SAFETY GUIDELINES

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Section 1: Safety Policy

A. Company Policy

FireTech is dedicated to providing a safe and healthy work environment for all of our employees, sub-contractors, and customers. The Company shall follow operating practices that will safeguard employees, the public and Company operations. **We believe all accidents are preventable.** Therefore, we will make every effort to prevent accidents and comply with all established safety and health laws and regulations.

Subcontractors will be given a copy of the Safety Rules when they arrive at the job site. All subcontractor employees must review these rules before beginning work and must sign a statement indicating his/her understanding and acceptance of these rules.

All subcontractor employees will also be shown the location of all emergency equipment and Safety Data Sheets (SDS), telephones, and evacuation routes.

B. Management Commitment to Safety

Management is concerned about employee safety. Accidents, unsafe working conditions, and unsafe acts jeopardize both employees and Company resources. Injuries and illnesses result in discomfort, inconvenience and possibly reduced income for the employee. Costs to the Company include direct expenses (workers' compensation premiums, damaged equipment or materials, and medical care) and indirect expenses (loss of production, reduced efficiency, employee morale problems, etc.). These indirect costs are reported to cost 4-10 times more than the insured costs of an accident. Accordingly, Management will provide sufficient staffing, funds, time, and equipment so that employees can work safely and efficiently.

C. Assignment of Responsibilities

Safety is everyone's responsibility. Everyone should have a safe attitude and practice safe behavior at all times. To best administer and monitor our safety policies, the following responsibilities are delegated. This list should not be construed as all-inclusive and is subject to change as needed.

1. Management

a. Provide sufficient staffing, funds, time, and equipment so that employees can work safely and efficiently.
b. Demand safe performance from each employee and express this demand periodically and whenever the opportunity presents itself.
c. Delegate the responsibility for a safe performance to the Safety Representative, Supervisors, and Employees, as appropriate.
d. Hold every employee accountable for safety and evaluate performance accordingly.
e. Periodically review the Safety Program effectiveness and results.

2. Safety Representative

a. Provide the resources, direction, and audits to integrate safety into the management system.
b. Establish and maintain a safety education and training program.
c. Periodically conduct safety surveys, meetings, and inspections.
d. Advise supervisors and employees on safety policies and procedures.
e. Assure that all newly hired employees have been given a thorough orientation concerning the Company's Safety Program.
f. Prepare and maintain safety records, analysis, evaluations, and reports to improve the

Company's safety performance and comply with all government agencies, insurance carriers, and internal procedures.

g. Work with management, supervisors and employees to maintain & implement new and ongoing safety programs and comply with recommendations provided by outside consultants, OSHA inspectors, and insurance companies.
h. Make available all necessary personal protective equipment, job safety material, and first-aid equipment.
i. Review all accidents with management, supervisors and/or employees and ensure that corrective action is taken immediately.
j. File all workers' compensation claims immediately and work with the workers' compensation carrier to ensure proper medical treatment is provided to injured workers and they are returned to work as quickly as medically possible.

3. Foreman

The superintendent on each job site will:

a. Implement all rules and regulations outlined in this manual.
b. Comply with all Contractor Safety Rules.
c. Assure that each employee, agent, invitee, and subcontractor is trained and follows all applicable OSHA standards, codes, laws, and ordinances.
d. Control contract personnel and vehicles, and provide orientation materials as needed.

Each foreman who is in charge of a specific work area, supervises the work of others, or to whom an employee is assigned for a specific task or project, is responsible and accountable for their safety. Foreman will:

a. Establish and maintain safe working conditions, practices, and processes through:
   - Job Inspections
   - Safety Meetings
   - Safety Training
b. Observe work activities to detect and correct unsafe actions.
c. Ensure that all injuries are reported promptly and cared for properly. Make available first aid treatment.
d. Investigate all accidents promptly. Complete an accident report and provide it to the Safety Representative the same day the accident occurs. Review all accidents with the Safety Representative and employees and correct the causes immediately.
e. Assist Human Resources in the review of employment applications, pre-employment physicals reports, and personnel files to determine physicals qualifications for specified job classifications.
f. Seek out alternative work so injured employees can return to work in a modified job.
g. Consistently enforce safety rules/regulations, programs, and protective measures (i.e. use of personal protective equipment, machine guarding, proper clothing, etc.)
h. Post signs, notices, and instructions as needed or required.
i. Brief your employees of any new hazards before they start work and periodically host brief safety meetings to discuss safety practices related to job hazards and general safe work behavior.
j. Work with management, the Safety Representative and employees to maintain & implement new and ongoing safety programs and comply with recommendations provided by outside consultants, OSHA inspectors, and insurance companies.
k. Supplying all required personal safety protective devices and, e.g. safety glasses, goggles, face shields, etc.

4. Employees

Each employee is responsible for his/her own safety. No task should be completed unless it can be completed safely. Employees will:

a. Comply with all company safety programs, rules, regulations, procedures, and instructions that are applicable to his/her own actions and conduct.
b. Refrain from any unsafe act that might endanger him/herself or fellow workers.
c. Use all safety devices and personal protective equipment provided for his/her protection.
d. Report all hazards, incidents, and near-miss occurrences to their immediate supervisor or Safety Representative, regardless of whether or not injury or property damaged was involved.
e. Promptly report all injuries and suspected work related illnesses, however slight, to his/her immediate supervisor or Safety Representative.
f. Participate in safety meetings, training sessions, and surveys as requested and provide input into how to improve safety.
g. Notify the Safety Representative immediately of any change in physical or mental conditions or use of prescription drugs that would affect the employees job performance or the safety of him/herself or others.
h. Notify the Human Resources Manager within five days of any serious driving, drug/alcohol, or criminal convictions.
i. Be a safe worker on (and off) the job. Help coworkers do their job safely. Come to work everyday with a safe attitude.

5. Subcontractors and their Employees

All subcontractors and their employees must:

a. Maintain a safe and health hazard free work environment.
b. Adhere to all minimum safety requirements on all job sites.
c. Sign in every day at those job sites that require such action to take place.
d. Stay in only their assigned work areas.
e. Use only authorized machines, tools, shop equipment, and vehicles. These items must be authorized by the Safety Representative.
f. Not bring any explosives, firearms, alcoholic beverages, or drugs onto any job site.
g. Wear appropriate clothing at all times. Short pants and shirtless attire are prohibited. Sturdy leather shoes must also be worn at all times. Safety glasses and hard-hats must also be worn at all times while on any job site.
h. Failure of any subcontractor complying with these rules is a breach of contract and could result in either withheld payments or contract termination. Specific subcontractor employees could also be banned from any job site for failing to abide by these rules.

D. Accountability for Safety

Everyone is accountable for safety. Management and the Safety Representative will establish safety objectives and develop and direct accident prevention activities. All employees should strive to reach those objectives and will be evaluated accordingly. All managers' and supervisors' annual appraisals will include safety (results to objectives in their area and companywide) as well as an audit of their performance of their safety responsibilities. All employees salary reviews will be affected by the company's safety performance record. Appraisals, which include safety records, will also be performed on all employees seeking a promotion.

E. Opinion Survey

The Company requests ongoing comments and feedback from all employees. In addition, annually the company will request all employees' opinions and input on the Company's safety program through an opinion survey. Be honest. You know your job better than anyone else. Therefore you can provide valuable input into performing the job safely. Changes to existing safety programs, rules, procedures, etc. may be influenced by your responses. Full cooperation of all employees is expected.

F. Employee Suggestions

Safety suggestions from employees are welcomed and encouraged. To make a safety suggestion, complete the following form and provide it to the Safety Representative. The suggestion will be reviewed by the Safety Representative and responses to suggestions will be discussed with the individual.

Employee's Safety Suggestion

Employee's Name (optional): _____ **Date:** _____

Supervisor's Name: _____

CURRENT PRACTICE OR CONDITION

SUGGESTION

BENEFITS EXPECTED FROM CHANGE

Year: _____ **Number:** _____
Suggestion Implemented? o Yes - as submitted o Yes - with changes o No
Implementation Date: _____

Comments/Changes Made/Reason for change or not implemented: _____

Section 2: Standards

A. Emergencies & Evacuation

1. Emergency Procedures

Our goal is to provide prompt and immediate action in any emergency to protect life, property, and equipment. In case of an emergency, the employee nearest the stricken person should call 911 (or the emergency phone number posted in your area) and direct a fellow employee to:

a. Notify the nearest supervisor to come to the scene; and
b. Simultaneously dispatch available employees to quickly retrieve the first aid kit.
c. An individual trained in first-aid should apply emergency rescue procedures until medical assistance arrives.

The Safety Representative should be notified. The President or Safety Representative (in that order) or their designees will decide whether or not to evacuate, inspect or shut down a facility.

The subcontractor is responsible for establishing procedures for their personnel to receive treatment for any injury, whether it is minor or major. Subcontractors are encouraged to have at least one employee at each job site who is trained in first-aid. After an ambulance has been dispatched, all major injuries must be reported to the job site Superintendent or Foreman.

2. Evacuation Procedures

a. Each area will be assigned a primary and alternate evacuation coordinator by the Safety Representative. They will be responsible for the effective evacuation of all persons. If neither are available, the supervisor is then responsible for evacuation.
b. When alerted by alarm or by the Evacuation Coordinator(s) to evacuate, employees should:
    1. Properly secure all classified materials in your possession and assure all classified containers and areas are properly locked.
    2. **Proceed to the nearest exit and assemble in the designated area**.
    3. Remain in the designated area until instructions are provided.

B. Safe Operating Procedures

All employees are responsible for safety. The following applies to all employees:

1. **Rules**

a. Comply with all established safety rules, regulations, procedures, and instructions which are applicable to your own actions and conduct.
b. Promptly report all accidents, hazards, incidents, and near-miss occurrences to your immediate supervisor, regardless of whether or not injury or property damage was involved.
c. Do not visit, talk to, or distract another employee who is operating a machine, or who is engaged in a work activity where the possibility of injury exists.
d. Do not participate in horseplay, scuffling, pushing, fighting, throwing things, or practical jokes.
e. Observe all no-smoking signs and regulations
f. Do not run on Company premises.

g. Use handrails on steps, elevated platforms, scaffolds, or other elevations.
h. Assist others and ask for assistance in lifting and carrying heavy or awkward objects.
i. Firearms, ammunition, and explosives are prohibited on Company premises.
j. Personal stereos with headphones, e.g. Walkman, are not permitted to be worn in the workplace.
k. Alcohol and drug use and possession on Company property is prohibited.

2. Machine Guarding

a. It is the responsibility of the Safety Representative to see that guards are installed on machines where needed.
b. Employees should report any malfunctions of the guards to the Safety Representative.
c. The Safety Representative should determine if the machine should be locked and tagged-out until the guard can be fixed or replaced.
d. The guards increase safety on the machine. Machinery with the guards removed shall not be used by any employee without permission from the Safety Representative.

