



**Model Safety Program for Mechanical Construction**



# Company Name

# Safety and Health Program

**(Last Evaluated and Revised Date)**

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# Policy Statement

It is the policy of company name to provide a safe and healthy work environment for each of its workers. Each employee in this company, from the chief executive officer to the newest employee, is expected to make worker safety and health the top priority. Name of CEO, CEO shall evaluate safety performance on a continuous basis and make changes as necessary to maintain high quality safety and health performance throughout the company. The evaluations shall include analysis of:

## Leading Indicators of Safety and Health Performance:

* Frequency of safety/health communications, such as meetings, formal training, and short duration training;
* Frequency of task hazard analyses for high hazard tasks;
* Quality of pre-task safety and health planning for high hazard tasks; and
* Quality of implementation of pre-task safety and health plans for high hazard tasks.

## Lagging Indicators of Safety Performance:

* Number of injuries/illnesses requiring medical attention;
* Number of recordable injury/illness cases;
* Number of lost workday injury/illness cases; and
* Number of lost workdays from injury/illness.

All company name supervisors and workers are responsible for worker safety. Their responsibilities include, but are not limited to, the responsibilities shown below. Each supervisor and worker is expected to fulfill their safety and health responsibilities, and each will be held accountable to ensure that their responsibilities are fulfilled.

## Supervisor Responsibilities

* Ensure that pre-job/pre-task safety and health planning is performed for every new high hazard job or task;
* Enforce safe work practices;
* Provide all workers with appropriate safety and health training;
* Provide personal protective equipment as required;
* Record and report jobsite injuries and illnesses as required;
* Implement the company’s disciplinary action policy;
* Provide incentives for workers to perform their work tasks safely;
* Implement the company’s substance abuse and drug testing policy;
* Investigate accidents and near miss incidents;
* Address the most common hazards in mechanical construction on a continuous basis;
* Encourage worker participation in establishing new and revising existing company safe work practices;
* Obey all established safe work rules;
* Participate in safety orientation training sessions;
* Immediately address all unsafe or unhealthy acts or conditions observed;
* Immediately address all safety and/or health issues raised by any worker;
* Never report to work under the influence of alcohol or drugs; and
* Never be in possession of alcohol or illegal drugs while at work.

## Worker Responsibilities

* Obey all established safe work rules;
* Attend and participate in all required safety training sessions;
* Immediately report any unsafe or unhealthy acts or conditions observed;
* Never report to work under the influence of alcohol or drugs; and
* Never be in possession of alcohol or illegal drugs while at work.

# Corporate Commitment Letter

Date

Dear Employee Name:

Congratulations on choosing to work with one of the safest mechanical construction companies in the industry.

Company name is committed to providing you a safe and healthy workplace. Because you will play a major role in helping us keep your workplaces safe, you are expected to quickly learn and comply with our safety policies and safe work practices.

If you have any questions about our safety policies and/or safe work practices, or if you have any concerns or ideas regarding workplace safety or health, inform your supervisor immediately. All supervisors are required to promptly address all worker safety and health questions, ideas, and concerns.

Welcome aboard!

Sincerely,

CEO Signature  
CEO

# Disciplinary Action Policy

As a course of policy, all employees at company name are required to:

* Obey all established safe work practices and company safety policies;
* Attend and participate in all required safety and health training sessions; and
* Immediately report any unsafe acts, conditions, safe work practice violations, and/or company safety policy violations.

Failure to comply with any of these requirements will result in immediate disciplinary action as follows:

* 1st offense – The supervisor addressing the violation will take immediate action to ensure that the unsafe act is stopped, or unsafe/unhealthful condition is abated, and the worker responsible for the violation receives a verbal warning. The supervisor will document the warning and place it in the worker’s personnel file.
* 2nd offense – The supervisor addressing the violation will take immediate action to ensure that the unsafe act is stopped, or the unsafe/unhealthy condition is abated, and the worker responsible for the violation receives a written warning. A copy of the written warning will be placed in the worker’s personnel file.
* 3rd offense – The supervisor addressing the violation will take immediate action to ensure that the unsafe act is stopped, or unsafe/unhealthful condition is abated, and the worker responsible for the violation is suspended for three days without pay. The union business manager will be contacted before implementing the suspension.Documentation regarding the suspension will be placed in the worker’s personnel file.
* 4th offense – Occurrence of the same violation a fourth time will be documented and placed in the worker’s personnel file. The worker will be discharged. The union business manager will be contacted before discharging the worker.
* This course of disciplinary action does not apply to supervisors or workers under the influence of alcohol or drugs while working (see company name Substance Abuse and Testing Policy).

# Accident/Incident Investigation Policy

To help prevent the recurrence of accidents/incidents, it is the policy of company name to investigate all accidents that result in worker injuries requiring medical attention and all reported incidents (near miss incidents) involving no injuries. The supervisor in charge at the time of the accident/  
incident is required to:

* Start the investigation as soon as possible after the accident/incident occurs;
* Be impartial throughout the investigation;
* Interview the victim(s) alone as soon as possible after they are out of danger;
* Interview all other witnesses individually (one at a time, away from other witnesses);
* Get as much detail as possible from victim(s) and witnesses;
* Carefully inspect the scene for evidence;
* Take pictures where appropriate;
* Study all possible causes. Consider the possibility that both unsafe acts and/or unsafe conditions may have contributed to the accident/incident;
* Try to reconstruct the accident/incident and describe it in the report; and
* Write a narrative style report that includes:
  + The date, time, and location of the accident/incident;
  + A detailed description of the accident/incident;
  + The number of workers injured, types of injuries, weather conditions, lighting, substance abuse, fatigue, etc. (if applicable);
  + All obvious contributing factors;
  + All other possible contributing factors; and
  + A strategy for preventing recurrence.
* Implement recurrence prevention strategies immediately.

If more than one supervisor performs an investigation, all investigators will review the draft reports and work out any conflicting information/details until they agree on the final report.

# Substance Abuse and Testing Policy

Company name is committed to establishing and maintaining a drug-free workplace. The purpose of this policy is to increase on-the-job safety and ensure high-quality services and productivity to customers by denying jobsite presence to individuals whose abilities are impaired by drugs or alcohol or otherwise violate this policy.

Company name adheres to the most current version of the *UA/MCAA Smart Dispatch Model Substance Abuse Testing & Treatment Program Policy*, which involves implementation, pre-employment, pre-access, random, post-accident/incident, reasonable suspicion, periodic, return to work, and probationary status/follow-up testing. This policy, along with company name’s Employee Assistance Program (EAP), will help produce and maintain a safe, healthy, and drug-free workplace for all employees.

# Safety Incentive Program Policy

It is the policy of company name to reward workers who consistently comply with the company’s safety and/or health policies and required safe work practices, and who exhibit total commitment to protecting themselves and their coworkers from workplace hazards. Therefore, company name will consistently implement a safety incentive program selected from a variety of programs presented in the *MCAA Guide to Safety Incentive Programs* or another credible source of safety incentive programs. Specifically, company name will reward its workers who are always in compliance with the company’s safety and health policies and required safe work practices, and who:

* Report unsafe acts;
* Report unsafe conditions;
* Report environmental issues;
* Actively participate on a company safety/health committee;
* Successfully complete xxx safety/health training sessions;
* Voluntarily participate as a presenter or assistant presenter providing safety/health training for co-workers;
* Present safety/health ideas to the company; and/or
* Identify and correct safety/health issues without being assigned to do so.

Each affected company name supervisor is responsible for selecting an appropriate safety incentive program and ensuring its implementation.

# Light Duty Policy

It is the policy of company name to bring workers who are receiving workers’ compensation insurance back to work as soon as possible. Workers who are physically capable of performing light duty tasks are required to report to work. A determination of whether a worker is physically capable of performing light duty tasks is to be made by company name’s occupational medicine provider, name of health care provider.

The light duty tasks will be determined by the worker’s supervisor and based on recommendations from name of health care provider. The supervisor is required to document the provider’s recommendations and obtain a written statement from the provider indicating that the worker is physically capable of performing the specified light duty work.

Workers who are physically capable of performing their regular work tasks are required to return to them immediately. A determination of whether a worker is physically capable of performing their regular job tasks shall be made by name of health care provider. The supervisor is required to document the provider’s recommendations and obtain a written statement from the provider indicating that the worker is physically capable of performing regular work tasks.

# Safety & Health Training Required by OSHA

All affected company name workers will receive OSHA-required safety and health training on each of the subjects shown below that apply to the work that they will be performing. The training for each individual safety training subject area will be completed before any work involving that subject is performed.

Adoption and Extension of Established Federal Standards:

* Construction Work

General Safety and Health Provisions:

* Safety Training and Education
* Definitions
* Employee Emergency Action Plans

Occupational Health and Environmental Controls:

* Medical Services and First Aid
* Occupational Noise Exposure
* Ionizing Radiation
* Nonionizing Radiation
* Gases, Vapors, Fumes, Dusts, and Mists
* Ventilation
* Hazard Communication
* Methylenedianiline
* Retention of DOT Markings, Placards, and Labels
* Lead in Construction
* Process Safety Management of Highly Hazardous Chemicals
* Hazardous Waste Operations and Emergency Response

Personal Protective and Life Saving Equipment:

* Eye and Face Protection
* Respiratory Protection

Fire Protection and Prevention:

* Fire Protection
* Definitions Applicable to Fire Protection and Prevention

Signs, Signals, and Barricades:

* Accident Prevention Signs and Tags
* Signaling
* Barricades

Tools – Hand and Power:

* General Requirements
* Power-Operated Hand Tools

Welding and Cutting:

* Gas Welding and Cutting
* Arc Welding and Cutting
* Fire Prevention

Electrical:

* General Requirements

Scaffolds:

* Scope, Application, and Definitions
* General Requirements
* Training Requirements

Fall Protection:

* Training Requirements

Motor Vehicles, Mechanized Equipment, and Marine Operations:

* Material Handling Equipment
* Powered Industrial Trucks

Steel Erection:

* Fall Protection
* Training

Underground Construction, Caissons, Cofferdams, and Compressed Air:

* Underground Construction
* Compressed Air

Blasting and Use of Explosives:

* Blaster Qualifications

Power Transmission and Distribution:

* Overhead Lines

Stairways and Ladders:

* Training Requirements

Diving:

* Qualifications of Dive Team

Toxic and Hazardous Substances:

* Asbestos
* Chromium VI (Hexavalent Chromium)
* Cadmium

Confined Spaces in Construction:

* Training
* Rescue and Emergency Services

Cranes and Derricks:

* Definitions
* Assembly/Disassembly – General Requirements
* Power Line Safety (Up to 350 kV) – Equipment Operations
* Signals – General Requirements
* Fall Protection
* Work Area Control
* Keeping Clear of the Load
* Operation Qualifications and Certification
* Signal Person Qualifications
* Training
* Derricks
* Overhead and Gantry Cranes
* Equipment with a Rated Hoisting/Lifting Capacity ≤ 2,000 lbs.

