workers at: www.osha.gov/SLTC/etools/respiratory. Also see NIOSH respirator guidance at: www.cdc.gov/niosh/topics/respirators.
- Respirator training should address selection, use (including donning and doffing), proper disposal or disinfection, inspection for damage, maintenance, and the limitations of respiratory protection equipment. Learn more at: www.osha.gov/SLTC/respiratoryprotection.
- The appropriate form of respirator will depend on the type of exposure and on the transmission pattern of COVID-19. See the NIOSH "Respirator Selection Logic" at: www.cdc.gov/niosh/docs/2005-100/default.html or the OSHA "Respiratory Protection eTool" at www.osha.gov/SLTC/etools/respiratory.

Follow Existing OSHA Standards

Existing OSHA standards may apply to protecting workers from exposure to and infection with SARS-CoV-2.

While there is no specific OSHA standard covering SARS-CoV-2 exposure, some OSHA requirements may apply to preventing occupational exposure to SARS-CoV-2. Among the most relevant are:

- OSHA's Personal Protective Equipment (PPE) standards (in general industry, 29 CFR 1910 Subpart I), which require using gloves, eye and face protection, and respiratory protection. See: www.osha.gov/laws-regs/regulations/standardnumber/1910#1910_Subpart_I.
  - When respirators are necessary to protect workers or where employers require respirator use, employers must implement a comprehensive respiratory protection program in accordance with the Respiratory Protection standard (29 CFR 1910.134). See: www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134.
- The General Duty Clause, Section 5(a)(1) of the Occupational Safety and Health (OSH) Act of 1970, 29 USC 654(a)(1), which requires employers to furnish to each worker "employment and a place of employment, which are free from recognized hazards that are causing or are likely to cause death or serious physical harm." See: www.osha.gov/laws-regs/oshact/completeoshact.

OSHA's Bloodborne Pathogens standard (29 CFR 1910.1030) applies to occupational exposure to human blood and other potentially infectious materials that typically do not include respiratory secretions that may transmit SARS-CoV-2. However, the provisions of the standard offer a framework that may help control some sources of the virus, including exposures to body fluids (e.g., respiratory secretions) not covered by the standard. See: www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030.

The OSHA COVID-19 webpage provides additional information about OSHA standards and requirements, including requirements in states that operate their own OSHA-approved State Plans, recordkeeping requirements and injury/illness recording criteria, and applications of standards related to sanitation and communication of risks related to hazardous chemicals that may be in common sanitizers and sterilizers. See: www.osha.gov/SLTC/covid-19/standards.html.

Classifying Worker Exposure to SARS-CoV-2

Worker risk of occupational exposure to SARS-CoV-2, the virus that causes COVID-19, during an outbreak may vary from very high to high, medium, or lower (caution) risk. The level of risk depends in part on the industry type, need for contact within 6 feet of people known to be, or suspected of being, infected with SARS-CoV-2, or requirement for repeated or extended contact with persons known to be, or suspected of being, infected with SARS-CoV-2. To help employers determine appropriate precautions, OSHA has divided job tasks into four risk exposure levels: very high, high, medium, and lower risk. The Occupational Risk Pyramid shows the four exposure risk levels in the shape of a pyramid to represent probable distribution of risk. Most American workers will likely fall in the lower exposure risk (caution) or medium exposure risk levels.

Occupational Risk Pyramid for COVID-19

Very High Exposure Risk

Very high exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures. Workers in this category include:

- Healthcare workers (e.g., doctors, nurses, dentists, paramedics, emergency medical technicians) performing aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, some dental procedures and exams, or invasive specimen collection) on known or suspected COVID-19 patients.
- Healthcare or laboratory personnel collecting or handling specimens from known or suspected COVID-19 patients (e.g., manipulating cultures from known or suspected COVID-19 patients).
- Morgue workers performing autopsies, which generally involve aerosol-generating procedures, on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

High Exposure Risk

High exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19. Workers in this category include:

- Healthcare delivery and support staff (e.g., doctors, nurses, and other hospital staff who must enter patients' rooms) exposed to known or suspected COVID-19 patients. (Note: when such workers perform aerosol-generating procedures, their exposure risk level becomes *very high.*)
- Medical transport workers (e.g., ambulance vehicle operators) moving known or suspected COVID-19 patients in enclosed vehicles.
- Mortuary workers involved in preparing (e.g., for burial or cremation) the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

Medium Exposure Risk

Medium exposure risk jobs include those that require frequent and/or close contact with (i.e., within 6 feet of) people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients. In areas without ongoing community transmission, workers in this risk group may have frequent contact with travelers who may return from international locations with widespread COVID-19 transmission. In areas where there *is* ongoing community transmission, workers in this category may have contact with the general public (e.g., schools, high-population-density work environments, some high-volume retail settings).

Lower Exposure Risk (Caution)

Lower exposure risk (caution) jobs are those that do not require contact with people known to be, or suspected of being, infected with SARS-CoV-2 nor frequent close contact with (i.e., within 6 feet of) the general public. Workers in this category have minimal occupational contact with the public and other coworkers.

Jobs Classified at Lower Exposure Risk (Caution): What to Do to Protect Workers

For workers who do not have frequent contact with the general public, employers should follow the guidance for "Steps All Employers Can Take to Reduce Workers' Risk of Exposure to SARS-CoV-2," on page 7 of this booklet and implement control measures described in this section.

Engineering Controls

Additional engineering controls are not recommended for workers in the lower exposure risk group. Employers should ensure that engineering controls, if any, used to protect workers from other job hazards continue to function as intended.

Administrative Controls

- Monitor public health communications about COVID-19 recommendations and ensure that workers have access to that information. Frequently check the CDC COVID-19 website: www.cdc.gov/coronavirus/2019-ncov.
- Collaborate with workers to designate effective means of communicating important COVID-19 information.

Personal Protective Equipment

Additional PPE is not recommended for workers in the lower exposure risk group. Workers should continue to use the PPE, if any, that they would ordinarily use for other job tasks.

Jobs Classified at Medium Exposure Risk: What to Do to Protect Workers

In workplaces where workers have medium exposure risk, employers should follow the guidance for "Steps All Employers Can Take to Reduce Workers' Risk of Exposure to SARS-CoV-2," on page 7 of this booklet and implement control measures described in this section.

Engineering Controls

- Install physical barriers, such as clear plastic sneeze guards, where feasible.

Administrative Controls

- Consider offering face masks to ill employees and customers to contain respiratory secretions until they are able leave the workplace (i.e., for medical evaluation/care or to return home). In the event of a shortage of masks, a reusable face shield that can be decontaminated may be an acceptable method of protecting against droplet transmission. See CDC/NIOSH guidance for optimizing respirator supplies, which discusses the use of surgical masks, at: www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy.

- Keep customers informed about symptoms of COVID-19 and ask sick customers to minimize contact with workers until healthy again, such as by posting signs about COVID-19 in stores where sick customers may visit (e.g., pharmacies) or including COVID-19 information in automated messages sent when prescriptions are ready for pick up.
- Where appropriate, limit customers' and the public's access to the worksite, or restrict access to only certain workplace areas.
- Consider strategies to minimize face-to-face contact (e.g., drive-through windows, phone-based communication, telework).
- Communicate the availability of medical screening or other worker health resources (e.g., on-site nurse; telemedicine services).

Personal Protective Equipment (PPE)

When selecting PPE, consider factors such as function, fit, decontamination ability, disposal, and cost. Sometimes, when PPE will have to be used repeatedly for a long period of time, a more expensive and durable type of PPE may be less expensive overall than disposable PPE. Each employer should select the combination of PPE that protects workers specific to their workplace.

Workers with medium exposure risk may need to wear some combination of gloves, a gown, a face mask, and/or a face shield or goggles. PPE ensembles for workers in the medium exposure risk category will vary by work task, the results of the employer's hazard assessment, and the types of exposures workers have on the job.

High exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19.

Very high exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures that involve aerosol generation or specimen collection/handling.

In rare situations that would require workers in this risk category to use respirators, see the PPE section beginning on page 14 of this booklet, which provides more details about respirators. For the most up-to-date information, visit OSHA's COVID-19 webpage: www.osha.gov/covid-19.

Jobs Classified at High or Very High Exposure Risk: What to Do to Protect Workers

In workplaces where workers have high or very high exposure risk, employers should follow the guidance for "Steps All Employers Can Take to Reduce Workers' Risk of Exposure to SARS-CoV-2," on page 7 of this booklet and implement control measures described in this section.

Engineering Controls

- Ensure appropriate air-handling systems are installed and maintained in healthcare facilities. See "Guidelines for Environmental Infection Control in Healthcare Facilities" for more recommendations on air handling systems at: www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm.
- CDC recommends that patients with known or suspected COVID-19 (i.e., person under investigation) should be placed in an airborne infection isolation room (AIIR), if available.
- Use isolation rooms when available for performing aerosol-generating procedures on patients with known or suspected COVID-19. For postmortem activities, use autopsy suites or other similar isolation facilities when performing aerosol-generating procedures on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death. See the CDC postmortem guidance at: www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html. OSHA also provides guidance for postmortem activities on its COVID-19 webpage: www.osha.gov/covid-19.

- Use special precautions associated with Biosafety Level 3 when handling specimens from known or suspected COVID-19 patients. For more information about biosafety levels, consult the U.S. Department of Health and Human Services (HHS) "Biosafety in Microbiological and Biomedical Laboratories" at www.cdc.gov/biosafety/publications/bmbl5.

Administrative Controls

If working in a healthcare facility, follow existing guidelines and facility standards of practice for identifying and isolating infected individuals and for protecting workers.

- Develop and implement policies that reduce exposure, such as cohorting (i.e., grouping) COVID-19 patients when single rooms are not available.
- Post signs requesting patients and family members to immediately report symptoms of respiratory illness on arrival at the healthcare facility and use disposable face masks.
- Consider offering enhanced medical monitoring of workers during COVID-19 outbreaks.
- Provide all workers with job-specific education and training on preventing transmission of COVID-19, including initial and routine/refresher training.
- Ensure that psychological and behavioral support is available to address employee stress.

Safe Work Practices

- Provide emergency responders and other essential personnel who may be exposed while working away from fixed facilities with alcohol-based hand rubs containing at least 60% alcohol for decontamination in the field.

Personal Protective Equipment (PPE)

Most workers at high or very high exposure risk likely need to wear gloves, a gown, a face shield or goggles, and either a face mask or a respirator, depending on their job tasks and exposure risks.

Those who work closely with (either in contact with or within 6 feet of) patients known to be, or suspected of being, infected with SARS-CoV-2, the virus that causes COVID-19, should wear respirators. In these instances, see the PPE section beginning on page 14 of this booklet, which provides more details about respirators. For the most up-to-date information, also visit OSHA's COVID-19 webpage: www.osha.gov/covid-19.

PPE ensembles may vary, especially for workers in laboratories or morgue/mortuary facilities who may need additional protection against blood, body fluids, chemicals, and other materials to which they may be exposed. Additional PPE may include medical/surgical gowns, fluid-resistant coveralls, aprons, or other disposable or reusable protective clothing. Gowns should be large enough to cover the areas requiring protection. OSHA may also provide updated guidance for PPE use on its website: www.osha.gov/covid-19.

NOTE: Workers who dispose of PPE and other infectious waste must also be trained and provided with appropriate PPE.

The CDC webpage "Healthcare-associated Infections" (www.cdc.gov/hai) provides additional information on infection control in healthcare facilities.

Workers Living Abroad or Travelling Internationally

Employers with workers living abroad or traveling on international business should consult the "Business Travelers" section of the OSHA COVID-19 webpage (www.osha.gov/covid-19), which also provides links to the latest:

- CDC travel warnings: www.cdc.gov/coronavirus/2019-ncov/travelers
- U.S. Department of State (DOS) travel advisories: travel.state.gov

Employers should communicate to workers that the DOS cannot provide Americans traveling or living abroad with medications or supplies, even in the event of a COVID-19 outbreak.

As COVID-19 outbreak conditions change, travel into or out of a country may not be possible, safe, or medically advisable. It is also likely that governments will respond to a COVID-19 outbreak by imposing public health measures that restrict domestic and international movement, further limiting the U.S. government's ability to assist Americans in these countries. It is important that employers and workers plan appropriately, as it is possible that these measures will be implemented very quickly in the event of worsening outbreak conditions in certain areas.

More information on COVID-19 planning for workers living and traveling abroad can be found at: www.cdc.gov/travel.

For More Information

Federal, state, and local government agencies are the best source of information in the event of an infectious disease outbreak, such as COVID-19. Staying informed about the latest developments and recommendations is critical, since specific guidance may change based upon evolving outbreak situations.

Below are several recommended websites to access the most current and accurate information:

- Occupational Safety and Health Administration website: www.osha.gov
- Centers for Disease Control and Prevention website: www.cdc.gov
- National Institute for Occupational Safety and Health website: www.cdc.gov/niosh

OSHA Assistance, Services, and Programs

OSHA has a great deal of information to assist employers in complying with their responsibilities under OSHA law. Several OSHA programs and services can help employers identify and correct job hazards, as well as improve their safety and health program.

Establishing a Safety and Health Program

Safety and health programs are systems that can substantially reduce the number and severity of workplace injuries and illnesses, while reducing costs to employers.

Visit www.osha.gov/safetymanagement for more information.

Compliance Assistance Specialists

OSHA compliance assistance specialists can provide information to employers and workers about OSHA standards, short educational programs on specific hazards or OSHA rights and responsibilities, and information on additional compliance assistance resources.

Visit www.osha.gov/complianceassistance/cas or call 1-800-321-OSHA (6742) to contact your local OSHA office.

No-Cost On-Site Safety and Health Consultation Services for Small Business

OSHA's On-Site Consultation Program offers no-cost and confidential advice to small and medium-sized businesses in all states, with priority given to high-hazard worksites. On-Site consultation services are separate from enforcement and do not result in penalties or citations.

For more information or to find the local On-Site Consultation office in your state, visit www.osha.gov/consultation, or call 1-800-321-OSHA (6742).

Under the consultation program, certain exemplary employers may request participation in OSHA's **Safety and Health Achievement Recognition Program (SHARP)**. Worksites that receive SHARP recognition are exempt from programmed inspections during the period that the SHARP certification is valid.

Cooperative Programs

OSHA offers cooperative programs under which businesses, labor groups and other organizations can work cooperatively with OSHA. To find out more about any of the following programs, visit www.osha.gov/cooperativeprograms.

Strategic Partnerships and Alliances

The OSHA Strategic Partnerships (OSP) provide the opportunity for OSHA to partner with employers, workers, professional or trade associations, labor organizations, and/or other interested stakeholders. Through the Alliance Program, OSHA works with groups to develop compliance assistance tools and resources to share with workers and employers, and educate workers and employers about their rights and responsibilities.

Voluntary Protection Programs (VPP)

The VPP recognize employers and workers in the private sector and federal agencies who have implemented effective safety and health programs and maintain injury and illness rates below the national average for their respective industries.

Occupational Safety and Health Training

OSHA partners with 26 OSHA Training Institute Education Centers at 37 locations throughout the United States to deliver courses on OSHA standards and occupational safety and health topics to thousands of students a year. For more information on training courses, visit www.osha.gov/otiec.

OSHA Educational Materials

OSHA has many types of educational materials to assist employers and workers in finding and preventing workplace hazards.

All OSHA publications are free at www.osha.gov/publications and www.osha.gov/ebooks. You can also call 1-800-321-OSHA (6742) to order publications.

Employers and safety and health professionals can sign-up for *QuickTakes*, OSHA's free, twice-monthly online newsletter with the latest news about OSHA initiatives and products to assist in finding and preventing workplace hazards. To sign up, visit www.osha.gov/quicktakes.

OSHA Regional Offices

Region 1
Boston Regional Office
(CT*, ME*, MA, NH, RI, VT*)
JFK Federal Building
25 New Sudbury Street, Room E340
Boston, MA 02203
(617) 565-9860 (617) 565-9827 Fax

Region 2
New York Regional Office
(NJ*, NY*, PR*, VI*)
Federal Building
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378 (212) 337-2371 Fax

Region 3
Philadelphia Regional Office
(DE, DC, MD*, PA, VA*, WV)
The Curtis Center
170 S. Independence Mall West, Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900 (215) 861-4904 Fax

Region 4
Atlanta Regional Office
(AL, FL, GA, KY*, MS, NC*, SC*, TN*)
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Room 6T50
Atlanta, GA 30303
(678) 237-0400 (678) 237-0447 Fax

Region 5
Chicago Regional Office
(IL*, IN*, MI*, MN*, OH, WI)
John C. Kluczynski Federal Building
230 South Dearborn Street, Room 3244
Chicago, IL 60604
(312) 353-2220 (312) 353-7774 Fax

Region 6
Dallas Regional Office
(AR, LA, NM*, OK, TX)
A. Maceo Smith Federal Building
525 Griffin Street, Room 602
Dallas, TX 75202
(972) 850-4145 (972) 850-4149 Fax

Region 7
Kansas City Regional Office
(IA*, KS, MO, NE)
Two Pershing Square Building
2300 Main Street, Suite 1010
Kansas City, MO 64108-2416
(816) 283-8745 (816) 283-0547 Fax

Region 8
Denver Regional Office
(CO, MT, ND, SD, UT*, WY*)
Cesar Chavez Memorial Building
1244 Speer Boulevard, Suite 551
Denver, CO 80204
(720) 264-6550 (720) 264-6585 Fax

Region 9
San Francisco Regional Office
(AZ*, CA*, HI*, NV*, and American Samoa,
Guam and the Northern Mariana Islands)
San Francisco Federal Building
90 7th Street, Suite 2650
San Francisco, CA 94103
(415) 625-2547 (415) 625-2534 Fax

Region 10
Seattle Regional Office
(AK*, ID, OR*, WA*)
Fifth & Yesler Tower
300 Fifth Avenue, Suite 1280
Seattle, WA 98104
(206) 757-6700 (206) 757-6705 Fax

*These states and territories operate their own OSHA-approved job safety and health plans and cover state and local government employees as well as private sector employees. The Connecticut, Illinois, Maine, New Jersey, New York and Virgin Islands programs cover public employees only. (Private sector workers in these states are covered by Federal OSHA). States with approved programs must have standards that are identical to, or at least as effective as, the Federal OSHA standards.

Note: To get contact information for OSHA area offices, OSHA-approved state plans and OSHA consultation projects, please visit us online at www.osha.gov or call us at 1-800-321-OSHA (6742).

How to Contact OSHA

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to help ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

For assistance, contact us.
We are OSHA. We can help.

OSHA®
www.osha.gov

U.S. Department of Labor

For more information:

OSHA® Occupational Safety and Health Administration

www.osha.gov (800) 321-OSHA (6742)

Silica Exposure Control Plan

Purpose

The purpose of this Exposure Control Plan (ECP) is to protect company employees from exposure to Crystalline Silica. OSHA has determined that exposure to crystalline silica above the OSHA Permissible Exposure Limit (PEL) can cause health issues for the workers exposed. Due to the nature of the company's work, employees may be exposed to crystalline silica. This plan is designed to control that exposure to safe levels and keep our employees safe. The safety and health of our employee is paramount.

Regulatory Reference: §1926.1153 Respirable Crystalline Silica

Policy

Company employees who have not been though Silica Safety Training are not permitted to enter areas where tasks are being performed by our company or other contractors on the jobsite where there is potential exposure to crystalline silica. The typical types of contractors impacted by the OSHA regulations include but are not limited to, concrete, siding, granite countertops, floor/wall tile and masonry. Typical tasks that are impacted the OSHA regulation include masonry saws, grinders, drills, jackhammers and handheld powered chipping tools.

OSHA has stated that the construction silica standard does not apply where exposures will remain low under any foreseeable conditions; for example, when only performing tasks such as mixing mortar; pouring concrete footers, slab foundation and foundation walls; and removing concrete formwork. No company employees are allowed to enter an area where a dust cloud is being created by the other contractors' work. Employees must stay out of these areas at all times.

What is Crystalline Silica

Crystalline silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of crystalline silica. Crystalline silica may become respirable size particles when workers chip, cut, drill, or grind objects that contain crystalline silica. Exposure to respirable crystalline silica can cause silicosis, lung cancer, other respiratory diseases, and kidney disease. Keeping silica out of the air can reduce the hazard, so wet methods for cutting, drilling, etc. are preferable if feasible.

Responsibilities

The company firmly believes protecting the health and safety of our employees is everyone's responsibility. This responsibility begins with upper management providing the necessary support to

properly implement this plan. However, all levels of the organization assume some level of responsibility for this plan including the following positions.

- **Upper Management:**
  - Conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments to determine if an employee's exposure will be above 25 µg/m3 as an 8-hour TWA under any foreseeable conditions.

  - Select and implement the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1 or alternative exposure control methods.
  - Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this plan are in place and readily available if needed.
  - Ensure that Project Managers, Site Managers, Competent Persons, and employees are educated in the hazards of Silica exposure and trained to work safely with Silica in accordance with OSHA's Respirable Crystalline Silica Construction Standard and OSHA's Hazard Communication Standard. Managers and Competent Persons may receive more advanced training than other employees.
  - Maintain written records of training (for example, proper use of respirators), inspections (for equipment, PPE, and work methods/practices), medical surveillance, if necessary (under lock and key), respirator medical clearances (under lock and key) and fit-test results.
  - Conduct an annual review of the effectiveness of this plan. This includes a review of available dust control technologies to ensure these are selected and used when practical.
  - Coordinate work with other employers and contractors to ensure a safe work environment relative to Silica exposure.

- **Project Management / Site Management**
  - Ensure all applicable elements of this plan are implemented on the project including the selection of a Competent Person.
  - Assist the competent person to conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if exposure monitoring, respiratory protection and medical surveillance is necessary.
  - Assist in the selection and implementation of the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1 or alternative exposure control methods.

- Ensure that employees using respirators have been properly trained, medically cleared, and fit-tested in accordance with the company's Respiratory Protection Program.
- Ensure that work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring that workers use appropriate engineering controls, work practices, and wear the necessary PPE.
- Where there is risk of exposure to Silica dust, verify employees are properly trained on the applicable contents of this plan, the applicable OSHA Standards (such as Hazard Communication). Ensure employees are provided appropriate PPE when conducting such work.

• **Competent Person**

- Make frequent and regular inspections of job sites, materials, and equipment to implement the exposure control plan.
- Identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.
- Notify the Project Management / Site Management of any deficiencies identified during inspections to coordinate and facilitate prompt corrective action.
- Assist the Project Management / Site Management in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments to determine if exposure monitoring, respiratory protection and medical surveillance is necessary.