3. Material Handling & Back Safety

a. Know the approximate weight of your load and make certain your equipment is rated to handle it. (All powered equipment and rigging is rated as to safe working load. This rating is posted on the equipment. Never exceed the manufacturer's recommended safe working load).
b. Lift heavy objects as instructed, with the leg muscles and not with the back. On average, do not manually lift over 50 pounds.
c. Call for assistance as needed for handling heavy or bulky objects or materials.
d. Use an appropriate, approved lifting device (i.e. special trucks, racks, hoists, and other devices) for lifting very heavy, bulky, large or unyielding objects.
e. All ropes, chains, cables, slings, etc., and other hoisting equipment must be inspected each time before use.
f. A load should never be lifted and left unattended.
g. Wear safety gloves when handling materials.
h. Properly stack and secure all materials prior to lifting or moving to prevent sliding, falling, or collapse.
i. Avoid moving or lifting loads by hand whenever possible.

Tips for manual lifting:

a. Get a good footing.
b. Place feet about shoulder width apart.
c. Bend at the knees to grasp the weight.
d. Keep back as straight as possible.
e. Get a firm hold.
f. Lift gradually by straightening the legs.
g. Don't twist your back to turn. Move your feet.
h. When the weight is too heavy or bulky for you to comfortably lift - GET HELP.
i. When putting the load down, reverse the above steps.

Note: If lifting stacked materials, materials should be carefully piled and stable. Piles should not be stacked as to impair your vision or unbalance the load. Materials should not be stacked on any object (i.e. floor, scaffold) until the strength of the supporting

members have been checked.

4. Forklift & Heavy Equipment Safety

The following are the minimum safety practices for the operation of fork lifts and heavy equipment (bulldozers, backhoes, etc.):

a. Only trained and authorized operators are permitted to operate a forklift or heavy equipment. All operators will be trained by their Supervisors or the Safety Representative. Every operator must participate in, at a minimum, annual forklift training.
b. Prior to operating the forklift or equipment, the operator must test: the brakes, steering controls, warning light, clutch, horn, fluid levels, and other devices for safe and proper operation.
c. Never check the engine while it is running.
d. Document your inspection results and equipment defects using the attached Inspection Report Form. Report defects to your supervisor immediately. No defective equipment shall be used. Adjustments and repairs should be made by authorized personnel only.
e. Wash the equipment whenever necessary. The equipment must be kept clean and free of oil and grease.
f. Employees should operate the equipment/forklift with safe speed and within rated load capacity. Drive to the right. Do not exceed 10 miles per hour, or posted authorized speeds, on plant roads.
g. Passengers are not permitted on forklifts or heavy equipment except for training purposes.
h. Mobile equipment should never be left unattended without first shutting off power, neutralizing controls, setting brakes, and lowering forks or bucket. Do not park on an incline.
i. All mobile equipment must have a functional fire extinguisher on board.
j. Sound horn at exits, corners, cross aisles, intersections, and when approaching pedestrians. Do not use horn needlessly or at undue length.
k. Always look in the direction equipment is traveling, looking backward when backing up, even for a short distance. Keep a clear view of the path. When forward vision is obstructed, drive in reverse.
l. When traveling, with or without a load, keep forks or bucket as low as possible.
m. Avoid following pedestrians or other vehicles too closely, especially when operating on inclines or in noisy areas.

n. Ascend/descend all ramps and inclines slowly. Wait for passengers to exit the ramp before attempting to ascend/descend. When descending, always use low gear and the slowest speed control. Do not descend ramps with the load at the front of the forklift. Never ascend in reverse. When ascending, loaded forklifts should be driven with the load upgrade.
o. A man cage must be used when elevating personnel with a forklift. Attach the cage prior to use. Do not travel with passengers in the man cage.
p. Personal protective equipment should be used as instructed. Hard hats should be worn where danger of falling objects exists.
q. If the forklift is equipped with a seatbelt, the belt must be worn at all times.

Forklift Inspection Check List

Distribution: o Copy to Safety Representative o Copy_____

Date: _____ Inspector:_____ Title:_____

Grade: 1 = Satisfactory, 2 = Needs some attention, 3 = Needs immediate action

Item	*Grade*	*Comments*
Operator Training		
Personnel operating the forklift properly trained.		
Condition of Forklift		
Brakes		
Steering controls		
Warning lights		
Horn		
Clutch		
Warning Lights		
Engine		
Overhead guard		
Capacity Sign posted		
Fire Prevention		
Fire extinguisher on board & functional		
Fluids		
Levels Adequate		
Fueling done to avoid spilling		
If spillage occurs, is fuel washed away completely from forklift and area and measures taken to control vapors before restarting engine?		
Personal Protective Equipment		
Hard hats provided & worn where danger of falling objects exist		
General PPE rules on proper clothing & footwear followed		
Additional OSHA Requirements		
Are driving paths marked, in good condition, and clear?		
Repairs are conducted in designated areas		
Operating rules posted & enforced		
Batteries charged in properly vented rooms (no smoking)		
Are dust & fume exposures generated by the forklift through operation, fueling, or repair controlled?		
Seatbelt in forklift and worn while operating the forklift		
Other:		

Action Taken:

o **Repairs/Corrections must be completed by: (date)_____**

o **Repairs/Corrections mentioned above have been done.**

Supervisor _____ Date: _____

5. Ladders

a. Manufactured ladders must comply with OSHA, ANSI, manufacturer and job specifications.
b. Ladders with broken or missing rungs and/or broken or split side rails should not be used.
c. All portable ladders should be equipped with non-skid safety feet and should be placed on a stable base. All access areas should be kept clear.
d. All metal ladders are prohibited.
e. The six foot fall protection procedure applies when working from a ladder. All ladders should be secured with a rope or other substantial device.
f. Wood ladders should not be painted except for an identification mark.
g. Ladders should be maintained free of lines, ropes, hoses, wires, cables, oil, grease, and debris. No objects should be left on ladders.
h. Single portable ladders over 30 feet in length should not be used.
i. Side rails should extend 36 inches above the landings. All ladders in use should be tied, blocked, or otherwise secured to prevent accidental displacement.
j. Never stand or sit on the top rung of a step ladder.
k. Never climb or work from the back of a ladder.
l. Never work with another person on the same ladder.
m. The contractor should provide training programs on ladders for all employees.

6. Electrical

a. Any electrical work not in compliance should be brought to the Safety Representative's attention immediately.
b. Only knowledgeable, certified electricians are to perform electrical work.
c. Employees should not work close to any unprotected electrical power circuit unless that circuit is de-energized and grounded.
d. All switches must be enclosed and grounded. Panel boards must have provisions for closing and locking the main switch and fuse box compartment.
e. Extension cords used with portable electric tools and appliances must be heavy duty (no less than 12 gauge conductors) of the three wire grounding type, and must conform to OSHA standards. <u>NO FLAT ELECTRICAL CORDS ARE ALLOWED ON SITE.</u>
f. All electrical tools and cords must be protected by Ground Fault Circuit Interrupters (GFCI's).
g. Voltages must be clearly labeled on all electrical equipment and circuits. Circuits must also be clearly marked for the areas of service they provide.
h. Prior to performing any work, electricians must "lockout and tagout" the equipment or machinery.
i. Electrical cords and trailing cables should be covered, elevated or otherwise protected from damage. Any exposed wiring and cords with frayed or deteriorated insulation must be reported immediately.
j. Extension cords should be used as little as possible and all plugs must be the dead front type.
k. The Safety Representative must oversee the performance of monthly Electrical Grounding Testing with trade contractors on all electrical cord and plug connected equipment when Ground Fault Circuit Interrupters (GFCI's) are not in use.
l. Temporary lighting should be used in areas where there is not adequate natural or artificial lighting. Temporary lights must be equipped with guards to prevent accidental contact with bulbs.

m. Working spaces, walkways, and similar locations must be kept clear of cords.
n. Electrical tools and equipment must be appropriately protected when used in wet or damp areas.

7. Small Tools

a. Proper storage for tools should be provided by the Contractor.
b. Repair all damaged or worn tools promptly. Temporary and makeshift repairs are prohibited. Tools that can't be properly repaired should be discarded immediately. The contractor reserves the right to require any subcontractor to stop work for using any defective or improperly used tool.
c. The subcontractor will supply all required tools unless otherwise specified. All equipment must conform to OSHA Safety and Health Regulations for Construction Part 1926.
d. Power tools should not be used if safety equipment has been removed.
e. Employees using tools that cause objects to be thrown should wear personal protective gear, including proper eye and hearing protection.
f. Gas powered tools should not be used in unventilated areas and gas should be dispensed from U.L. approved cans only. All gas-powered tools must be turned off before being refueled.
g. Portable grinders must have hood-type guards and side enclosures that cover the spindle and at least 50% of the wheel. All wheels should be inspected regularly for fractures, etc. Defects should be promptly reported to the Safety Representative.
h. Bench grinders should have deflector shields and side cover guards. Tool rests should have a maximum clearance of 1/8" from the wheel.
i. Air-supply lines should be inspected regularly and maintained in good condition.
j. To prevent "whipping" in the event of hose separation or failure, air sources supplying hoses should be protected with an excess flow valve. Completely bleed all air from tools before disconnecting them.
k. For cleaning purposes, the pressure of compressed air used should be 30 psi or less and hose extensions should always be used.
l. Only trained employees are to use OSHA specified powder-actuated tools.
m. Trained employees should inspect all powder-actuated tools on a daily basis. Any tool not found to be in proper working condition must immediately be removed from service.
n. Any area where a powder-actuated tool is used must have a warning sign posted.
o. All powder-actuated tools should be of the low velocity, cushioned pistol grip, piston type design.
p. Powder-actuated tools should <u>not</u> be used in areas where hazardous ignitable dust, gases, or liquids are present.
q. All maintenance work on powder-actuated tools must be performed according to manufacturer specifications and must be done by qualified persons only.
r. Do not raise or lower power tools by their electrical cord or pneumatic line.
s. Powder-actuated tools should be locked-up when not in use to prevent unauthorized persons from using them.

8. Scaffolding

a. Only qualified persons should design, build, or inspect scaffolds. Each application must be planned to ensure that the scaffolding conforms to all specified assembly

requirements.

b. Lean to scaffolds and makeshift platforms are prohibited.
c. Only materials currently being used should be stored on scaffolds. Materials are to be placed over cross members at all times. All materials should be removed from the scaffold nightly.
d. All scaffolds should be designed to carry four times the maximum intended load. At no time should the scaffold be overloaded. Unstable objects such as barrels, boxes, and loose bricks should not be used to support scaffolds.
e. All scaffolds over ten feet high are required to have load footprints and limits that can be obtained from the scaffold manufacturer. A copy of all load footprints and limits should be given to any supplier stocking material on the scaffold.
f. All scaffolds must be maintained in safe condition and scaffolds damaged or weakened must be replaced immediately.
g. Scaffolds more than six feet above the ground must have standard guardrails and toe boards attached.
h. Scaffolds should be braced and tied both horizontally and vertically at intervals according to specified regulations.
i. Scaffolds with any dimension less than 45 inches should be equipped with outriggers and guarded with standard four feet high railings.
j. Mobile scaffolds should be equipped with guardrails, midrails, toeboards, and outriggers.
k. All casters should be locked and guarded with standard railings. Mobile scaffolds should not be used if there is a change in the floor level elevation.
l. When erecting and dismantling scaffolds, OSHA's Project Six Foot Fall Protection Requirements must be followed.
n. Permits should be completed and attached to each scaffold prior to it being used.
o. Ladders must be used to climb scaffolds at all times. Workers should never climb a scaffold's cross bracing. Both hands should be free of tools/materials when ascending or descending a scaffold. Employees should not propel themselves while working on scaffolds.