# Additional Safety & Health Training

All affected company name workers will receive additional safety and/or health training as needed, including:

* How to perform effective jobsite hazard evaluations, and use the results to prevent injuries/illnesses;
* Pressure testing safety for steel and copper piping systems; and
* All other safety and health subjects as necessary for their protection.

# Jobsite Hazard Evaluations

Before starting work on any high hazard task at an unfamiliar jobsite, or any jobsite that has been significantly changed since the worker was last there,

the affected worker and/or affected supervisor is required to perform a

jobsite hazard evaluation using each applicable item in the checklist below

as a guide.

**Aerial Lifts**

\_\_\_\_\_ Inspections/maintenance current

\_\_\_\_\_ Operator’s manual readily accessible

\_\_\_\_\_ Daily inspection by user prior to use

\_\_\_\_\_ Affected workers properly trained

\_\_\_\_\_ Operator holds current training credentials

\_\_\_\_\_ Appropriate fall restraint or arrest system used

\_\_\_\_\_ Connectors connected at manufacturer’s anchor points

\_\_\_\_\_ Load capacities posted/not exceeded

\_\_\_\_\_ Not used during inclement weather

\_\_\_\_\_ Spotters used when needed

**Asbestos**

\_\_\_\_\_ Owner’s asbestos survey readily accessible

\_\_\_\_\_ Affected workers trained on asbestos awareness

\_\_\_\_\_ No work performed in non-remediated areas

**Confined Spaces**

\_\_\_\_\_ Affected workers trained in confined space entry

\_\_\_\_\_ Pre-entry plan established/workers briefed

\_\_\_\_\_ Space properly isolated

\_\_\_\_\_ Air monitoring equipment calibrated

\_\_\_\_\_ Monitoring performed pre-entry/periodic/continuous

\_\_\_\_\_ Adequate oxygen content (19.5% - 23.5%)

\_\_\_\_\_ Free of toxic/flammable/explosive gases

\_\_\_\_\_ Attendant assigned/communication established

\_\_\_\_\_ Adequate ventilation established where needed

\_\_\_\_\_ Weld purge properly vented

\_\_\_\_\_ Acceptable access/egress established

\_\_\_\_\_ Appropriate non-entry retrieval in place

\_\_\_\_\_ Adequate emergency rescue on standby

\_\_\_\_\_ Compressed cylinders kept out of space

\_\_\_\_\_ Tools/equipment/cords/lighting/electronics/rated for space

\_\_\_\_\_ Workers in proper PPE

\_\_\_\_\_ Space protected from unauthorized entry

**Cranes and Hoists**

\_\_\_\_\_ Inspections/maintenance current

\_\_\_\_\_ Equipment supported/outriggers used

\_\_\_\_\_ Load capacities posted/not exceeded

\_\_\_\_\_ Rigging inspected/good condition

\_\_\_\_\_ Rigging load capacities not exceeded

\_\_\_\_\_ Chain falls inspected before use

\_\_\_\_\_ Chain falls used properly

\_\_\_\_\_ Signalman used

\_\_\_\_\_ No one permitted under suspended load

\_\_\_\_\_ Swing radius barricaded

**Electrical**

\_\_\_\_\_ GFCI or Assured Equipment Grounding in use

\_\_\_\_\_ GFCI tested regularly

\_\_\_\_\_ Receptacles checked for proper wiring/grounding

\_\_\_\_\_ Outlets not overloaded

\_\_\_\_\_ Flexible cords properly rated

\_\_\_\_\_ Extension cords suspended by non-conductive hangers

**Electrical Equipment – Portable**

\_\_\_\_\_ Equipment inspected/good condition

\_\_\_\_\_ Not used in damp, wet or otherwise hazardous locations

\_\_\_\_\_ Cords and plugs inspected daily by user prior to use

\_\_\_\_\_ GFCI in use

\_\_\_\_\_ Equipment cords suspended by non-conductive hangers

\_\_\_\_\_ Temporary lighting properly suspended/lamp guards in place

**Emergency Response Plan**

\_\_\_\_\_ Site specific plan readily accessible

\_\_\_\_\_ Workers trained on plan’s contents

\_\_\_\_\_ Workers trained on evacuation signals/exit routes

\_\_\_\_\_ Facility/project maps posted

\_\_\_\_\_ Workers trained on how to report emergencies

**Environmental**

\_\_\_\_\_ Universal waste labeled/separated/stored properly

\_\_\_\_\_ Used lamps and ballasts

\_\_\_\_\_ Used batteries

\_\_\_\_\_ Used refrigerant

\_\_\_\_\_ Used electronic circuit boards

\_\_\_\_\_ Used mercury switches

**Excavations**

\_\_\_\_\_ Permits readily accessible where required

\_\_\_\_\_ “Competent Person” supervising

\_\_\_\_\_ Underground utilities identified/marked

\_\_\_\_\_ Surface encumbrances removed/supported

\_\_\_\_\_ Soil classification completed/documented

\_\_\_\_\_ All affected workers properly trained

\_\_\_\_\_ “Competent Person” inspections performed daily

\_\_\_\_\_ Atmospheric testing performed when appropriate

\_\_\_\_\_ Barricades established

\_\_\_\_\_ Battery lighted barricades working properly when used

\_\_\_\_\_ When 4’ deep or deeper means of egress within 25’

\_\_\_\_\_ When 5’ deep or deeper protective system in place

\_\_\_\_\_ Protective system documentation accessible

\_\_\_\_\_ Spoil pile at least 2’ from edge

\_\_\_\_\_ Adequate walkways/bridges/covers provided

\_\_\_\_\_ Backfill completed as soon as work is completed

**Exposure Assessments/Monitoring**

\_\_\_\_\_ Initial hazard assessment completed

\_\_\_\_\_ Exposure monitoring plan implemented

\_\_\_\_\_ Those performing monitoring properly trained

\_\_\_\_\_ Monitoring equipment properly calibrated

\_\_\_\_\_ Worker exposures properly documented

\_\_\_\_\_ Exposure records retained for employment +30 years

**Fall Prevention/Protection General**

\_\_\_\_\_ 6’ fall prevention/protection rule observed

\_\_\_\_\_ Adequate fall prevention/protection system in use

\_\_\_\_\_ All equipment inspected before use

\_\_\_\_\_ Floor and roof openings covered or guarded

\_\_\_\_\_ Standard guardrail systems adequate

\_\_\_\_\_ Wire rope guardrail systems adequate/flagged every 6’

**Fall Prevention/Guardrail Systems**

\_\_\_\_\_ Systems meet federal and state structural requirements

\_\_\_\_\_ Wood systems smooth and free of projections

\_\_\_\_\_ Top edge members 39” to 45” above surface

\_\_\_\_\_ Mid-rails centered between top-rail and surface

\_\_\_\_\_ Toeboards in place

\_\_\_\_\_ Withstands 200 lbs. in outward/downward directions

\_\_\_\_\_ Wire rope systems flagged every 6’

\_\_\_\_\_ Wire rope systems will not deflect more than 3’