• **Employees**

- Follow recognized work procedures as established in this plan.
- Use the assigned PPE in an effective and safe manner.
- Participate in Respirable Crystalline Silica exposure monitoring and the medical surveillance program if necessary.
- Report any unsafe conditions or acts to Project Management / Site Management and/or Competent Person.
- Report any exposure incidents or any signs or symptoms of Silica illness.

Competent Person

The company has designated **Jimmy Sedbrook** as the competent person for tasks associated with this exposure control plan. The competent person is responsible for implementing this exposure control plan and will work with other supervisors and all employees to keep the workers safe.

Table 1

OSHA issued Table 1 as part of the standard. Table 1 matches common construction tasks with dust

control methods, so employers know exactly what they need to do to limit worker exposures to silica. The company has determined that we may from time to time perform the tasks listed on Table 1. If that occurs the competent person will ensure employees are trained and equipment will be provided for these tasks. If respiratory protection is required as part of these tasks, the employees will go through the company's respiratory protection program including medical evaluation, fit testing and training.

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(i) Stationary masonry saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(ii) Handheld power saws (any blade diameter)	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None APF 10	APF 10 APF 10
(iii) Handheld power saws for cutting fiber- cement board (with blade diameter of 8 inches or less)	For tasks performed outdoors only: Use saw equipped with commercially available dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None
(iv) Walk-behind saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None APF 10	None APF 10
(v) Drivable saws	For tasks performed outdoors only: Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(vi) Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	None	None
(viii) Dowel drilling rigs for concrete	For tasks performed outdoors only: Use shroud around drill bit with a dust collection system. Dust collector	APF 10	APF 10

PetraBee construction

	must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.		
(ix) Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. OR Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None
(x) Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. ➔ When used outdoors. ➔ When used indoors or in an enclosed area. OR Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10
(xi) Handheld grinders for mortar removal (i.e., tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 25
(xii) Handheld grinders for uses other than mortar removal	For tasks performed outdoors only: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. OR Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None None None	None None APF 10
(xiii) Walk-behind milling machines and floor grinders	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None

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	OR Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None	None
(xiv) Small drivable milling machines (less than half-lane)	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None
(xv) Large drivable milling machines (half-lane and larger)	For cuts of any depth on asphalt only: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. For cuts of four inches in depth or less on any substrate: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. OR Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None None None	None None None
(xvi) Crushing machines	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote-control station.	None	None
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica- containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab. When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.	None None	None None
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions. OR When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None None	None None

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(i) Stationary masonry saws  	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None	Water Controls: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzle is working properly to apply water at the point of dust generation; ■ The spray nozzle is not clogged or damaged; and ■ All hoses and connections are intact.
(ii) Handheld power saws (any blade diameter)  	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ■ When used outdoors. ■ When used indoors or in an enclosed area.	None APF 10	APF 10 APF 10	Water Controls: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzle is working properly to apply water at the point of dust generation; ■ The spray nozzle is not clogged or damaged; ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(iii) Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) 	For tasks performed outdoors only: ■ Use saw equipped with commercially available dust collection system. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ■ Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None	Dust Collection Systems: ■ The shroud or cowling is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions to prevent clogging; and ■ The dust collection bags are emptied to avoid overfilling.
(iv) Walk-behind saws 	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ■ When used outdoors. ■ When used indoors or in an enclosed area.	None APF 10	None APF 10	Water Controls: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly to apply water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(v) Drivable saws 	For tasks performed <u>outdoors only</u>: ■ Use saw equipped with integrated water delivery system that continuously feeds water to the blade. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None	Water Controls: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.
(vi) Rig-mounted core saws or drills 	■ Use tool equipped with integrated water delivery system that supplies water to cutting surface. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None	Water Controls: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills) 	■ Use drill equipped with commercially available shroud or cowling with dust collection system. ■ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ■ Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. ■ Use a HEPA-filtered vacuum when cleaning holes.	None	None	Dust Collection Systems: ■ The shroud or cowling is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(viii) Dowel drilling rigs for concrete 	For tasks performed outdoors only: ■ Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. ■ Use a HEPA-filtered vacuum when cleaning holes.	APF 10	APF 10	Dust Collection Systems: ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(ix) Vehicle-mounted drilling rigs for rock and concrete 	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. OR Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None	Dust Collection Systems: ■ The shroud or hood is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling. Water Controls: ■ An adequate supply of water for dust Suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water on the discharge point from the dust collector; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(x) Jackhammers and handheld powered chipping tools 	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. ■ When used outdoors. ■ When used indoors or in an enclosed area. OR Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. ■ When used outdoors. ■ When used indoors or in an enclosed area.	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10	Water Controls‡: ■ An adequate supply of water for dust suppression is used; ■ The water sprays are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact. Dust Collection Systems: ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xi) Handheld grinders for mortar removal (i.e., tuckpointing) 	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 25	Dust Collection Systems: ■ The shroud is intact, encloses most of the grinding blade, and is installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; ■ The dust collection bags are emptied to avoid overfilling; ■ The blade is kept flush against the surface whenever possible; and ■ The tool is operated against the direction of blade rotation, whenever practical.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xii) Handheld grinders for uses other than mortar removal 	For tasks performed <u>outdoors only</u>: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. OR Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. ■ When used outdoors. ■ When used indoors or in an enclosed area.	None None None	None APF 10	Water Controls§: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact. Dust Collection Systems: ■ The shroud is intact and installed in accordance with the manufacturer's instructions; ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions; and ■ The dust collection bags are emptied to avoid overfilling.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xiii) Walk-behind milling machines and floor grinders 	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. OR Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None None	None None	Water Controls: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact. Dust Collection Systems: ■ The hose connecting the tool to the vacuum is intact and without kinks or tight bends; ■ The filter(s) on the vacuum are cleaned or changed in accordance with the manufacturer's instructions to prevent clogging; and ■ The dust collection bags are emptied to avoid overfilling.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xiv) Small drivable milling machines (less than half-lane) 	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None	Water Controls: ■ An adequate supply of water for dust suppression is used; ■ The spray nozzles are working properly and produce a pattern that applies water at the point of dust generation; ■ The spray nozzles are not clogged or damaged; and ■ All hoses and connections are intact.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xv) Large drivable milling machines (half-lane and larger) 	For cuts of any depth on asphalt only: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. For cuts of four inches in depth or less on any substrate: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. OR Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None None None	None None None	No additional information provided. Refer to the engineering and work practice control methods outlined.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xvi) Crushing machines 	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None	Water Controls††: ■ Nozzles are located upstream of dust generation points and positioned to thoroughly wet the material; ■ The volume and size of droplets is adequate to sufficiently wet the material (optimal droplet size is between 10 and 150 µm); and ■ Spray nozzles are located far enough from the target area to provide complete water coverage but not so far that the water is carried away by wind.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials** 	Operate equipment from within an enclosed cab. When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.	None None	None None	No additional information provided. Refer to the engineering and work practice control methods outlined.

TABLE 1: SPECIFIED EXPOSURE CONTROL METHODS WHEN WORKING WITH MATERIALS CONTAINING CRYSTALLINE SILICA†				
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**		**What does *full and proper* implementation require?***
		≤ 4 hours /shift	**> 4 hours /shift**	
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials 	Apply water and/or dust suppressants as necessary to minimize dust emissions. OR When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None None	None None	The following scenarios are examples of when the employer must use water and/or dust suppressants as necessary to minimize dust emissions: ■ Equipment for grading and excavating is not equipped with enclosed, pressurized cabs. OR ■ Employees other than the operator are engaged in the task. If water or dust suppressants are applied as necessary to minimize visible dust, the employer need not provide an enclosed, filtered cab for the operator.

APF 10 (requires fit testing)		APF 25	
			
Dust Mask/Half Mask	Half Mask (Elastomeric)	Loose-Fitting Powered Air-Purifying Respirator (PAPR)	Hooded Powered Air-Purifying Respirator (PAPR)

† (1) When implementing the control measures specified in Table 1, each employer shall:

i. *For tasks performed using wet methods*, apply water at flow rates sufficient to minimize release of visible dust. The appropriate water flow rates for controlling silica dust emissions can vary; therefore, it is necessary to follow manufacturers' instructions when determining the required flow rate for dust suppression systems on a given worksite. Integrated water systems must be developed specifically for the type of tool in use so they will apply water at the appropriate dust emission points based on tool configuration and do not interfere with other tool components or safety devices.

Any slurry generated when using water to suppress dust should be cleaned up to limit secondary exposure to silica dust when the slurry dries following procedures described in the employer's *Written Exposure Control Plan*.

When working in cold temperatures, where there is a risk of water freezing, additional work practices such as insulating drums, wrapping drums with gutter heat tape or adding environmentally-friendly antifreeze.

ii. *For tasks performed using commercially available, dust collection systems (i.e. LEV)*, use equipment that is designed to effectively capture dust generated by the tool being used and does not introduce new hazards such as obstructing or interfering with safety mechanisms. The "commercially available" limitation is meant only to eliminate on-site improvisations of equipment by the employer. When employers use methods other than commercially available systems for dust suppression, they must conduct exposure assessments and comply with the PEL.

Some Table 1 entries for dust collection systems specify use of cyclonic pre-separators and filter cleaning mechanisms to prevent buildup of debris on filters that result in less dust capture. A cyclonic pre-separator collects large debris before the air reaches the filters. A filter cleaning mechanism prevents the need for manually cleaning filters to prevent buildup of debris (caking). Some vacuums are equipped with a gauge indicating filter pressure or an equivalent device (*e.g.*, timer to periodically pulse the filter) to help employees in determining when it is time to run a filter cleaning cycle.

i. *For tasks performed indoors or in enclosed areas*, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust. Indoors or in an enclosed areas mean areas where airborne dust can build up unless additional exhaust is used. Sufficient air circulation in enclosed or indoor environments is important to ensure the effectiveness of the control strategies and to prevent the accumulation of airborne dust. The means of exhaust necessary could include: the use of portable fans (box fans, floor fans, and axial fans), portable ventilation systems, or other systems that increase air movement and assist in the removal and dispersion of airborne dust. To be effective, the ventilation must be set up so that movements of employees during work, or the opening of doors and windows, will not negatively affect the airflow.

ii. *For measures implemented that include an enclosed cab or booth*, ensure that the enclosed cab or booth:
   a. Is maintained as free as practicable from settled dust;
   b. Has door seals and closing mechanisms that work properly;
   c. Has gaskets and seals that are in good condition and working properly;
   d. Is under positive pressure maintained through continuous delivery of fresh air;
   e. Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and
   f. Has heating and cooling capabilities.

(2) Where an employee performs more than one task on Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

* Refer to OSHA's Small Entity Compliance Guide for more information.

‡ The water delivery system is not required to be integrated or mounted on the tool; it can be assembled and installed by the employer. Acceptable water delivery systems include direct connections to fixed water lines or portable water tank systems. These water delivery systems can be operated by one worker or could require a second worker to supply the water at the point of impact.

§ The integrated water delivery system can be a free-flowing water system designed for blade cooling as well as manufacturers' systems designed for dust suppression alone. This option applies only when grinders are used outdoors.

†† The water spray systems can be installed so that they can be activated by remote control.

** NOTE: When the operator exits the enclosed cab and is no longer actively preforming the task, the operator is considered to have stopped the task. However, if other abrading, fracturing, or demolition work is performed by other heavy equipment and utility vehicles in the area while an operator is outside the cab, that operator is considered to be an employee "engaged in the task" and must be protected by the application of water and/or dust suppressants.

PetraBee construction

§1926.1153 Respirable crystalline silica.

(c) Specified exposure control methods. (1) For each employee engaged in a task identified on Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1, unless the employer assesses and limits the exposure of the employee to respirable crystalline silica in accordance with paragraph (d) of this section.

2. When implementing the control measures specified in Table 1, each employer shall:

i. For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;

ii. For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;

iii. For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:

a) Is maintained as free as practicable from settled dust;

b) Has door seals and closing mechanisms that work properly;

c) Has gaskets and seals that are in good condition and working properly;

d) Is under positive pressure maintained through continuous delivery of fresh air;

e) Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and

f) Has heating and cooling capabilities.

3. Where an employee performs more than one task on Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

PetraBee Construction
SFI-Safety & Health Program

1. Safety Program Start Up Checklist
2. Safety Goals Responsibilities
3. Safety and Health Guidelines
4. Hazard Communication Plan
5. Chemical Inventory List
6. Safety Data Sheets (SDS)
7. Fall Protection Plan
8. Scaffold Safety Plan
9. Respiratory Safety Plan
10. Crane Safety Plan
11. Silica Exposure Control Plan
12. Vehicle Safety Plan
13. Forklift Safety Plan
14. Employee Disciplinary Action Form
15. Safety Violation Reprimand Policy
16. Employee commitment to Work Safely
17. Employee Training Records
18. Safety Agreement Tracking Form
19. Subcontractor Safety Agreements
20. Competent Person Roster
21. OSHA Inspection Procedures
22. OSHA Inspection Report
23. OSHA Records and Reporting
24. Incident Investigation Plan & Forms
25. Toolbox Talk Rosters

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Safety Program Start Up Checklist

The supervisor should use this checklist when setting up this safety & health program. This checklist will provide the supervisor a basic understanding of the program. At any time, if you have any questions, please contact SFI Compliance, Inc. The phone numbers can be found on your Emergency Contact Form.

Item	Date Complete	Initials
Read and sign the Safety Program Acceptance Letter. Send back to SFI as shown on form.		
Remove the following items from the side pockets of the safety program and post in a prominent location. For an electronic program, these forms are found at the end of the file: • Code of Safe Work Practices • Emergency Contact Form • Safety Violation Reprimand/Fine Policy • Crane Hand Signals (English & Spanish) • OSHA Posters (English & Spanish)		
Remove the Safety Inspection File from the side pocket of the safety program. This is to file all safety inspection forms. Keep this file separate from your safety program. The inspection forms are confidential and should only be shown to others with authorization from Upper Management and/or SFI Compliance, Inc.		
Note the location in the side pockets of the Construction Safety Resources USB drive and Safety Violation Write Up Pad. The Construction Safety Resources USB drive contains over 100 tool box talk topics in English and Spanish as well as many other safety resources from SFI and OSHA. The Safety Violation Write Up Pad is used to document enforcement. These are not included with an electronic program. If you need these, please contact SFI. You will need to use these to document your safety efforts.		
Get the location of the nearest emergency facility. Print a map and directions to this facility and post in a prominent location.		
Post the Worker's Compensation Clinics or Urgent Care Clinics to be used by employees for non-emergency issues.		
Post all required labor posters. An all in one poster set is the preferred method. Please contact SFI Compliance, Inc. for more information.		
Ensure your site has the proper first aid and safety equipment to protect your workers. Contact SFI Compliance, Inc. if you need assistance with any of this product. Contact your company Safety/HR department for a complete list, here is a partial: • 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		

Review each section of your safety program and make sure all employees review:		
• Section 2: Make sure you understand your goals and responsibilities associated with this program.		
• Section 3: Review and understand the general safety and health guidelines that are found in this section.		
• Section 4: Review and understand the hazard communication plan. Train your employees in the requirements.		

• Section 5: Fill out the chemical inventory list for the chemicals that your company uses or supplies.		
• Section 6: SDS forms should be filed in the same order as the chemical inventory list in this section.		
• Section 7: Review and understand the fall protection plan for this site. Make sure all subcontractors that will need fall protection fill out the Subcontractor Fall Protection Checklist that is found as part of the Subcontractor Safety Agreements.		
• Section 8: Review and understand the scaffold safety plan. A scaffold inspection form can be found at the end of this section.		
• Section 9: Review and understand the respiratory protection plan. If respirators are used, this plan must be followed.		
• Section 10: Review and understand the crane safety plan. Collect all required documentation for all cranes to be used.		
• Section 11: Review and understand the silica exposure control plan. A competent person must be identified on page 3 of the plan.		
• Section 12: Review and understand vehicle safety. Vehicular accidents are the # 1 cause of death in the US workplace.		
• Section 13: Review and understand the forklift safety plan. All operators must be certified on the forklift class they are operating.		
• Section 14: Use this form if you need to discipline any employee.		
• Section 15: Review and understand this policy to enforcement of the safety and health guidelines contained throughout this program.		
• Section 16: Each employee of the company is expected to sign this form once they have read the safety program. File the filled-out forms in this section.		
• Section 17: Use these forms to document all the training you conduct with your employees.		
• Section 18: This form is used to track the subcontractor safety agreements that have been issued and turned back.		
• Section 19: Hand a copy of this to each subcontractor and have them sign and return. File the filled-out forms in this section.		
• Section 20: Use this form to track the competent people for each of your subcontractors.		
• Section 21: Review and understand the OSHA inspection procedures contained in this program. Plan ahead and be ready.		
• Section 22: Review the required report if you have an OSHA inspection. Please ask SFI Compliance, Inc. if you have any questions.		
• Section 23: Please familiarize yourself with the process required by OSHA. The forms should be used to track recordable events for your employees.		
• Section 24: This section describes the process for investigating incidents. The forms can be used for any accident or near miss. For assistance, please contact SFI.		
• Section 25: The USB drive found on the inside front cover of this program contains over 100 topics to hold your safety meetings. Have everyone sign in at each meeting and file the forms in this section.		

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 Company 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 own safety program, including providing the proper, competent person (s) for the specific task they are responsible for. Therefore, as a condition of employment by the company 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 in our Company 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 which 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, the Company believes 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,

PetraBee Construction

COMPANY SAFETY GOALS

Managers and supervisors are accountable to the upper management of this company for the successful achievement of targeted Company safety and health goals. The Company's 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 our Company's 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 is 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 illness 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 Company 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 of the Company, our clients, and our visitors. Each employee is required, as a condition of employment with the Company, 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 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. The Company safety guidelines apply to all employees of the Company, without exception. The Company 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, or to observe Company 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 with the Company. 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 workplace 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 to work 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 which 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 Company 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 unless there are extenuating circumstances.
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 Chemical Inventory 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 a SDS, the Chemical Inventory 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 Company 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 Company 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 workplace safety and health, by personally conducting a daily workplace safety inspection and by directing corrective action.
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 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 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 Chemical Inventory 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 Chemical Inventory 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 safely perform non-routine tasks.

h. Coordinate hazard communication with other employers, such as subcontractors, in a Company workplace as needed to protect Company 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—the Company's Upper Management is responsible to provide 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 Company safety goals and objectives.
c. Establish an adequate budget to fund the safety program. Subcontractors, trade partners, suppliers and vendors are also responsible to develop, implement and follow their own safety program, including providing the proper funding of to successfully achieve the goals of the safety program.
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", 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 prior, written approval of the SFI Compliance, Inc.

SAFETY INSPECTION CHECKLIST

Date/Time: _____ Inspector: _____

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						
Crane/Rigging/Signaling						
Equipment						
Tools						
Confined Space						
Access / Egress						
Housekeeping						
Rebar						
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 request additional guidance from their supervisor when needed.

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FIRST AID AND MEDICAL TREATMENT

First aid supplies are provided at the project. Qualified personnel are 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. First aid should not be administered by non-designated employees 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 requires 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 Manufactures must be adhered to. Company policy may dictate PPE, which exceeds the requirements of the above-mentioned sources.

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 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 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.

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 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; paint; or store them in extreme temperatures.

Eye and Face Protection

- Workers must wear safety glasses 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.

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.

Hand Protection

- High-quality gloves can prevent injury.
- 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).

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

Improper housekeeping and material storage can create or hide numerous hazards such as:

- Slip & trip hazards
- Chemical exposure
- Contact with sharp objects
- Fire & Explosion hazards
- Over loading 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. Water shall not be dipped from 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, 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 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 injury can still occur to the worker during the fall and once the fall is stopped, how are you going to rescue the worker.
- Administrative Controls: these are basically just 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 who 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 prior to 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 prior to allowing any worker to work in a PFAS.

Guardrails and Hole Covers

Openings in floors and walls are often found on the project due to the nature of construction. Keeping these areas safe is a requirement at all times. The following should be followed:

- 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

Stairs can be great ways to access other levels on the project. Stairs are often easier to use and safer than ladders. However, when used prematurely or improperly, stairs can be very hazardous.

- 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.
- 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 work site. There is no excuse for using a makeshift means of access to a work area. If the appropriate ladder is not available, discuss with your supervisor. In addition to using the correct ladder for the job, follow these guidelines:

- Keep all ladders in good condition and free of defects.
- Inspect ladders before use for broken rungs or other defects so falls don't happen. Broken or damaged ladders must not be used. Repair or destroy them immediately. Ladders to be repaired must be tagged “DO NOT USE.”
- Secure ladders near the top and/or at the bottom to prevent them from slipping and causing falls.
- 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.
- 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 made and not as a platform, runway, or as scaffold planks.
- 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 over reaching, the midline of your body should never extend beyond the ladders side rail.
- 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.
- 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

These guidelines can keep you safe and productive:

- 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.
- Don't use scaffolds near power lines.
- Make sure you have safe ladder 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 or 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. Material should not be hoisted until it is ready to be put into place.
- Safety hooks with proper hasps 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 a 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. Records of such inspections and resultant action taken shall be maintained by the contractor.
- 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. A certification of 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

Riggers and signal persons are required to be qualified. Here are some basic requirements:

- Get your signals straight—Appoint one member of the crew to act as 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, or whatever to maintain tension, be sure your hands and feet are out of the way of pinch points before giving an "all ready."
- Protect your hands—If it isn't possible to release the chain, sling, or choker, make sure your hand is clear of pinch points. In fact, 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.
- Watch out for rock and roll—It's almost impossible to position the hook exactly over the load center. So, watch out for a swing or roll. Anticipate he 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.
- Stay out from under—Never get under a suspended load and keep out from under the crane's boom too. The chances are that nothing will break. But are you willing to bet life and limb that it won't?
- Set it down carefully—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 be landed. 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 forklift should only be operated by a trained and certified operator. 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.
- 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.

- 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.

Aerial Lifts

- Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
- Only trained and authorized 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 boom or basket 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 which 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 plainly 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 and deeper.
- Evaluation of shoring, sloping, or other means to eliminate the potential for cave-ins must be performed prior to the start of work. The evaluation must be performed by a competent person who is knowledgeable in the areas of soil analysis, the use of protective systems and in 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 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 ground water seepage as a potential cause of 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

Use of tools makes many tasks easier. However, the same tools that assist us, if improperly used or maintained, can create significant hazards in our work areas. Employees who use tools must be properly trained to use, adjust, store and maintain tools properly. This section covers hand & power, pneumatic, powder driven, and hydraulic tool safety.