9. Floor and Wall Openings

a. Inspect all new locations to ensure that all floor openings are covered with grates or covers.
b. Guardings and/or covers are not to be removed until other means of fall protection are in place. Employees installing or removing guarding or covers should be protected .. by alternative fall protection.
c. Employees are prohibited in any area that could expose them to a fall unless proper fall protection procedures are in place.
d. Floor and roof openings should be covered or guarded by standard guardrailings and toe boards. A standard railing consists of a top rail, intermediate (mid-rail) rail, four feet high vertical debris nets, and posts.
    - The top rail should be approximately 42 inches from the upper surface of the rail to the floor, platform, or ramp level. The top rail should be ½" wire rope with at least 3 J-type fist grip wire rope clamps at each connection and turn buckler.
    - The midrail should be halfway between the top rail and floor, runway, platform, or ramp. The midrail should be ½" wire rope with 3 J-type, fist grip wire rope clamps at each connection and turn buckler.
    - In areas where a vertical debris net can't be installed, a 12 inch minimum height toe board should be securely fastened in place and have no more than a ¼" gap

between it and the floor.

e. Any other type, size, or arrangement of railing construction must be approved in writing by the Safety Representative.
f. Stair railings should be constructed similar to a standard railing. All hand rails should be provided with a minimum clearance of three inches between the hand rail and any other surface or object.
g. During construction, stairs should be provided on all structures that have two or more floors.
h. Stairways should be free of hazardous projections, debris, and other loose materials.
i. Permanent steel stairways having hollow pan treads and landings should have the pans filled with solid material up to the nosing level.
j. Temporary stairs should have a landing at least 30 inches wide.
k. Wall openings, from which there is a drop of more than three feet, should be guarded.
l. Runways should be guarded by a standard railing 19 inches or more on all sides above the floor. Whenever tools, machine parts, or materials are used on the runway, a toe board should be provided on each exposed side.
m. Regardless of height, open-sided floors, walkways, platforms, or runways adjacent to dangerous equipment and similar hazards should be guarded with a standard railing and a 4' high debris net.

10. Excavation and Trenching

a. The design of the supporting system should be considered carefully based on the following: depth of cut, anticipated changes in the soil due to air, sun, and water, ground movement caused by blasting, and earth pressures.
b. The contractor must issue an excavation permit prior to any excavating, digging, trenching, or drilling.
c. Any trench or excavation over 4 feet deep must be sloped, shored, benched, or braced. If soil conditions are unstable, excavations shallower than 4 feet must also be sloped, supported, or shored.
d. Contractors should use OSHA specified trench boxes.
e. Shoring systems should be installed from the top down. Cross beams should be placed in a horizontal position and spaced vertically at appropriate intervals. Braces must also be secured to prevent sliding, falling, or kickouts.
f. All materials used for shoring should be in good condition and free of defects. Timbers with large or loose knots should not be used.
g. Installation of shoring should closely follow the excavation work.
h. One of the following methods of support should be used to ensure worker safety: shoring-sheeting; tightly placed timber shores; bracing; trench jacks; piles; or other materials installed in a manner strong enough to resist the pressures surrounding the excavation.
i. OSHA standards require that diversion dikes or ditches be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Water should not accumulate in a trench or excavation as it causes erosion and soil softening.
j. Excavations greater than four feet deep should be inspected daily for oxygen deficiencies and hazardous gases, etc. If hazardous conditions exist, proper respiratory protection or ventilation should be provided by the Contractor.
k. Exit ladders must be stationed no farther than 25 feet from any person in the trench.
l. Locations of all underground utilities should be located before excavation begins.

m. Trenches should be inspected daily for cracks, slides, and wall fractures. Inspections should also be made after rain storms or any other changes in conditions. If any dangers are detected, all work must stop until the problem is corrected.

11. Fire Prevention

a. Good housekeeping is the first rule of fire prevention. Oily rags, paper shavings, trim, etc. should be cleaned up and placed in trash receptacles.
b. Welding or cutting should not take place near locations where flammables or combustibles are present. When welding or cutting occurs, the area should be protected with fire resistant blankets. An approved fire extinguisher should also be located at each welding or cutting facility. Refer to our Hot Works section for more information.
c. All flammable liquids should be stored in an approved manner and dispensed in approved safety containers. Welding gases should also be stored in an isolated area.
d. Liquefied Petroleum (LP) Gas presents special fire and explosion hazards. Only qualified persons are to handle LP gas. LP gas units should be inspected daily for leaks, etc.
e. Open fires of any kind are not permitted.
f. Combustible materials or equipment in combustible containers should be stored properly. Fire extinguishers should be kept within close proximity to any combustible container.
g. Fire extinguishers should be recharged and inspected regularly. A tag indicating the date of recharging should be affixed to each extinguisher.
h. Access to fire hydrants should be maintained at all times. Fire hydrants should never be blocked or obstructed in any way.
i. All combustible waste materials, rubbish, and debris should be disposed of daily.
j. Smoking is prohibited in any hazardous area and "No Smoking" signs should be posted in these areas.
k. Gas cylinders should be transported and stored in an upright position. When stored for extended periods of time, they must be kept at least twenty five feet from oxygen cylinders.
l. No material should be stored within three feet of an electrical panel, outlet, or fire suppression equipment.

12. Cranes and Rigging

a. Only trained, qualified employees are permitted to operate any crane or rigging equipment. Training includes an in-depth review of the operating characteristics and limitations of the equipment.
b. All equipment should be inspected daily. This includes inspecting all cables, sheaves and pulleys, booms and boom angles.
c. Equipment should be shut off before any repairs are made or lubricants are applied. Any removed guards must be properly put back into place before the machine is used again.
d. Loads should not exceed equipment rated capacities.
e. Standard signals should be used to direct any moving crane. One designated person is to give signals at all times.
f. Cranes and rigging equipment are not permitted to work closer than 10 feet to any power line.
g. Employees are to stay clear of the cranes swing radius at all times. Never turn your back on any load. Cab portion of the crane should be properly blocked off (swing

radius when unit is in use).

h. Loads should never be swung over any person.
i. A fire extinguisher is to be kept in the crane's cab at all times.
j. All rigging devices should have permanently affixed identification stating size, grade, rated capacity, and manufacturer.
k. Any rigging not being used should be removed from the area.
l. "Shop-made" grabs, hooks, clamps, or other lifting devices are prohibited.
m. A licensed engineer must inspect all lifting beams and spreader bars to make sure that they are the proper size for the capacity.
n. Slings should not be shortened by using knots, bolts, or other make shift designs.
o. Wire rope slings should be padded to protect against damage from sharp corners.
p. Inspection records must be kept with all equipment.
q. Hard hats and proper personal protective equipment should be worn while operating or working close to a crane.

13. Environmental

a. Portable Water
    1. The Contractor should provide an adequate supply of drinking water at all construction sites.
    2. The portable containers used to store drinking water should be closed tightly and have a dispensing tap. Employees should not dip cups directly into the container.
    3. The container should only be used for storing the drinking water and it should be clearly marked as "drinking water".
    4. Each employee should have his or her own cup. A "community" cup should not be used.
    5. The Contractor should supply single service cups that are stored in a sanitary dispenser. Trash receptacles should also be provided so that used cups can be discarded properly.
    6. Employees are encouraged to drink lots of water during hotter temperature days or when working in heat-producing conditions to avoid heat stress or stroke.
b. Toilets
    1. Toilets should be provided for employees based on the formula of 1 toilet seat and 1 urinal per 15 employees.
    2. All facilities must be kept clean and sanitary at all times.
c. Adequate washing facilities must be provided if employees are engaged in the application of paints, coatings, herbicides, or insecticides.
d. Material Use and Waste Management
    1. Receptacles must be placed around the job site for collection of waste materials.
    2. All hazardous waste must be stored and collected in special areas.
    3. No hazardous material is to be abandoned on the job site.
    4. No waste haulers, disposers, recyclers, or scavengers are allowed on the job site without the contractor's approval.
    5. All hazardous waste removed from the job site must have the Contractor's authorization. No outside waste is to be disposed of using the Contractor's facilities. Dumpsters are to be inspected frequently and any potentially hazardous material is to be placed in the appropriate storage area.
    6. No used oil or paint is to accumulate on the job site. All spills are to be cleaned up and disposed of immediately. The Safety Representative must be notified of the situation immediately. Any spill caused by a subcontractor employee will be cleaned up and paid for by the subcontractor.

14. Motor Vehicles and Equipment

a. On-site construction vehicles and equipment should be inspected and tested. Proper documentation must be available for the Safety Representative to review ....prior to bringing such equipment on site. The Safety Representative must issue all vehicle passes.
b. All motor vehicles must be equipped with the following:
   - Adequate braking system
   - Two headlights and tail lights
   - Brake lights
   - Horn
   - Seat Belts
   - Good tires
   - Windshields and powered wipers
   - Defrosters
   - Rear-view mirror
   - Fuel cap
c. Only authorized, licensed drivers are permitted to operate vehicles or equipment. Accidents must be reported to the Safety Representative immediately.
d. Employees should not use motor vehicles or equipment that have an obstructed rear view unless:
   1. The vehicle has a backup alarm audible above the surrounding noise level;
   2. The vehicle is backed up only when an observer signals that it is safe to do so.
e. No person should attempt to get on or off moving vehicles or equipment.
f. Heavy machinery and equipment which is suspended by slings, hoists, or jacks must be blocked before employees are permitted to work under or between them.
g. All hauling vehicles, where payload is loaded by crane, power shovel, loader, similar equipment must have a cab shield and/or canopy to protect the operator from shifting or falling materials. The operator of any vehicle should leave the cab and stand clear of the equipment while it is being loaded.
h. Engines must be shut off during all maintenance and fueling operations.
i. Trip handles of dump truck and heavy equipment tailgates must be positioned so that the operator will be clear of any danger during dumping procedures.
j. Employees are required to inspect their assigned vehicles at the beginning of each shift to assure that the vehicle is in safe operating condition and free of any apparent danger. Any defects must be immediately reported to the Safety Representative.
k. Employees are not permitted to ride with arms or legs outside the truck body.
l. No heavy equipment is to be driven at speeds greater than 15 MPH.
m. Only approved standard hand signals for crane, derrick, and boom equipment are to be used. These hand signals must be posted near the driver's seat of all equipment.
n. All manufacturer specifications and limitations concerning the operation of .cranes and other hoisting equipment are to be followed.
o. Rated load capacities, operating speeds, and special hazard warnings must be posted near the driver's seat on all equipment.
p. A certified agency must inspect all hoisting machinery on an annual basis. Records of dates and inspection results for all equipment must be readily available for review.
q. Wire rope safety factors are to be in compliance with American National Standards Institute B30.5.
r. All exposed belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, and other moving parts must be guarded.
s. The swing radius on the back of any crane must be barricaded so as to prevent people

from being struck or crushed by the crane.

t. Prior to any crane being moved, all swinging or hanging loads must be lowered and detached.
u. A fire extinguisher must be available in all cabs of equipment and vehicles.
v. Rollover protection (ROPS) as specified by OSHA is required for all applicable equipment operated on the project. Grandfather clauses are not acceptable.
w. Employees are required to obey all state law, local, and company laws, rules and regulations while operating vehicles or equipment.
x. Personal cars are not to be used for company business unless authorized by the appropriate supervisor. Passengers not employed by the company are also prohibited.
y. Any vehicle or piece of equipment with material extending four feet or more from the rear of the vehicle must have a red flag or cloth 12 inches square attached to the material.