**Fall Prevention/Floor & Roof Hole Covers**

\_\_\_\_\_ Covers in place

\_\_\_\_\_ Covers properly secured

\_\_\_\_\_ Covers properly marked

\_\_\_\_\_ Can withstand twice aggregate weight of workers/equipment

\_\_\_\_\_ Can withstand twice axle load of largest vehicle

**Fall Protection/Personal Fall Arrest Systems**

\_\_\_\_\_ Components inspected by qualified person

\_\_\_\_\_ Qualified person inspections documented

\_\_\_\_\_ All affected workers properly trained

\_\_\_\_\_ Components used only for fall protection

\_\_\_\_\_ All components inspected by user immediately before use

\_\_\_\_\_ Defective components removed from service

\_\_\_\_\_ Components subjected to fall removed from service

\_\_\_\_\_ Anchor points adequate

\_\_\_\_\_ Anchors inspected/adequate

\_\_\_\_\_ Anchors and lifelines properly installed

\_\_\_\_\_ Anchors and lifelines rated 5,000 lbs. or safety factor of 2

\_\_\_\_\_ Connectors are proper type for each specific application

\_\_\_\_\_ Snaphooks are locking type

\_\_\_\_\_ Free fall distances limited to 6’ or less

\_\_\_\_\_ Full body harnesses properly fitted/adjusted

\_\_\_\_\_ Anchor points are directly overhead

\_\_\_\_\_ Workers staying directly below anchor points

\_\_\_\_\_ Suspended worker rescue plan in place/documented

**Fire Prevention and Protection**

\_\_\_\_\_ Flammable/combustible liquids away from ignition sources

\_\_\_\_\_ Approved portable containers with self-closing lids

\_\_\_\_\_ Flammable/combustible materials away from hot work

\_\_\_\_\_ Adequate size Class ABC extinguishers readily accessible

\_\_\_\_\_ Extinguishers fully charged/recently inspected

\_\_\_\_\_ Extinguishers placed in conspicuous locations

\_\_\_\_\_ Fire watch

**First Aid/Medical/Bloodborne Pathogens (BBP)**

\_\_\_\_\_ First aid/medical procedures established

\_\_\_\_\_ Adequate number of CPR/first aid trained responders

\_\_\_\_\_ First Aid Kits adequate for site/readily accessible

\_\_\_\_\_ First Aid Kits properly maintained

\_\_\_\_\_ Exam gloves & CPR mask provided in kits

\_\_\_\_\_ BBP exposure control plan in place where applicable

**Forklifts/Powered Industrial Trucks**

\_\_\_\_\_ Inspections/maintenance current

\_\_\_\_\_ Operator’s manual readily accessible

\_\_\_\_\_ Daily inspections by user prior to use

\_\_\_\_\_ Operator holds current training credentials

\_\_\_\_\_ Seat belt operative/in use

\_\_\_\_\_ Horns/brakes/lights/back up alarms functional

\_\_\_\_\_ Load capacity not exceeded

\_\_\_\_\_ Power line approach distance established/observed

\_\_\_\_\_ Outriggers used when applicable

\_\_\_\_\_ Spotters used when needed

\_\_\_\_\_ Passengers not permitted

\_\_\_\_\_ Proper hand signals used

\_\_\_\_\_ Proper refueling procedures observed

**Hazard Communication (GHS)**

\_\_\_\_\_ Affected workers properly trained

\_\_\_\_\_ Additional training when new hazards are introduced

\_\_\_\_\_ Complete list of chemicals included in program

\_\_\_\_\_ Safety Data Sheet (SDS) for each readily accessible

\_\_\_\_\_ All workers know precisely where/how to access SDSs

\_\_\_\_\_ All containers properly labeled per GHS

\_\_\_\_\_ All chemicals properly segregated/stored

**Housekeeping**

\_\_\_\_\_ Work area free from clutter

\_\_\_\_\_ Passageways/walkways clear

\_\_\_\_\_ Harnesses/lanyards/rigging properly stored

\_\_\_\_\_ Slip/trip/fall hazards addressed

\_\_\_\_\_ Suitable containers for disposal of scrap/trash

\_\_\_\_\_ Disposal containers emptied regularly

\_\_\_\_\_ Tools/equipment properly stored when not being used

\_\_\_\_\_ Materials stored/staged neatly

**Ladders**

\_\_\_\_\_ All affected workers properly trained

\_\_\_\_\_ Ladders inspected before use

\_\_\_\_\_ Defective ladders immediately removed from service

\_\_\_\_\_ Appropriate ladder chosen for each specific task

\_\_\_\_\_ Portable ladders are non-conductive

\_\_\_\_\_ Portable ladders are minimum Class 1-A

\_\_\_\_\_ Ladders are set up properly

\_\_\_\_\_ Extension/straight ladders 3’ above landing

\_\_\_\_\_ Extension/straight ladders properly pitched (4 to 1 ratio)

\_\_\_\_\_ Ladders secured in place (tied or braced)

\_\_\_\_\_ Step ladders fully open when in use

\_\_\_\_\_ Constant 3-point contact maintained when climbing

**Lead**

\_\_\_\_\_ Owner’s lead survey readily accessible

\_\_\_\_\_ Lead awareness training performed

\_\_\_\_\_ No work performed in non-remediated areas

**Line Breaking**

\_\_\_\_\_ Affected workers properly trained

\_\_\_\_\_ Breaks coordinated with owner/GC/CM/others

\_\_\_\_\_ System procedures established/signatures obtained

\_\_\_\_\_ Work area properly barricaded

\_\_\_\_\_ Affected workers using proper PPE

\_\_\_\_\_ Liquid containment/management established

\_\_\_\_\_ Line identification implemented

\_\_\_\_\_ Cutter and spotter used for each cut

\_\_\_\_\_ Nearby lines shielded/protected

\_\_\_\_\_ Contaminated PPE/materials properly disposed of

**Lockout – Control of Stored Energy**

\_\_\_\_\_ Pre-lockout safety plan established

\_\_\_\_\_ Affected workers properly trained

\_\_\_\_\_ Activities coordinated with owner/GC/CM/others

\_\_\_\_\_ Energy sources identified/isolated

\_\_\_\_\_ Appropriate lockout devices used

\_\_\_\_\_ Each employee has lock attached

\_\_\_\_\_ All locks and tags singularly identifiable

\_\_\_\_\_ Zero energy state verified prior to start of work

**Materials Handling**

\_\_\_\_\_ Powered handling equipment used whenever possible

\_\_\_\_\_ Non-powered wheeled handling equipment readily accessible

\_\_\_\_\_ Manual handling minimized

\_\_\_\_\_ Materials staged as close to work areas as possible

\_\_\_\_\_ Materials stored off ground close to waist height

\_\_\_\_\_ Proper lifting techniques used

**Personal Protective Equipment – Standard**

\_\_\_\_\_ Hardhats used

\_\_\_\_\_ Safety glasses used

\_\_\_\_\_ Face shields used where appropriate

\_\_\_\_\_ Task appropriate gloves used where appropriate

\_\_\_\_\_ Task appropriate footwear used

\_\_\_\_\_ Task appropriate clothing used

\_\_\_\_\_ Respiratory protection used where applicable

\_\_\_\_\_ Hearing protection used where applicable

\_\_\_\_\_ Chemical clothing/gloves used where applicable

**Pressure Testing**

\_\_\_\_\_ Affected workers properly trained

\_\_\_\_\_ Pressure testing safety plan established

\_\_\_\_\_ Activities coordinated with owner/GC/CM/others

\_\_\_\_\_ Barricades/warning signs in place

\_\_\_\_\_ Liquid containment/management established

**Pre-Task Safety Planning**

\_\_\_\_\_ Foremen/workers trained in planning

\_\_\_\_\_ Plans completed daily by each crew

\_\_\_\_\_ All affected workers participate in planning

\_\_\_\_\_ Plans signed by foremen before work begins

\_\_\_\_\_ Plans are readily accessible in the field

\_\_\_\_\_ The task’s steps are established

\_\_\_\_\_ Hazards associated with each step identified

\_\_\_\_\_ Corrective measures for each step established

\_\_\_\_\_ Pre-task meeting held

\_\_\_\_\_ Affected workers briefed on hazards/corrective measures

**Respiratory Protection**

\_\_\_\_\_ Affected workers trained/medically cleared/fit-tested

\_\_\_\_\_ Respirator selection appropriate for hazard

\_\_\_\_\_ Positive/negative fit check performed each time used

\_\_\_\_\_ Respirator cleaning/maintenance schedule established

\_\_\_\_\_ Respirator inspections performed before/after use by user

\_\_\_\_\_ Respirators properly stored

\_\_\_\_\_ Works clean shaven at seal

\_\_\_\_\_ Cartridge(s) change out schedule established/observed

**Scaffolding – Fixed**

\_\_\_\_\_ Erection/disassembly supervised by “Competent Person”

\_\_\_\_\_ Scaffolding properly tagged

\_\_\_\_\_ Scaffolding will support 4 times the maximum intended load

\_\_\_\_\_ Footings & mudsills established/adequate

\_\_\_\_\_ Scaffolding plumb and square

\_\_\_\_\_ All scaffolding parts connectors compatible

\_\_\_\_\_ Scaffolding connections sound/secure

\_\_\_\_\_ Scaffold working levels fully planked

\_\_\_\_\_ Scaffolding planks secured/properly overlapped

\_\_\_\_\_ Toeboards in place where required

\_\_\_\_\_ Height to base ratio greater than 4 to 1 properly secured

\_\_\_\_\_ Power line safe approach distance established/observed

\_\_\_\_\_ Wind/weather issues abated before use

\_\_\_\_\_ Inspections by “Competent Person” daily and when needed

\_\_\_\_\_ Ladder or other safe/secure access/egress provided

\_\_\_\_\_ Fall prevention/protection in place at 10’ or as required

\_\_\_\_\_ Working surfaces free from slip/trip/fall hazards

**Scaffolding – Mobile**

\_\_\_\_\_ Ground solid/level/clear of debris/without floor holes

\_\_\_\_\_ Height to base ratio does not exceed 4 to 1 or as required

\_\_\_\_\_ Erection/disassembly supervised by “Competent Person”

\_\_\_\_\_ Scaffolding properly tagged

\_\_\_\_\_ Scaffolding will support 4 times maximum intended load

\_\_\_\_\_ Scaffolding plumb and square

\_\_\_\_\_ All scaffolding parts connectors compatible

\_\_\_\_\_ Scaffolding connections sound/secure

\_\_\_\_\_ Toeboards in place where required

\_\_\_\_\_ Power line safe approach distance established/observed

\_\_\_\_\_ Inspections by “Competent Person” daily and whenever affected

\_\_\_\_\_ Fall prevention/protection in place at 10’ or as required

\_\_\_\_\_ Wheels locked when in use

\_\_\_\_\_ Workers not riding on scaffolding

\_\_\_\_\_ Working surfaces free from slip/trip/fall hazards

**Stairways**

\_\_\_\_\_ Steps finished, or temporary planking secured

\_\_\_\_\_ Stairways equipped with stair rails where applicable

\_\_\_\_\_ Stairways equipped with handrails

\_\_\_\_\_ Stairways free of slip/trip/fall hazards

**Site Working Conditions (General)**

\_\_\_\_\_ Ventilation adequate in all work areas

\_\_\_\_\_ Lighting adequate in all work areas

\_\_\_\_\_ Sanitary private toilet facilities readily accessible

\_\_\_\_\_ Hand washing materials/facilities readily accessible

\_\_\_\_\_ Potable drinking water readily accessible

**Temperature Extremes**

\_\_\_\_\_ Worker clothing suitable

\_\_\_\_\_ CO monitors in place when fuel burning heaters used

\_\_\_\_\_ Warm break areas readily accessible for cold conditions

\_\_\_\_\_ Cool break areas readily accessible in hot conditions

\_\_\_\_\_ Potable drinking water readily accessible

\_\_\_\_\_ Workers trained on hypothermia/frostbite

\_\_\_\_\_ Workers trained on heatstroke/exhaustion/cramps

\_\_\_\_\_ Rotation schedules established when appropriate

**Tools – Hand and Power Tools**

\_\_\_\_\_ Inspections/good condition

\_\_\_\_\_ Defective tool procedures observed

\_\_\_\_\_ Proper tool used for the job

\_\_\_\_\_ Power tool cords in good condition

\_\_\_\_\_ Strain relief on corded tools in place

\_\_\_\_\_ Extension cords in good condition

\_\_\_\_\_ Extension cord GFCI in place/tested/functioning

\_\_\_\_\_ Tool guards in place

**Tools – Powder Actuated**

\_\_\_\_\_ Inspected/good condition

\_\_\_\_\_ Users properly trained

\_\_\_\_\_ Users observing manufacturer’s recommendations

\_\_\_\_\_ Cartridge allocation controlled

\_\_\_\_\_ Warning signs posted in work area

**Vehicle/Fleet Safety**

\_\_\_\_\_ Inspections/maintenance current

\_\_\_\_\_ Registrations/insurance/state inspections current

\_\_\_\_\_ Only authorized drivers operating vehicles

\_\_\_\_\_ Cab/dashboard clean/neat/organized

\_\_\_\_\_ Seat belts worn always

\_\_\_\_\_ Loads properly secured/not overloaded

\_\_\_\_\_ CDL operators in compliance with DOT regulations

\_\_\_\_\_ CDL operators used where required

\_\_\_\_\_ DOT numbers on vehicles over 10,000 lbs.