Hand & Power Tools

Only tools in safe working condition should be used. (You must observe the following safe practices):

- Inspect your tools daily to ensure that they are in proper working order. Damaged or defective tools must be returned immediately.
- 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. The design capacity of hand tools should not be exceeded by unauthorized attachments.
- 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

Pneumatic tools are powered by compressed air and include chippers, drills, hammers, and sanders. There are several dangers encountered in the use of pneumatic tools. The main one is the danger of getting hit by one of the tool's attachments or by some kind of fastener the worker is using with the tool. Eye protection is required, and face protection is recommended for employees working with pneumatic tools. Working with noisy tools such as jackhammers requires proper, effective use of hearing protection.

When using pneumatic tools, employees are to check to see that they are 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 operate like a loaded gun and should be treated with the same respect and precautions. In fact, they are so dangerous that they must be operated only by specially trained employees.

Powder-Actuated Tool Safety:

- 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, especially where it would be available to unauthorized persons.
- Hands should be kept clear of the barrel 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. Also, 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.

Proper maintenance of jacks is essential for safety. All jacks must be inspected before each use and lubricated regularly. 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 electrically related injuries and property damage. Exercise caution when working with and around electricity. Getting to know electricity “inside and out” is the only way to be safe.

The “force” carried by electricity is measured in “VOLTS”.

- Volts provide the power to keep tools and machines running.
- Most power tools and appliances run on 120 volts.

“Current” is the “Flow” of electricity.

- The intensity of the Current is measured in “Amperes” (Amps).
- Most household and industrial electrical lines can safely carry 15 to 20 Amps.
- To carry more Current (Amps) electrical lines need to have thicker wires.

It doesn’t take much current to cause a serious injury.

- Exposure to .06 Amps (the electricity needed to light a Christmas tree bulb) can be fatal.

Electricity “Flows” when a “Loop” (Circuit) is completed.

- A Loop is an uninterrupted path of electricity from power source to equipment and back.
- When a loop is completed, tools and machines are powered.
- By turning on a switch to a machine the loop is complete and electricity flows. When the switch is turned off, the flow of electricity is broken.

The Flow of electricity can be broken by a “Fuse” or “Circuit Breaker”.

- These devices stop the flow of electricity when wires become overloaded.
- Don’t try to override Fuse or Circuit Breaker systems by installing higher rated Fuses or Breakers.
- Before turning a Breaker back on, consult your supervisor.

The earth’s gravity is always pulling electricity toward the ground (“Grounding”).

- This can lead to shock if you are in its path.

Controlled Grounding provides a safeguard.

- If electricity leaks through defective wiring in a tool, the “ground wire” will direct the electricity back to “ground”.
- The “ground wire” is easily visible in three-pronged plugs.
- In order for a “ground wire” to be effective, it must be pulled into a “grounded” outlet.
- You can’t tell if an outlet is grounded just by looking at it (it must be tested).

“Ground Fault Circuit Interrupters” (GFCI) provide additional safety.

- They immediately shut off the flow of electricity when they sense a change in the strength of the current.
- If a defective tool leaks electricity that might cause a shock, a GFCI will cut off the power.

Following Safe Work Practices is critical when working around electricity.

- Remember that electricity can be dangerous.

Electrical Hazards most often result in:

- Fires
- Shocks
- Burns

A number of hazards are the result of faulty wiring.

- Check all power cords for cracks and other defects.
- Report problems or have faulty cords replaced or serviced.
- Don’t overload circuits (too much current will cause wiring to heat up).
- Limit the use of extension cords to temporary situations.
- Choose an extension cord that can handle the amperage you are using.

Remember that all electrical equipment should be properly grounded.

- If you are using a “two-pronged” adapter, connect the ground wire.
- Never alter three-pronged plugs to fit into two-pronged outlets.
- Temporary wiring must be GFCI protected.

You should also exercise caution when selecting and working with electrical equipment.

- Use “double-insulated” tools whenever possible.
- Look for sparks being thrown off by electrical equipment.
- Unless you are qualified, don’t try to fix problems yourself.
- Tell your supervisor and contact a repairperson.

“Qualified” workers most often disconnect all power sources before making repairs or adjustments on electrical equipment.

- This means practicing proper Lock-Out-Tag-Out techniques.
- If a machine has been locked and tagged, don’t try to restore power until repairs have been made.
- Never override special safety devices like electrical interlocks.
- Consult your supervisor if you have any questions about things like Lock-Out-Tag-Out.

Some of the things that we wear can conduct dangerous amounts of electricity straight to us.

- Key-chains, metal jewelry, metalized aprons, or head gear.
- Conductive materials should only be worn if they are insulated.

Often when working with and around electricity, you will need safety equipment.

- Insulated gloves.
- Other equipment.
- Talk to your supervisor about the right PPE for your job.

Some work environments have special hazards.

- These situations require extra caution.

Water and Electricity are a dangerous combination.

- Water conducts electricity and can lead to shock.
- Never plug in cords that are wet.
- Don’t touch electrical equipment if your hands are wet.
- If you encounter water, remove it.
- Use safety devices like double-insulated tools and Ground Fault Interrupters when working around water.

Confined Spaces can also cause electrical hazards.

- Use shields and barriers to avoid contact with energized power lines.
- Keep hinged doors and panels secure (so they don’t know you’re into electrical lines).

Working around overhead power lines can also be dangerous.

- Always maintain a safe distance.
- If you are not experienced working with high voltage, you cannot come within 10 feet of a 50,000-volt line.
- Only “Qualified” workers can actually work on high voltage lines.
- It is also important to select the correct type of Ladder when working in and around electricity.
- Don’t use metal ladders near power lines, wiring or energized machinery.
- Use fiberglass or wooden ladders.
- Make sure ladders have non-conductive side rails.

All electrical cords and tools must be in good repair.

- Do not splice 120v or 220v wires.
- Tools that have had their electrical cords replaced shall be done with factory cords, no extension cord shall be wired to a tool.
- No exposed wires shall be exposed. This includes ground wires.
- Extension cords going through doorways or windows shall be protected from being “pinched”.
- Temporary lighting shall be hung by OSHA and Manufacturers standards.
- All 120v systems shall be protected by a breaker and a GFCI.
- 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.)

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 also apply to flammable gases, other properties such as toxicity, reactivity, and corrosivity also must be taken into account. Also, a gas that is flammable could produce toxic combustion products.

Fire Extinguishers

A portable fire extinguisher is a "first aid" device and is very effective when used while the fire is small. 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 which 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 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:

- 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. If you can't provide the necessary safeguards, check with your supervisor.
- You must not weld or burn in a hazardous area without obtaining written authorization from the responsible authority.
- You must make certain that suitable fire extinguishing equipment is available in your work area.
- You are responsible for maintaining your burning or welding equipment in a safe operating condition.
- When burning or welding, you must wear approved eye protection, with suitable filter lenses.
- Keep all welding leads and burning hoses off floors, walkways, and stairways. You are responsible that your equipment complies with safe practices at all times.
- 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.
- Fire blankets must be used to prevent hot material from falling on persons or combustible materials.

Welding

- If your eyes are exposed to flying objects from chipping slag or other weld cleaning activity, you must wear approved eye protection.
- When you are welding near other workers, they must be protected from the arc rays by noncombustible screens or must wear adequate eye protection.
- The frames of all welding machines must be grounded (except reverse polarity types).

Burning

- Do not use matches to light torches. Spark igniters must be used. Torches must not be used to light cigarettes, etc.
- You must wear appropriate gloves.
- 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.
- All cylinders must be properly secured to prevent tipping.
- Cylinders must not be taken into confined spaces.

CONCRETE & MASONRY

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

- Do not place any loads on any portion of a concrete structure until it has 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. (Note: The little mushroom caps commonly found on rebar do not prevent impalement; they are there primarily to prevent scratch injuries.
- Workers are not permitted to work under concrete buckets while they are being raised or lowered into position.
- 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 4 ft. wider than the height of the wall, 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.
- Be sure that all off-road equipment used on site is equipped with rollover protection (ROPS).
- Maintain back-up alarms for equipment with limited rear view or use someone to help guide them back.
- Be sure that all vehicles have fully operational braking systems and brake lights.
- Use seat belts when transporting workers in motor and construction vehicles.

- Maintain at least a 10-foot clearance from overhead power lines when operating equipment.
- Block up the raised bed when inspecting or repairing dump trucks.
- Know the rated capacity of the crane and use accordingly.
- Ensure the stability of the crane.
- Use a tag line to control materials moved by a crane.
- Verify experience or provide training to crane and heavy equipment operators.

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 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. All of these tasks should only be undertaken by qualified and trained workers.

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)

- Leg muscles are stronger than back muscles. Lift with your legs, not your back. Bend knees, keep your back straight.
- Plan before you pick up, consider weight, size, shape, path of travel, and set down location.
- Protect your hands and fingers from rough edges, sharp corners, metal straps. Keep hands and fingers out of pinch points between the load and other objects.

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 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, 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 needs-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 for appropriate counseling 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 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

If an emergency occurred on a construction site, employees should know how to handle certain situations. Basic procedures are as follows:

- **TAKE COMMAND**—Assign the following duties to specific personnel.
- **PROVIDE PROTECTION**—Protect the accident scene from continuing or further hazards—for example: traffic, operating machinery, fire or live wires.
- **GIVE FIRST AID**—Give first aid to the injured as soon as possible
- **CALL AN AMBULANCE**—Call an ambulance and any other emergency services that are required
- **GUIDE THE AMBULANCE**—Meet and direct the ambulance to the accident scene
- **GET THE NAME OF THE HOSPITAL**—For a follow-up, find out where the injured person is being taken
- **ADVISE MANAGEMENT**—Inform senior management. They can then contact relatives, notify authorities, and start procedures for reporting and investigating the accident
- **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

Medical Emergencies

- Call 911 to contact Emergency Medical Services (EMS).
- Unless trained, do not attempt to render any first aid before trained
- Do not attempt to move an injured person.
- Limit your communication with ill or injured person to quiet reassurances.
- After the person's immediate needs have been taken care of, remain to assist the investigating officer with pertinent information about the incident.
- If the victim is an employee, the victim's supervisor should fill out the accident investigation report and first report of injury.
- Planning for such emergencies includes being trained in emergency first aid procedures and CPR.

Fire Emergencies

In the event of a fire:

- 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.
- Confine hazardous materials in cabinets.
- Walk to the nearest stairwell/exit and evacuate the building.
- DO NOT USE ELEVATORS.

Chemical Emergencies

In the event of a chemical spill:

- 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.
- 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.

Tornado Watches & Warnings

- When a tornado watch is announced, this means that conditions are right for the formation of tornadoes. Keep your radio or television or NOAA weather radio tuned to a local station for updated information and advice from the weather service.
- 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 steel frame or reinforced concrete building. Go to the basement, 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.
- 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, be very cautious. Watch for downed power lines, broken gas lines, broken glass, etc.

Earthquakes

- Stay calm. Don't panic. Stay where you are. If outside, stay outside. If inside, stay inside. Most injures occur as people are entering or leaving buildings
- 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
- 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
- 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

- If you are outside, move away from buildings and utility wires. Remain in an open area until the shaking stops
- 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
- Don't re-enter buildings until emergency response personnel advise it is safe
- Be prepared for aftershocks (additional shaking)

Bomb Threat

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

- 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 call originated.
- Call the Police by dialing 911.
- Notify Superintendent

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.
- 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:

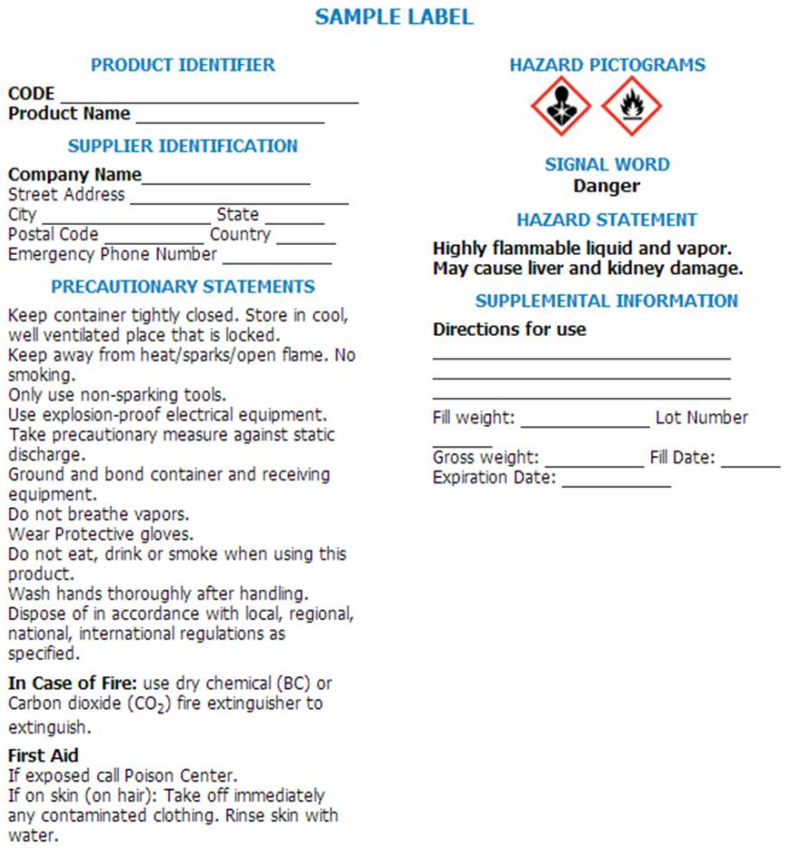
- Flammable Liquids: store in approved flammable storage lockers.
- Acids: treat as flammable liquids
- Bases: do not store bases with acids or any other material
- Other liquids: ensure other liquids are not incompatible with any other chemical in the same storage location.
- Lips, strips, or bars are 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. Refrigerators used for storing chemicals must be appropriately identified by a label on the door.

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. Facility weekly supervisor 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 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 flash point 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 flash points 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 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 temperature 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 temperature 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 flash point below 100 deg. F., except any mixture having components with flash points of 100 deg. F. or higher, the total of which make up 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 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.
- Flash point: the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.
- Hazardous chemical: any chemical, which is a physical hazard or a 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 in accordance with 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 it 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 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 provides the essential contact information of 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 party, and emergency phone number.
- Recommended use of the chemical (e.g., a brief description of what it actually 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 (the 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 or
  - 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 batch-to-batch variation, or
  - 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 of 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
- Flash point
- 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 temperature 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 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, making reference 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 adsorption 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 of 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 hazardous chemical(s) by road, air, rail, or sea. The information may include:

- UN number (i.e., four-figure identification number of the substance)1.
- UN proper shipping name1.
- Transport hazard class(es)1.
- Packing group number, if applicable, based on the degree of hazard2.
- 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 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

Chemical Inventory List

Chemical Name	Storage Location	Quantity

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

Safety Data Sheets (SDS)

Please file all Safety Data Sheets for this project behind this page.

Fall Protection Plan

Purpose

The purpose of the fall protection plan is to:

- Ensure all construction areas are free from uncontrolled fall hazards
- All exposed employees are properly trained in fall prevention and protection
- Fall prevention systems are inspected and monitored to ensure effectiveness

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 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). The 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 due to falling.

All employees exposed to potential falls from heights will be trained to minimize the exposures. Fall protection equipment will be provided and its use required by all employees. Superintendents will be responsible for the implementation of this fall protection program for their jobsite.

Hazard Identification

The superintendent on each jobsite will be responsible for identifying fall hazards on their jobsite. The superintendent will evaluate each situation or work procedure where employees may be exposed to a fall of 6 feet or more. The superintendent will be responsible for developing a plan to eliminate the exposures, if possible, or to select the appropriate fall protection systems and/or 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 were 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 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.

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, as during of materials, and a worker must lean through the access opening or out over the edge of the access opening to receive or guide equipment and materials, that employee must be protected by a personal fall arrest system.

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.

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 not more 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, the top edge height of the top rail, or equivalent member, must be increased an amount equal to the height of the stilts.

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 a 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 be capable of withstanding a force of at least 150 pounds (667 newtons) applied in any downward or outward direction at any point along the midrail or other 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 such 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 not 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 used as 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

These consist of an anchorage, connectors, and a body belt or body harness and may include a deceleration device, lifeline, or suitable combinations. 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.

The use of body belts for fall arrest is prohibited and a full body harness is required.

Personal fall arrest systems must be inspected prior to 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 a 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-For Non-Roofing Related Work

Warning line systems consist of ropes, wires, or chains, and supporting stanchions and are set up as follows:

- Flagged at not 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. The warning lines shall be erected not less than 15 feet from the roof edge.

Workers outside of the warning line system must be protected by PFAS.

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 workers 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 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 another section of this program shall be used.

Scaffold Safety Plan

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 mainly 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 provides 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 Occupational Safety and Health Standards for General Industry (29 CFR 1910.28) and Occupational Safety and Health Standards for Construction Industry (29 CFR

1926.451).

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 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 about 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 employee, 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 about 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, except 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.

This training should be done upon initial job assignment. Retraining shall be done when job conditions change. Periodic refresher training shall be done at the discretion of the supervisor.

Company 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 is 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 many 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 ensure 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 will 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 Grades, or equivalent, as recognized by approved grading rules for the species of wood used. The maximum permissible span for 2 X 9 inch or wider planks is shown in the following:
- 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 are 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

All scaffolding must be inspected by a competent person prior to 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 and is 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: _____

GENERAL

In the Respiratory Protection program, hazard assessment and selection of proper respiratory protective equipment (RPE) is conducted in the same manner as for other types of personal protective equipment (PPE). In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used. References: OSHA Standards Respiratory Protection (29 CFR 1910.134)

RESPONSIBILITIES

All Employees shall follow the requirements of the Respiratory Protection Program.

Management

- implement the requirements of this program
- provide a selection of respirators as required
- enforce all provisions of this program
- appoint a specific designated individual to conduct the respiratory protection program

Program Administrator

- review sanitation/storage procedures.
- ensure respirators are properly, stored, inspected and maintained
- monitor compliance for this program
- provide training for affected Employees
- review compliance and ensure monthly inspection of all respirators
- provide respirator fit testing

Designated Occupational Healthcare Provider

- conduct medical aspects of program

PROGRAM ADMINISTRATOR

Each Facility will designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness.

VOLUNTARY USE OF RESPIRATORS IS PROHIBITED

OSHA requires that voluntary use of respirators, when not required by the company, must be controlled as strictly as under required circumstances. To prevent violations of the Respiratory Protection Standard Employees are not allowed voluntary use of their own or company supplied respirators of any type.

Exception: Employees whose only use of respirators involves the voluntary use of filtering (non-sealing) face pieces (dust masks).

PROGRAM EVALUATION

Evaluations of the workplace are necessary to ensure that the written respiratory protection program is being properly implemented; this includes consulting with employees to ensure that they are using the respirators properly. Evaluations shall be conducted as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective Program evaluation will include discussions with employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:

- Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);
- Appropriate respirator selection for the hazards to which the employee is exposed;
- Proper respirator use under the workplace conditions the employee encounters; and
- Proper respirator maintenance.

RECORDKEEPING

The Company will retain written information regarding medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the respirator program, assist the Company in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.

TRAINING AND INFORMATION

Effective training for employees who are required to use respirators is essential. The training must be comprehensive, understandable, and recur annually, and more often if necessary. Training will be provided prior to requiring the employee to use a respirator in the workplace. The training shall ensure that each employee can demonstrate knowledge of at least the following:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator
- Limitations and capabilities of the respirator
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions
- How to inspect, put on and remove, use, and check the seals of the respirator
- What the procedures are for maintenance and storage of the respirator
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators
- The general requirements of this program

Retraining shall be conducted annually and when:

- changes in the workplace or the type of respirator render previous training obsolete
- inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill
- other situation arises in which retraining appears necessary to ensure safe respirator use

Training will be conducted by certified instructors. Training is divided into the following sections:

Classroom Instruction

1. Overview of the Company Respiratory Protection Program & OSHA Standard
2. Respiratory Protection Safety Procedures
3. Respirator Selection
4. Respirator Operation and Use
5. Why the respirator is necessary
6. How improper fit, usage, or maintenance can compromise the protective effect.
7. Limitations and capabilities of the respirator.
8. How to use the respirator effectively in emergency situations, including respirator malfunctions
9. How to inspect, put on and remove, use, and check the seals of the respirator.
10. What the procedures are for maintenance and storage of the respirator.
11. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
12. Change out schedule and procedure for air purifying respirators.

Fit Testing

Hands-on respirator Training

1. Respirator Inspection
2. Respirator cleaning and sanitizing
3. Record Keeping
4. Respirator Storage
5. Respirator Fit Check
6. Emergencies

BASIC RESPIRATORY PROTECTION SAFETY PROCEDURES

- Only authorized and trained Employees may use Respirators. Those Employees may use only the Respirator that they have been trained on and properly fitted to use.
- Only Physically Qualified Employees may be trained and authorized to use Respirators. A pre-authorization and annual certification by a qualified physician will be required and maintained. Any changes in an Employees health or physical characteristics will be reported to the Occupational Health Department and will be evaluated by a qualified physician.
- Only the proper prescribed respirator or self-contained breathing apparatus (SCBA) may be used for the job or work environment. Air cleansing respirators may be worn in work environments when oxygen levels are between 19.5 percent to 23.5 percent and when the appropriate air cleansing canister, as determined by the Manufacturer and approved by the National Institute for Occupational Health (NIOSH) or the Mine Safety & Health Administration (MSHA), for the known hazardous substance is used. SCBAs will be worn in oxygen deficient and oxygen rich environments (below 19.5 percent or above 23.5 percent oxygen).
- Employees working in environments where a sudden release of a hazardous substance is likely will wear an appropriate respirator for that hazardous substance (example: Employees working in an ammonia compressor room will have an ammonia APR respirator on their person.).
- Only SCBAs will be used in oxygen deficient environments, environments with an unknown hazardous substance or unknown quantity of a known hazardous substance or any environment that is determined "Immediately Dangerous to Life or Health" (IDLH).
- Employees with respirators loaned on "permanent check out" will be responsible for the sanitation, proper storage and security. Respirators damaged by normal wear will be repaired or replaced by the Company when returned.
- The last Employee using a respirator and/or SCBA that are available for general use will be responsible for proper storage and sanitation. Monthly and after each use, all respirators will be inspected with documentation to assure its availability for use.
- All respirators will be located in a clean, convenient and sanitary location.
- In the event that Employees must enter a confined space, work in environments with hazardous substances that would be dangerous to life or health should an RPE fail (a SCBA is required in this environment), and/or conduct a hazardous material (HAZMAT) entry, a "buddy system" detail will be used with a Safety Watchman with constant voice, visual or signal line communication. Employees will follow the established Emergency Response Program and/or Confined Space Entry Program when applicable.
- Management will establish and maintain surveillance of jobs and work place conditions and degree of Employee exposure or stress to maintain the proper procedures and to provide the necessary RPE.
- Management will establish and maintain safe operation procedures for the safe use of RPE with strict enforcement and disciplinary action for failure to follow all general and specific safety rules. Standard Operation Procedures for General RPE use will be maintained as an attachment to the Respiratory Protection Program and Standard Operation Procedures for

RPE use under emergency response situations will be maintained as an attachment to the Emergency Response Program.