15. Employee and Public Protection

a. Work is not to be performed in any area unless specifically permitted by the contract.
b. Sidewalks, entrances to buildings, .lobbies, corridors, aisles, doors or exits must be kept clear of obstructions at all times.
c. Appropriate warnings and instructional safety signs must be posted.
d. Sidewalks, sheds, canopies, catch platforms and appropriate fences should be used to maintain pedestrian traffic adjacent to any construction site.
e. A temporary fence should be built around the perimeter of aboveground operations that are adjacent to public areas. Perimeter fences must be at least six feet high and must consist of wood, metal, or wire mesh. When the fence is adjacent to a street intersection, the upper section of the fence must be open wire mesh above a point not over four feet above the sidewalk and extending at least 25 feet in both directions from the corner of the fence.
f. Guardrails must be provided on both sides of vehicular and pedestrian bridges, ramps, runways and platforms. Pedestrian walkways must be protected with guardrails.
g. Guardrails must be made of materials capable of withstanding a force at least 200 pounds applied any point in their structure.

16. Highway Work

a. All work on or adjacent to existing public and job-site roadways should be performed in conformance to the requirements of ANSI D6.1, Manual on Uniform Traffic Control Devices for Streets and Highways. Unless otherwise provided for in these documents, the Contractor performing said work should be responsible for furnishing, set-up, and maintenance of all traffic control signage, devices, barricades, arrow boards and flag men.

Section 3: Continual Monitoring & Improvement

A. Safety Meetings/Training

Supervisors should hold a tool box safety talk every week at the beginning of the shift. All employees are required to attend. Supervisors should update employees on any changes in procedures, new equipment, and general safety issues. Emergency procedures should be periodically reviewed. Employees should be reminded to put safety first and look out for your fellow coworker. Employees and supervisors should offer comments and safety suggestions at this time and regularly throughout the day as needed.

Periodic safety training and/or meetings will be held to keep employees informed of safety procedures and issues. Employees with outstanding safety records will be recognized during these meetings. All employees must attend. Quizzes and surveys may be administered after safety training or meetings.

The following form should be completed following every safety meeting/training and maintained by the Safety Representative.

B. Inspections

Periodic inspections will be conducted to identify hazardous conditions and unsafe behaviors. The Safety Representative will conduct inspections, along with insurance companies and OSHA, and may request employees or supervisors to participate. The inspector should look for unsafe practices and conditions that can cause an accident and take corrective action immediately.

The following inspection form or equivalent should be completed on a regular basis and provided to the Safety Representative. The Safety Representative will review the report, take any corrective action needed, and maintain a file of inspections.

Safety Meetings/Training

FireTech:
Date of Meeting:..... **Instructor:.....**

Attending Employees

	Print Name	**Signature**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Safety Topics Covered:

Comments:

Self-Inspection Check List (Page 1 of 2)

Distribution: o Copy to Safety Representative o Copy

_____

Date: _____ **Inspector:** _____ **Title**: _____

Grade: 1 = Satisfactory, 2 = Needs some attention, 3 = Needs immediate action

Item	***Grade***	***Comments***
Housekeeping		
General neatness of work area.		
Adequate and proper storage space for tools & materials		
Adequate sanitary & disposal facilities provided		
Waste material containers emptied regularly		
All spills immediately wiped up		
Storage & equipment rooms neat and orderly		
Fire Prevention		
Fire extinguisher checked & available		
No smoking signs posted & enforced		
Proper storage, use & handling of flammable & combustible materials		
Ventilation adequate		
Tools, Machinery, & Equipment		
Electrical tools properly grounded		
Electrical dangers posted		
Concealed electrical lines located and marked		
Machines guards in place		
Regular inspection & maintenance of tools		
Regular inspection & maintenance of machinery		
Lights, brakes, & warning signals operative		
Cutting & Welding		
Proper goggles, glasses, gloves & clothing worn		
Fire hazards removed & flammable materials protected		
Gas cylinders chained & upright		
Gas lines in good condition		
Gauges and anti-flashback devices operable		
Cylinders stored properly with caps used		
Welding shields used when necessary		
Hot works permit posted and enforced		
Ladders		
Ladders inspected and in good condition		
Properly secured to prevent slipping & falling		
Ladder side rail extends 3 feet above landing area		
Metal ladders not used around electrical hazards		
Step ladders fully open when in use		
Ladders located no more than 25 feet of travel		

Self-Inspection Check List (Page 2 of 2)

Grade: 1 = Satisfactory, 2 = Needs some attention, 3 = Needs immediate action

Item	*Grade*	*Comments*
Material Handling		
Materials properly stored & stacked		
Stacks on firm footings and not too high		
Passageways provided and not blocked		
Personnel lifting loads proper		
Proper lifting techniques used		
Flammable Gases & Liquids		
All flammable waste disposed of properly		
Proper storage containers/cans used		
Fire hazards checked		
Proper type of fire extinguishers provided		
Instruction on proper use and handling on materials posted		
Personal Protective Equipment		
Proper eye, ear, face, head, and hand protection used		
Respirators & masks used when necessary		
Proper clothing worn		
Other		

Action Taken:

- **Repairs/Corrections must be completed by: (date)**_____
- **Repairs/Corrections mentioned above have been done.**

Supervisor _____ **Date:** _____

Section 4: Accident Management

A. Accident & Near Miss Reporting Procedures

If you have a near-miss situation while working, notify your supervisor immediately. The situation will be investigated and corrective action implemented to prevent future injury. Employees and witnesses must fully cooperate in the investigation.

If you are injured on the job:

a. Contact your supervisor, or the nearest coworker (who should notify a supervisor) if you are unable to contact your supervisor due to the severity of your injury.

b. The designated employee who is trained in first-aid and/or CPR should be immediately notified to assist in the situation.

c. First aid kits, which are located in the onsite job box, should be made available and medical supplies promptly refilled.

d. If needed, the supervisor or his other designee should transport the injured worker to the company's designated medical facility to receive appropriate medical attention. A post-accident drug and/or alcohol test will be conducted in accordance with the company's Drug-Free Workplace Policy.

e. If rescue personnel are summoned, the supervisor should delegate an individual to wait for the rescue team and escort them to the injured employee.

f. All witnesses to the accident should be available to speak with the Safety Representative and/or supervisor and cooperate in all accident investigations.

g. The Safety Representative should immediately notify the insurance company of the accident and file a workers' compensation claim.

Every accident or near-miss situation should be reported immediately. Injured employees and witnesses to the accident will assist the supervisor in completing an accident investigation. Injured employees must comply with the medical treatment provided by the treating physician, cooperate with the insurance company and its designees, and abide by the company's return-to-work policy.

B. Accident Investigation

When an accident occurs, it is an indication that something has gone wrong. Accidents don't just happen, they are caused. The basic cause(s) of accidents are unsafe acts and/or conditions. The supervisor must investigate every accident to determine the cause and to initiate corrective action to assure that similar type accidents will not recur from the same causes.

Supervisors should complete the following accident investigation form and submit a copy to the Safety Representative for review. The Safety Representative should evaluate the corrective action taken or suggested by the supervisor and instruct if additional changes should be made.

Tips on accident investigations:

1. Every accident is caused. Carelessness is not a cause, but the result of some deficiency. Telling employees to be more careful will not eliminate the real accident cause.

2. An accident investigation is not a trial to find fault or to place blame. Its purpose is to find accident causes so that corrective measures may be taken to prevent future accidents.

3. Most accidents result from a combination of human error (unsafe behavior) and a physical hazard (unsafe condition). Do not overlook the possibility of multiple errors and hazards.

4. Don't stop at the obvious answer. For instance, a missing machine guard does not cause an accident. The accident happened because the operator entered the point of operation. Determine why the operator did this and why the guard was off the machine. Only by correcting both problems can you prevent future accidents.

5. The accident investigation should be conducted as soon after the accident as possible. Facts should be gathered while the accident is fresh in the minds of those involved. If possible, question every employee who was involved, or witnessed, the incident. Delay interviewing injured employees until after medical treatment has been received.

6. Other employees who did not witness the accident but work in the area may contribute information regarding the injured workers' activities prior to the accident and conditions at the time of the accident.

7. The accuracy and completeness of the information received from the injured worker(s) and witnesses depends on how well the interview is conducted. Supervisors should:
   a. Put employees at ease.
   b. Ask <u>what</u> happened and <u>how</u> it happened.
   c. Permit employees to answer without interruptions.
   d. Show concern.
   e. Remember, nothing is gained with criticism or ridicule.
   f. Ask why questions only to clarify the story.
   g. Repeat the story as you understand it.
   h. Give the employee the chance to correct any misunderstandings that you have.
   i. Photographs of the conditions as they exist immediately following the accident, including photos so the damaged equipment, are very helpful.
   j. Damaged equipment should be removed or secured for future testing and used as evidence.
   k. Take immediate action to correct any obvious unsafe conditions. Determine the basic accident causes and correct or recommend action to prevent reoccurrence.

Supervisor's Accident Investigation Report

(Completed by Supervisor of Injured Employee)

Company		**Address**	
Name of Injured Employee	**Dept**	**Position**	**How long in position?**
Date of Accident	**Time of Accident**	**Nature of Injury**	
Injury Resulted in: o Injury o Fatality o Property Damage (specify)			
Medical Treatment o None o First Aid o EMT or Paramedic o Doctor or Clinic o Hospital **Drug Tested?** o Yes o No **Alcohol Tested?** o Yes o No			**Days Lost Time?**
What was the injured employee doing at the time of the accident?			
How did the accident occur (brief description)?			
What environmental factors (unsafe conditions) contributed to the accident? (see next page for examples)			
What behavioral factors (unsafe acts) contributed to the accident? (see next page for examples)			
What corrective actions can be taken to prevent recurrence? (see next page for examples)			
What corrective actions has been taken to prevent recurrence?			
Names of Witnesses			
Supervisor	**Date**	**Reviewed by:**	**Date**

Supplemental Information for completing the Accident Investigation Report

Note: Each accident will involve at least one of the following conditions as a contributing factor.