**Welding and Cutting**

\_\_\_\_\_ Hot work permit

\_\_\_\_\_ No combustible materials within 35’

\_\_\_\_\_ Charged/inspected Class ABC fire extinguisher within 25’

\_\_\_\_\_ Leads arranged to prevent tripping

\_\_\_\_\_ Leads in good condition/no repairs within first 10’

\_\_\_\_\_ Only qualified person permitted to repair leads

\_\_\_\_\_ Boots protecting lead attachments at welder

\_\_\_\_\_ Helmets/shaded lenses/welding gloves/clothing in use

\_\_\_\_\_ Safety glasses worn under welding helmet

\_\_\_\_\_ Welding screens in use

\_\_\_\_\_ Cylinders properly labeled

\_\_\_\_\_ Cylinders upright/secured

\_\_\_\_\_ Cylinders off and valve caps in place when not in use

\_\_\_\_\_ Stored oxy/fuel cylinders 20’ apart/5 ½ hour rated barrier

\_\_\_\_\_ Cylinder storage adequate

\_\_\_\_\_ Cylinders marked as empty when appropriate

\_\_\_\_\_ Wrenches left on cylinders during use when applicable

\_\_\_\_\_ Regulators/gauges inspected/good condition

\_\_\_\_\_ Weld hose flash back arrestors in place

\_\_\_\_\_ Hoses and torches inspected/good condition

\_\_\_\_\_ Only strikers used to ignite torches

\_\_\_\_\_ Work cable attached directly to the work

\_\_\_\_\_ Work cable attached as close to the weld spot as practical

# Required Safe Work Practices

## Aerial Lifts

General:

* Never operate a lift until you have received the proper training.
* Obey operating instructions, warnings and cautions for each lift.
* Visually inspect the lift before using it and test the controls to ensure that it is in good condition and functioning properly.
* Never use a ladder, bucket, or other objects to extend your reach.
* Never step up on the mid-rail or top rail to extend your reach.
* Always keep both feet planted firmly on the floor of the basket.
* Use a personal fall restraint system whenever the manufacturer recommends it. The system should include a full-body harness and fall restraint lanyard or fall restraint self-retracting lifeline.
* Never attach the lanyard to anything other than the manufacturer’s designated anchorage point on the lift.
* Ensure that gates or chains are properly closed and latched.
* Enter and exit the platform or basket from the ground level only.

Lift Movement:

* Never operate a lift on soft ground or unlevel surfaces.
* Lower the basket or platform to the ground before moving the lift.
* Never move a lift with the outriggers extended.
* Use a spotter to help you back the lift safely.

Operation:

* Set the brakes.
* Level and stabilize the lift by extending the outriggers.
* Check the area carefully for obstructions before positioning the basket or platform.
* Never exceed boom or basket load limits.

**Asbestos**

General:

* Assume that all building materials installed before 1980 contain asbestos.
* When you come across building materials installed before 1980 that would easily crush, crumble, or come apart sending particles into the air, leave the area immediately and report the situation to your supervisor.

Working Around Asbestos:

* Before working around suspect building materials, make sure you have the proper training and respiratory protection.
* Do whatever is necessary (e.g., wet method, respirator use, HEPA ventilation systems) to protect yourself from overexposure.
* Wear coveralls and use the appropriate class and type of respirator while working around suspect building materials, unless our company’s sample tests, or air monitoring results indicate no risk of overexposure.
* Carefully follow the appropriate decontamination procedure before leaving the worksite, including showering, changing clothes, and properly storing contaminated clothing.

## Bloodborne Pathogens

General:

* Be aware of bloodborne pathogen hazards when responding to an injury or working in places where human blood or body fluids might be present, such as health care facilities, nursing homes, dental facilities, funeral homes, and wastewater treatment plants.
* Use the appropriate personal protective equipment (PPE) to prevent human blood and body fluids from contacting your eyes, nose, mouth, or open cuts, punctures, or abrasions in the skin. Appropriate PPE includes safety glasses or goggles, nitrile medical exam gloves and a surgical mask or face shield that covers your nose and mouth.
* Thoroughly wash your hands and face with warm, soapy water immediately after exposure to human blood or body fluids.

## Carbon Monoxide

General:

* When working around sources of carbon monoxide, ensure that the area is well ventilated.
* If the area does not appear to be well ventilated, leave it immediately and seek fresh air. Your senses cannot help you determine whether carbon monoxide is present.

## Common Chemical Substances

General:

* Protect yourself from these substances by ensuring that they do not enter your body.
* Use the proper personal protective equipment such as gloves, goggles, face shields, aprons and, when necessary, respirators to keep from inhaling, ingesting, injecting, or absorbing chemical substances into your body.

## Compressed Air

General:

* Before using compressed air for cleaning, ensure there are no hazardous substances that could become airborne when compressed air is released.
* Reduce the pressure to less than 30 pounds per square inch (psi) before using compressed air for cleaning.
* Wear chip guarding and safety glasses when using compressed air for cleaning.

## Compressed Gas Cylinders

General:

* Protect yourself and others from fire, explosion and struck-by hazards caused by inappropriate use or treatment of compressed gas cylinders.
* Always keep compressed gas cylinders secured in an upright position.
* Close the cylinder valves as soon as work is completed, when cylinders are empty, and before transporting, moving, or storing the cylinders.
* Before transporting, moving, or storing compressed gas cylinders, make sure that the valve protection caps are in place.

Storage:

* Store cylinders in a dry, well-ventilated area at least 20 feet from combustible materials.
* Store oxygen cylinders at least 20 feet from fuel gas cylinders such as acetylene or separate them with a ½‑hour non-combustible barrier that is at least 5 feet high.
* Never store cylinders in gang boxes, lockers, or other poorly ventilated areas.
* Store gas hoses in dry, well-ventilated areas.

Operational Use:

* Keep cylinders away from ignition sources such as sparks, hot slag, and flames, or isolate them with fire-resistant shields.
* Also keep cylinders away from all sources of electricity, so they will never become part of an electrical circuit.
* Keep cylinder valve wrenches in place while the valves are open so they can be shut off quickly if necessary.
* Inspect regulators and torches before each use. Do not use them if they appear damaged.
* Do not use regulators or torches that appear to be malfunctioning. Immediately follow our company’s procedure for taking defective equipment out of service.
* Use only friction lighters to ignite torches.

## Confined Spaces

General:

* Find out who has been designated as the “Competent Person” for the confined space in which you will be working.
* Never enter a confined space until your supervisor authorizes you to do so. The space must be tested to determine whether the atmosphere inside is hazardous.
* The “Competent Person” will test for oxygen content, toxic gases, and flammable/explosive atmospheres.
* Never enter a confined space that has a hazardous atmosphere until you have received the proper training and are wearing the appropriate personal protective equipment (PPE).
* Follow all the safe work practices covered in your training, which include information such as proper use of ventilation systems, air monitoring, monitor alarm systems, PPE, emergency egress equipment and procedures, and confined space attendants.
* Remember that welding, cutting or any kind of hot work inside a confined space can create a hazardous atmosphere. Use an adequate ventilation system and monitor the air to ensure that the atmosphere is not hazardous.
* If a co-worker collapses inside a confined space, do not attempt a rescue unless you have received the proper training and have the equipment you need to perform the rescue safely.

## Cranes and Derricks

General:

* Never operate a crane or derrick without the proper qualifications/  
  certifications.

Prior to Operation:

* Check with the designated “Competent Person” to ensure that appropriate ground preparations have been completed before beginning crane operations.
* Make sure that a qualified person has completed the necessary crane or derrick inspections.
* Ensure that the signal person and the riggers you will be working with are properly qualified.
* Verify that the load capacity of the crane or derrick is posted and visible from the operator’s station.

Operation:

* Extend the outriggers before lifting a load.
* Rope off or barricade the space 360 degrees around the swing radius of the rotating superstructure.
* Never exceed the load capacity.
* Operate the crane or derrick only on firm, level ground. Use mats whenever necessary, and especially when lifting extremely heavy loads.
* Make sure that the boom point is centered directly over the load for rigging.
* Ensure that no part of any crane comes closer than 10 feet from a power line rated 50 kilovolts (kV) or below; and 10 feet plus 0.4-inch for each kV over 50 kV for lines rated over 50 kV, or twice the length of the line insulator.

## Damaged Equipment

General:

* Carefully inspect all equipment before each use.
* If you do not see damage, test the equipment to determine whether it is functioning properly.
* If you do see damage, or if the equipment is not functioning properly, immediately follow our company’s procedure for taking defective equipment out of service.
* Communicate that the equipment as unsafe to use by locking or tagging out the controls, or by tagging and physically removing the equipment from the jobsite.

## Disposal Chutes

General:

* Use a disposal chute any time you are dropping materials more than 20 feet to a point outside a building.
* Barricade the area underneath floor openings that are not equipped with chutes whenever you must drop materials through the openings to a lower level.
* Barricades should be at least 6 feet from the edges of the opening above and at least 42 inches high.
* Post signs warning others about the overhead falling materials.

## Electrical Safe Work Practices

General:

* Implement all safe work practices necessary to protect yourself from electrocution, shock, burns, arc flashes/blasts.

Before Starting Work:

* Use a ground fault circuit interrupter (GFCI) and/or an assured equipment grounding conductor program for all 120-volt, single phase, 15- and 20-amp receptacle outlets that are not part of the permanent wiring of the building or structure.
* Make sure your assured equipment grounding conductor program covers all cord sets, receptacles and equipment connected by cords and plugs.
* When using double insulated tools or appliances in place of grounded tools or appliances, make sure they are clearly marked as double insulated. Look for the words “Double-Insulated” or the double insulation symbol, which is a small square inside a larger square. 
* Verify that the extension cord you will be using is rated to accept the maximum current (amps) pulled by the portable power tool you will be operating.
* Carefully inspect all tool and equipment cords, extension cords and plugs for damage and excessive wear such as broken, cut, frayed, or abraded insulation, broken or exposed wires, and missing ground terminals.
* When you come across damaged electrical cords, tools, or equipment, immediately follow our company’s procedure for taking defective equipment out of service.
* Never attempt to repair a damaged cord with electrical tape or any other materials.
* Make sure that portable lights in wet or otherwise conductive locations such as tanks or boilers are protected by a ground fault circuit interrupter (GFCI), or make sure they are pulling no more than 12 volts.
* Do not suspend temporary lights by their cords unless they are designed specifically for that purpose.