RESPIRATOR USER POLICIES

Adherence to the following guidelines will help ensure the proper and safe use of respiratory equipment:

- Wear only the respirator you have been instructed to use. For example, do not wear a self-containing breathing apparatus if you have been assigned and fitted for a half-mask respirator.
- Wear the correct respirator for the particular hazard. For example, some situations, such as chemical spills or other emergencies, may require a higher level of protection than your respirator can handle. Also, the proper cartridge must be matched to the hazard (a cartridge designed for dusts and mists will not provide protection for chemical vapors)
- Check the respirator for a good fit before each use. Positive and negative fit checks should be conducted.
- Check the respirator for deterioration before and after use. Do not use a defective respirator.
- Recognize indications that cartridges and canisters are at their end of service. If in doubt, change the cartridges or canisters before using the respirator.
- Practice moving and working while wearing the respirator so that you can get used to it.
- Clean the respirator after each use, thoroughly dry it and place the cleaned respirator in a sealable plastic bag.
- Store respirators carefully in a protected location away from excessive heat, light, and chemicals.

SELECTION OF RESPIRATORS

The Company has evaluated the respiratory hazard(s) in each workplace, identified relevant workplace and user factors and has based respirator selection on these factors. Also included are estimates of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. This selection has included appropriate protective respirators for use in IDLH atmospheres and has limited the selection and use of air-purifying respirators. All selected respirators are NIOSH-certified.

Filter Classifications - These classifications are marked on the filter or filter package

N-Series: Not Oil Resistant

- Approved for non-oil particulate contaminants
- Examples: dust, fumes, mists not containing oil

R-Series: Oil Resistant

- Approved for all particulate contaminants, including those containing oil
- Examples: dusts, mists, fumes

- Time restriction of 8 hours when oils are present

P-Series: Oil Proof

- Approved for all particulate contaminants including those containing oil
- Examples: dust, fumes, mists
- See Manufacturer's time use restrictions on packaging

RESPIRATORS FOR IDLH ATMOSPHERES

- The following respirators will be used in IDLH atmospheres:
- A full-face piece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or
- A combination full face piece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

RESPIRATORS FOR ATMOSPHERES THAT ARE NOT IDLH

The respirators selected shall be adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations. The respirator selected shall be appropriate for the chemical state and physical form of the contaminant.

Identification of Filters & Cartridges

All filters and cartridges shall be labeled, and color coded with the NIOSH approval label and that the label is not removed and remains legible. A change out schedule for filters and canisters has been developed to ensure these elements of the respirators remain effective.

Respirator Filter & Canister Replacement

An important part of the Respiratory Protection Program includes identifying the useful life of canisters and filters used on air-purifying respirators. Each filter and canister shall be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or

If there is no ESLI appropriate for conditions a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

Filter & Cartridge Change Schedule

Stock of spare filers and cartridges shall be maintained to allow immediate change when required or desired by the employee

Cartridges shall be changed based on the most limiting factor below:

- Prior to expiration date
- Manufacturer's recommendations for use and environment
- After each use
- When requested by employee
- When contaminate odor is detected
- When restriction to air flow has occurred as evidenced by increase effort by user to breathe normally
- Cartridges shall remain in their original sealed packages until needed for immediate use

Filters shall be changed based on the most limiting factor below

- Prior to expiration date
- Manufactures recommendations for the specific use and environment
- When requested by employee
- When contaminate odor is detected
- When restriction to air flow has occurred as evidenced by increase effort by user to breathe normally
- When discoloring of the filter media is evident
- Filters shall remain in their original sealed package until needed for immediate use.

RESPIRATORY PROTECTION SCHEDULE BY JOB AND WORKING CONDITION

The Company maintains a Respiratory Protection Schedule by Job and Working Condition. This schedule is provided to each authorized and trained Employee. The Schedule provides the following information:

- Job/Working Conditions
- Work Location
- Hazards Present
- Type of Respirator or SCBA Required
- Type of Filter/Canister Required
- Location of Respirator or SCBA
- Filter/Cartridge change out schedule

The schedule will be reviewed and updated at least annually and whenever any changes are made in the work environments, machinery, equipment, or processes or if respirator different respirator models are introduced or existing models are removed.

Permanent respirator schedule assignments are:

Each person who engages in welding will have their own company provided dust-mist-fume filter APR. This respirator will be worn during all welding operations.

PHYSICAL AND MEDICAL QUALIFICATIONS

Records of medical evaluations must be retained and made available in accordance with 29 CFR 1910.1020.

Medical evaluation required

Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. The company provides a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace.

Medical evaluation procedures

The employee will be provided a medical questionnaire by the designated Occupational Health Care Provider

Follow-up medical examination

The company shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions in Part B of the questionnaire or whose initial medical examination demonstrates the need for a follow-up medical examination. The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the Physician deems necessary to make a final determination.

Administration of the medical questionnaire and examinations

The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content. The company shall provide the employee with an opportunity to discuss the questionnaire and examination results with the Physician.

Supplemental information for the Physician

The following information must be provided to the Physician before the Physician makes a recommendation concerning an employee's ability to use a respirator

- The type and weight of the respirator to be used by the employee
- The duration and frequency of respirator use (including use for rescue and escape)
- The expected physical work effort
- Additional protective clothing and equipment to be worn
- Temperature and humidity extremes that may be encountered
- Any supplemental information provided previously to the Physician regarding an employee need not be provided for a subsequent medical evaluation if the information and the Physician remain the same

The Company has provided the Physician with a copy of the written respiratory protection program and a copy of the OSHA Standard 1910.134

Medical determination

In determining the employee's ability to use a respirator, the Company shall

- Obtain a written recommendation regarding the employee's ability to use the respirator from the Physician. The recommendation shall provide only the following information
- Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether the employee is medically able to use the respirator
- The need, if any, for follow-up medical evaluations
- A statement that the Physician has provided the employee with a copy of the Physician's written recommendation
- If the respirator is a negative pressure respirator and the Physician finds a medical condition that may place the employee's health at increased risk if the respirator is used, the Company shall provide a APR if the Physician's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then the Company is no longer required to provide a APR

Additional Medical Evaluations

At a minimum, the Company shall provide additional medical evaluations that comply with the requirements of this section if:

- An employee reports medical signs or symptoms that are related to ability to use a respirator
- A Physician, supervisor, or the respirator program administrator informs the Company that an employee needs to be reevaluated
- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation
- A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

RESPIRATOR FIT TESTING

Before an employee is required to use any respirator with a negative or positive pressure tight-fitting face piece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. The Company shall ensure that an employee using a tight-fitting face piece respirator is fit tested prior to initial use of the respirator, whenever a different respirator face piece (size, style, model or make) is used, and at least annually thereafter

The Company has established a record of the qualitative and quantitative fit tests administered to employees including:

- The name or identification of the employee tested
- Type of fit test performed
- Specific make, model, style, and size of respirator tested
- Date of test
- The pass/fail results for Qualitative Fit Test (QLFT) or the fit factor and strip chart recording or other recording of the test results for Quantitative Fit Test (QNFT)

Additional fit tests will be conducted whenever the employee reports, or the Company, Physician, supervisor, or program administrator makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

If after passing a QLFT or QNFT, the employee notifies the Company, program administrator, supervisor, or Physician that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator face piece and to be retested.

Types of Fit Tests

The fit test shall be administered using an OSHA-accepted QLFT or QNFT protocol. The OSHA-accepted QLFT and QNFT protocols and procedures are contained in Appendix A of OSHA Standard 1910.134.

- QLFT may only be used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less.
- If the fit factor, as determined through an OSHA-accepted QNFT protocol, is equal to or greater than 100 for tight-fitting half face pieces, or equal to or greater than 500 for tight-fitting full-face pieces, the QNFT has been passed with that respirator.
- Fit testing of tight-fitting atmosphere-supplying respirators and tight-fitting powered air-purifying respirators shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode, regardless of the mode of operation (negative or positive pressure) that is used for respiratory protection.
- Qualitative fit testing of these respirators shall be accomplished by temporarily converting the respirator user's actual face piece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure air-purifying respirator face piece with the same sealing surfaces as a surrogate for the atmosphere-supplying or powered air-purifying respirator face piece.
- Quantitative fit testing of these respirators shall be accomplished by modifying the face piece to allow sampling inside the face piece in the breathing zone of the user, midway between the nose and mouth. This requirement shall be accomplished by installing a permanent sampling probe onto a surrogate face piece, or by using a sampling adapter designed to temporarily provide a means of sampling air from inside the face piece.
- Any modifications to the respirator face piece for fit testing shall be completely removed, and the face piece restored to NIOSH approved configuration, before that face piece can be used in the workplace.

Fit test records shall be retained for respirator users until the next fit test is administered. Written materials required to be retained shall be made available upon request to affected employees.

RESPIRATOR OPERATION AND USE

Respirators will only be used following the respiratory protection safety procedures established in this program. The Operations and Use Manuals for each type of respirator will be maintained by the Program Administrator and be available to all qualified users.

Surveillance by the direct supervisor shall be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, the Company shall reevaluate the continued effectiveness of the respirator.

For continued protection of respirator users, the following general use rules apply:

- Users shall not remove respirators while in a hazardous environment
- Respirators are to be stored in sealed containers out of harmful atmospheres
- Store respirators away from heat and moisture
- Store respirators such that the sealing area does not become distorted or warped
- Store respirator such that the face piece is protected

Face piece seal protection

The Company does not permit respirators with tight-fitting face pieces to be worn by employees who have:

- Facial hair that comes between the sealing surface of the face piece and the face or that interferes with valve function; or
- Any condition that interferes with the face-to-face piece seal or valve function.

If an employee wears corrective glasses or goggles or other personal protective equipment, the Company shall ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face of the user.

Continuing Effectiveness of Respirators

The Company shall ensure the following that employees leave the respirator use area:

- To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use
- If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece
- To replace the respirator or the filter, cartridge, or canister elements.

If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, the Company will replace or repair the respirator before allowing the employee to return to the work area.

Procedures for IDLH atmospheres

For all IDLH atmospheres, the Company shall ensure that:

- One employee or, when needed, more than one employee is located outside the IDLH atmosphere
- Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere
- The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue
- The Company or designee is notified before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue
- The Company or designee authorized to do so by the Company, once notified, provides necessary assistance appropriate to the situation
- Employee(s) located outside the IDLH atmospheres will be equipped with:
- Pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either
- Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or
- Equivalent means for rescue where retrieval equipment is not required.

Cleaning and Disinfecting

The Company shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. The Company shall ensure that respirators are cleaned and disinfected using the Standard Operating Procedure SOP: Cleaning and Disinfecting.

The respirators shall be cleaned and disinfected when:

- Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition
- Respirators issued to more than one employee shall be cleaned and disinfected before being worn by different individuals
- Respirators maintained for emergency use shall be cleaned and disinfected after each use
- Respirators used in fit testing and training shall be cleaned and disinfected after each use.

Cleaning and Storage of respirators assigned to specific employees is the responsibility of that Employee.

Respirator Inspection

All respirators/SCBAs, both available for "General Use" and those on "Permanent Check-out", will be inspected after each use and at least monthly. Should any defects be noted, the respirator/SCBA will be taken to the program Administrator. Damaged Respirators will be either repaired or replaced. The inspection of respirators loaned on "Permanent Check-out" is the responsibility of that trained Employee.

Respirators shall be inspected as follows:

- All respirators used in routine situations shall be inspected before each use and during cleaning
- All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations, and shall be checked for proper function before and after each use
- Emergency escape-only respirators shall be inspected before being carried into the workplace for use

Respirator inspections include the following:

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the face piece, head straps, valves, connecting tube, and cartridges, canisters or filters
- check of elastomeric parts for pliability and signs of deterioration.
- Self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. The Company shall determine that the regulator and warning devices function properly
- For Emergency Use Respirators the additional requirements apply:
- Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator.
- Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included in inspection reports stored as paper or electronic files. This information shall be maintained until replaced following a subsequent certification.

Respirator Storage

Respirators are to be stored as follows:

- All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the face piece and exhalation valve.
- Emergency Respirators shall be:
- Kept accessible to the work area;
- Stored in compartments or in covers that are clearly marked as containing emergency respirators; and
- Stored in accordance with any applicable manufacturer instructions.

Repair of Respirators

Respirators that fail an inspection or are otherwise found to be defective will be removed from service to be discarded, repaired or adjusted in accordance with the following procedures:

- Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator;
- Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed; and
- Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

Breathing Air Quality and Use

The Company shall ensure that compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration accords with the following specifications:

- Compressed and liquid oxygen shall meet the United States Pharmacopoeia requirements for medical or breathing oxygen; and
- Compressed breathing air shall meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:
    - Oxygen content (v/v) of 19.5-23.5%;
    - Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
    - Carbon monoxide (CO) content of 10 ppm or less;
    - Carbon dioxide content of 1,000 ppm or less; and
    - Lack of noticeable odor.
- compressed oxygen will not be used in atmosphere-supplying respirators that have previously used compressed air
- oxygen concentrations greater than 23.5% are used only in equipment designed for oxygen service or distribution
- cylinders used to supply breathing air to respirators meet the following requirements
- cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 173 and part 178)
- cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air
- moisture content in breathing air cylinders does not exceed a dew point of -50 deg. F (-45.6 deg.C) at 1 atmosphere pressure
- breathing air couplings are incompatible with outlets for nonrespirable worksite air or other gas systems. No asphyxiating substance shall be introduced into breathing air lines.
- breathing gas containers shall be marked in accordance with the NIOSH respirator certification standard, 42 CFR Part 84.

PURPOSE

Many types of cranes, hoists, and rigging devices are used at construction sites for lifting and moving materials. The Company's policy is to maintain a safe workplace for its employees; therefore, it cannot be overemphasized that only qualified and licensed individuals shall operate these devices. The safety rules and guidance in this section apply to all operations that involve the use of cranes and to all employees, supplemental labor, and subcontractor personnel who use such devices.

RESPONSIBILITIES

Supervisors are responsible for:

- Ensuring that employees under their supervision receive the required training and are certified and licensed to operate the cranes and hoists in their areas.
- Providing training for prospective crane and hoist operators. This training must be conducted by a qualified, designated instructor who is a licensed crane and hoist operator and a full-time employee.
- Ensuring that hoisting equipment is inspected and tested monthly by a responsible individual and that rigging equipment is inspected annually.

Crane and Hoist Operators are responsible for:

- Ensuring they meet all regulatory qualifications for operators.
- Operating hoisting equipment safely.
- Conducting functional tests prior to using the equipment.
- Selecting and using rigging equipment appropriately.
- Having a valid operator's license on their person while operating cranes or hoists.
- Participating in the medical certification program, as required.

Engineering/Maintenance/Operations Department is responsible for:

- Performing annual maintenance and inspection of all cranes and hoists that are not covered by a program with maintenance responsibility.
- Conducting periodic and special load tests of cranes and hoists.
- Maintaining written records of inspections and tests and providing copies of all inspections and test results to facility managers and building coordinators who have cranes and hoists on file.
- Inspecting and load testing cranes and hoists following modification or extensive repairs (e.g., a replaced cable or hook, or structural modification).
- Scheduling a non-destructive test and inspection for crane and hoist hooks at the time of the periodic load test and testing and inspecting before use new replacement hooks and other hooks suspected of having been overloaded. The evaluation, inspection, and testing may include, but are not limited to visual, dye penetrant, and magnetic particle techniques referenced in ASME B30.10 (Hooks, Inspection and Testing).
- Maintaining all manuals for cranes and hoists in a central file for reference.

SAFE OPERATING REQUIREMENTS

All workers who use crane or hoist shall have an operator's license. The company issues licenses for authorized employees who have been specifically trained in crane and hoist operations and equipment safety.

Crane and Hoist Operators

To be qualified as a Crane and Hoist Operator, the candidate shall have received hands-on training from a licensed, qualified crane and hoist operator designated by the candidate's supervisor. Crane and Hoist Operators must renew their license every three years by satisfying the requirements described above.

CRANE AND HOIST SAFETY DESIGN REQUIREMENTS

Following are the design requirements for cranes and hoists and their components:

- The design of all commercial cranes and hoists shall comply with the requirements of ASME/ANSI B30 standards and Crane Manufacturer's Association of America standards (CMAA-70 and CMAA-74). Fabricated lifting equipment shall comply with the requirements in Chapter 2.2 (Lifting Equipment) of Mechanical Engineering Design Safety Standards (latest edition).
- All crane and hoist hooks shall have safety latches.
- Hooks shall not be painted (or re-painted) if the paint previously applied by the manufacturer is worn.
- Crane pendants shall have an electrical disconnect switch or button to open the main-line control circuit.
- Cranes and hoists shall have a main electrical disconnect switch. This switch shall be in a separate box that is labeled with lockout capability.
- Crane bridges and hoist monorails shall be labeled on both sides with the maximum capacity.
- Each hoist-hook block shall be labeled with the maximum hook capacity.
- Directional signs indicating N-W-S-E shall be displayed on the bridge underside, and a corresponding directional label shall be placed on the pendant.
- A device such as an upper-limit switch or slip clutch shall be installed on all building cranes and hoists. A lower-limit switch may be required when there is insufficient hoist rope on the drum to reach the lowest point.
- All cab and remotely operated bridge cranes shall have a motion alarm to signal bridge movement.
- All newly installed cranes and hoists, or those that have been extensively repaired or rebuilt structurally, shall be load tested at 125% capacity prior to being placed into service.
- If an overload device is installed, a load test to the adjusted setting is required.
- Personnel baskets and platforms suspended from any crane shall be designed in accordance with the specifications in 29 CFR 1926.550(g).

GENERAL SAFETY RULES

Operators shall comply with the following rules while operating the cranes and hoists:

- Do not engage in any practice that will divert your attention while operating the crane.
- Respond to signals only from the person who is directing the lift, or any appointed signal person. Obey a stop signal at all times, no matter who gives it.
- Do not move a load over people. People shall not be placed in jeopardy by being under a suspended load. Also, do not work under a suspended load unless the load is supported by blocks, jacks, or a solid footing that will safely support the entire weight. Have a crane or hoist operator remain at the controls or lock open and tag the main electrical disconnect switch.
- Ensure that the rated load capacity of a crane's bridge, individual hoist, or any sling or fitting is not exceeded. Know the weight of the object being lifted or use a dynamometer or load cell to determine the weight.
- Check that all controls are in the OFF position before closing the main-line disconnect switch.
- If spring-loaded reels are provided to lift pendants clear off the work area, ease the pendant up into the stop to prevent damaging the wire.
- Avoid side pulls. These can cause the hoist rope to slip out of the drum groove, damaging the rope or destabilizing the crane or hoist.
- To prevent shock loading, avoid sudden stops or starts. Shock loading can occur when a suspended load is accelerated or decelerated and can overload the crane or hoist. When completing an upward or downward motion, ease the load slowly to a stop.

OPERATION RULES

Pre-operational Test

At the start of each work shift, operators shall do the following steps before making lifts with any crane or hoist:

1. Test the upper-limit switch. Slowly raise the unloaded hook block until the limit switch trips.
2. Visually inspect the hook, load lines, trolley, and bridge as much as possible from the operator's station; in most instances, this will be the floor of the building.
3. If provided, test the lower-limit switch.
4. Test all direction and speed controls for both bridge and trolley travel.
5. Test all bridge and trolley limit switches, where provided, if operation will bring the equipment in close proximity to the limit switches.
6. Test the pendant emergency stop.
7. Test the hoist brake to verify there is no drift without a load.
8. If provided, test the bridge movement alarm.
9. Lock out and tag for repair any crane or hoist that fails any of the above tests.

Moving a Load

- Center the hook over the load to keep the cables from slipping out of the drum grooves and overlapping, and to prevent the load from swinging when it is lifted. Inspect the drum to verify that the cable is in the grooves.
- Use a tag line when loads must traverse long distances or must otherwise be controlled. Manila rope may be used for tag lines.
- Plan and check the travel path to avoid personnel and obstructions.
- Lift the load only high enough to clear the tallest obstruction in the travel path.
- Start and stop slowly.
- Land the load when the move is finished. Choose a safe landing.
- Never leave suspended loads unattended. In an emergency where the crane or hoist has become inoperative, if a load must be left suspended, barricade and post signs in the surrounding area, under the load, and on all four sides. Lock open and tag the crane or hoist's main electrical disconnect switch.

Parking a Crane or Hoist

- Remove all slings and accessories from the hook. Return the rigging device to the designated storage racks.
- Raise the hook at least 2.1 m (7 ft) above the floor.
- Store the pendant away from aisles and work areas or raise it at least 2.1 m (7 ft) above the floor.
- Place the emergency stop switch (or push button) in the OFF position.

RIGGING

General Rigging Safety Requirements

All riggers shall be qualified by a competent person.

Only select rigging equipment that is in good condition. All rigging equipment shall be inspected annually; defective equipment is to be removed from service and destroyed to prevent inadvertent reuse. The load capacity limits shall be stamped or affixed to all rigging components.

The company policy requires a minimum safety factor of 5 to be maintained for wire rope slings. The following types of slings shall be rejected or destroyed:

- Nylon slings with:
- Abnormal wear.
- Torn stitching.
- Broken or cut fibers.
- Discoloration or deterioration.
- Wire-rope slings with:
- Kinking, crushing, bird caging, or other distortions.
- Evidence of heat damage.
- Cracks, deformation, or worn end attachments.