Environmental Factors (Unsafe Conditions)

Conditions	Definition of Condition	Suggested Corrective Action
Unsafe procedures	Hazardous Process. Management failed to make adequate plans for safety.	A. Pre-Project Planning B. Formulation of Safe Procedures
Improperly guarded	Work areas, machines, or equipment that are unguarded or inadequately guarded.	A. Inspection B. Checking plans, blueprints, purchase orders, contracts, & materials for safety C. Include guards in original design, order, & contract D. Provide guards for existing hazards
Defective through use	Buildings, machines, or equipment that have become rough, slippery, sharp edged, worn, cracked, broken, or other-wise defective through use or abuse.	A. Inspection B. Proper Maintenance
Defective through design	Failure to provide for safety in the design, construction, and installation of buildings, machinery, & equipment. Too large, too small, not strong enough.	A. Source of supply must be reliable B. Checking plans, blueprints, purchase orders, contracts, & materials for safety C. Correction of defects
Unsafe clothing or personal protective equipment	Management's failure to provide or specify the use of goggles, respirators, safety shoes, hard hats, & other articles of safe dress or apparel.	A. Provide safe apparel or personal protective equipment. B. Specify the use or non-use of certain apparel or protective equipment on certain jobs.
Unsafe housekeeping facilities	Unsuitable layout or lack of equipment necessary for good housekeeping (i.e. shelves, boxes, bins, aisle markers, etc.)	A. Provide suitable layout and equipment necessary for good housekeeping.
Improper ventilation	Poorly or not ventilated area	A. Improve ventilation
Improper illumination	Poorly or not illuminated area	A. Improve illumination

Behavioral Factors (Unsafe Acts)

Factor	Definition of Factor	Suggested Corrective Action
Lack of knowledge or skill	Unaware of safe practice; Unpracticed or unskilled. Not properly instructed or trained.	A. Job training B. Improved hiring practices
Improper attitude	Worker was properly trained and instructed, but failed to follow instructions.	A. Supervision B. Discipline C. Improved hiring practices
Physical Deficiencies	Worker has impaired eyesight or hearing, heart trouble, hernia, previous injuries, etc.	A. Pre-employment physicals B. Periodic physicals C. Proper placement of workers D. Identification of workers with temporary physical deficiencies
Substance Abuse	Worker was under the influence of (illegal or prescribed) drugs or alcohol while completing task	

C. Return-to-Work Policy

It is the Company's policy to return injured workers to productive work, although not necessarily to their pre-injury duties, as early as possible during their recovery. This type of work is often referred to as "modified-duty work." The Company has adopted this policy because employees who remain off work for long periods of time not only affect the Company's productivity and workers' compensation costs, they often experience slow healing and a loss of self-esteem. Within the requirements of their treating medical providers, the limitations of the law, and the economic and physical limitations of our own properties, the Company will make every effort to provide meaningful work wherever and whenever possible. Any recovering employee who is offered a physician-approved, modified-duty position will be required to accept the offer.

A copy of the tasks needed to complete the employee's regular duties should be provided to the treating physician, along with the following Job Physical Assessment form. The Safety Representative or Supervisor should request the treating medical provider complete this form. The supervisor should identify a modified-duty position to offer the employee that is within their physician's restrictions.

Job Physical Assessment

FireTech: _____
Injured Worker: _____
Claim Number: _____
Supervisor: _____ **Phone:** _____
Modified Duty Job Available: _____

The Job Physical Assessment is an objective evaluation, completed by the treating physician. Please consider each category below and objectively circle the appropriate measurement for the activity by our injured employee. Our Company will then locate a modified-duty position that is within the restrictions detailed below. A copy of the duties required to completed this modified-duty position will be provided back to the physician.

Action	**Total Hours**								
Sitting:	0	1	2	3	4	5	6	7	8
Standing:	0	1	2	3	4	5	6	7	8
Walking:	0	1	2	3	4	5	6	7	8

Consecutive Hours								
0	1	2	3	4	5	6	7	8
0	1	2	3	4	5	6	7	8
0	1	2	3	4	5	6	7	8

Action	**Repetitions**				**Time Limits**	
Bending:	0	1-15	16-30	31-60	61+	
Twisting;	0	1-15	16-30	31-60	61+	
Squatting:	0	1-15	16-30	31-60	61+	
Climbing:	0	1-15	16-30	31-60	61+	
Crawling:	0	1-15	16-30	31-60	61+	
Reaching:	0	1-15	16-30	31-60	61+	
Pushing:	0	1-15	16-30	31-60	61+	

Action	**Weights (lbs)**			**Repetitions**		**Time Limits**	
Lifting:		0	1-15	16-30	31-60	61+	
Carrying:		0	1-15	16-30	31-60	61+	
Arm/both:		0	1-15	16-30	31-60	61+	
Left Arm:		0	1-15	16-30	31-60	61+	
Right Arm:		0	1-15	16-30	31-60	61+	
Hand/both:		0	1-15	16-30	31-60	61+	
Left Hand:		0	1-15	16-30	31-60	61+	
Right Hand:		0	1-15	16-30	31-60	61+	

Other restrictions: _____

_____

In consideration of the above restrictions, the patient is: (circle one)

Disabled **Released for restricted work** **Released for full regular work.**

Patient will be seen again for re-evaluation on : _____

Remarks: _____

_____

_____ _____ _____

Physician Name Physician Signature Date

Section 5: Workers' Compensation

By law our company is required to obtain workers' compensation insurance. The company pays a substantial premium for this insurance based on our company safety performance and loss history. Because workers' compensation is a substantial cost of doing business, our goal is to prevent and manage accidents.

A. What benefits are you entitled to?

When an employee is injured during the course of employment, workers' compensation insurance provides payments to the injured worker or the treating physician(s) for medical treatment, disfigurement, death benefits, and indemnity (lost wages) payments. **The scope and amount of these payments are determined by state law.** *Attorneys are not needed for you to get what you are entitled to. Attorneys, when hired, typically work on a contingent fee basis and may receive a portion of your benefits.* If you report injuries immediately to your supervisor and cooperate with your treating physician and the insurance company, the system will work with you to get you healthy and back to work.

Workers' compensation insurance payments may be reduced or denied if: 1) the employee tests positive for drugs or alcohol following the accident, 2) a pre-existing injury or non-work related injury was the cause of the accident, or 3) fraud exists.

Medical treatment: Medical care, services, and supplies as necessary to cure or relieve the effects of an injury sustained on-the-job.

Disfigurement: Additional compensation is paid to an injured worker for permanent disfigurement from a work-related injury (i.e. scars, discoloration, disfigurement, etc.)

Indemnity Payments: Wage replacement while recovering from an industrial injury.

Death Benefits: Weekly payments to the surviving spouse and dependent children of a worker whose work-related injury results in death. Burial and funeral expenses are also paid.

B. Workers' Compensation Fraud

Filing false workers' compensation claims is punishable with a substantial fine and imprisonment. **Any employee who knows of a coworker who is abusing the workers' compensation system or has filed a false workers' compensation claim should report it to the sate workers compensation board.** You will not be asked to identify your name and the call will not be recorded. This is an anonymous call to our insurance company.

The insurance company has many red flags to identifying workers' compensation fraud and will investigate any accident they suspect may be fraudulent. They may deny or reduce benefits whenever a claim is found to be fraudulent or an employee is found to be abusing the workers' compensation system.

The following is considered workers' compensation fraud or abuse:

1. Faking an accident or injury.
2. Exaggerating the seriousness of an accident or injury.
3. Taking more time off than is really needed to recover.
4. Attempting to collect benefits for an injury that is not job-related.
5. Submitting false or exaggerated medical bills for payment.
6. Working at another, equally demanding job while collecting workers' compensation benefits.

7. Conspiring with, or being persuaded by, another person to do any of the above.

When people abuse workers' compensation benefits, we all pay. Your company is charged higher insurance premiums, which increases our expenses and lowers profitability. The best way to safeguard against fraud is to prevent accidents from happening. If you are aware of fraud, speak up by calling the Fraud Hotline.

Section 6: Fleet Safety Program

Motor Vehicles Rules

All employees who drive a company car or delivery vehicle must abide by the following safety rules:

1. Employees are required to inspect their assigned vehicle (before taking it on the road) to ensure that it is in safe working condition. This includes properly working brakes, horns, and back-up alarms. The attached inspection form should be used.
2. Any defects in the company vehicle should be reported promptly.
3. Employees are required to obey all state, local, and company traffic regulations.
4. Engines are to be stopped and ignition keys removed when parking, refueling, or leaving the company vehicles.
5. Employees are not permitted to use personal cars or motorcycles for company business, unless specifically authorized by the supervisor.
6. Only hands free devices are permitted.
7. Passengers not employed by the company are not permitted unless authorized by the supervisor.
8. Employees should drive safely. Defensive driving must be practiced by all employees.
9. Seat belts and shoulder harnesses are to be worn at all times.
10. Vehicles must be locked when unattended to avoid criminal misconduct.
11. Vehicles must be parked in legal spaces and must not obstruct traffic.
12. Employees should park their vehicles in well-lighted areas at or near entrances to avoid criminal misconduct.
13. Employees should keep their headlights on at all times when driving a vehicle.
14. A vehicle when loaded with any material extending 4 feet or more beyond its rear shall have a red flag or cloth 12 inches square attached by day, or a red light visible for 300 feet by night, on the extreme end of the load.
15. Articles, tools, equipment, etc. placed in cars or truck cabs are to be hung or stored in such a manner as not to impair vision or in any way interfere with proper operation of the vehicle.
16. When you can not see behind your vehicle (truck), the driver should walk behind the truck prior to backing.
17. Personal use of vehicles is not permitted without approval of management. Children are prohibited from using company vehicles.
18. Operating a company vehicle while under the influence of alcohol and other drugs is prohibited. Violators are subject to termination of employment.
19. Every accident should be reported to the Safety Representative. The Safety Representative should investigate all accidents and review them with the Supervisor and employees.
20. All subcontractor personal vehicles must be parked in areas designated as contractor parking.
21. When operating vehicles on the job site, speeds must not exceed 5 M.P.H.

Commercial Drivers License (CDL)

Drivers who operate a commercial vehicle, as defined below, are required to obtain a commercial drivers license.

1. A vehicle with a gross vehicle weight rating of 26,001 or greater pounds, or
2. A vehicle designed to transport 15 or more passengers (including the driver) or
3. A vehicle of any size transporting hazardous material in sufficient quantities meeting the hazardous materials transportation regulations posting requirements.

Drivers must meet the following requirements:

1. All commercial drivers must be in good health and pass a DOT physical. The doctor will provide the driver a medical examiner's certificate that must be carried at all times when driving. The certificate must be renewed every 2 years.
2. All commercial drivers must comply with the Company's Drug and Alcohol-Free Workplace Policy and consent to testing as defined by DOT and the Company.
3. Be at least 21 years of age.
4. Speak and read English well enough to do his/her job and respond to official questions.
5. Have a valid driver's license and pass a commercial driver's road test.
6. Take a DOT written exam for drivers.
7. Not be disqualified to drive a commercial motor vehicle.
8. Be able to determine whether the vehicle is safely loaded and know how to block, brace, and tie down cargo.