While Working:

* Protect extension cords and tool and equipment cords from damage due to vehicle traffic, sharp building materials, pinch points such as doorways, and other potential sources of damage.
* Never attach extension cords to objects with staples, hang them from nails or suspend them from wire.
* Verify that buried powerlines are properly marked before you dig with hand-held tools or mechanized equipment.
* When you must work near electrical circuits where contact with exposed energized electrical conductors or circuit parts is possible, ensure that the source of electricity has been de-energized and locked out by someone who is qualified to do it safely.
* Make sure you have the required safety training before working near energized electrical conductors or circuit parts.
* For protection from arc flash and electrical shock, maintain flash protection and shock protection boundaries of at least 5 feet from all units or systems pushing 480 volts or less, unless you are wearing all necessary personal protective equipment.
* The shock protection boundary includes any conductive objects that you might be carrying. Conductive objects that you are carrying should never come closer to a unit or system than the established shock protection boundary allows.
* When potential exposure is from circuits pushing 480 volts or less, wear:
* 8-calorie arc-rated long-sleeved shirt and pants;
* 8-calorie arc-rated balaclava;
* Safety glasses;
* Class E hardhat;
* 8-calorie arc-rated face shield;
* Class 00 rubber gloves;
* Protective leather gloves over the rubber gloves;
* Earplugs; and
* Leather work boots or work shoes.
* When potential exposure is from circuits pushing more than 480 volts, extensive training and more sophisticated protective measures and protective equipment are necessary. Do not proceed without the proper additional training and authorization from your supervisor.

## Emergency Action Plans

General:

* Make sure that you are familiar with your company’s emergency action plan.
* When working in a plant, industrial process facility or any other established facility, you should be familiar with that facility’s emergency action plan as well.

Specifics:

* Know who to report to and how to report fires, chemical spills, excavation cave-ins, confined space incidents, injuries, and other

jobsite emergencies.

* Be familiar with all established emergency evacuation procedures. Learn the name of the person who will account for the building or structure’s workers and other occupants, and where to meet that person if an emergency occurs.
* Know how to quickly access emergency telephone numbers and the nearest telephone. If mobile telephones do not work on your jobsite, make sure that you know where the closest landline phone is located.
* Learn the address of the workplace and memorize landmarks that will help you guide emergency medical or rescue personnel to a victim.
* Never attempt a rescue in an excavation, confined space, or any other potentially hazardous area. Instead, contact emergency medical and rescue services and direct them to the incident.

## Excavations

General:

* Find out who your company has designated as the “Competent Person.”
* Make sure there is a protective system in place any time you enter an excavation that is 5 feet deep or deeper, unless the excavation is in solid rock and the “Competent Person” indicates that it is safe to enter.
* Make sure that the “Competent Person” has determined that the protective system will resist, without failure, all loads that could reasonably be applied to it.
* Ensure that the “Competent Person” has inspected the excavation and surrounding areas before work starts each day, throughout each shift, and immediately after a rainstorm or other potentially harmful occurrence.
* When shoring or bracing is used as a protective system, make sure the “Competent Person” has inspected it before use, daily and immediately after each rainstorm.
* Check that there are adequate barricades, signs, and warning lights to mark the location of the excavation.
* Ensure that there is a system in place such as barricades, hand signals, mechanical signals or stop logs to keep equipment from approaching the excavation.
* When working near the edge of an excavation that is more than 6 feet deep and difficult to see, use a guardrail system, such as fences, barricades or covers, to keep people from falling in.
* Ensure that a guardrail system is in place on any walkways over excavations that are 6 feet deep or deeper.

Prior to Excavating:

* If you are responsible for digging an excavation, make sure all underground utilities are identified and properly marked, such as sewer lines, telephone lines, electrical power lines, and water lines.

Excavating:

* Keep excavated materials and equipment at least 2 feet away from the side of the excavation.
* Whenever necessary, use retaining devices to ensure that workers in an excavation are not exposed to falling material.
* When approaching the estimated location of an underground utility, use a safe and acceptable method for determining the utility’s exact location.
* Protect, support, or remove exposed utilities as necessary to keep workers safe.

Working in an Excavation:

* Before entering an excavation that is more than 5 feet deep, but less than 20 feet deep, ensure that the excavation has a portable trench box or has been shored, braced, or sloped to the angle of repose established for its specific soil type. Deeper excavations may require more sophisticated protective measures. Check with your supervisor before proceeding.
* Before entering an excavation that is 4 feet deep or deeper, ensure that there is a ladder, ramp, stairway, or another safe method to exit the excavation within 25 feet of where you will be working.
* Never put yourself in a position where you could be under an overhead load handled by lifting or digging equipment.
* Never work alone inside an excavation.
* Do not work in an excavation with standing water or one in which water is accumulating unless it has been inspected by the “Competent Person” and adequate employee protective measures are in place.
* Vacate the excavation immediately any time you observe a potential protective system failure or any other potential hazard.

After Completing Work in an Excavation:

* Remove the protective system by starting at the bottom of the excavation and progressing upward until removal has been completed.
* Backfill the excavation as the protective system is removed.

## Fall Prevention & Protection

General:

* When you could potentially fall more than 6 feet to a lower level, make sure you are protected by a guardrail system, personal fall arrest system or hole covers. This 6-foot rule does not apply to ladders or scaffolds.
* Ensure that elevated ramps, runways, and other walkways that are 6 feet or more above a lower level have guardrail systems in place.
* Before stepping on elevated walking/working surfaces, make sure they have the strength and structural integrity to support the full weight and force of the workers, equipment and materials that could be placed on them.

Guardrail Systems:

* Make sure that the top edge members of guardrail systems are between 39 and 45 inches above the walking/working surface.
* Check that midrails are between the top edge members and the walking/working surface.
* Make sure that toeboards are installed to keep tools and materials from falling to a lower level.
* Inspect the system to ensure that it can withstand 200 pounds of force in any outward or downward direction.
* When any part of a guardrail system must be removed to facilitate materials handling, and you could potentially fall through the opening by working near it, use a personal fall arrest system.

Personal Fall Arrest Systems:

* When using a personal fall arrest system, verify that you have all

appropriate system parts:

* + Anchorage point (must be a point that is not being used to support or suspend a platform, and which can support at least 5,000 pounds of force for each worker tied off to it, or as part of a complete personal fall arrest system, maintains a safety factor of at least two);
  + Connectors;
  + Full-body harness; and
  + Lanyard (with built-in deceleration feature) or self-retracting

lifeline (SRL).

* Use any suitable combination of these system parts listed above.
* Only use locking snaphooks.
* Get the proper training before using any personal fall arrest system.

Hole Covers:

* Use hole covers on holes in floors, roofs, and other walking/working surfaces only when the holes are small enough to be safely covered.
* When vehicles will be driving over a hole cover, make sure the cover can withstand twice the maximum axle load of the largest vehicle you expect to drive across it.
* Even if a hole cover will not be exposed to vehicular traffic, make sure it can safely support twice the aggregate weight of the workers, equipment and materials that could be placed on it.

## Fire Prevention & Protection

General:

* Smoke only in designated smoking areas.
* Be familiar with all fire exits and fire alarms.
* Remove combustible items from your work area frequently.
* Dispose of oily, greasy, or paint-soaked rags or towels only in approved metal containers with self-closing lids.
* Keep solvents and other flammable/combustible materials in approved, properly labeled containers, and store them in a proper location.
* Keep ignition sources such as sparks, flames, and excessive heat away from solvents and other flammable/combustible materials.
* Erect welding screens if necessary, to isolate combustible materials from sparks and hot slag.
* Turn off internal combustion engines used to power vehicles, generators, or other equipment before refueling.
* Report fire hazards to your supervisor immediately.
* Learn the address of the workplace and memorize landmarks that will help you guide emergency personnel to the fire.
* Know how to quickly access emergency telephone numbers and the nearest landline telephone.

Fire Protection Equipment:

* Make sure that firefighting equipment is easy to locate and readily accessible.
* Ensure that you can quickly and easily access a Class ABC fire extinguisher from all work areas.
* Be sure there is a Class ABC fire extinguisher within 50 feet of any area where there is more than 5 gallons of a flammable/combustible liquid or more than 5 pounds of a flammable gas.
* Keep a Class ABC fire extinguisher readily accessible when welding, torch cutting, brazing, soldering, grinding, and in other hot work areas.

In Case of Fire:

* Warn others in the area about the fire.
* Attempt to extinguish smaller fires with the proper fire extinguisher.
* If the fire is large, sound the fire alarm immediately and evacuate the building or structure.
* Call the fire department and give accurate directions to the fire.
* Post someone to meet the fire department and direct them to the fire.
* Cut off electrical power, but only if it is safe to do so.

## Flammable/Combustible Liquids/Materials

General:

* Post “NO SMOKING” signs in service and refueling areas.
* Store flammable/combustible liquids in approved, properly labeled containers with self-closing lids.
* When transferring a flammable/combustible liquid from a drum to a smaller container, ground the drum first. Then bond the drum and the container by attaching a conductive wire from the drum to the container.
* Make sure that connections on drums and pipe systems for flammable/combustible liquids are airtight.
* Never use flammable liquids within 50 feet of an ignition source.
* Never store more than 25 gallons of a flammable/combustible liquid in a room outside of an approved storage cabinet, and never allow more than three storage cabinets in a single storage area.
* Keep flammable/combustible liquids in closed containers when not in use.
* Store flammable/combustible waste materials in approved containers with self-closing lids, and properly dispose of the waste regularly.

Storage Cabinets:

* Use only approved storage cabinets designed specifically for flammable/combustible liquid storage.
* Make sure that storage cabinets for flammable/combustible liquids are labeled as follows: “FLAMMABLE – KEEP FIRE AWAY.”
* Check the Safety Data Sheets (SDS) to determine whether liquids are potentially flammable or combustible.
* Ensure that no more than 60 gallons of a flammable liquid or 120 gallons of a combustible liquid are stored in a single cabinet.

Inside Storage:

* Do not smoke around flammable materials storage areas.
* Before storing flammable/combustible materials inside a building, make sure the building is fire resistant, has self-closing doors at all openings, and has at least 4-inch-high sills or depressed floors. Also, be sure the electrical wiring and equipment are approved for flammable materials storage areas.
* Make sure the ventilation system is providing complete air exchanges at least 6 times an hour.

Outside Storage:

* Ensure that flammable/combustible materials are stored to allow a 12-foot-wide access way for emergency fire control equipment.
* Do not store flammable/combustible materials near areas used for exits or near stairways.
* Stack combustible materials in piles no more than 20 feet high.
* Make sure outdoor storage containers contain no more than 60 gallons of flammable/combustible liquids and that no more than 1,100 gallons are stored in any one area.
* Ensure that stacks of flammable/combustible materials are separated by at least 5 feet and are stored at least 20 feet from a building.
* Make sure that outside storage areas for flammable/combustible liquids are graded or diked so that a spill would be diverted away from the building.
* Do not smoke in outside flammable/combustible storage areas.