- Six randomly broken wires in a single rope lay.
- Three broken wires in one strand of rope.
- Hooks opened more than 15% at the throat.
- Hooks twisted sideways more than 10° from the plane of the unbent hook.
- Alloy steel chain slings with:
- Cracked, bent or elongated links or components.
- Cracked hooks.
- Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.

Rigging a Load

Do the following when rigging a load:

- Determine the weight of the load. Do not guess.
- Determine the proper size for slings and components.
- Do not use manila rope for rigging.
- Make sure that shackle pins and shouldered eye bolts are installed in accordance with the manufacturer's recommendations.
- Make sure that ordinary (shoulder less) eye bolts are threaded in at least 1.5 times the bolt diameter.
- Use safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible.
- Pad sharp edges to protect slings. Remember that machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load. Wood, tire rubber, or other pliable materials may be suitable for padding.
- Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed.
- Install wire-rope clips with the base only on the live end and the U-bolt only on the dead end. Follow the manufacturer's recommendations for the spacing for each specific wire size.
- Determine the center of gravity and balance the load before moving it.
- Initially lift the load only a few inches to test the rigging and balance.

CRANE OVERLOADING

- Cranes or hoists shall not be loaded beyond their rated capacity for normal operations. Any crane or hoist suspected of having been overloaded shall be removed from service by locking open and tagging the main disconnect switch. Additionally, overloaded cranes shall be inspected, repaired, load tested, and approved for use before being returned to service.

WORKING AT HEIGHTS ON CRANES OR HOISTS

- Anyone conducting maintenance or repair on cranes or hoists at heights greater than 1.8 m (6 ft) shall use fall protection. Fall protection should also be considered for heights less than 1.8 m. Fall protection includes safety harnesses that are fitted with a lifeline and securely attached to a structural member of the crane or building or properly secured safety nets.
- Use of a crane as a work platform should only be considered when conventional means of reaching an elevated worksite are hazardous or not possible. Workers shall not ride a

moving bridge crane without an approval from the Safety Office, which shall specify the following as a minimum:

- Personnel shall not board any bridge crane unless the main disconnect switch is locked and tagged open.
- Personnel shall not use bridge cranes without a permanent platform (catwalk) as work platforms. Bridge catwalks shall have a permanent ladder access.
- Personnel shall ride seated on the floor of a permanent platform with approved safety handrails, wear safety harnesses attached to designated anchors, and be in clear view of the crane operator at all times.
- Operators shall lock, and tag open the main (or power) disconnect switch on the bridge catwalk when the crane is parked.

HAND SIGNALS

Signals to the operator shall be in accordance with the standard hand signals unless voice communications equipment (telephone, radio, or equivalent) is used. Signals shall be discernible or audible at all times. Some special operations may require addition to or modification of the basic signals. For all such cases, these special signals shall be agreed upon and thoroughly understood by both the person giving the signals and the operator and shall not conflict with the standard signals. Standard Hand Signals are located at the end of this section.

INSPECTION, MAINTENANCE, AND TESTING

All tests and inspections shall be conducted in accordance with the manufacturer's recommendations.

Monthly Tests and Inspections

- All in-service cranes and hoists shall be inspected monthly and the results must be documented.
- Defective cranes and hoists shall be locked and tagged "out of service" until all defects are corrected. The inspector shall initiate corrective action by notifying the facility manager or building coordinator.

Annual Inspections

The supervisor shall schedule and supervise (or perform) annual preventive maintenance (PM) and annual inspections of all cranes and hoists. The annual PM and inspection shall cover:

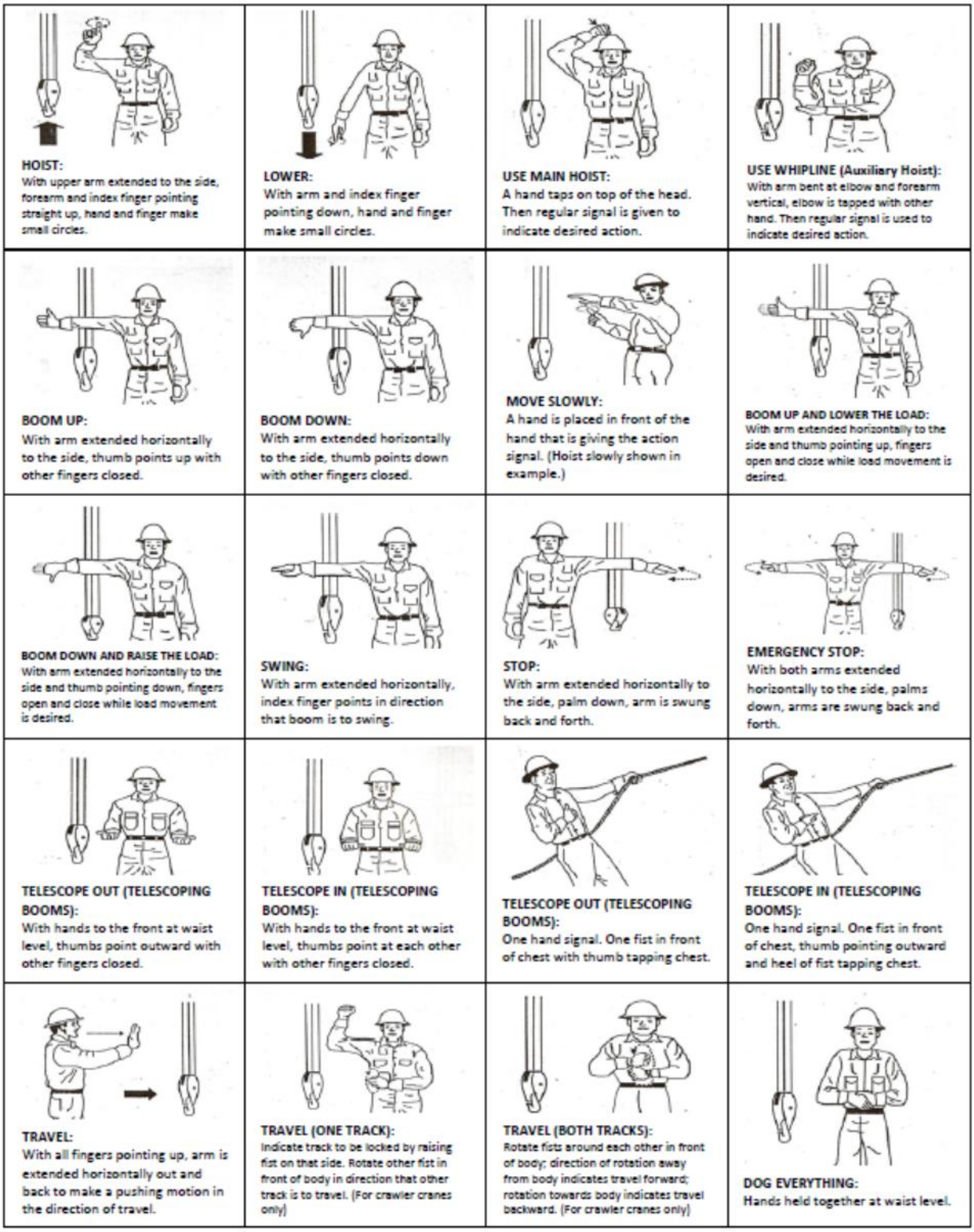
- Hoisting and lowering mechanisms.
- Trolley travel or monorail travel.
- Bridge travel.
- Limit switches and locking and safety devices.
- Structural members.
- Bolts or rivets.
- Sheaves and drums.
- Parts such as pins, bearings, shafts, gears, rollers, locking devices, and clamping devices.
- Brake system parts, linings, pawls, and ratchets.

- Load, wind, and other indicators over their full range.
- Gasoline, diesel, electric, or other power plants.
- Chain-drive sprockets.
- Crane and hoist hooks.
- Electrical apparatus such as controller contractors, limit switches, and push button stations.
- Wire rope.
- Hoist chains.

Load Testing

- Newly installed cranes and hoists shall be load tested at 125% of the rated capacity by designated personnel.
- Slings shall have appropriate test data when purchased. It is the responsibility of the purchaser to ensure that the appropriate test data are obtained and maintained.
- Re-rated cranes and hoists shall be load tested to 125% of the new capacity if the new rating is greater than the previous rated capacity.
- Fixed cranes or hoists that have had major modifications or repair shall be load tested to 125% of the rated capacity.
- Cranes and hoists that have been overloaded shall be inspected prior to being returned to service.
- Personnel platforms, baskets, and rigging suspended from a crane or hoist hook shall be load tested initially, then re-tested annually thereafter or at each new job site.
- All cranes and hoists with a capacity greater than 2722 kg (3 tons) should be load tested every four years to 125% of the rated capacity. Cranes and hoists with a lesser capacity should be load tested every eight years to 125% of the rated capacity.

STANDARD CRANE HAND SIGNALS



HOIST:
With upper arm extended to the side, forearm and index finger pointing straight up, hand and finger make small circles.

LOWER:
With arm and index finger pointing down, hand and finger make small circles.

USE MAIN HOIST:
A hand taps on top of the head. Then regular signal is given to indicate desired action.

USE WHIPLINE (Auxiliary Hoist):
With arm bent at elbow and forearm vertical, elbow is tapped with other hand. Then regular signal is used to indicate desired action.

BOOM UP:
With arm extended horizontally to the side, thumb points up with other fingers closed.

BOOM DOWN:
With arm extended horizontally to the side, thumb points down with other fingers closed.

MOVE SLOWLY:
A hand is placed in front of the hand that is giving the action signal. (Hoist slowly shown in example.)

BOOM UP AND LOWER THE LOAD:
With arm extended horizontally to the side and thumb pointing up, fingers open and close while load movement is desired.

BOOM DOWN AND RAISE THE LOAD:
With arm extended horizontally to the side and thumb pointing down, fingers open and close while load movement is desired.

SWING:
With arm extended horizontally, index finger points in direction that boom is to swing.

STOP:
With arm extended horizontally to the side, palm down, arm is swung back and forth.

EMERGENCY STOP:
With both arms extended horizontally to the side, palms down, arms are swung back and forth.

TELESCOPE OUT (TELESCOPING BOOMS):
With hands to the front at waist level, thumbs point outward with other fingers closed.

TELESCOPE IN (TELESCOPING BOOMS):
With hands to the front at waist level, thumbs point at each other with other fingers closed.

TELESCOPE OUT (TELESCOPING BOOMS):
One hand signal. One fist in front of chest with thumb tapping chest.

TELESCOPE IN (TELESCOPING BOOMS):
One hand signal. One fist in front of chest, thumb pointing outward and heel of fist tapping chest.

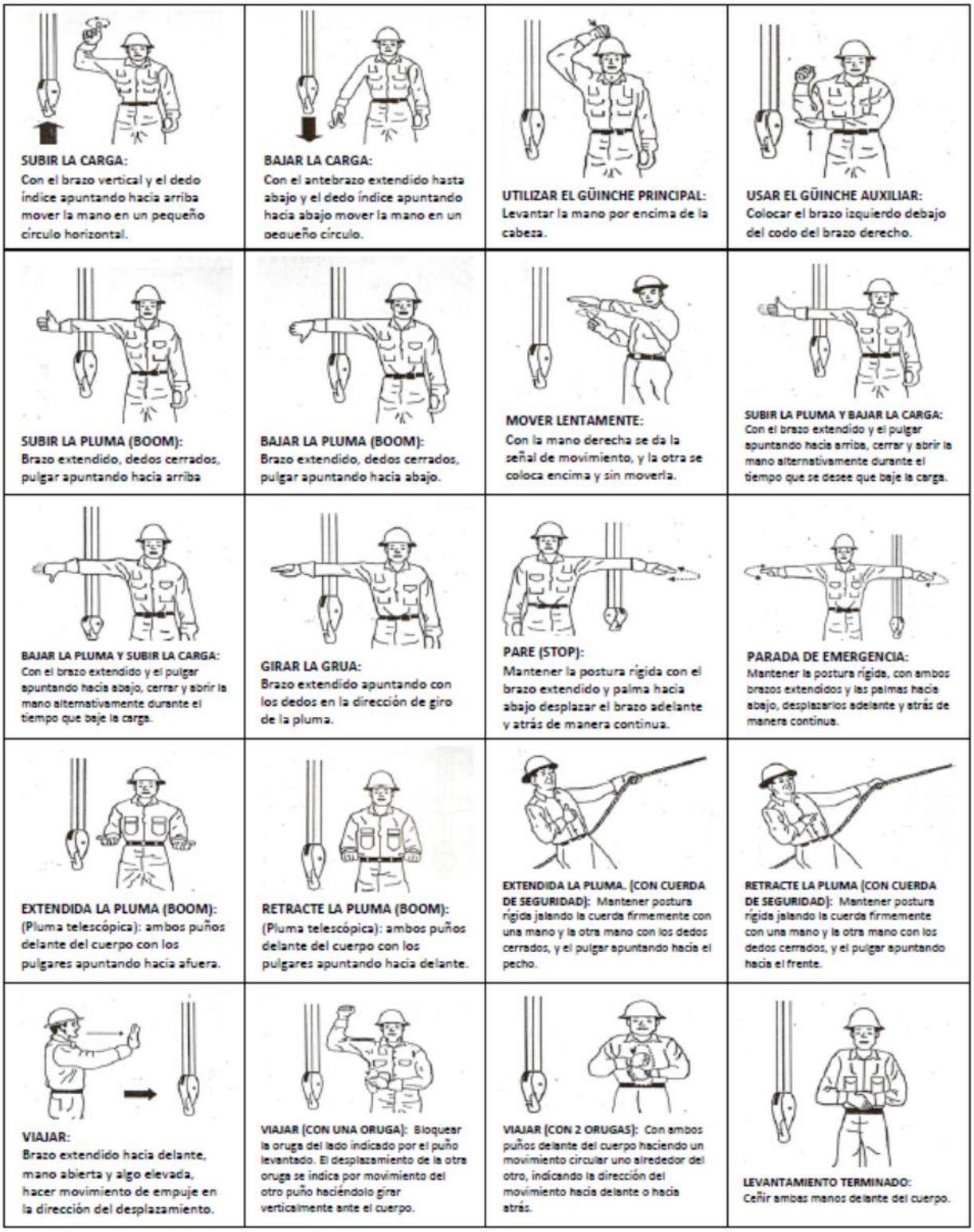
TRAVEL:
With all fingers pointing up, arm is extended horizontally out and back to make a pushing motion in the direction of travel.

TRAVEL (ONE TRACK):
Indicate track to be locked by raising fist on that side. Rotate other fist in front of body in direction that other track is to travel. (For crawler cranes only)

TRAVEL (BOTH TRACKS):
Rotate fists around each other in front of body; direction of rotation away from body indicates travel forward; rotation towards body indicates travel backward. (For crawler cranes only)

DOG EVERYTHING:
Hands held together at waist level.

SEÑALES MANUALES PARA GRÚAS MÓVILES



SUBIR LA CARGA:
Con el brazo vertical y el dedo índice apuntando hacia arriba mover la mano en un pequeño círculo horizontal.

BAJAR LA CARGA:
Con el antebrazo extendido hasta abajo y el dedo índice apuntando hacia abajo mover la mano en un pequeño círculo.

UTILIZAR EL GÜINCHE PRINCIPAL:
Levantar la mano por encima de la cabeza.

USAR EL GÜINCHE AUXILIAR:
Colocar el brazo izquierdo debajo del codo del brazo derecho.

SUBIR LA PLUMA (BOOM):
Brazo extendido, dedos cerrados, pulgar apuntando hacia arriba

BAJAR LA PLUMA (BOOM):
Brazo extendido, dedos cerrados, pulgar apuntando hacia abajo.

MOVER LENTAMENTE:
Con la mano derecha se da la señal de movimiento, y la otra se coloca encima y sin moverla.

SUBIR LA PLUMA Y BAJAR LA CARGA:
Con el brazo extendido y el pulgar apuntando hacia arriba, cerrar y abrir la mano alternativamente durante el tiempo que se desee que baje la carga.

BAJAR LA PLUMA Y SUBIR LA CARGA:
Con el brazo extendido y el pulgar apuntando hacia abajo, cerrar y abrir la mano alternativamente durante el tiempo que baje la carga.

GIRAR LA GRUA:
Brazo extendido apuntando con los dedos en la dirección de giro de la pluma.

PARE (STOP):
Mantener la postura rígida con el brazo extendido y palma hacia abajo desplazar el brazo adelante y atrás de manera continua.

PARADA DE EMERGENCIA:
Mantener la postura rígida, con ambos brazos extendidos y las palmas hacia abajo, desplazarlos adelante y atrás de manera continua.

EXTENDIDA LA PLUMA (BOOM):
(Pluma telescópica): ambos puños delante del cuerpo con los pulgares apuntando hacia afuera.

RETRACTE LA PLUMA (BOOM):
(Pluma telescópica): ambos puños delante del cuerpo con los pulgares apuntando hacia delante.

EXTENDIDA LA PLUMA. (CON CUERDA DE SEGURIDAD): Mantener postura rígida jalando la cuerda firmemente con una mano y la otra mano con los dedos cerrados, y el pulgar apuntando hacia el pecho.

RETRACTE LA PLUMA (CON CUERDA DE SEGURIDAD): Mantener postura rígida jalando la cuerda firmemente con una mano y la otra mano con los dedos cerrados, y el pulgar apuntando hacia el frente.

VIAJAR:
Brazo extendido hacia delante, mano abierta y algo elevada, hacer movimiento de empuje en la dirección del desplazamiento.

VIAJAR (CON UNA ORUGA): Bloquear la oruga del lado indicado por el puño levantado. El desplazamiento de la otra oruga se indica por movimiento del otro puño haciéndolo girar verticalmente ante el cuerpo.

VIAJAR (CON 2 ORUGAS): Con ambos puños delante del cuerpo haciendo un movimiento circular uno alrededor del otro, indicando la dirección del movimiento hacia delante o hacia atrás.

LEVANTAMIENTO TERMINADO:
Ceñir ambas manos delante del cuerpo.

Silica Exposure Control Plan

Purpose

The purpose of this Exposure Control Plan (ECP) is to protect company employees from exposure to Crystalline Silica. OSHA has determined that exposure to crystalline silica above the OSHA Permissible Exposure Limit (PEL) can cause health issues for the workers exposed. Due to the nature of the company's work, employees may be exposed to crystalline silica. This plan is designed to control that exposure to safe levels and keep our employees safe. The safety and health of our employee is paramount.

Regulatory Reference: §1926.1153 Respirable Crystalline Silica

Policy

Company employees who have not been though Silica Safety Training are not permitted to enter areas where tasks are being performed by our company or other contractors on the jobsite where there is potential exposure to crystalline silica. The typical types of contractors impacted by the OSHA regulations include but are not limited to, concrete, siding, granite countertops, floor/wall tile and masonry. Typical tasks that are impacted the OSHA regulation include masonry saws, grinders, drills, jackhammers and handheld powered chipping tools.

OSHA has stated that the construction silica standard does not apply where exposures will remain low under any foreseeable conditions; for example, when only performing tasks such as mixing mortar; pouring concrete footers, slab foundation and foundation walls; and removing concrete formwork.

No company employees are allowed to enter an area where a dust cloud is being created by the other contractors' work. Employees must stay out of these areas at all times.

What is Crystalline Silica

Crystalline silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of crystalline silica. Crystalline silica may become respirable size particles when workers chip, cut, drill, or grind objects that contain crystalline silica. Exposure to respirable crystalline silica can cause silicosis, lung cancer, other respiratory diseases, and kidney disease. Keeping silica out of the air can reduce the hazard, so wet methods for cutting, drilling, etc. are preferable if feasible.

Responsibilities

The company firmly believes protecting the health and safety of our employees is everyone's responsibility. This responsibility begins with upper management providing the necessary support to properly implement this plan. However, all levels of the organization assume some level of responsibility for this plan including the following positions.

- **Upper Management:**
    - Conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments to determine if an employee's exposure will be above 25 µg/m3 as an 8-hour TWA under any foreseeable conditions.

- Select and implement the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1 or alternative exposure control methods.
- Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this plan are in place and readily available if needed.
- Ensure that Project Managers, Site Managers, Competent Persons, and employees are educated in the hazards of Silica exposure and trained to work safely with Silica in accordance with OSHA's Respirable Crystalline Silica Construction Standard and OSHA's Hazard Communication Standard. Managers and Competent Persons may receive more advanced training than other employees.
- Maintain written records of training (for example, proper use of respirators), inspections (for equipment, PPE, and work methods/practices), medical surveillance, if necessary (under lock and key), respirator medical clearances (under lock and key) and fit-test results.
- Conduct an annual review of the effectiveness of this plan. This includes a review of available dust control technologies to ensure these are selected and used when practical.
- Coordinate work with other employers and contractors to ensure a safe work environment relative to Silica exposure.

- **Project Management / Site Management**
  - Ensure all applicable elements of this plan are implemented on the project including the selection of a Competent Person.
  - Assist the competent person to conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if exposure monitoring, respiratory protection and medical surveillance is necessary.
  - Assist in the selection and implementation of the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1 or alternative exposure control methods.
  - Ensure that employees using respirators have been properly trained, medically cleared, and fit-tested in accordance with the company's Respiratory Protection Program.
  - Ensure that work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring that workers use appropriate engineering controls, work practices, and wear the necessary PPE.
  - Where there is risk of exposure to Silica dust, verify employees are properly trained on the applicable contents of this plan, the applicable OSHA Standards (such as Hazard Communication). Ensure employees are provided appropriate PPE when conducting such work.

- **Competent Person**
  - Make frequent and regular inspections of job sites, materials, and equipment to implement the exposure control plan.
  - Identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.
  - Notify the Project Management / Site Management of any deficiencies identified during inspections to coordinate and facilitate prompt corrective action.
  - Assist the Project Management / Site Management in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments to determine if exposure monitoring, respiratory protection and medical surveillance is necessary.
- **Employees**
  - Follow recognized work procedures as established in this plan.
  - Use the assigned PPE in an effective and safe manner.
  - Participate in Respirable Crystalline Silica exposure monitoring and the medical surveillance program if necessary.
  - Report any unsafe conditions or acts to Project Management / Site Management and/or Competent Person.
  - Report any exposure incidents or any signs or symptoms of Silica illness.

Competent Person

The company has designated _____ as the competent person for tasks associated with this exposure control plan. The competent person is responsible for implementing this exposure control plan and will work with other supervisors and all employees to keep the workers safe.