Motor Vehicles Records (MVR)

1. All prospective and current employees will undergo annual motor vehicle record checks.
2. Violations (gathered from MVRs) are categorized as follows:

   TYPE A VIOLATION: Includes, but is not limited to, DWI/DUI/OWI/OUI, refusing a drug/alcohol test, reckless driving, manslaughter, hit & run, eluding a police officer, any felony, drag racing, license suspension, and driving while under license suspension. Any driver with these types of violations is a major concern and could be subject to removal of driving privileges and/or termination of employment.

   TYPE B VIOLATION: Includes all vehicle accidents, regardless of fault.

   TYPE C VIOLATION: Includes all moving violations not classified as Type A or B (i.e. speeding, improper lane change, failure to lead, running red lights or stop signs, etc.)

   TYPE D VIOLATION: Includes all non-moving violations (i.e. parking, vehicle defects, etc.)

3. The following disciplinary action will apply:
   Termination of Employment, Refusal to hire, or Reassignment to a non-driving position (if available):
   - ≥ 1 Type A violation in preceding 36 months
   - ≥ 2 Type B violations in preceding 36 months
   - ≥ 3 Type C violations in preceding 36 months
   - 1 Type B violation and 2 Type C violations in preceding 36 months

   Probation (6 months):
   - 1 Type B violation in preceding 36 months
   - 2 Type B violations in preceding 36 months
   - 1 Type C violation and 2 Type D violations in preceding 36 months
   - 3 Type D violations in preceding 36 months

Driver Qualification File

The company will maintain the appropriate qualification files for each regularly employed river.

Accident Reporting

Driver Conduct at the Scene of the Accident

1. Take immediate action to prevent further damage or injury.
    - Pull onto the shoulder or side of the road.
    - Activate hazard lights (flashers) and place warning signs promptly.
    - Assist any injured person, but don't move them unless they are in danger of further injury.
2. Call the Police
    - If someone is injured, request medical assistance.
    - If you are near a phone, write a note giving the location and seriousness of the accident and give it to a "reliable" motorist and ask him/her to contact the police.
3. The vehicle should not be left unattended, except in an extreme emergency.
4. Exchange identifying information with the other driver. **Make no comments about assuming responsibility.**
5. Secure names, addresses, and phone numbers of all witnesses, or the first person on the scene if no one witnessed the accident.
6. Call the company immediately and report the accident to the Safety Representative.

Complete the Vehicle Accident Report Form

1. Complete the Vehicle Accident Report Form (a copy can be obtained from the Safety Representative) and provide it to the Safety Representative. Write legibly. Answer all questions completely or mark "not known." Use additional sheets of paper as needed to provide pertinent information.

Inspection Records & Preventative Maintenance

All drivers must regularly inspect, repair, and maintain their company vehicle. All vehicle parts and accessories must be in a safe and proper working order at all times. The following apply:

1. All truck drivers must complete the vehicle inspection report at the end of each day. Drivers of company cars should complete the vehicle inspection report semi-annually. Notify the Safety Representative of any unsafe conditions or defective parts immediately.

2. Before the vehicle is driven again, any safety defects must be repaired.

3. A copy of the last vehicle inspection report must be kept in the vehicle for at least 3 months.

4. Quarterly preventative maintenance must be conducted on each vehicle.

5. Maintenance and inspection records must be kept at the company for 1 year or for 6 months after the vehicle leaves the company's ownership.

6. All vehicles are subject to a search at any time.

Vehicle Inspection Report

(Use your safety belt)

Date: _____

_____

Company Location (city) ST Vehicle Number

Driver Name Driver Name

Driver Signature Driver Signature

Instructions: Drivers will perform necessary inspections. A (√) indicates satisfactory condition. An (X) indicates unsafe or improper conditions. An (O) indicates condition does not apply. Corrected deficiencies should be circled by management certifier.

INSIDE

- o Parking brake (apply)
- o Release trailer emergency brakes
- o Apply service brake (air loss should not exceed 3 psi/min on single vehicles, 4 psi/min on combinations)

START ENGINE

- o Oil Pressure (light or gauge)
- o Air Pressure or Vacuum (gauge)
- o Low air or vacuum warning device (air pressure below 40 psi check on pressure build-up. Air pressure above 60 psi deplete air until warning device works. Vacuum below 8 inches Hg, check on build-up. Above 8 inches Hg. Deplete vacuum until device works.
- o Instrument panel (telltale lights, buzzer, gauges)
- o Horn
- o Windshield Wiper and Washer
- o Heater-defroster
- o Mirrors
- o Steering wheel (excess play)
- o Apply trailer brakes in EMERGENCY
- o Turn on all lights including 4-way flasher
- o Starts properly

EMERGENCY EQUIPMENT

- o Fire extinguishers
- o Flags, standards, warning lights
- o Spare fuses
- o Spare bulbs
- o Chains in season
- o First-aid kit

FRONT

- o Headlights
- o Clearance lights
- o Identification lights
- o Turn signals and 4-way flasher
- o Tires and wheels-lugs and serviceability

SIDE (Left Right)

- o o Fuel Tank and Cap
- o o Sidemarker lights
- o o Reflectors
- o o Tires and wheels-lugs and serviceability
- o o Cargo tie-downs or doors

REAR

- o Tail lights
- o Stop light
- o Turn signals and 4-way flasher
- o Clearance lights
- o Identification lights
- o Reflectors
- o Tires and wheels, lugs and serviceability
- o Rear end protection (bumper)
- o Cargo tie-downs/doors

MECHANICAL OPERATION

- o Engine knocks, misses, overheats, etc.
- o Clutch skips, grabs, other
- o Transmission noisy, hard shifting, jumps out of gear, other:
- o Axles - noisy, other:
- o Steering loose, shimmy, hard, other:
- o Air, oil, water, leaks
- o Springs broken, other:
- o Brakes noisy, pulls soft, other:
- o Speedometer, tachometer
- o Tachograph, speed control devices

ON COMBINATIONS

- o Hoses, connections
- o Couplings (fifth wheel, tow bar, safety chains, locking devices)

OTHER

- o _____
- o _____
- o Equipment inspection enroute (yes, no)
- o Cargo securing devices (yes, no)

Start time: Mileage: End time: Mileage:

Remarks/Other Defects:

Defects corrected (initial) Defect correction Certified by: Date

o Yes o No unnecessary (initial)

Preventative Maintenance Report

Date/Time	Company	Location
Inspected by:	Employee I.D. Number	
Vehicle License	Vehicle Number	
	Satisfactory	**Needs Attention**
Brakes: Brake adjustment: Left Right Brake hoses Brake drums Brake shoes Parking brake Brake pedal travel		
Steering Steering suspension Change in steering action Steering components		
Tires Wear/Defect Overloading Groove depth 2/32" minimum **Wheels** Cracks Loose Nuts Rims		
Windows Windows & Windshields Wipes & Washers		
Lights Head lights Tail lights Turn signals Reflectors		
Mirrors		
Horn		
Instruments/Gauges		
Seat belts		
Battery		
Radiator & Hoses		
Exhaust system		
Suspension		
Fuel system		
Oil/Water leaks		
Oil level		
Water level		
Transmission		
Engine performance		
General condition of body & interior		
Comments:		

VEHICLE ACCIDENT SUMMARY REPORT

ACCIDENT TYPES								**ACCIDENT CAUSES** (Check all that apply)																						**ACCIDENT LOCATION**							PREVENT-ABLE				
Collision with a Moving Vehicle	Collision with a Fixed Object	Collision with a Stopped or Parked	Collision with a Bike Rider or	Upset or Jackknife	Ran Off Road	Fire, Theft or Glass Breakage	Other - Provide Attachment	Following Too Closely	Driving Too Fast for Conditions	Exceeding the Speed Lift	Failure to Observe Clearances	Failure to Obey Stop Signal or	Failure to Observe Warning Signs	Improper Turns	Improperly Parked	Improperly Passing on	Passing on Curve or Hill	Failure to Yield Right of Way	Improper Backing	Defective or Missing Equipment	Failure to Secure Load	Improper Inspection by Driver	Improper Inspection by Mechanic	Driver Fatigue	Lack of Driving Skill	Lack of Driving Knowledge	Influence of Alcohol/Drugs	Attitude	Lack of Security	On Straight Road	On Grade	At Curb	Driveway, Alley or Parking Lot	On Curve	Off the Highway	Intersection	Yes	No	Driver Cited - Yes/No	**DRIVER'S NAME**	**DATE OF ACCIDENT**
																																								Totals	

SUPERVISOR'S MOTOR VEHICLE ACCIDENT INVESTIGATION REPORT

DRIVER	VEHICLE	DATE OF ACCIDENT
LOCATION OF ACCIDENT		TIME OF ACCIDENT
DESCRIPTION OF ACCIDENT: (What happened?)		
SEAT BELT WORN?		
CAUSES OF ACCIDENT: (Why did it happen?)		
RECOMMENDATIONS FOR PREVENTION OF A RECURRENCE: (What should be done?)		
FOLLOW UP: (What actions were taken? Were they effective?)		

- INDICATE WITH DIAGRAM WHAT HAPPENED
- SHOW POSITION OF VEHICLES
- INDICATE DIRECTION (NORTH, SOUTH, EAST, WEST) WITH ARROWS

CLASSIFICATION OF ACCIDENT REVIEW

θ PREVENTATBLE θ NON-PREVENTABLE

ACCIDENTS USUALLY PREVENTABLE

Intersection	Cut In or Out
Backing	Pulled from Curb
Hit Other in Rear	Hit Stationary Object
Skidded	Hit Pedestrian

ACCIDENTS USUALLY NON-PREVENTABLE

Hit in Rear	Hit When Properly Parked

_____

_____

INVESTIGATING SUPERVISOR'S SIGNATURE MANAGER'S SIGNATURE

DATE OF REPORT _____ REVIEWED BY MANAGER _____ DATE _____

Section 7: OSHA (Occupational Safety & Health Administration)

A. OSHA (Records) Requirements

Copies of required accident investigations and certification of employee safety training shall be maintained by the company. A written report will be maintained on each accident, injury or on-the-job illness requiring medical treatment. A record of each such injury or illness is recorded on OSHA Log and Summary of Occupational Injuries Form 300 according to its instructions. Supplemental records of each injury are maintained on OSHA Form 301. Every year, a summary of all reported injuries or illnesses is posted no later than February 1, for one month, until March 1, on OSHA Form 300. These records are maintained for five years from the date of preparation.

B. OSHA Checklist

To avoid safety violations and remain in compliance with OSHA standards, the company should complete the following OSHA checklist or equivalent on a regular basis. Deficiencies should be immediately corrected. If problems persist, the Safety Representative should contact our Loss Control consultant at our workers' compensation carrier to conduct a comprehensive OSHA inspection.