Liquified Petroleum (LP) Gas Storage:

* Ensure that “NO SMOKING” signs are displayed on LP storage tanks.
* Turn off equipment before fueling.
* Protect LP gas tanks from vehicular traffic.
* Ensure that all electrical connections, including pumps and switches, are vapor and explosion proof.

**Forklifts and Other Powered Industrial Trucks**

General:

* Be sure that you receive the proper training and are authorized by your company to operate the forklift or other powered industrial truck.
* Always turn off the motor or engine before fueling or recharging the vehicle.

Operation:

* Never allow the load to obstruct your view.
* Operate the vehicle only at safe speeds.
* Start and stop slowly so the load will not shift.
* Make your turns slowly, smoothly, and gradually.
* Adjust your speed and driving behavior based on the surface conditions.
* If conditions are wet or muddy, slow down even more than you would on a dry surface and allow more time and distance for stopping.
* Maintain at least three vehicle lengths behind the vehicle ahead of you when the surface is dry. Increase this distance on wet or muddy surfaces.
* Use the horn when approaching an intersection, blind spot, or other potentially hazardous location.
* In hazardous locations, mount mirrors on the jobsite to see pedestrians and oncoming traffic.
* Never allow anyone to ride as a passenger on the vehicle.
* Never raise or lower the load while the vehicle is moving.
* Do not exceed the rated load capacity of the vehicle.
* Watch constantly for overhead obstructions.
* Keep well away from overhead powerlines.
* Never use a vehicle as an elevator.
* Always turn off the motor or engine if you intend to leave the seat and

move more than 25 feet away from the vehicle.

* Keep the vehicle going straight up or straight down ramps. Never turn it sideways on an incline.
* If you must leave a vehicle on an incline, block or chock the wheels.
* Always keep the load on the uphill side. Drive forward when going uphill and backwards when going downhill.
* Never allow a vehicle with an internal combustion engine to operate or idle in an enclosed area.
* Always drive with the load tilted back and the forks raised just enough to clear the load, but not more than necessary.
* Tie or block round materials that could otherwise roll off.
* Transport compressed cylinders in specially designed racks to protect them and keep them upright.
* Never allow anyone under the elevated portion of a vehicle, even when there is no load.

## Grinding

General:

* Verify that there are guards in place on your bench and stand grinders before using them.
* Ensure that the adjustable work rest is in place on bench and stand grinders, and that the rest adjustment does not exceed a clearance of 1⁄8-inch from the surface of the abrasive wheel.
* Ensure that your portable grinder has guards in place unless the grinding wheel is 2 inches or less or is completely inside the work.
* Ensure that the guards cover spindle ends, nuts, and flange projections.
* Make sure the guards are strong enough to withstand the force of a bursting abrasive wheel by using only those guards provided by the equipment manufacturer.
* Before mounting any abrasive wheel, inspect it carefully and ring test it to ensure that it is not defective.
* Check that abrasive wheels are properly matched to the RPM rating of the grinder, so the wheel or disk does not shatter.
* Wear safety glasses and a face shield when grinding.
* Turn off portable grinders and let the moving parts stop before putting the grinder down.

## 

## Hand & Power Tools

General:

* Never bypass a tool manufacturer’s safety guard or device.
* Carefully follow the tool manufacturer’s instructions for maintenance and tool repair.
* Keep all tools clean and in good condition.
* Carefully inspect all tools before using them.
* If you see damage, immediately follow our company’s procedure for taking defective tools out of service.
* Use only the proper size and type of tool for each job.
* Never use impact tools such as drift pins, wedges, and chisels if they have mushroomed heads.

Power Tools:

* Before servicing power tools, make sure to unplug or otherwise de-energize them.
* Do not use electrical cords to raise or lower tools from one level to another.
* Never yank on an electrical cord to unplug it. Grasp the plug and carefully remove it from the receptacle.
* Ensure that point of operation guards are properly in place before using the tool.
* Make sure your tools are properly grounded or double insulated before using them. To determine whether a tool is double insulated, look for the words “Double Insulated” or look for the double insulation symbol, which is a small square inside a larger square. 
* Check that the power switch is in the “off” position before plugging in any tool.
* Carefully inspect the insulation on electrical cords, including extension cords and welding leads. If insulation is damaged, immediately follow our company’s procedure for taking defective items out of service.
* Use a ground fault circuit interrupter (GFCI) when operating power tools in damp locations.
* Keep moving parts away from your body.
* Ensure that your power tool is off and moving parts have stopped before putting it down.

## Hazard Communication

General:

* Understand that you have the right to know about hazardous chemicals that you could be exposed to on a jobsite.
* Pay close attention to your hazard communication training, so you will know how to work safely around hazardous chemicals.
* Request a copy of our company’s written hazard communication program and read it carefully. Make sure you know where the program is filed on the jobsite and how to access it quickly.
* Know where to quickly access Safety Data Sheets (SDS) on the jobsite and be sure you can find them quickly.
* Learn how to read an SDS. The most important parts of an SDS are:
* Section 1 - Identifies the substance;
* Section 2 - Describes the hazards associated with the substance;
* Section 4 - Describes first aid procedures; and
* Section 8 - Describes how to protect yourself from the hazards.
* Learn how to read hazard warning labels.

Labeling:

* Make sure that all containers are properly labeled. The only exception to this rule is when you transfer a chemical substance into a secondary container and the substance will be used immediately and entirely. When in doubt, label the container.
* Learn the required safety components for chemical container labels, which include:
* Hazard Statement—A hazard statement is a statement assigned to a specific hazard class and category that describes the nature of the hazard;
* Precautionary Statement—A precautionary statement is a phrase that describes the recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a chemical, or improper storage or handling of a hazardous chemical;
* Signal Words—A signal word is one word used to indicate the severity of hazard and alert the reader to a potential hazard. The required signal words are “Danger” or “Warning.” “Danger” is used
* for more severe hazards. “Warning” is used for less severe hazards; and
* Pictograms—A pictogram is a symbol and other graphic elements intended to convey specific information about the hazards of a chemical. There are eight pictograms required for labels by the Occupational Safety and Health Administration (OSHA). The environment pictogram is not required since environmental issues fall outside of OSHA’s jurisdiction.

## Heating Devices (Temporary)

General:

* Make sure that any area where a temporary heating device is being used has an adequate supply of fresh air.
* Ensure that portable heaters fueled by LP gas are equipped with a device that automatically shuts off the gas flow if the flame fails.
* Make sure that solid fuel salamanders are not being used inside buildings or on scaffolds.
* Position temporary heating devices at least 10 feet away from combustible area covers, such as plastic tarps, canvas tarps or other flammable materials.
* Securely fasten covers in place so they will not displace heaters and cause fires in high winds.

## Hexavalent Chromium

General:

* Get the proper training before working around hexavalent chromium.
* Check with your supervisor before you begin hot work on stainless steel to ensure that a hexavalent chromium exposure assessment has been completed.
* Use the ventilation that is provided and make sure it is working properly.
* Position your welding hood so welding fumes will not rise under it.
* If respiratory protection is required, be sure you have the required training and proper respirator before starting work.

## Hoists for Personnel & Materials

General:

* Request a copy of the manufacturer’s specifications and limitations and follow them carefully.
* Verify that recommended operating speeds, hazard warnings and any special instructions are posted on cars and platforms.
* Ensure that material hoist entrances/exits are equipped with full-length gates or bars that are marked with contrasting colors, such as black and yellow stripes.
* Make sure that personnel hoists have doors or gates that are no less than 6 feet 6 inches and are protected with mechanical locks that cannot be operated from the landing side. The locks should only be accessible to personnel on the car.
* Check that overhead protective coverings have been provided on top of the personnel hoist cage or platform before you enter.

## Housekeeping

General:

* Keep materials in the work area properly organized.
* Regularly dispose of scrap materials and trash as the work progresses each day.
* Focus on keeping slip and trip hazards away from stairways, walkways, ladder platforms, scaffolds, and similar areas.
* Do not leave tools lying around. When not using them, put them in your tool belt, bucket, or toolbox.
* Put your tools away in a job box as soon as you are finished with them for the day.
* Whenever possible, keep hoses, power cords, welding leads and other trip hazards from lying across heavily traveled work areas or walkways.
* Regularly dispose of greasy or oily rags and other combustible materials in approved containers with self‑closing lids.

## Illumination

General:

* Make sure that your work areas are lighted well enough for you to do

your job safely.

* If there is not enough light in your work areas, inform your supervisor immediately.
* Refer to the illumination recommendations for proper illumination. Illumination is expressed in foot-candles and can be measured with special instruments. Illumination recommendations for construction include:
* 5 foot-candles forgeneral construction area lighting;
* 3 foot-candles for general construction areas, concrete placement, excavation and waste areas, access ways, active storage areas, loading platforms, refueling and field maintenance areas;
* 5 foot-candles for indoors: warehouses, corridors, hallways and exit ways;
* 5 foot-candles for tunnels, shafts, and general underground work areas;
* 10 foot-candles for general construction plant and shops (e.g., batch plants, screening plants, mechanical and electrical equipment rooms, carpenter shops, rigging lofts and active storerooms, barracks or living quarters, locker or dressing rooms, mess halls, and indoor toilets and workrooms); and
* 30 foot-candles for first aid stations, infirmaries, and offices.

## Ladders

General:

* Get ladder safety training before using any ladder.
* Carefully inspect each ladder before use.
* If you discover any defects, do not use the ladder. Immediately follow our company’s procedure for taking defective equipment out of service.
* Never exceed the ladder’s maximum load capacity.
* Use ladders only on level surfaces.
* Always face the ladder when climbing up or down and maintain a constant three-point contact (e.g., two hands and one foot or two feet and one hand on the ladder).
* Never carry tools, materials or equipment in your hands when climbing up or down a ladder.
* Never reach out too far from a ladder. Get down and move it so you will not have to reach too far.
* Make sure that all ladders are used only for their intended purpose.
* Use ladders with non-conductive side rails, especially when working near sources of electricity.
* Do not let ladders contact overhead power lines.
* Do not use painted ladders—paint can hide ladder defects.
* Protect ladders in doorways and passageways so they will not get bumped or knocked over.