Table 1

OSHA issued Table 1 as part of the standard. Table 1 matches common construction tasks with dust control methods, so employers know exactly what they need to do to limit worker exposures to silica. The company has determined that we may from time to time perform the tasks listed on Table 1. If that occurs the competent person will ensure employees are trained and equipment will be provided for these tasks. If respiratory protection is required as part of these tasks, the employees will go through the company's respiratory protection program including medical evaluation, fit testing and training.

§1926.1153 Respirable crystalline silica.

Table 1: Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours /shift	> 4 hours /shift
(i) Stationary masonry saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(ii) Handheld power saws (any blade diameter)	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None APF 10	APF 10 APF 10
(iii) Handheld power saws for cutting fiber- cement board (with blade diameter of 8 inches or less)	For tasks performed outdoors only: Use saw equipped with commercially available dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None
(iv) Walk-behind saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None APF 10	None APF 10
(v) Drivable saws	For tasks performed outdoors only: Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(vi) Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(vii) Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	None	None
(viii) Dowel drilling rigs for concrete	For tasks performed outdoors only: Use shroud around drill bit with a dust collection system. Dust collector	APF 10	APF 10

	must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.		
(ix) Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. OR Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None
(x) Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. ➔ When used outdoors. ➔ When used indoors or in an enclosed area. OR Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10
(xi) Handheld grinders for mortar removal (i.e., tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 25
(xii) Handheld grinders for uses other than mortar removal	For tasks performed outdoors only: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. OR Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. ➔ When used outdoors. ➔ When used indoors or in an enclosed area.	None None None	None None APF 10
(xiii) Walk-behind milling machines and floor grinders	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None

	OR Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None	None
(xiv) Small drivable milling machines (less than half-lane)	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None
(xv) Large drivable milling machines (half-lane and larger)	For cuts of any depth on asphalt only: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. For cuts of four inches in depth or less on any substrate: Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. OR Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None None None	None None None
(xvi) Crushing machines	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote-control station.	None	None
(xvii) Heavy equipment and utility vehicles used to abrade or fracture silica- containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab. When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.	None None	None None
(xviii) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions. OR When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None None	None None

§1926.1153 Respirable crystalline silica.

(c) Specified exposure control methods. (1) For each employee engaged in a task identified on Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1, unless the employer assesses and limits the exposure of the employee to respirable crystalline silica in accordance with paragraph (d) of this section.

2. When implementing the control measures specified in Table 1, each employer shall:

   i. For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;
   ii. For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;
   iii. For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:
      a) Is maintained as free as practicable from settled dust;
      b) Has door seals and closing mechanisms that work properly;
      c) Has gaskets and seals that are in good condition and working properly;
      d) Is under positive pressure maintained through continuous delivery of fresh air;
      e) Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and
      f) Has heating and cooling capabilities.

3. Where an employee performs more than one task on Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

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

Forklift Safety Plan

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 tucks, 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 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:

- Must have 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; and
- Where such 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 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 backwards.
- PITs will travel no faster than 5 mph or faster than a normal walk.
- Hard hats will be worn by PIT Operators in high lift areas.
- Operator will sound 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 (with exception of 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. Management will conduct an accident investigation.
- 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 weakness before they are driven onto.
- 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 system, 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 so as 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 emergency situations.
- 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 in a safe manner.
- 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 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 level in storage batteries or gasoline level 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 as 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 prior to 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 in excess of 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 service valve
2. -disconnect tank from hose
3. -unbuckle and remove tank from bracket
4. LPG tanks will be replaced in to following order:
5. -place tank in bracket and re-buckle
6. -reconnect hose to tank and tighten firmly
7. -open 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 and
1. place PIT "Out of Service" until repaired.
2. If tank ruptures, warn other, 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 prior to use each shift.

- ❑ Lights
- ❑ Horn
- ❑ Brakes
- ❑ Leaks
- ❑ Warning Beacon
- ❑ Backup Warning Alarm
- ❑ Fire Extinguisher

If any deficiencies are noted, 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.

Employee Disciplinary Action Form

Name		Date of Violation	
Supervisor		Department	
Description of Violation			
Employee Comments			
Method and Date of Abatement			
Number of Violations in last 12 months		Previous Reprimand	
Reprimand for this Violation			

Disciplinary Conference Attended By	

Employee Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

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. 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 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. The following procedures should be followed by supervisors:

EMPLOYEES

Employees of the company will 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.

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 fine 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 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 required approval
- Refusal to obey a supervisor's safety instructions
- Refusal to abate a safety violation

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**

Employee Training Record Form

Date/Time		**Instructor**	
Topic			

Print Name	**Signature**

Subcontractor Safety Agreement-Tracking Form

Subcontractor Company Name	Date Issued	Date Received

Subcontractor Safety Agreement-Tracking Form

Subcontractor Company Name	Date Issued	Date Received

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 scaffold 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 is 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		

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. 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 required personal protective equipment.
- All workers must report every accident, including injuries, property damages and near misses to their supervisor.

Subcontractor Safety Agreement

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 fine 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 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 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: _____

Competent Person Roster

Company Name	Competent Person	Cell Phone Number

Competent Person Roster

Company Name	Competent Person	Cell Phone Number

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 and SFI Compliance, Inc. prior to starting the inspection. Have OSHA wait in the construction office while you are making phone calls.
- Call your SFI's OSHA Hotline or your Safety Consultant immediately

SFI OSHA Hotline

- Colorado: 303-649-1304 ext. 201
- Texas: 214-646-1496 ext. 301
- Arizona: 800-727-5051 ext. 602
- Other States: 800-727-5051 ext. 401
- Email: OSHA@sficompliance.com

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 if a SFI Safety Consultant cannot be at the job 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 made by SFI Compliance, Inc., insurance carrier, etc. 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.

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

- Contact your SFI Safety Consultant prior to the 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 Dan Johnson via email: dan@sficompliance.com and your management. A report is found in the next section of this safety program.
- 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:

OSHA RECORDKEEPING

OSHA requires companies to keep logs of certain injuries and incidents.

Many employers with more than 10 employees are required to keep a record of serious work-related injuries and illnesses. Minor injuries requiring first aid only do not need to be recorded.

What Records are Kept?

- OSHA 301: OSHA requires employers to record the injury or illness using an OSHA 301 form or equivalent.
- OSHA 300 Log: this is an annual log of recordable injuries and incidents. The information from the OSHA 301 must be recorded on this log within 7 days.
- OSHA 300a Summary: this summary form will be completed each year. Facilities must post this form in a prominent location from February 1st to April 30th each year.

All of these forms, referred to as OSHA Recordkeeping Logs from OSHA are provided after this page.

Maintaining and Posting Records

The records must be maintained at the worksite for at least five years. Each February through April, employers must post a summary of the injuries and illnesses recorded the previous year. Also, if requested, copies of the records must be provided to current and former employees, or their representatives. In addition, if these records are requested during an OSHA inspection, they must be provided within 4 hours.

Electronic Reporting

OSHA also requires certain employers to electronically report some of these records to OSHA. These reports need to be made by the deadlines OSHA has issued.

OSHA REPORTING

Severe injuries must be reported to OSHA. Here are the requirements:

- Fatalities: reported within 8 hours
- Hospitalizations, amputations and/or loss of eye: reported within 24 hours

Contact SFI Compliance, Inc. for assistance reporting to OSHA.

OSHA
Forms for Recording
Work-Related Injuries and Illnesses

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

Dear Employer:

This booklet includes the forms needed for maintaining occupational injury and illness records for 2004. These new forms have changed in several important ways from the 2003 recordkeeping forms.

In the December 17, 2002 Federal Register (67 FR 77165-77170), OSHA announced its decision to add an occupational hearing loss column to OSHA's Form 300, Log of Work-Related Injuries and Illnesses. This forms package contains modified Forms 300 and 300A which incorporate the additional column M(5) Hearing Loss. Employers required to complete the injury and illness forms must begin to use these forms on January 1, 2004.

In response to public suggestions, OSHA also has made several changes to the forms package to make the recordkeeping materials clearer and easier to use:

- On Form 300, we've switched the positions of the day count columns. The days "away from work" column now comes before the days "on job transfer or restriction."
- We've clarified the formulas for calculating incidence rates.
- We've added new recording criteria for occupational hearing loss to the "Overview" section.
- On Form 300, we've made the column heading "Classify the Case" more prominent to make it clear that employers should mark only one selection among the four columns offered.

The Occupational Safety and Health Administration shares with you the goal of preventing injuries and illnesses in our nation's workplaces. Accurate injury and illness records will help us achieve that goal.

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

What's Inside...

In this package, you'll find everything you need to complete OSHA's *Log* and the *Summary of Work-Related Injuries and Illnesses* for the next several years. On the following pages, you'll find:

- ***An Overview: Recording Work-Related Injuries and Illnesses —*** General instructions for filling out the forms in this package and definitions of terms you should use when you classify your cases as injuries or illnesses.

- ***How to Fill Out the Log —*** An example to guide you in filling out the *Log* properly.

- ***Log of Work-Related Injuries and Illnesses —*** Several pages of the *Log* (but you may make as many copies of the *Log* as you need.) Notice that the *Log* is separate from the *Summary*.

- ***Summary of Work-Related Injuries and Illnesses —*** Removable *Summary* pages for easy posting at the end of the year. Note that you post the *Summary* only, not the *Log*.

- ***Worksheet to Help You Fill Out the Summary —*** A worksheet for figuring the average number of employees who worked for your establishment and the total number of hours worked.

- ***OSHA's 301: Injury and Illness Incident Report —*** A copy of the OSHA 301 to provide details about the incident. You may make as many copies as you need or use an equivalent form.

Take a few minutes to review this package. If you have any questions, ***visit us online at www.osha. gov*** **or** ***call your local OSHA office.*** We'll be happy to help you.

An Overview: Recording Work-Related Injuries and Illnesses

The Occupational Safety and Health (OSH) Act of 1970 requires certain employers to prepare and maintain records of work-related injuries and illnesses. Use these definitions when you classify cases on the Log. OSHA's recordkeeping regulation (see 29 CFR Part 1904) provides more information about the definitions below.

The *Log of Work-Related Injuries and Illnesses* (Form 300) is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened. The *Summary* — a separate form (Form 300A) — shows the totals for the year in each category. At the end of the year, post the *Summary* in a visible location so that your employees are aware of the injuries and illnesses occurring in their workplace.

Employers must keep a *Log* for each establishment or site. If you have more than one establishment, you must keep a separate *Log* and *Summary* for each physical location that is expected to be in operation for one year or longer.

Note that your employees have the right to review your injury and illness records. For more information, see 29 Code of Federal Regulations Part 1904.35, *Employee Involvement*.

Cases listed on the *Log of Work-Related Injuries and Illnesses* are not necessarily eligible for workers' compensation or other insurance benefits. Listing a case on the *Log* does not mean that the employer or worker was at fault or that an OSHA standard was violated.

When is an injury or illness considered work-related?

An injury or illness is considered work-related if an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a preexisting condition. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the workplace, unless an exception specifically applies. See 29 CFR Part 1904.5(b)(2) for the exceptions. The work environment includes the establishment and other locations where one or more employees are working or are present as a condition of their employment. See 29 CFR Part 1904.5(b)(1).

Which work-related injuries and illnesses should you record?

Record those work-related injuries and illnesses that result in:

- death,
- loss of consciousness,
- days away from work,
- restricted work activity or job transfer, or
- medical treatment beyond first aid.

You must also record work-related injuries and illnesses that are significant (as defined below) or meet any of the additional criteria listed below.

You must record any significant work-related injury or illness that is diagnosed by a physician or other licensed health care professional. You must record any work-related case involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum. See 29 CFR 1904.7.

What are the additional criteria?

You must record the following conditions when they are work-related:

- any needlestick injury or cut from a sharp object that is contaminated with another person's blood or other potentially infectious material;
- any case requiring an employee to be medically removed under the requirements of an OSHA health standard;
- tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis.
- an employee's hearing test (audiogram) reveals 1) that the employee has experienced a Standard Threshold Shift (STS) in hearing in one or both ears (averaged at 2000, 3000, and 4000 Hz) and 2) the employee's total hearing level is 25 decibels (dB) or more above audiometric zero (also averaged at 2000, 3000, and 4000 Hz) in the same ear(s) as the STS.

What is medical treatment?

Medical treatment includes managing and caring for a patient for the purpose of combating disease or disorder. The following are not considered medical treatments and are NOT recordable:

- visits to a doctor or health care professional solely for observation or counseling;

What do you need to do?

1. Within 7 calendar days after you receive information about a case, decide if the case is recordable under the OSHA recordkeeping requirements.
2. Determine whether the incident is a new case or a recurrence of an existing one.
3. Establish whether the case was work-related.
4. If the case is recordable, decide which form you will fill out as the injury and illness incident report.

   You may use *OSHA's 301: Injury and Illness Incident Report* or an equivalent form. Some state workers compensation, insurance, or other reports may be acceptable substitutes, as long as they provide the same information as the OSHA 301.

How to work with the Log

1. Identify the employee involved unless it is a privacy concern case as described below.
2. Identify when and where the case occurred.
3. Describe the case, as specifically as you can.
4. Classify the seriousness of the case by recording the **most serious outcome** associated with the case, with column G (Death) being the most serious and column J (Other recordable cases) being the least serious.
5. Identify whether the case is an injury or illness. If the case is an injury, check the injury category. If the case is an illness, check the appropriate illness category.

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

- diagnostic procedures, including administering prescription medications that are used solely for diagnostic purposes; and
- any procedure that can be labeled first aid. (*See below for more information about first aid.*)

What is first aid?

If the incident required only the following types of treatment, consider it first aid. Do NOT record the case if it involves only:

- using non-prescription medications at non-prescription strength;
- administering tetanus immunizations;
- cleaning, flushing, or soaking wounds on the skin surface;
- using wound coverings, such as bandages, BandAids™, gauze pads, etc., or using SteriStrips™ or butterfly bandages.
- using hot or cold therapy;
- using any totally non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.;
- using temporary immobilization devices while transporting an accident victim (splints, slings, neck collars, or back boards).
- drilling a fingernail or toenail to relieve pressure, or draining fluids from blisters;
- using eye patches;
- using simple irrigation or a cotton swab to remove foreign bodies not embedded in or adhered to the eye;
- using irrigation, tweezers, cotton swab or other simple means to remove splinters or foreign material from areas other than the eye;
- using finger guards;
- using massages;
- drinking fluids to relieve heat stress

How do you decide if the case involved restricted work?

Restricted work activity occurs when, as the result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

How do you count the number of days of restricted work activity or the number of days away from work?

Count the number of calendar days the employee was on restricted work activity or was away from work as a result of the recordable injury or illness. Do not count the day on which the injury or illness occurred in this number. Begin counting days from the day after the incident occurs. If a single injury or illness involved both days away from work and days of restricted work activity, enter the total number of days for each. You may stop counting days of restricted work activity or days away from work once the total of either or the combination of both reaches 180 days.

Under what circumstances should you NOT enter the employee's name on the OSHA Form 300?

You must consider the following types of injuries or illnesses to be privacy concern cases:

- an injury or illness to an intimate body part or to the reproductive system,
- an injury or illness resulting from a sexual assault,
- a mental illness,
- a case of HIV infection, hepatitis, or tuberculosis,
- a needlestick injury or cut from a sharp object that is contaminated with blood or other potentially infectious material (see 29 CFR Part 1904.8 for definition), and
- other illnesses, if the employee independently and voluntarily requests that his or her name not be entered on the log.

You must not enter the employee's name on the OSHA 300 *Log* for these cases. Instead, enter "privacy case" in the space normally used for the employee's name. You must keep a separate, confidential list of the case numbers and employee names for the establishment's privacy concern cases so that you can update the cases and provide information to the government if asked to do so.

If you have a reasonable basis to believe that information describing the privacy concern case may be personally identifiable even though the employee's name has been omitted, you may use discretion in describing the injury or illness on both the OSHA 300 and 301 forms. You must enter enough information to identify the cause of the incident and the general severity of the injury or illness, but you do not need to include details of an intimate or private nature.

What if the outcome changes after you record the case?

If the outcome or extent of an injury or illness changes after you have recorded the case, simply draw a line through the original entry or, if you wish, delete or white-out the original entry. Then write the new entry where it belongs. Remember, you need to record the most serious outcome for each case.

Classifying injuries

An injury is any wound or damage to the body resulting from an event in the work environment.

Examples: Cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipped tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical, or radiation burn. Sprain and strain injuries to muscles, joints, and connective tissues are classified as injuries when they result from a slip, trip, fall or other similar accidents.

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

Classifying illnesses

Skin diseases or disorders

Skin diseases or disorders are illnesses involving the worker's skin that are caused by work exposure to chemicals, plants, or other substances.

Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; friction blisters, chrome ulcers; inflammation of the skin.

Respiratory conditions

Respiratory conditions are illnesses associated with breathing hazardous biological agents, chemicals, dust, gases, vapors, or fumes at work.

Examples: Silicosis, asbestosis, pneumonitis, pharyngitis, rhinitis or acute congestion; farmer's lung, beryllium disease, tuberculosis, occupational asthma, reactive airways dysfunction syndrome (RADS), chronic obstructive pulmonary disease (COPD), hypersensitivity pneumonitis, toxic inhalation injury, such as metal fume fever, chronic obstructive bronchitis, and other pneumoconioses.

Poisoning

Poisoning includes disorders evidenced by abnormal concentrations of toxic substances in blood, other tissues, other bodily fluids, or the breath that are caused by the ingestion or absorption of toxic substances into the body.

Examples: Poisoning by lead, mercury, cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzene, benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays, such as parathion or lead arsenate; poisoning by other chemicals, such as formaldehyde.

Hearing Loss

Noise-induced hearing loss is defined for recordkeeping purposes as a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more in either ear at 2000, 3000 and 4000 hertz, and the employee's total hearing level is 25 decibels (dB) or more above audiometric zero (also averaged at 2000, 3000, and 4000 hertz) in the same ear(s).

All other illnesses

All other occupational illnesses.

Examples: Heatstroke, sunstroke, heat exhaustion, heat stress and other effects of environmental heat; freezing, frostbite, and other effects of exposure to low temperatures; decompression sickness; effects of ionizing radiation (isotopes, x-rays, radium); effects of nonionizing radiation (welding flash, ultra-violet rays, lasers); anthrax; bloodborne pathogenic diseases, such as AIDS, HIV, hepatitis B or hepatitis C; brucellosis; malignant or benign tumors; histoplasmosis; coccidioidomycosis.

When must you post the Summary?

You must post the *Summary* only — not the *Log* — by February 1 of the year following the year covered by the form and keep it posted until April 30 of that year.

How long must you keep the Log and Summary on file?

You must keep the *Log* and *Summary* for 5 years following the year to which they pertain.

Do you have to send these forms to OSHA at the end of the year?

No. You do not have to send the completed forms to OSHA unless specifically asked to do so.

How can we help you?

If you have a question about how to fill out the *Log*,

- ❑ ***visit us online at www.osha.gov*** or
- ❑ ***call your local OSHA office.***

Optional

Calculating Injury and Illness Incidence Rates

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

What is an incidence rate?

An incidence rate is the number of recordable injuries and illnesses occurring among a given number of full-time workers (usually 100 full-time workers) over a given period of time (usually one year). To evaluate your firm's injury and illness experience over time or to compare your firm's experience with that of your industry as a whole, you need to compute your incidence rate. Because a specific number of workers and a specific period of time are involved, these rates can help you identify problems in your workplace and/or progress you may have made in preventing work-related injuries and illnesses.

How do you calculate an incidence rate?

You can compute an occupational injury and illness incidence rate for all recordable cases or for cases that involved days away from work for your firm quickly and easily. The formula requires that you follow instructions in paragraph (a) below for the total recordable cases or those in paragraph (b) for cases that involved days away from work, *and* for both rates the instructions in paragraph (c).

(a) *To find out the total number of recordable injuries and illnesses that occurred during the year,* count the number of line entries on your OSHA Form 300, or refer to the OSHA Form 300A and sum the entries for columns (G), (H), (I), and (J).

(b) *To find out the number of injuries and illnesses that involved days away from work,* count the number of line entries on your OSHA Form 300 that received a check mark in column (H), or refer to the entry for column (H) on the OSHA Form 300A.

(c) *The number of hours all employees actually worked during the year*. Refer to OSHA Form 300A and optional worksheet to calculate this number.

You can compute the incidence rate for all recordable cases of injuries and illnesses using the following formula:

Total number of injuries and illnesses x *200,000* ÷ *Number of hours worked by all employees* = *Total recordable case rate*

(The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rates.)

You can compute the incidence rate for recordable cases involving days away from work, days of restricted work activity or job transfer (DART) using the following formula:

(Number of entries in column H + Number of entries in column I) x *200,000* ÷ *Number of hours worked by all employees* = *DART incidence rate*

You can use the same formula to calculate incidence rates for other variables such as cases involving restricted work activity (column (I) on Form 300A), cases involving skin disorders (column (M-2) on Form 300A), etc. Just substitute the appropriate total for these cases, from Form 300A, into the formula in place of the total number of injuries and illnesses.

What can I compare my incidence rate to?

The Bureau of Labor Statistics (BLS) conducts a survey of occupational injuries and illnesses each year and publishes incidence rate data by various classifications (e.g., by industry, by employer size, etc.). You can obtain these published data at www.bls.gov/iif or by calling a BLS Regional Office.