OSHA Inspection Check List (Page 1 of 2)

Distribution: o Copy to Insurance Carrier o Copy to Safety Committee o Copy ____ _____

Inspector: _____ **Title**:_____
Date: _____

Grade: 1 = Satisfactory, 2 = Needs some attention, 3 = Needs immediate action

Item	***Grade***	***Comments***
Housekeeping		
General neatness of work area, lunchrooms, restrooms. Housekeeping maintained		
Aisles are properly marked, clear & in good condition		
Aisle widths maintained		
Mats, gratings, etc. used when drainage is needed		
Floor openings & holes marked and protected		
Fire Prevention		
Fire extinguisher available & functional, where required		
No smoking signs posted & enforced		
Ventilation adequate		
Exposures from dust, fumes, vapors, etc. controlled		
Flammable Gases & Liquids, Batteries		
Proper storage, use & handling of flammable & combustible materials in approved cans and/or cabinets		
Proper handling of compressed gases & materials		
Storage drums for flammable liquids properly grounded & bonded		
Batteries are charged in a properly vented room		
No open flames exist in the battery charging room		
Fuel tanks are always filled when the equipment engine is off		
Tools, Machinery & Equipment		
Electrical & portable tools and outlets properly grounded		
Covers in place on all electrical fuse & outlet boxes		
Approved machines guards in place at points of operation & over foot treadles		
Only authorized tools are used to place & remove materials from machinery		
Proper guarding of gears, pulleys, conveyors, chains, etc.		
Machines firmly anchored to prevent moving		
Weight of load does not exceed equipment (i.e. scaffolding) rating to handle it		
Mobile equipment equipped with a horn, capacity sign & overhead guard		

OSHA Inspection Check List (Page 2 of 2)

Grade: 1 = Satisfactory, 2 = Needs some attention, 3 = Needs immediate action

Item	*Grade*	*Comments*
Ladders		
Ladders inspected, in good condition, and free from sharp edges & splinters		
Ladders have proper safety feet		
Cages & wells used as required (on fixed ladders only)		
Step ladders do not exceed 20 feet in length		
Stairs & Exits		
Stair handrails are 30-34 inches above surface		
A handrail is in place on every stairway with at least 4 risers (steps)		
Risers conform to proper height and are uniform		
Standard railings are in place on open sides of exposed stairs		
Building exits are marked & adequate		
Exits are not blocked		
Lighting on exit signs conform to government standards (5 foot candles)		
General Work Environment & Personal Protective Equipment		
Noise levels conform to government standards		
Compressed air for cleaning under 30 PSI		
Separate lunch rooms provided when toxic materials are present		
Number of restroom facilities available conforms to federal standards		
Separate restroom facilities provided for men & women		
Personnel trained in first aid & first aid kits are available		
Personal protective equipment provided & used		
Proper respirators & masks used when necessary		
OSHA Postings & Records		
Accidents recorded on OSHA forms 200 & 101		
OSHA poster is properly displayed		
Capacity signs posted through-out the building		

C. OSHA Inspection: What you can expect during an OSHA inspection

1. **Arrival of the Compliance Officer (OSHA Inspector)**
   a. Request to see credentials.
   b. Record his name, identification number, the name of his/her supervisor, and office location.
   c. Notify the Safety Representative. If the Safety Representative is not available, ask the Officer to wait until the Safety Representative arrives. If he/she cannot wait or the Safety Representative will not available, the Foreman or Supervisor should accompany the Officer.
   d. Do not volunteer any information, only answer questions.

2. **Opening Conference**
   a. The scope of the inspection will be discussed.
   b. The Officer will explain the reason for the inspection (i.e. employee complaint, scheduled inspection, etc.)
   c. If the reason for the inspection is an employee complaint, request a copy of the complaint.
   d. Take comprehensive notes and request to record the meeting and walk-around.

3. **The Walk-Around (inspection)**
   a. The Company representative should accompany the Compliance Officer throughout the inspection.
   b. The Officer may ask to interview employees. Employees should cooperate. The Company representative should attempt to participate in the interview.
   c. The Company representative should be prepared to show the Officer: 1) the Safety Manual, 2) Hazard Communication Program, 3) OSHA poster, 4) OSHA 300 Log
   d. If at all possible, correct any violations immediately that the Officer points out.
   e. Take photographs of the same items or areas that are photographed by the Compliance Officer.
   f. Take notes. Write down every possible violation, standards cited, corrective action needed, and a deadline date.

4. **Closing Conference**
   a. The Compliance Officer will review any violations discovered during the inspection. Compare these to the notes you took during the inspection. Point out any discrepancies and areas already corrected.
   b. Be polite. Do not argue or get defensive with the Compliance Officer.
   c. If you are not clear on something, ask questions.
   d. This is a good opportunity to produce records of compliance efforts and other safety practices.

5. **Citations & Penalties**
   a. Our goal is to provide a safe and healthy work environment. If the company is cited for OSHA violations, corrective action will be completed before the deadline provided by OSHA and as quickly as possible. It will be management's decision to appeal any citations.

Lock-out/Tag-out

Purpose

To establish a procedure to protect and prevent personnel from injury by 1) accidental activation of any powered or damaged equipment, and 2) the uncontrolled release of electrical energy. A secondary purpose is to remain in compliance with OSHA regulations, 29 CFR 1910.147.

Responsibility

The Safety Representative is responsible for compliance. The Safety Representative shall train supervisors on proper lockout/tagout procedures, audit and/or oversee the application of the procedures, ensure corrective actions are taken when problems arise, and conduct an annual inspection/evaluation. Supervisors are responsible for training effected and authorized employees on the purpose and use of these procedures. The Safety Representative should periodically monitor training activities and assist as required to ensure compliance with OSHA regulations and company goals. All affected and authorized employees involved in lockout/tagout procedures must receive annual training. A list of authorized, trained individuals will be maintained by the Safety Representative (see the attached log).

Scope

This procedure applies to all Company personnel and contract employees. It will be enforced during installation, cleaning, servicing, maintenance, or inspection work is performed on any powered equipment and/or processes in which the activation of such could injure an employee or cause property damage. This procedure does not apply to adjustment or other activities which require the equipment be operating at the time of service, provided other protective measures are employed.

Definitions

Lockout:

The application of a lock, chains, or other appropriate apparatus, and a danger identification tag to de-energize electrical equipment and/or process system to ensure that the equipment or system can not be activated. Note: OSHA regulations require that locks be used to secure equipment whenever possible. Chains can be wrapped around valve handles and then locked in such a way that the valve cannot be operated. Tags alone can be used when it is not possible to use a lock.

Tagout:

The application of a danger identification tag when a physical lockout or de-energizing is not feasible or a lock has already been applied. Tags should bear the name of the employee applying the tag, the date of application, and a brief description of the work needed.

Energy Source:

The switch or valve through which energy is controlled to the unit (e.g. motor control center (disconnect) switches, (circuit) breaker panel switches, valves, locking pins, etc.). This energy may come be: 1) electric power, 2) mechanical power, 3) hydraulic power, 4) pneumatic energy, 5) chemical system, or 6) thermal energy.

Authorized Employees:

A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment.

Effected Employees:

An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed. An effected employee becomes an authorized employee when the effected employees' duties include servicing or maintenance.

Lockout/Tagout Procedures

1. Each piece of equipment or system must be evaluated to identify all energy sources to be locked or tagged out. The evaluation should be done periodically by a supervisor or an authorized employee with familiarity with the equipment/system, using the attached energy source determination checklist.
2. If the machine is determined by OSHA that formal lockout/tagout procedures are required, this should be done by an authorized employee and logged on the attached form titled "List of Lockout & Tagout Procedures." These procedures should then be followed. If no specific procedures are required, or provided by the equipment manufacturer, complete the following tasks.
3. Deactivate (turn off) and secure the equipment/system at the energy source. Relieve pressure, release stored energy from all systems, and restrain or block them. (Operators must tag the appropriate switches or controls inside the control room as part of this step).
4. Attach a lock to each isolation device and a tag to the lock. Sign and date the tag, along with providing pertinent information.
5. Check to ensure that no personnel are exposed to the equipment/system, then attempt to activate the normal operating controls to ensure proper lockout/tagout. (A voltmeter can check the switch)
   CAUTION: Always return the operating control to the "neutral" or "off" position after completing this test.
6. The equipment/system is now locked and tagged out.

Lockout/Tagout Removal Procedures

1. After installation, servicing, maintenance, inspection, or cleaning is complete, verify that all tools have been removed, all guards have been reinstalled, the area is clean and orderly, and the equipment is safe to operate.
2. Ensure that employees are not exposed to the equipment and all employees are aware of the removal of the lock and tag.
3. The locks and tags should be removed only by the employee who applied them, the supervisor or the Safety Representative. The supervisor or Safety Representative should only remove the locks and tags after a reasonable effort is made to contact the employee and notify him of the removal. The tags should be signed and dated and submitted to the Safety Representative.
4. Activate energy source as required.

Procedures involving more than one person

If more than one individual is required to lockout or tagout equipment, each shall use his/her own assigned lockout/tagout device on the energy source. When the energy source cannot accept multiple locks or tags, a multiple lockout/tagout device (hasp) should be used. A single key should be used to lockout the equipment/system, with the key being placed in a lockout box or cabinet. This cabinet or lockout box must allow multiple locks to secure it. Each employee will then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain the lockout protection, that person will remove his/her lock from the cabinet. Proper removal procedures should be followed.

List of Authorized Lockout/Tagout Individuals

Work Center	Lock Number	Name	Mechanical (yes/no)	Electrical (yes/no)

Lockout/Tagout Annual Inspection/Evaluation Report

Date of Evaluation: _____

Evaluation was made by: _____
Policy has been reviewed: o Yes o No

Comments on policy: _____
_____
_____
_____

The following procedures have been reviewed: _____
_____
_____
_____

The following procedures were modified: _____
_____
_____
_____

The following procedures were added: _____
_____
_____
_____

A review of the OSHA log 200, associated accident reports, and OSHA Form 101 were conducted? : o Yes o No

The following injuries resulted from lockout/tagout:

Injury	Procedure Number for Applicable Equipment	Process or Machinery

_____

_____

_____

Comments:

_____ _____
Signature Date

Lockout/Tagout Procedure Checklist
Energy Source Determination (Page 1 of 3)

Date: _____ FireTech: _____

Instructions: In order to determine all energy sources for each piece of equipment, all questions must be answered. If the question does not apply, write N/A.