Portable Straight Ladders:

* Set straight ladders on a firm, level, and substantial base.
* Secure the ladders in place.
* In addition to securing the ladders, use slip-resistant feet on slippery surfaces.
* Ensure that the base (foot) is pitched out from the vertical plane of its top support ¼ the length of the ladder, measured from the ground at the foot of the ladder to the top support.
* When using a ladder to access an upper level, make sure that it extends at least 3 feet above the landing surface.
* Never climb higher than the third rung from the top of a straight ladder.

Portable Stepladders:

* Open stepladders fully and lock them in the open position before using them.
* Never use a stepladder as a straight ladder.
* Do not climb higher than the second rung from the top of a stepladder.

## Lasers

General:

* Get the proper training before working with or around lasers.
* Wear the proper anti-laser eye protection whenever you could be exposed to direct or reflected laser light.
* Turn off or block laser beams with beam shutters or caps when the laser is not being used.

## Lead

General:

* Get the proper training before working around lead.
* Learn to identify lead-emitting activities.
* Request a copy of our company’s lead compliance program and follow it carefully.
* Use any feasible method available to eliminate lead fumes and keep lead dust from becoming airborne.
* Use the ventilation that is provided for you, and make sure it is working properly.
* If respiratory protection is required, get the proper training and the proper respirator before starting work.

## Liquified Petroleum (LP) Gas

General:

* Check containers, valves, connectors, manifold valve assemblies and regulators to ensure they are the proper system components.
* Make sure that each container and vaporizer has approved safety relief valves.
* Verify that LP gas cylinders have an excess flow valve to minimize the flow of gas if the fuel line becomes ruptured.
* Never store LP gas inside buildings.
* Make sure there is a Class ABC fire extinguisher wherever LP gas is stored.

## Lockout/Tagout

General:

* Make sure that you have the proper training on lockout/tagout before you use the method, and before you work where others could be using it.
* Lockout sources of uncontrolled energy so they cannot be unexpectedly released when servicing or performing repairs or maintenance work on machines, power tools or equipment.
* On the rare occasion where it is not possible to use a lockout device, use an appropriate warning tag in place of the lock.

## Manganese

General:

* Before beginning a welding operation, always determine whether the welding rods you will be using contain manganese by checking the appropriate Safety Data Sheet (SDS) and looking at the ingredients in Section 3.

Operation:

* Make sure the affected work area is well ventilated.
* If necessary, use portable blowers or fans to improve ventilation in the affected area.
* If you cannot get the area properly ventilated, you may need to wear a respirator. Before starting the work, check with your supervisor to determine whether respiratory protection is needed.
* Before starting to work while wearing a respirator, you will need to pass a medical evaluation, receive proper respiratory protection training, and be fit tested to ensure that the respirator you will be using is sufficiently effective.

## Motor Vehicles & Mechanized Equipment

General:

* Inspect the vehicle or motorized equipment each day before use. If there are any problems, immediately follow our company’s procedure for taking defective vehicles and equipment out of service.
* Never use a motor vehicle or earth-moving or compacting equipment if the rear view is obstructed unless it has a reverse signal alarm or an observer outside the vehicle signals that it is safe to move.
* Lower, block or crib suspended heavy machinery, equipment, and any of their parts so the load will not fall or shift when workers must move under or between them.
* Set parking brakes when vehicles or mechanized equipment are parked or stopped for any period.
* Set the parking brake and chock the wheels on equipment stopped on an incline.
* Keep the windows and mirrors clean so that visibility will be as clear as possible.
* Make sure that the driver and all passengers have fastened their seat belts when the vehicle is in motion.
* Fasten your seat belt in mechanized equipment designed for seat belt use.

## Noise

General:

* When the noise level exceeds the point that you cannot understand a normal, conversational speaking voice within 3 feet of where you are working, the noise level may be excessive and potentially harmful.

Operation:

* When working with power tools or near equipment that could generate excessive noise, be sure to use hearing protection, such as earplugs or earmuffs.
* Choose hearing protection that is comfortable to use.
* When using earplugs, make sure they are clean.
* Be sure to dispose of earplugs immediately after use and replace them with new ones the next time you need them.
* Select hearing protection with a suitable noise reduction rating (NRR), but which does not prohibit you from hearing a warning alarm or another person’s warning shout.
* When choosing hearing protection devices, check the packaging to determine the NRR.
* Use a noise level meter or noise dosimeter to determine the noise level.
* If measuring instruments are not available, gauge the noise level based on the noise levels of tools, machinery, or equipment that you are familiar with, such as:

|  |  |
| --- | --- |
| Tools / Equipment | Approximate Decibels |
| Air Compressors | 90 |
| Circular Saws | 100 |
| Gas Powered Lawnmowers | 100 |
| Gas Powered Chain Saws | 100 |

* Make sure that the hearing protection you choose will reduce the noise level to an acceptable range based on the length of time you anticipate being exposed to it.
* Never exceed recommended noise levels/exposure time limits. Recommended levels/limits for the construction industry are:

|  |  |
| --- | --- |
| Hours / Day | Decibels |
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1½ | 102 |
| 1 | 105 |
| ½ | 110 |
| ¼ | 115 |

## Personal Protective Equipment

Body Protection:

* Wear flame-resistant, long-sleeved shirts and pants.
* Wear an approved coverall or apron when welding or flame torch cutting.
* Wear 8-calorie arc-rated clothing, including a balaclava, when working around exposed energized electrical conductors or circuit parts that are pushing 50 to 480 volts.
* When working where voltage exceeds 480 volts, check with your supervisor for additional training and the appropriate personal protective equipment.

Eye and Face Protection:

* Always wear approved safety glasses or goggles on the jobsite unless you are in a trailer or protected office.
* Wear a face shield to protect your face from flying particles, grinding sparks, chemical splashes, and other potential hazards.
* Wear an 8-calorie arc-rated face shield when working around exposed energized electrical conductors or circuit parts that are pushing 50 to 480 volts.
* When working where voltage exceeds 480 volts, check with your supervisor about any additional training or personal protective equipment you may need.
* Always wear safety glasses under your face shield or welding helmet.
* Make sure that you have the properly shaded lens or lenses when exposed to radiant energy (light), such as when welding, torch cutting, soldering, or brazing.

Hand Protection:

* Wear the proper gloves when moving materials or working with sharp objects or material such as sheet metal.
* Wear the proper type of impermeable gloves for work around chemicals.
* Wear Class 00 rubber insulated gloves when working around exposed energized electrical conductors or circuit parts that are pushing 50 to 480 volts. Wear leather protective gloves over the rubber gloves.
* When working where voltage exceeds 480 volts, check with your supervisor for additional training and the appropriate personal protective equipment.

Head Protection:

* Always wear an approved hardhat on the jobsite unless you are in a trailer or protected office.
* Wear a Class E hardhat when working around exposed energized electrical conductors or circuit parts that are pushing 50 to 480 volts. When working where the voltage exceeds 480 volts, check with your supervisor for additional training and the appropriate personal protective equipment.

Hearing Protection:

* Wear approved earplugs or earmuffs whenever you are exposed to loud noise. The noise level next to an operating air compressor or circular saw is too loud to safely endure over extended time without hearing protection. If you cannot hear someone speaking in a normal tone 3 feet or less away from you, consider using hearing protection.
* If you are unsure about the noise level in your work area, wear the approved hearing protection.

Respiratory Protection:

* Ensure you have the proper respiratory protection training before using any respirator.
* Request a copy of our company’s respiratory protection program and

follow it closely.

* Participate in the respirator selection process to ensure you are using the proper type and class of respirator.
* Only use respirators approved by the National Institute for Occupational Safety and Health (NIOSH). Look for “NIOSH” on the respirator.
* Go through a formal respirator fit testing process to select a properly fitting respirator.
* Where applicable, conduct a negative and positive pressure check each time you put on a respirator, and before you enter the contaminated area. If either test fails, do not use the respirator. Report to your supervisor immediately for another formal fit test.

## Pneumatic Tools

General:

* Check the manufacturer’s safe operating pressure for each tool or fitting before using it.
* Never exceed the established safe operating pressure for the tool or fitting.
* Properly secure the hose to the compressor before attaching the tool or fitting.
* Properly secure tools to their hoses before using them.
* Use safety clips or retainers on pneumatic impact tools to keep the attachments from being expelled.
* Ensure that the system is equipped with a pressure reduction device at the source of supply or branch line when hoses exceed ½ inch in diameter.

## Powder Actuated Tools

General:

* Make sure to get the proper training before operating a powder actuated tool.
* Test the tool each day before using it. If any part of the tool is defective, immediately follow your company’s procedure for taking defective tools out of service.
* Never load a powder actuated tool unless it will be used immediately after loading.
* Never leave a loaded powder actuated tool unattended.
* Always keep the point of operation pointed in a safe direction.

## Power Transmission & Distribution

General:

* Make sure that an inspection and/or tests have been completed to identify existing conditions before starting work, including, but not limited to:
* Energized lines and equipment;
* Condition of poles;
* Location of circuits and equipment, including power; and communications, cable television and fire alarm circuits.
* Treat all electrical equipment and lines as if they are energized until they are determined to be de-energized by tests or other appropriate methods.
* Determine the operating voltages of electrical equipment and lines before working near energized parts.
* Carefully inspect rubber protective equipment each time before using it.
* Make sure that protective equipment made from materials other than rubber provides equal or better protection.

Operating Equipment:

* Check and carefully observe safe clearance distances before operating equipment around power lines.

## Rigging and Materials Handling

General:

* Check weather conditions before deciding when to lift a load.
* Check the area for power lines and other obstructions.
* Check the load capacities, operating speeds, and other instructions before using hoists or rigging equipment.
* Rig the load so that it will be lifted straight up.
* Guide the operator to place the boom directly over the load.
* Keep your hands away from pinch points when the lift starts.
* Always stay out from under the load.
* Use tag lines to control the load.
* Watch the placement of your feet when receiving a load.
* Give the stop signal immediately if anything appears unsafe.

Alloy Steel Chain Slings:

* Carefully inspect each sling before use.
* If you see stretching, excessive wear, nicks and/or gouges, immediately follow our company’s procedure for taking defective equipment out of service.
* Look for a permanently attached identification tag on each sling stating the size, grade, rated capacity, and the name of the sling manufacturer. If the identification is not attached, immediately follow our company’s procedure for taking defective equipment out of service.