Worksheet

Total number of injuries and illnesses		200,000	÷	Number of hours worked by all employees	=	Total recordable case rate
	x					

Number of entries in Column H + Column I		200,000	÷	Number of hours worked by all employees	=	DART incidence rate
	x					

How to Fill Out the Log

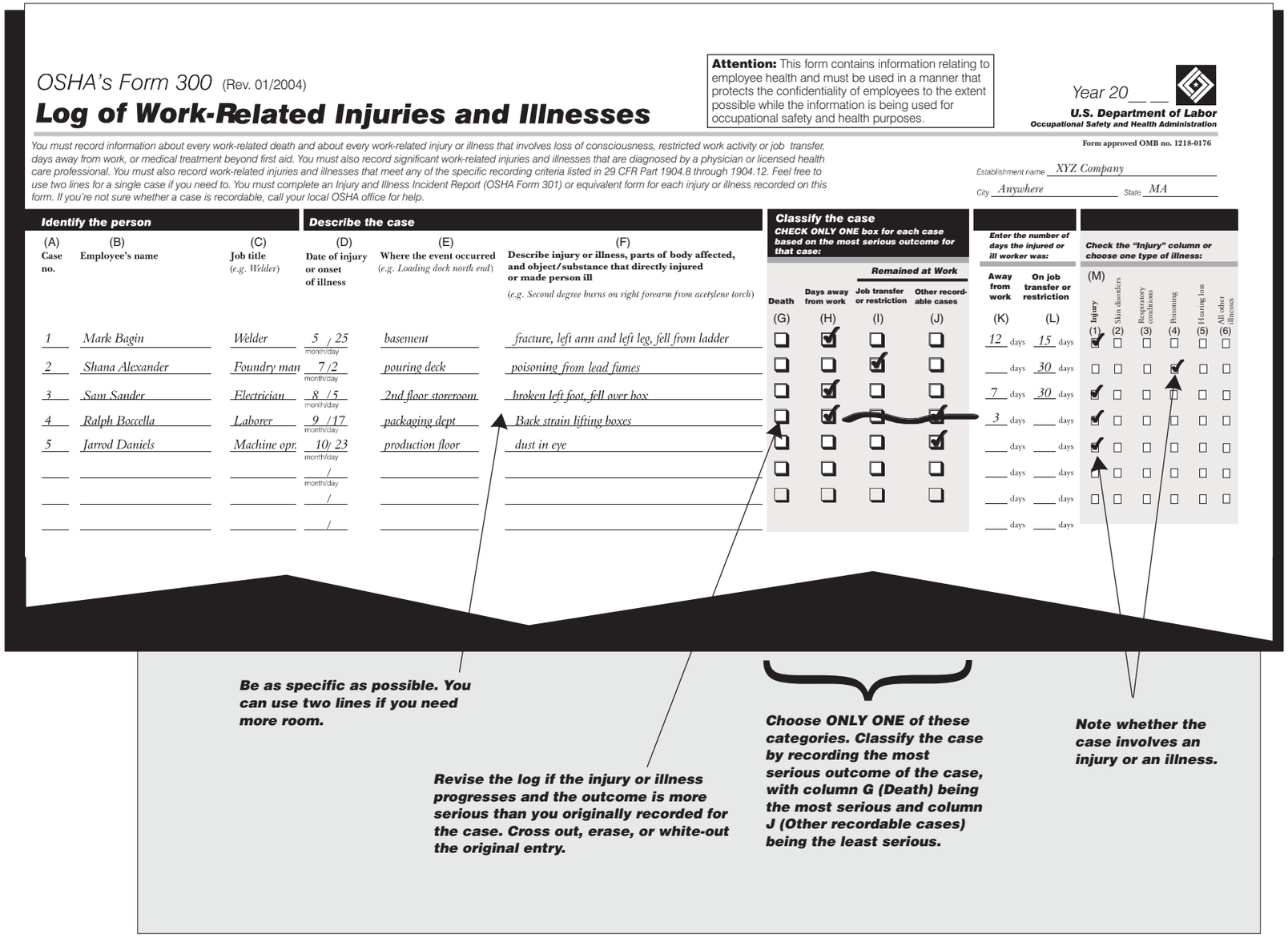
The *Log of Work-Related Injuries and Illnesses* is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened.

If your company has more than one establishment or site, you must keep separate records for each physical location that is expected to remain in operation for one year or longer.

We have given you several copies of the *Log* in this package. If you need more than we provided, you may photocopy and use as many as you need.

The *Summary* — a separate form — shows the work-related injury and illness totals for the year in each category. At the end of the year, count the number of incidents in each category and transfer the totals from the *Log* to the *Summary*. Then post the *Summary* in a visible location so that your employees are aware of injuries and illnesses occurring in their workplace.

You don't post the Log. You post only the Summary at the end of the year.



OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20__ __

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

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name XYZ Company
City Anywhere State MA

Identify the person			Describe the case			Classify the case (CHECK ONLY ONE box for each case based on the most serious outcome for that case:)				Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one type of illness:					
							Remained at Work										
(A) Case no.	(B) Employee's name	(C) Job title (*e.g. Welder*)	(D) Date of injury or onset of illness	(E) Where the event occurred (*e.g. Loading dock north end*)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (*e.g. Second degree burns on right forearm from acetylene torch*)	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from work (K)	On job transfer or restriction (L)	(M) Injury (1)	Skin disorders (2)	Respiratory conditions (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
1	Mark Bagin	Welder	5/25	basement	fracture, left arm and left leg, fell from ladder	☐	☑	☐	☐	12 days	15 days	☑	☐	☐	☐	☐	☐
2	Shana Alexander	Foundry man	7/2	pouring deck	poisoning from lead fumes	☐	☐	☑	☐	___ days	30 days	☐	☐	☐	☑	☐	☐
3	Sam Sander	Electrician	8/5	2nd floor storeroom	broken left foot, fell over box	☐	☑	☐	☐	7 days	30 days	☑	☐	☐	☐	☐	☐
4	Ralph Boccella	Laborer	9/17	packaging dept	Back strain lifting boxes	☐	☑	☐	☐	3 days	___ days	☑	☐	☐	☐	☐	☐
5	Jarrod Daniels	Machine opr.	10/23	production floor	dust in eye	☐	☐	☐	☑	___ days	___ days	☑	☐	☐	☐	☐	☐
			/			☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
			/			☐	☐	☐	☐	___ days	___ days	☐	☐	☐	☐	☐	☐
			/			☐	☐	☐	☐	___ days	___ days						

Be as specific as possible. You can use two lines if you need more room.

Revise the log if the injury or illness progresses and the outcome is more serious than you originally recorded for the case. Cross out, erase, or white-out the original entry.

Choose ONLY ONE of these categories. Classify the case by recording the most serious outcome of the case, with column G (Death) being the most serious and column J (Other recordable cases) being the least serious.

Note whether the case involves an injury or an illness.

OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20__ __

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

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name ____________________

City ____________________ State ____________

Identify the person			Describe the case			Classify the case: CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one type of illness: (M)					
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	(G) Death	(H) Days away from work	(I) Remained at Work: Job transfer or restriction	(J) Remained at Work: Other record-able cases	(K) Away from work	(L) On job transfer or restriction	(1) Injury	(2) Skin disorder	(3) Respiratory condition	(4) Poisoning	(5) Hearing loss	(6) All other illnesses
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
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			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
			__/__ month/day			☐	☐	☐	☐	__ days	__ days	☐	☐	☐	☐	☐	☐
					Page totals➤	___	___	___	___	___	___	___ (1) Injury	___ (2) Skin disorder	___ (3) Respiratory condition	___ (4) Poisoning	___ (5) Hearing loss	___ (6) All other illnesses

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 20__ __

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

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
_____	_____	_____	_____
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
_____	_____
(K)	(L)

Injury and Illness Types

Total number of . . .

(M)

(1) Injuries _____

(2) Skin disorders _____

(3) Respiratory conditions _____

(4) Poisonings _____

(5) Hearing loss _____

(6) All other illnesses _____

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Establishment information

Your establishment name _____

Street _____

City _____ State _____ ZIP _____

Industry description (*e.g., Manufacture of motor truck trailers*)

_____

Standard Industrial Classification (SIC), if known (*e.g., 3715*)

___ ___ ___ ___

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)

___ ___ ___ ___ ___ ___

Employment information *(If you don't have these figures, see the Worksheet on the back of this page to estimate.)*

Annual average number of employees _____

Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

_____ _____
Company executive Title

( ) - / /
_____ _____
Phone Date

Optional

Worksheet to Help You Fill Out the Summary

At the end of the year, OSHA requires you to enter the average number of employees and the total hours worked by your employees on the summary. If you don't have these figures, you can use the information on this page to estimate the numbers you will need to enter on the Summary page at the end of the year.

How to figure the average number of employees who worked for your establishment during the year:

❶ ***Add*** the total number of employees your establishment paid in all pay periods during the year. Include all employees: full-time, part-time, temporary, seasonal, salaried, and hourly.

The number of employees paid in all pay periods = ❶ _____

❷ ***Count*** the number of pay periods your establishment had during the year. Be sure to include any pay periods when you had no employees.

The number of pay periods during the year = ❷ _____

❸ ***Divide*** the number of employees by the number of pay periods.

❶ / ❷ _____ = ❸ _____

❹ ***Round the answer*** to the next highest whole number. Write the rounded number in the blank marked *Annual average number of employees*.

The number rounded = ❹ _____

For example, Acme Construction figured its average employment this way:

For pay period...	Acme paid this number of employees...
1	10
2	0
3	15
4	30
5	40
▼	▼
24	20
25	15
26	+10
	830

Number of employees paid = 830 ❶

Number of pay periods = 26 ❷

830 / 26 = 31.92 ❸

31.92 rounds to 32 ❹

32 is the annual average number of employees

How to figure the total hours worked by all employees:

Include hours worked by salaried, hourly, part-time and seasonal workers, as well as hours worked by other workers subject to day to day supervision by your establishment (e.g., temporary help services workers).

Do not include vacation, sick leave, holidays, or any other non-work time, even if employees were paid for it. If your establishment keeps records of only the hours paid or if you have employees who are not paid by the hour, please estimate the hours that the employees actually worked.

If this number isn't available, you can use this optional worksheet to estimate it.

Optional Worksheet

_____ ***Find*** the number of full-time employees in your establishment for the year.

X _____ ***Multiply*** by the number of work hours for a full-time employee in a year.

_____ This is the number of full-time hours worked.

\+ _____ ***Add*** the number of any overtime hours as well as the hours worked by other employees (part-time, temporary, seasonal)

_____ ***Round*** the answer to the next highest whole number. Write the rounded number in the blank marked *Total hours worked by all employees last year.*

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

OSHA's Form 301
Injury and Illness Incident Report

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

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

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary,* these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by _____

Title _____

Phone (_____)_____--_____ **Date** ____/ ____/ ____

Information about the employee

1) **Full name** _____

2) **Street** _____

City _____ **State** _____ **ZIP** _____

3) **Date of birth** _____ / _____ / _____

4) **Date hired** _____ / _____ / _____

5) ❒ **Male**
❒ **Female**

Information about the physician or other health care professional

6) **Name of physician or other health care professional** _____

_____

7) **If treatment was given away from the worksite, where was it given?**

Facility _____

Street _____

City _____ **State** _____ **ZIP** _____

8) **Was employee treated in an emergency room?**
❒ **Yes**
❒ **No**

9) **Was employee hospitalized overnight as an in-patient?**
❒ **Yes**
❒ **No**

Information about the case

10) **Case number from the *Log*** _____ *(Transfer the case number from the Log after you record the case.)*

11) **Date of injury or illness** _____ / _____ / _____

12) **Time employee began work** _____ **AM / PM**

13) **Time of event** _____ **AM / PM** ☐ **Check if time cannot be determined**

14) ***What was the employee doing just before the incident occurred?*** **Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific.** ***Examples:*** **"climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."**

15) ***What happened?*** **Tell us how the injury occurred.** ***Examples:*** **"When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."**

16) ***What was the injury or illness?*** **Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or sore."** ***Examples:*** **"strained back"; "chemical burn, hand"; "carpal tunnel syndrome."**

17) ***What object or substance directly harmed the employee?*** ***Examples:*** **"concrete floor"; "chlorine"; "radial arm saw."** ***If this question does not apply to the incident, leave it blank.***

18) ***If the employee died, when did death occur?*** **Date of death** _____ / _____ / _____

If You Need Help...

If you need help deciding whether a case is recordable, or if you have questions about the information in this package, feel free to contact us. We'll gladly answer any questions you have.

- **Visit us online at www.osha.gov**
- **Call your OSHA Regional office and ask for the recordkeeping coordinator**

  or

- **Call your State Plan office**

Federal Jurisdiction

Region 1 - 617 / 565-9860
Connecticut; Massachusetts; Maine; New Hampshire; Rhode Island

Region 2 - 212 / 337-2378
New York; New Jersey

Region 3 - 215 / 861-4900
DC; Delaware; Pennsylvania; West Virginia

Region 4 - 404 / 562-2300
Alabama; Florida; Georgia; Mississippi

Region 5 - 312 / 353-2220
Illinois; Ohio; Wisconsin

Region 6 - 214 / 767-4731
Arkansas; Louisiana; Oklahoma; Texas

Region 7 - 816 / 426-5861
Kansas; Missouri; Nebraska

Region 8 - 303 / 844-1600
Colorado; Montana; North Dakota; South Dakota

Region 9 - 415 / 975-4310

Region 10 - 206 / 553-5930
Idaho

State Plan States

Alaska - 907 / 269-4957

Arizona - 602 / 542-5795

California - 415 / 703-5100

*Connecticut - 860 / 566-4380

Hawaii - 808 / 586-9100

Indiana - 317 / 232-2688

Iowa - 515 / 281-3661

Kentucky - 502 / 564-3070

Maryland - 410 / 527-4465

Michigan - 517 / 322-1848

Minnesota - 651 / 284-5050

Nevada - 702 / 486-9020

*New Jersey - 609 / 984-1389

New Mexico - 505 / 827-4230

*New York - 518 / 457-2574

North Carolina - 919 / 807-2875

Oregon - 503 / 378-3272

Puerto Rico - 787 / 754-2172

South Carolina - 803 / 734-9669

Tennessee - 615 / 741-2793

Utah - 801 / 530-6901

Vermont - 802 / 828-2765

Virginia - 804 / 786-6613

Virgin Islands - 340 / 772-1315

Washington - 360 / 902-5554

Wyoming - 307 / 777-7786

*Public Sector only

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

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

Have questions?

If you need help in filling out the *Log* or *Summary,* or if you have questions about whether a case is recordable, contact us. We'll be happy to help you. You can:

- Visit us online at: **www.osha.gov**
- Call your regional or state plan office. You'll find the phone number listed inside this cover.

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 and SFI Compliance.
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 and SFI Compliance 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 than 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 and SFI Compliance, Inc.	Report the incident to management and SFI Compliance, Inc.	Report the incident to management and SFI Compliance, Inc.
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 and SFI Compliance, Inc.	Take corrective actions, in consultation with management and SFI Compliance, Inc.	Take corrective actions, in consultation with management and SFI Compliance, Inc.
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 and SFI Compliance, Inc. within 24 hours of notification of the incident.

The site supervisors should work with management and SFI Compliance, Inc. 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.)		

INJURY ACCIDENT INVESTIGATION REPORT

Pictures of Accident		

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	

NON-INJURY NEAR MISS INVESTIGATION REPORT

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.)		

NON-INJURY NEAR MISS INVESTIGATION REPORT

Pictures of Incident		

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	

CONSTRUCTION PACKAGE

TABLE OF CONTENTS (V17)

The following Tool Box Talks are designed for Construction jobsites. This program consists of over 100 topics, which can be used in any order to ensure relevance with your stage of construction. When conducting a tool box talk, also discuss current issues found on the jobsite – always note these on your sign in sheet. Please use this table of contents and track when each topic is covered. Each topic listed is available in English and Spanish.

Chapter 3 – Fall Prevention & Protection

Topic Title	Topic #	Date Used
➢ Fall Protection – Anchor Straps	03-03	
➢ Working with Guardrails	03-05	
➢ Fall Protection – Use & Maintenance	03-06	
➢ Protecting Floor Openings	03-08	
➢ Aerial Lifts	03-09	
➢ Fall Protection – Subpart M	03-10	
➢ Fall Arrest & Fall Restraint Systems	03-12	
➢ Don't Gamble with Personal Fall Arrest Equipment	03-14	
➢ Floor and Wall Openings	03-16	
➢ Guardrails, Handrails & Covers	03-19	
➢ Safety Net Systems	03-21	
➢ Temporary Stair Rails and Guardrails	03-23	
➢ Steel Erection	03-24	
➢ It's the Sudden Stop that Hurts	03-25	
➢ Residential Fall Protection – Foundation Work	03-26	
➢ Residential Fall Protection – Setting Floor Joists & Trusses	03-27	
➢ Residential Fall Protection – Constructing & Standing Walls	03-28	
➢ Residential Fall Protection – Sheathing Floors	03-29	
➢ Residential Fall Protection – Setting Roof Trusses	03-30	
➢ Residential Fall Protection – Roof Sheathing	03-31	
➢ Slips, Trips and Falls – Head Injuries	03-32	
➢ Balcony Fall Protection During Construction of Multi-Family Buildings	03-33	

Chapter 4 – Fire Prevention & Fire Safety

Topic Title	Topic #	Date Used
➢ ABC's of Fire Extinguishers	04-01	
➢ Working with Gasoline	04-02	
➢ Workplace Heating Devices	04-06	
➢ Temporary Heat Safety	04-11	
➢ Where's the Fire Extinguisher?	04-12	
➢ Fire Extinguishers	04-13	
➢ Fire Extinguisher Care, Maintenance & Inspection	04-14	
➢ The Fire Triangle	04-17	
➢ LP Gas Salamander Heaters	04-19	

Chapter 5 – Electrical Safety

Topic Title	Topic #	Date Used
➢ Electrical – Path to Ground Missing	05-03	
➢ Avoiding Electrical Shocks	05-10	
➢ Extension Cord Safety	05-15	
➢ GFCI's at Work and Home	05-16	
➢ Workplace Electrical Safety	05-18	
➢ Illumination	05-25	
➢ Power Line Contacts in Construction	05-26	

Chapter 6 – Machine & Tool Safety

Topic Title	Topic #	Date Used
➢ Pneumatic Nailing Tools	06-01	
➢ Working Safely with Chainsaws	06-03	
➢ Hydraulic Hoses and the Danger of Leaks	06-11	
➢ Safety with Powder-Actuated Tools	06-27	
➢ Power Saws	06-29	
➢ Power Tool Safety Tips	06-31	

Chapter 7 – Hazard Communication (Haz Com) & Right to Understand

Topic Title	Topic #	Date Used
➢ What is Hazardous Material or Chemical	07-13	
➢ Hazards of Silica Dust	07-15	
➢ Fiberglass Hazards	07-18	
➢ Silica Exposure Safety	07-33	

Chapter 8 – Confined Spaces

Topic Title	Topic #	Date Used
➢ Danger of Confined Spaces	08-03	

Chapter 9 – Concrete & Masonry Safety

Topic Title	Topic #	Date Used
➢ Concrete Safety Rules	09-01	
➢ Concrete & Masonry Safety	09-04	
➢ Concrete Shoring Safety	09-08	

Chapter 10 – Vehicles & Mobile Equipment

Topic Title	Topic #	Date Used
➢ Traffic Control – Take Care	10-06	
➢ Unexpected Hazards in Demolition Work	10-12	
➢ Heavy Equipment Safety	10-13	
➢ Inspection and Use of Slings	10-15	
➢ Mobile Crane Outriggers	10-20	
➢ Crane Safety	10-24	

Chapter 11 – Trenching & Excavations

Topic Title	Topic #	Date Used
➢ Excavations – Don't Gamble	11-01	
➢ Excavations are Serious Business	11-03	
➢ Excavation / Trenching Safety	11-04	
➢ Residential Foundations – "Stanley Memo"	11-07	

Chapter 12 – Scaffolding Safety

Topic Title	Topic #	Date Used
➢ Suspended Scaffold Safety	12-01	
➢ Basic Scaffolding Rules	12-02	
➢ Rolling Scaffolds	12-04	
➢ Scaffold Inspections	12-06	
➢ Scaffolding	12-07	

Chapter 13 – Ladder Safety

Topic Title	Topic #	Date Used
➢ Stepladder Safety	13-01	
➢ Job-Built Ladder Safety	13-03	
➢ Ladders in Construction	13-05	
➢ Ladders and Stairways	13-06	

Chapter 14 – Welding & Burning Operations

Topic Title	Topic #	Date Used
➢ Ventilation – An Important Aspect of Welding Safety	14-04	
➢ Welding and Cutting	14-07	

Chapter 15 – Personal Safety

Topic Title	Topic #	Date Used
➢ Back Care: You can Make a Difference	15-03	
➢ What is your Back IQ	15-04	
➢ Snow Removal	15-13	
➢ Back Injury Prevention Tips	15-14	
➢ Sprains and Strains in the Construction Industry	15-18	

Chapter 16 – Safety Awareness

Topic Title	Topic #	Date Used
➢ CPR	16-12	
➢ Cell Phones and Vehicle Accidents	16-18	
➢ Over the Counter Medications	16-29	
➢ Cold Medication and Drowsiness	16-39	
➢ Motor Vehicle Safety	16-48	
➢ Substance Abuse	16-52	
➢ First Aid Fundamentals	16-53	

Chapter 17 – Workplace Safety

Topic Title	Topic #	Date Used
➢ Working During Hot Weather	17-02	
➢ Cold Weather Safety	17-08	
➢ Emergency Planning on Construction Sites	17-09	
➢ Controlled Access Zones (CAZ)	17-11	
➢ Prevent Hose Whipping	17-38	
➢ Warning: Read the Signs	17-39	
➢ Emergency Procedures	17-55	
➢ Employee Responsibility	17-56	
➢ Housekeeping and Tripping Hazards	17-64	

FOR JOBSITE EMERGENCIES

CALL 911

Site Contact

Max Avseev	**720-320-0297**

SFI OSHA / Accident Hotline

303-649-1304 ext. 201
osha@sficompliance.com

Safety Issues / Questions

Roman Lavrinenko	**512-507-8307 (bilingual)**
Chris Feagle	**240-319-9011 (bilingual)**
Shane Ransom	**303-638-4436**
Ken Mullinax	**719-728-0333**
Jackson Babbs	**303-358-6506 (bilingual)**
Rick Foster	**720-273-0518**
Andrew Calvillo	**720-648-0326 (bilingual)**
Matt Coleman	**720-387-0130**
Lex Wray	**303-709-2770**
Travis Lawson	**303-564-9902**
Chris Sharp	**720-400-1068**
Derek Johnson	**720-270-8531**
Dan Johnson	**720-371-6246**

First Aid & Safety Products / General Questions

SFI Main Office	**303-649-1304**
Norm Teltow	**303-437-6219**

Code of Safe Work Practices

This document contains general safety and health guidelines for this site. Complete guidelines are found in the Company's Safety Program. Post a copy of this in a prominent location.