Wire Rope Slings:

* Carefully inspect each sling before use.
* If you see signs of wear such as crushed sections, corrosion, kinking and/or an excessive number of broken wires, immediately follow our company’s procedure for taking defective equipment out of service. A rope is defective if:
* There are 5 or more broken wires in 1 rope lay; and/or
* There are 3 or more broken wires in 1 strand of 1 rope lay.
* Check the manufacturer’s stated load capacities before using any sling.
* Never exceed the sling’s load capacity.
* Install wire rope clips properly. Use the correct size and number of clips.
* Never install U-bolts on the live end of the wire rope. The live end is where the saddle goes, so remember, “never saddle a dead horse.”

Natural Rope and Synthetic Fiber Slings:

* Carefully inspect each sling before use.
* If you see abnormal wear, powdered fibers between strands, broken fibers, variations in the size of the strands, variations in the roundness of strands, discoloration or rotting, and/or distortion of hardware in the sling, immediately follow our company’s procedure for taking defective equipment out of service.
* Check the manufacturer’s stated load capacities before using the slings. Never exceed the sling’s load capacity.
* Ensure that any splices made to rope slings are in complete accordance with the manufacturer’s recommendations.

Synthetic Webbing:

* Carefully inspect each sling before use.
* If you see acid or caustic burns, melting or charring of any part, snags, punctures, tears, or cuts, broken, or worn stitches, and/or distortion of fittings, immediately follow our company’s procedure for taking defective equipment out of service.
* Check for marks or codes on each sling that state the name of the manufacturer, its trademark, the rated capacity for the type of hitch, and the type of material. If this information is not shown, immediately follow our company’s procedure for taking defective equipment out of service.

Sling Angles:

* Verify that each sling can support the load based on the projected horizontal angle of the sling during the lift.
* Determine the sling tension before the lift to ensure that it can support the load.

Materials Storage:

* Make sure that all materials stored in tiers are secured to prevent sliding, falling or collapse.
* Never store materials in passageways or aisles, or where they could obstruct exits.
* Do not stack materials so high that they could fall.
* Ensure that pipe that is not on a rack is stacked and blocked, so it will not spread.
* Never place materials within 6 feet of any hoist areas or floor opening, or within 10 feet of an unfinished exterior wall inside unfinished buildings.
* Store materials safely based on their flammability and/or combustibility characteristics.

Manual Material Handling:

* Have materials delivered as close to your work area as possible.
* Have the materials staged at waist level to reduce bending.
* Use material moving equipment whenever possible.
* Use proper lifting techniques when you must lift something.

Manual Lifting Techniques:

* Start by getting your body as close to the object as possible.
* Position your feet and get a good grip on the object.
* Keep your butt down and your head up to retain the natural curves of your back.
* Lift straight up with a slow, steady movement, letting your legs do the work.
* Never twist or turn your torso with your feet planted.
* When you turn, move your feet and body without twisting.
* When placing an object, reverse the order, remembering to keep your butt down and your head up.

## Rollover Protective Structures

General:

* Make sure that the rubber-tired, self-propelled scrapers; rubber-tired front-end loaders; rubber-tired dozers; wheel-type agricultural and industrial tractors; crawler tractors; crawler-type loaders; and motor graders you use are equipped with the proper rollover protective structures.
* If an appropriate rollover protective structure is not provided when needed, do not use the equipment. Report the situation to your supervisor.
* Always wear your seat belt when using the equipment.

## Scaffolds

General:

* Get the proper hazard recognition and safety training specific to the type of scaffold you will be using.
* Ensure that an adequate fall prevention system, such as a guardrail system, is in place, or use a fall protection system, such as a personal fall arrest system, before starting work on any scaffold that will place you more than 10 feet above a lower level.

Erection and Disassembly:

* Always wear your seat belt when using the equipment. Never attempt to erect or disassemble a scaffold unless you are the designated

“Competent Person,” or you are under the direct supervision of the designated “Competent Person.”

Mobile Scaffolds:

* Inspect the supporting surface to ensure that it is clean, level, and capable of supporting the scaffold and its intended load of workers, materials, and equipment. If the surface is not adequate, do not use the scaffold. If you need to level the scaffold, use screw jacks or an equivalent mechanism.
* Lock casters and wheels before starting work on a mobile scaffold.
* When moving the scaffold, apply force as close to the base as possible, but never more than 5 feet above the supporting surface.
* Stabilize the scaffold as much as possible before moving it.
* Never allow a platform to extend out beyond the base support of the scaffold unless outriggers are used to stabilize it.
* Never move a mobile scaffold with workers on it unless:
* The supporting surface is level and free of pits, holes, and obstructions;
* The height to base width ratio is 2:1 or less, unless the scaffold is designed and constructed to meet nationally recognized stability test requirements;
* Outrigger frames, when used, are installed on both sides of the scaffold;
* When power systems are used, the propelling force is applied directly to the wheels and does not produce a speed more than 1 foot per second;
* No worker is on any part of the scaffold that extends out beyond the casters, wheels, or other supports; and
* Each worker on the scaffold is aware that the move is about to take place.

## Signs, Signals & Barricades

General:

* Constantly look for warning signs, signals and barricades while working.
* Obey the signs and signals and avoid barricades, remembering that all are there for your protection.
* If you are responsible for installing signs, signals, or barricades, ensure they are clearly visible and legible.
* Always remember that:
* Danger signs refer to immediate/imminent hazards;
* Caution signs refer to potential hazards or caution you against unsafe work practices;
* Safety instruction signs are there for injury/incident prevention; They are usually placed around jobsites in strategic locations;
* Notice signs are used for instructional purposes and are also placed around jobsites in strategic locations; and
* Accident prevention tags are temporary warning tags usually placed on defective tools or equipment or used to tagout sources of uncontrolled energy that cannot be locked out.

## Silica

General:

* Wear a suitable respirator unless your company’s “Competent Person” for silica informs you that overexposure will not occur even if you do not use respiratory protection.
* Before using any respirator, be sure you have the appropriate medical clearance, fit test, and respiratory protection training.
* Use appropriate engineering controls, such as High Efficiency Particulate Air (HEPA)-filtered dust collection systems, the wet method and/or local exhaust ventilation whenever they are available.
* Use only sharp masonry drill bits and saw blades when drilling or cutting into concrete.
* Be sure not to eat, drink, smoke or apply cosmetics in affected work areas.
* Never dry sweep, dry brush or use compressed air to clean clothing or surfaces in affected work areas.
* Wash your hands and face before eating, drinking, smoking, or applying cosmetics.

## Stairways

General:

* Make sure there is a stairway or ladder any place there is a break in elevation of 19 inches or more unless there is another suitable means of access available.
* Never use a stairway’s skeleton frame structure and/or steps where treads and/or landings have not been installed unless temporary treads and landings are in place.
* Never use a stairway’s metal pan landings and treads that are not filled in with concrete or other permanent materials, unless the pans of the stairs and/or landings have been temporarily filled in with wood or other materials.
* Do not use stairways and their landings until the proper fall prevention system has been installed.
* Never use stairway landings with unprotected sides and edges. Wait until an adequate guardrail system has been installed.
* Do not use any stairway without an adequate handrail.

## Toeboards

General:

* Make sure toeboards are installed on all guardrail systems, aerial lifts, and other areas where tools, materials and/or equipment could be knocked off your working surface to a level below.
* Check that toeboards are at least 3 inches high and made of strong, durable materials.
* Ensure that toeboards do not have openings of more than 1 inch between ends.

## Welding, Cutting & Heating

General:

* Protect yourself from welding, cutting and brazing hazards by getting familiar with the associated hazards and learning the safe work practices established for worker protection.
* Always wear the appropriate eye protection with the proper shade of lens or lenses.
* Always have an appropriately sized Class ABC fire extinguisher readily available when welding.
* Be sure not to strike an arc or ignite a torch where flammable/  
  combustible materials or chemicals are present.

Electric Arc Welding and Cutting:

* Select cables that are capable of safely handling the maximum current

requirements of the work.

* Use only manual electrode holders that are specifically designed for arc welding and cutting.
* Carefully inspect the welding cables, electrode holders and any other current-carrying parts to ensure that they are properly insulated and in good condition. If any parts are damaged, immediately follow our company’s procedure for taking defective equipment out of service.
* Do not use damaged cables until they have been spliced or repaired by a properly qualified person.
* If a cable has been spliced or repaired, never use it within 10 feet of the electrode holder, unless the material used for the repair has the same or better insulating characteristics than the original insulation.
* Ensure that the ground return cable can safely carry the specified maximum amount of current generated by the arc welding unit.
* Before starting to weld each day, check all ground connections to ensure they are properly connected and have suitable capacity for the specified maximum current.
* Never place an electrode against a cylinder to strike an arc.
* Always attach the work cable directly to the work or worktable and as close to the weld spot as practical.

Gas Welding and Cutting:

* Carefully inspect cylinder valves, regulators, hoses, and torches before making any connections. If you see any damage, immediately follow our company’s procedure for taking defective equipment out of service.
* Inspect hoses and torches at the start of each work shift.
* Before connecting the regulators, stand to the side of the fuel gas cylinder valve, open it, and close it quickly (cracking). Repeat the process with the oxygen cylinder.
* When cracking a fuel gas cylinder or an oxygen cylinder, make sure the escaping gases will not be affected by sparks, flames, or other ignition sources.
* Make sure that you can easily tell the difference between fuel gas hoses and oxygen hoses.
* Ensure that it is physically impossible to connect hoses, regulators, and torches to the incorrect equipment by using incompatible fittings.
* Inspect the regulators, hoses, torches and all their connections again after they are connected, and the gas has been turned on. Check carefully for leaks and never use leaking equipment.
* Use only friction lighters to light torches.

Ventilation:

* Always ensure there is adequate ventilation before you start welding or

cutting operations.

* Use adequate local ventilation and the appropriate respirator when performing hot work on zinc, lead, chromium, cadmium, mercury, or beryllium bearing-based or coated materials, or stainless steel (hexavalent chromium) unless our company’s risk assessment shows no risk of overexposure.

Inert Gases:

* Always ensure that the oxygen content in the work areas is adequate when purging a system with inert gases, such as argon and nitrogen.

## Zinc

General:

* When performing hot work on galvanized metals, be sure to protect yourself from overexposure to zinc oxide.

Operation:

* Make sure the work area is well ventilated.
* Use a point-of-operation ventilation system, such as a welding fume extractor, whenever it is available.
* Always position your welding helmet so that the fumes cannot rise underneath it.
* If our company’s zinc oxide exposure assessment shows that you could be overexposed without respiratory protection be sure to wear an appropriate respirator.
* Before starting to work while wearing a respirator, you will need to pass a medical evaluation, receive proper respiratory protection training, and be fit tested to ensure that the respirator you will be using is sufficiently effective.

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