- All persons shall follow these safe practice rules, render every possible aid to safe operations, and report all unsafe conditions or practices to the supervisor or superintendent.
- Supervisors shall insist on employees observing and obeying every applicable Local, State or Federal regulation and order as is necessary to the safe conduct of the work and shall take such action as is necessary to obtain compliance.
- Anyone known to be under the influence of drugs or intoxicating substance which impair the employee's ability to safely perform the assigned duties shall not be allowed on the job while in that condition.
- Horseplay, scuffling, and other acts which tend to have an adverse influence on the safety or well-being of the employees shall be prohibited.
- Work shall be well planned and supervised to prevent injuries in the handling of materials and in working with equipment.
- No one shall knowingly be permitted or required to work while the employee's ability or alertness is so impaired by fatigue, illness, or other causes that they might unnecessarily expose the employee or others to injury.
- Fall Protection shall be used by employees when they are exposed to a potential fall.
- Employees shall not enter confined spaces unless it has been determined that it is safe to enter. An entry permit shall be completed before entry into permit-required spaces.
- Employees shall be instructed to ensure that all guards and other protective devices are in proper places and adjusted and shall report deficiencies promptly to the supervisor or superintendent.
- Workers shall not handle or tamper with any electrical equipment, machinery, or air or water lines in a manner not within the scope of their duties, unless they have received instructions from their superintendent.
- All injuries shall be reported promptly to the supervisor or superintendent so that arrangements can be made for medical or first aid treatment. All incidents shall be investigated, and the findings documented. Corrective measures to prevent future accidents shall be implemented.
- When lifting heavy objects use the large muscles of the leg instead of the smaller muscles of the back.
- Inappropriate footwear or shoes with thin or badly worn soles must not be worn.
- Materials, tools, or other objects shall not be thrown from buildings or structures until proper precautions are taken to protect others from the falling objects.
- Employees shall cleanse themselves thoroughly after handling hazardous substances and follow special instructions from authorized sources.
- Any damage to scaffolds, false work, or other supporting structures shall be immediately reported to the supervisor and repaired before use.
- Work shall be so arranged that employees are able to face a ladder and use both hands while climbing.
- Gasoline shall not be used for cleaning purposes.
- No burning, welding, or other source of ignition shall be applied until it has first been determined that no possibility of explosion exists, and a hot work permit is obtained from the supervisor or superintendent.

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. 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 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. The following procedures should be followed by supervisors:

EMPLOYEES

Employees of the company will 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.

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 fine 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 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 required approval
- Refusal to obey a supervisor's safety instructions
- Refusal to abate a safety violation

Crane Hand Signals

HOIST:
With upper arm extended to the side, forearm and index finger pointing straight up, hand and finger make small circles.

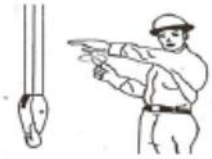
LOWER:
With arm and index finger pointing down, hand and finger make small circles.

USE MAIN HOIST:
A hand taps on top of the head. Then regular signal is given to indicate desired action.

USE WHIPLINE (Auxiliary Hoist):
With arm bent at elbow and forearm vertical, elbow is tapped with other hand. Then regular signal is used to indicate desired action.

BOOM UP:
With arm extended horizontally to the side, thumb points up with other fingers closed.

BOOM DOWN:
With arm extended horizontally to the side, thumb points down with other fingers closed.



MOVE SLOWLY:
A hand is placed in front of the hand that is giving the action signal. (Hoist slowly shown in example.)

BOOM UP AND LOWER THE LOAD:
With arm extended horizontally to the side and thumb pointing up, fingers open and close while load movement is desired.

BOOM DOWN AND RAISE THE LOAD:
With arm extended horizontally to the side and thumb pointing down, fingers open and close while load movement is desired.

SWING:
With arm extended horizontally, index finger points in direction that boom is to swing.

STOP:
With arm extended horizontally to the side, palm down, arm is swung back and forth.

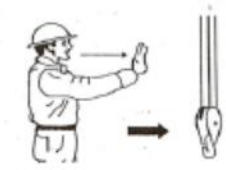
EMERGENCY STOP:
With both arms extended horizontally to the side, palms down, arms are swung back and forth.

TELESCOPE OUT (TELESCOPING BOOMS):
With hands to the front at waist level, thumbs point outward with other fingers closed.

TELESCOPE IN (TELESCOPING BOOMS):
With hands to the front at waist level, thumbs point at each other with other fingers closed.

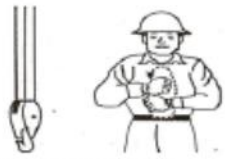
TELESCOPE OUT (TELESCOPING BOOMS):
One hand signal. One fist in front of chest with thumb tapping chest.

TELESCOPE IN (TELESCOPING BOOMS):
One hand signal. One fist in front of chest, thumb pointing outward and heel of fist tapping chest.



TRAVEL:
With all fingers pointing up, arm is extended horizontally out and back to make a pushing motion in the direction of travel.

TRAVEL (ONE TRACK):
Indicate track to be locked by raising fist on that side. Rotate other fist in front of body in direction that other track is to travel. (For crawler cranes only)



TRAVEL (BOTH TRACKS):
Rotate fists around each other in front of body; direction of rotation away from body indicates travel forward; rotation towards body indicates travel backward. (For crawler cranes only)

DOG EVERYTHING:
Hands held together at waist level.

SEÑALES MANUALES PARA GRÚAS

SUBIR LA CARGA:
Con el brazo vertical y el dedo índice apuntando hacia arriba mover la mano en un pequeño círculo horizontal.

BAJAR LA CARGA:
Con el antebrazo extendido hasta abajo y el dedo índice apuntando hacia abajo mover la mano en un pequeño círculo.

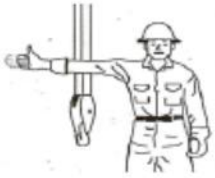
UTILIZAR EL GÜINCHE PRINCIPAL:
Levantar la mano por encima de la cabeza.

USAR EL GÜINCHE AUXILIAR:
Colocar el brazo izquierdo debajo del codo del brazo derecho.

SUBIR LA PLUMA (BOOM):
Brazo extendido, dedos cerrados, pulgar apuntando hacia arriba

BAJAR LA PLUMA (BOOM):
Brazo extendido, dedos cerrados, pulgar apuntando hacia abajo.

MOVER LENTAMENTE:
Con la mano derecha se da la señal de movimiento, y la otra se coloca encima y sin moverla.



SUBIR LA PLUMA Y BAJAR LA CARGA:
Con el brazo extendido y el pulgar apuntando hacia arriba, cerrar y abrir la mano alternativamente durante el tiempo que se desee que baje la carga.

BAJAR LA PLUMA Y SUBIR LA CARGA:
Con el brazo extendido y el pulgar apuntando hacia abajo, cerrar y abrir la mano alternativamente durante el tiempo que baje la carga.

GIRAR LA GRUA:
Brazo extendido apuntando con los dedos en la dirección de giro de la pluma.

PARE (STOP):
Mantener la postura rígida con el brazo extendido y palma hacia abajo desplazar el brazo adelante y atrás de manera continua.

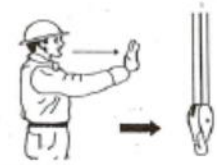
PARADA DE EMERGENCIA:
Mantener la postura rígida, con ambos brazos extendidos y las palmas hacia abajo, desplazarlos adelante y atrás de manera continua.

EXTENDIDA LA PLUMA (BOOM):
(Pluma telescópica): ambos puños delante del cuerpo con los pulgares apuntando hacia afuera.

RETRACTE LA PLUMA (BOOM):
(Pluma telescópica): ambos puños delante del cuerpo con los pulgares apuntando hacia delante.

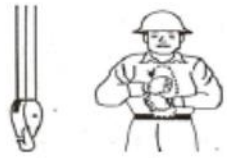
EXTENDIDA LA PLUMA. (CON CUERDA DE SEGURIDAD): Mantener postura rígida jalando la cuerda firmemente con una mano y la otra mano con los dedos cerrados, y el pulgar apuntando hacia el pecho.

RETRACTE LA PLUMA (CON CUERDA DE SEGURIDAD): Mantener postura rígida jalando la cuerda firmemente con una mano y la otra mano con los dedos cerrados, y el pulgar apuntando hacia el frente.



VIAJAR:
Brazo extendido hacia delante, mano abierta y algo elevada, hacer movimiento de empuje en la dirección del desplazamiento.

VIAJAR (CON UNA ORUGA): Bloquear la oruga del lado indicado por el puño levantado. El desplazamiento de la otra oruga se indica por movimiento del otro puño haciéndolo girar verticalmente ante el cuerpo.



VIAJAR (CON 2 ORUGAS): Con ambos puños delante del cuerpo haciendo un movimiento circular uno alrededor del otro, indicando la dirección del movimiento hacia delante o hacia atrás.

LEVANTAMIENTO TERMINADO:
Ceñir ambas manos delante del cuerpo.

U.S. Department of Labor

OSHA®
Occupational Safety and Health Administration

Job Safety and Health
IT'S THE LAW!

All workers have the right to:

- A safe workplace.
- Raise a safety or health concern with your employer or OSHA, or report a work-related injury or illness, without being retaliated against.
- Receive information and training on job hazards, including all hazardous substances in your workplace.
- Request an OSHA inspection of your workplace if you believe there are unsafe or unhealthy conditions. OSHA will keep your name confidential. You have the right to have a representative contact OSHA on your behalf.
- Participate (or have your representative participate) in an OSHA inspection and speak in private to the inspector.
- File a complaint with OSHA within 30 days (by phone, online or by mail) if you have been retaliated against for using your rights.
- See any OSHA citations issued to your employer.
- Request copies of your medical records, tests that measure hazards in the workplace, and the workplace injury and illness log.

This poster is available free from OSHA.

Employers must:

- Provide employees a workplace free from recognized hazards. It is illegal to retaliate against an employee for using any of their rights under the law, including raising a health and safety concern with you or with OSHA, or reporting a work-related injury or illness.
- Comply with all applicable OSHA standards.
- Report to OSHA all work-related fatalities within 8 hours, and all inpatient hospitalizations, amputations and losses of an eye within 24 hours.
- Provide required training to all workers in a language and vocabulary they can understand.
- Prominently display this poster in the workplace.
- Post OSHA citations at or near the place of the alleged violations.

FREE ASSISTANCE to identify and correct hazards is available to small and medium-sized employers, without citation or penalty, through OSHA-supported consultation programs in every state.

Contact OSHA. We can help.

1-800-321-OSHA (6742) • TTY 1-877-889-5627 • www.osha.gov

OSHA 3165-04R 2015

Departamento de Trabajo de los EE. UU.

OSHA®
Administración de Seguridad y Salud Ocupacional

Seguridad y Salud en el Trabajo
¡ES LA LEY!

Todos los trabajadores tienen el derecho a:

- Un lugar de trabajo seguro.
- Decir algo a su empleador o la OSHA sobre preocupaciones de seguridad o salud, o reportar una lesión o enfermedad en el trabajo, sin sufrir represalias.
- Recibir información y entrenamiento sobre los peligros del trabajo, incluyendo sustancias toxicas en su sitio de trabajo.
- Pedirle a la OSHA inspeccionar su lugar de trabajo si usted cree que hay condiciones peligrosas o insalubres. Su información es confidencial. Algún representante suyo puede comunicarse con OSHA a su nombre.
- Participar (o su representante puede participar) en la inspección de OSHA y hablar en privado con el inspector.
- Presentar una queja con la OSHA dentro de 30 días (por teléfono, por internet, o por correo) si usted ha sufrido represalias por ejercer sus derechos.
- Ver cualquieras citaciones de la OSHA emitidas a su empleador.
- Pedir copias de sus registros médicos, pruebas que miden los peligros en el trabajo, y registros de lesiones y enfermedades relacionadas con el trabajo.

Este cartel está disponible de la OSHA para gratis.

Los empleadores deben:

- Proveer a los trabajadores un lugar de trabajo libre de peligros reconocidos. Es ilegal discriminar contra un empleado quien ha ejercido sus derechos bajo la ley, incluyendo hablando sobre preocupaciones de seguridad o salud a usted o con la OSHA, o por reportar una lesión o enfermedad relacionada con el trabajo.
- Cumplir con todas las normas aplicables de la OSHA.
- Reportar a la OSHA todas las fatalidades relacionadas con el trabajo dentro de 8 horas, y todas hospitalizaciones, amputaciones y perdidos de un ojo dentro de 24 horas.
- Proporcionar el entrenamiento requerido a todos los trabajadores en un idioma y vocabulario que pueden entender.
- Mostrar claramente este cartel en el lugar de trabajo.
- Mostrar las citaciones de la OSHA acerca del lugar de la violación alegada.

Los empleadores de tamaño pequeño y mediano pueden recibir ASISTENCIA GRATIS para identificar y corregir los peligros sin citación o multa, a través de los programas de consultación apoyados por la OSHA en cada estado.

Llame OSHA. Podemos ayudar.

1-800-321-OSHA (6742) • TTY 1-877-889-5627 • www.osha.gov/espanol

OSHA 3167-04R 2015

PetraBee construction

Pre-Job Site Walk and Safety Meeting

Project # _____ **Project Name:** _____

Date of Site Walk: _____ **Completed By:** _____

Project Manager: _____ **Foreman:** _____

Attendees: _____

Project Management	Y/N	Comments
Crew Size & Crew Ramp-up		
Subcontractor		
Plans, Specs, & Contract		
Budget & Productions		
RFI/ASI's		
Scheduled Start Date		
Material & Scaffold Lists		
Tools & Equipment Lists		
Material Ordering		
Predecessor & Successor's		

Additional Comments: _____

Materials	Y/N	Comments
Material Submittals Approved		
Samples Approved		
Mockup Completed & Approved		
Flashings Ready		
Materials Ready		

Additional Comments: _____

Site Logistics	Y/N	Comments
Lay Down Area		
Mixing Area		
Parking Area		
Area Ready		
Starting Location		
Substrate Inspected		

Additional Comments: _____

Form S.08 - Pre-Job Safety Checklist

Mobilizing Plan	Y/N	Comments
Materials Delivered		
Tools, Mixers, Saws, ect. Delivered		
Equipment Delivered		
Silo Delivered		
Scaffold Delivered		

Additional Comments: _____

Project Specific Requirements	Y/N	Comments
Orientation		
Inspections & Testing		
Silica & COVID-19		
Certifications		
Deliveries		
QA/QC Requirements		

Additional Comments: _____

Safety Management	Y/N	Comments
SDS & JHA On-site & Reviewed		
First Aid Kit & Fire Extenguishers		
Nearest Emergency Medical Office		
Personal Protective Equipment		
Emergency Action Plan		
Site Safety Hazards		

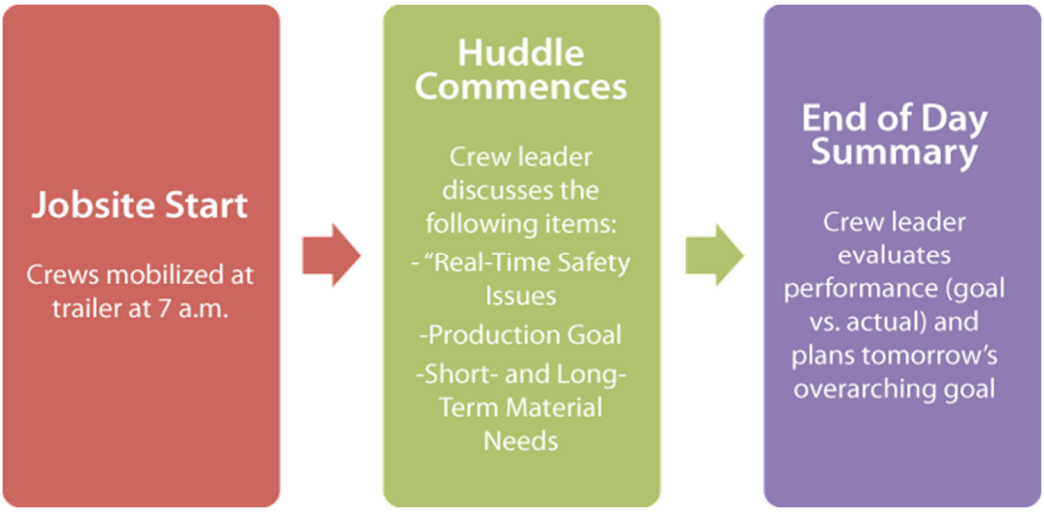
Additional Comments: _____

Daily Huddle Guide

- The Daily Huddle encourages accountability and daily collaboration, as well as facilitates the acknowledgment for the team to quickly surface and resolve problems.

  More specifically, the Daily Huddle provides a venue for:

  - Real-Time Safety – Use JHA's and devote immediate attention to safety issues.
  - Review required safety equipment & practices.
  - Coordinating actions for the day; Locations, Goals, & Productions
  - Continuing the planning conversation.
  - Keeping the network of commitments fresh and active.
  - Letting the team know the status of commitments and where help is needed.
  - Openly discuss problems, concerns and risks.
  - Identifying constraints so they can be addressed.
  - Declaring breakdowns in real time.
  - Identifying opportunities to help each other; and,
  - Fostering and building teamwork and a sense of shared responsibility.
  - Reducing employee disengagement and employee turnover
  - Reducing employee issues such as contractual problems due to misunderstandings.
  - Recognizing employees for their contributions to maintain or boost morale.



If project leaders do not meet with their crews to discuss jobsite conditions, required materials, customer demands and environmental factors that affect the project, they cannot adjust the daily plans accordingly.

PetraBee construction

Toolbox Talk Guide

Toolbox Talk is an informal safety meeting that focuses on safety topics related to the specific job, such as workplace hazards and safe work practices. Meetings are normally short in duration and are generally conducted at the job site prior to the commencement of a job or work shift. It is one of the very effective methods to refresh workers' knowledge, cover last-minute safety checks, and exchange information with the experienced workers. Toolbox Talks are also intended to facilitate health and safety discussions on the job site and promote your organization's safety culture.

Toolbox talks are a great way to reinforce safety basics, focus on high-risk scenarios and to inform workers about changes to the jobsite and working conditions that may have occurred since their last shift. Be sure to discuss cover any accidents or injuries that have occurred and how they could have been prevented

Safety topics covered should include safe work practices for the various activities and tasks being performed, the selection and proper use of personal protective equipment (PPE), and basic first aid practices. Discuss the engineering safety measures that will be in place on the jobsite.

These meetings and talks are also the perfect time to introduce new safety policies and procedures you are implementing as well as to provide training on new safety rules and regulations in order to stay compliant with state and federal OSHA standards.

6 Keys to a Successful Toolbox Talk

- Keep it short. Toolbox talks should be around 5 – 10 minutes.
- Focus on one topic relevant to the work being done that day.
- Get workers involved by asking questions or having them demonstrate safe work practices.
- Be sure to cover changes to the site or working conditions.
- Have employees inspect tools, equipment, and PPE.
- Allow for questions and answers at the end of the toolbox talk.

PetraBee Construction
5856 S. Lowell Blvd Unit 32-410, Littleton, CO 80123
720-957-8631

SAFETY MEETING ROSTER

Date: _____ Time: _____

Location: _____

Safety Topic: _____

Discussion Leader:_____

Persons Attending

Print Full Name:	**Signature:**

Employee Comments and Suggestions:

PetraBee construction

Project Safety Inspection & Observation Form

Project # _____ **Project Name:** _____

Date of Review: _____ **Completed By:** _____

Project Safety Management	Y/N		Y/N
SDS readily available		Daily Huddle Completed	
JHA readily available		Toolbox Talks Completed	
Competent Person on-site		Emergency Action Plan Reviewed	

Comments: _____

First Aid & Medical Services	Y/N		Y/N
First Aid Kit on-site		Eyewash station on-site	
Fire Extenguishers on-site		Emergency Medical office Provided	

Comments: _____

Personal Protective Equipment	Y/N		Y/N
Eye & Face Protection Worn		Hearing Protection	
Hardhats Properly Worn		Harness & Yoyo's Properly Worn	
Foot protection Properly Worn		Respiratory Protection Properly Worn	
Gloves Properly Worn		Proper Gear for Weather Worn	

Comments: _____

Scaffolds and/or Platforms	Y/N		Y/N
Level and Plumb		Platforms Clear from Material & Debris	
Safe Access		Anchored/Tied-off Correctly	
Ladders Installed Correctly		Debris Nets/Plastic Covering used	
Green & Red Tags in Place & Signed		Entrances Properly Protected	
Guardrails in Place		Harness & Yoyo's used during Erecting & Dismantling	
4-inch Toeboards in Place			
Access Gates Self-closing and Locking			

Comments: _____

Hand Tools, Portable Tools, & Equipment	Y/N		Y/N
Extention Cords & Connections		Working Conditions	
Properly Grounded/GFCI's Used		Maintenance Needed	
Guards and Safety Fixtures in Place			

Comments: _____

Form S.09 - Safety Observations

Ladders	Y/N		Y/N
No Metal/Aluminum ladders in use		Tied at Top and Properly Positioned 1:4 Ratio	
Safety Feet in Operable Condition		3-foot extension above Roof/Platform Level	

Comments: _____

Forklift	Y/N		Y/N
Daily Inspection Card Reviewed			
Certified Operator			

Comments: _____

Safety Award Program

Program Objectives

PetraBee Construction is committed in providing a safe workplace to its employees as our main priority. This safety award program is to motivate, inform, reward, and continuously build upon our organization's safety culture.

Purpose and Scope

The purpose of this program is to promote workplace safety through positive reinforcement of observed safe behaviors and voluntary participation in the organization's safety program and culture. For all employees to be properly trained, aware of working condition hazards, and continuing safety knowledge.

Eligibility

All full-time employees who engage in the following activities are eligible to participate in the Safety Incentive Program:

- Complete a toolbox talk or Observation Report
- Recommendation from Supervisor or General Contractor for safety excellence
- Reporting a Near Miss Accident

Program Duration

For each eligibility requirement completed the employees name gets entered in the corresponding drawing below:

- **Monthly Reward** – Highest number of eligibility requirements met for corresponding month.
- **Yearly Reward** – Employee nominated through peers and management.

Safety Reward – Tracking and Posting

- Safety eligibility requirements met will be entered into the Safety Management Smart Sheet every week. Tracking will be on a weekly, monthly, and yearly basis.

Reward's

- **Monthly Reward**
  - Safety Award recognition in the PetraBee Newsletter, hard hat sticker, and one of the following:
    - $50 Gift Card
    - Company Swag (Hats, t-shirts, etc.)
    - Safety Bucks
    - Crew Lunch
- **Yearly Reward**
  - Safety Award recognition in the PetraBee Newsletter, hard hat sticker, and one of the following:
    - $200 Gift Card
    - Company Swag (Hats, t-shirts, etc.)
    - Safety Bucks
    - Crew Lunch