Location: _____ Work Center: _____

Equipment Name: _____ Equipment #: _____

Serial: _____ Lockout/Tagout Procedure #: _____

1. Does this equipment have:
   a. **Electric power** (including battery)? o Yes o No o N/A
      If yes, Motor Control Center (MCC) or power panel & breaker number: _____
      _____
      Does it have a lockout device? o Yes o No o N/A
      Battery location: _____
      Battery disconnect location: _____

   b. **Mechanical power**? o Yes o No o N/A
      Mark each type of energy source that applies:
      1. Engine driven o Yes o No o N/A
         If yes, switch or key location: _____
         Is lockout device installed? o Yes o No o N/A
         If no, method of preventing operation: _____

      2. Spring loaded? o Yes o No o N/A
         If yes, is there a method of preventing spring activation? o Yes o No
         If no, how can spring tension be safely released or secured? _____
         _____

      3. Counter weight(s)? o Yes o No o N/A
         If yes, is there a method of preventing movement? o Yes o No
         If yes, can it be locked? o Yes o No
         If no, how can it be safely secured? _____
         _____

      4. Flywheel? o Yes o No o N/A
         If yes, is there a method of preventing movement? o Yes o No
         If yes, can it be locked? o Yes o No
         If no, how can it be safely secured? _____

Lockout/Tagout Procedure Checklist (Page 2 of 3)

1. Does this equipment have (continued):
   c. **Hydraulic Power**? o Yes o No o N/A
   If yes, location of main control/shut-off valve: _____
   Can control/shut-off valve be locked in the "OFF" position? o Yes o No
   If no, location of closest manual shut-off valve: _____
   Does manual shut-off valve have a lockout device? o Yes o No
   If no, what is needed to lock valve closed? _____
   _____
   Is there a bleed or drain valve to reduce pressure to zero? o Yes o No
   If no, what will be required to bleed off pressure? _____
   _____

   d. **Pneumatic Energy**? o Yes o No o N/A
   If yes, location of main control/shut-off valve: _____
   Can control/shut-off valve be locked in the "OFF" position? o Yes o No
   If no, location of closest manual shut-off valve: _____
   Does manual shut-off valve have a lockout device? o Yes o No
   If no, what is needed to lock valve closed? _____
   _____
   Is there a bleed or drain valve to reduce pressure to zero? o Yes o No
   If no, what will be required to bleed off pressure? _____
   _____

   e. **Chemical System**? o Yes o No o N/A
   If yes, location of main control/shut-off valve: _____
   Can control/shut-off valve be locked in the "OFF" or closed position? o Yes o No
   If no, location of closest manual shut-off valve: _____
   Is there a bleed or drain valve to safely reduce system pressure and drain system of chemicals? o Yes o No
   If no, how can the system be drained and neutralized? _____
   _____
   What personal protective clothing or equipment is needed for this equipment? _____
   _____

   f. **Thermal Energy**? o Yes o No o N/A
   If yes, location of main control/shut-off valve: _____
   Can control/shut-off valve be locked in the "OFF" or closed position? o Yes o No
   If no, location of closest manual shut-off valve: _____
   Does manual shut-off valve have a lock valve? o Yes o No
   Is there a bleed or drain valve to safely reduce system pressure & temperature and drain system chemicals? o Yes o No
   If no, how can the system be drained and neutralized? _____
   _____
   What personal protective clothing or equipment is needed for this equipment? _____

Lockout/Tagout Procedure Checklist (Page 3 of 3)

Special precautions not noted above (i.e. fire hazards, chemical reactions, required cool down periods, etc.): _____

Recommendations or Comments: _____

Completed by: _____

Reviewed by: _____

Approved by: _____

List of all Lockout/Tagout Procedures

Procedure Number	Equipment, Machinery or Process

Lock-out/Tag-out

Training Documentation for Lockout/Tagout Program

I have received training and understand all rules and regulations regarding the lockout/tagout program.

I understand that I am required to follow the necessary precautions outlined in the lockout/tagout program.

I know the location of emergency phone numbers and communications systems, and the location of medical, fire, and other emergency supplies.

Employee Name: _____

Signature: _____ Date: _____

Job Location: _____

C. Confined Space Entry

Purpose

To establish a procedure to protect personnel and prevent injury when entering and working in any confined space. Another purpose is to remain in compliance with OSHA regulations, 1910.146.

Responsibility

The Company is responsible for ensuring adherence to the elements of this procedure where confined space entry may be required. These elements should include the following:

A. Identification of tasks which may involve worker entry into a confined space, and
B. Assurance that a current classification file of all confined spaces, which may be potentially occupied throughout the course of the project, are maintained.

Safety Representative

The designated Safety Representative is responsible for overseeing the technical aspects of this procedure. These technical aspects include the following:

A. Classifies each confined space relative to the need for an entry permit.
B. Trains supervisors and competent persons relative to their responsibilities and duties in connection with the confined space entry program.
C. Reviews and approves the selection of all personal protective equipment and instrumentation.
D. Audits confined space entry program execution.

Competent Person

A competent person is one who is capable of identifying existing and predictable hazards in a working space. The responsibilities assumed by the designated competent person are those related to the actual execution of the task. As such, this individual's principal duties include the following:

A. Prior to entry, evaluate each confined space for existing and potential hazards.
B. Monitor the atmosphere of the confined space with an acceptable analyzer. Ensure that instruments are properly maintained and calibrated.
C. Notify Safety Representative of any tasks to be performed within a confined space which could create a hazardous atmosphere.
D. Obtain an entry permit.
E. Prior to entry, review provisions of the entry permit with employees entering the confined space.
F. Instruct employees and direct the execution of the confined space entry according to established procedures.
G. Assure that proper personal protective equipment is provided and used, as required.
H. Designate a trained attendant for each confined space.
I. Train all personnel involved in confined space entry and emergency rescue.
J. When the entry has been completed, verify that all personnel and equipment have been removed from the confined space and signify that the space can be prepared for return to service.
K.

Entry Supervisor

An entry supervisor is a qualified person (such as the employer, foreman, or crew chief) responsible for overseeing entry operations. An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by the OSHA standard for each role he or she fills. The duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

Entry Supervisors must:

- Know space hazards including information on the mode of exposure, signs or symptoms and consequences;
- Verify that specified entry conditions are satisfied, including permits, tests, procedures and equipment before allowing entry;
- Terminate entry and cancel or suspend permits when entry operations are completed or if a condition that is not allowed under the permit arises;
- Verify that rescue services are available and that the means for summoning them are operable;
- Take appropriate measures to remove unauthorized entrants; and
- Ensure that entry operations remain consistent with the entry permit and that acceptable entry conditions are maintained.

Attendant

An attendant is a person assigned to remain immediately outside the entrance of the confined space during the time the space is occupied. The attendant is to maintain visual and/or voice contact with persons in the confined space at all times. The attendant must also have an immediate and direct means of communication by which rescue or other emergency assistance may be summoned. The attendant is not to enter the confined space unless appropriately trained and another qualified attendant is present. The attendant's responsibilities include:

A. Ensuring that the confined space is never entered without proper authorization.
B. Ensuring that all safety and personal protective equipment is used in accordance with the provided training.

The Attendant must:

- Remain outside the permit space during entry operations unless relieved by another authorized attendant;
- Perform non-entry rescues when specified by the employer's rescue procedure;
- Know existing and potential hazards, including information on the mode of exposure, and signs or symptoms, and consequences, and possible behavioral effects of exposure;
- Maintain communication with and keep an accurate account of those workers entering the permit space;
- Assess conditions inside and outside the space and order evacuation of the permit space when:
  (1) A prohibited condition exists;
  (2) A worker shows behavioral effects of hazard exposure;
  (3) A situation exists outside the confined space that could endanger entrants; or
  (4) The attendant cannot effectively and safely perform required duties.
- Summon rescue and other services during an emergency;

- Ensure that unauthorized people stay away from permit spaces or exit immediately if they have entered the permit space;
- Inform authorized entrants and the entry supervisor if any unauthorized person enters the permit space; and
- Perform no other duties that interfere with the attendant's primary duties.

Entrant

An authorized entrant is a worker who is authorized by the entry supervisor to enter a permit space. An attendant is an individual stationed outside the confined space entry point.

Authorized entrants must:

- Know space hazards, including information on the means of exposure such as inhalation or skin contact, and symptoms of the exposure;
- Use appropriate personal protective equipment properly;
- Stay in communication with attendants as necessary to enable the attendants to monitor the entrant's status and alert the entrant to evacuate when necessary;
- Exit from the permit space as soon as possible when:
  (1) Ordered by the attendant or entry supervisor;
  (2) He or she recognizes the warning signs or symptoms of exposure;
  (3) A prohibited condition exists; or
  (4) An automatic alarm is activated.
- Alert the attendant when a prohibited condition exists or when warning signs or symptoms of exposure exist.

Definitions

Confined Space - A confined space is any enclosure that is not designed for normal occupancy by humans, contains an actual or potential safety and/or health hazard, and restricts egress to such an extent that personnel would have difficulty escaping in the event of an emergency. Examples of spaces fitting this description include: reactor vessels, storage tanks and bins, air handling units, piping, boilers, ducts, vaults, trenches, and manholes.

No authorization is to be given for entry into confined spaces that are considered immediately dangerous to life and health or where the potential exists for the generation of such. Examples of a confined space include:

- An area where there is potential of a non-respiratory atmosphere.
- An area where there is potential of an engulfment by loose particles or liquids.
- An area where there is potential of an explosive, flammable or toxic atmosphere.
- An area where an entrance and/or exit is restricted (limited access or egress).
- An area where welding, cutting, burning, painting, chemical handling, or any type of work which would create a toxin or non-respiratory atmosphere constitutes a confined space.

Entry Permit- The confined space entry permit provides a checklist of pre-entry precautions that must be taken. Documentation of monitoring and authorization of entry should then be provided by the Safety Representative. A copy of the permit should be conspicuously posted at the site of

entry. The permit should contain a record of the date of entry, monitoring requirements, relative location of entry and a description of the work to be performed. Permits are issued for 8-hour shifts only and must be reevaluated before each new shift begins working.

Site Contact Person- The Superintendent, foreman, or other assigned employee who is the contractor's main contact person on the site and who is responsible for the contractor's compliance with these rules.

Contractor- Any individual or company who provides services or does work for us.

Operating Procedures

1. Determine any unusual conditions which may require special procedures unique to the area or task to be conducted (i.e., welding).
2. Purge, drain and/or evacuate process materials, chemicals and air.
3. Isolate the confined space from all external piping, process systems, affluent systems, utilities, and ducts that could cause materials to enter the confined space. This can be accomplished by inserting blanks and skillets, disconnection and capping of lines, double blocking and bleeding valves and/or physical disconnection of equipment.
4. Immobilize all mechanical services such as agitators, mixer paddles, fan blades, etc., through recognized lockout procedures and/or through physical disconnection of the drive mechanism from the power source.
5. If an assessment (testing) of the atmosphere indicates contamination is present, the cause/source of the contamination must be determined. Furthermore, it must be determined if contamination will increase during entry. Testing should include:
    a. Oxygen Atmosphere Testing: Testing should be done with a calibrated direct-reading oxygen indicator. The oxygen should contain at least 19.5% but less than 23.5% oxygen by volume. Measurements should be taken at the top and bottom of the space. Measurements should be taken every 15 minutes by the attendant. Tests must be repeated after a stoppage exceeding 30 minutes. Results should be documented in the permit. Entry is not permitted if the oxygen level is less than 19.5% or greater than 23.5%.
    b. Lower Explosive Level (LEL): Potentially explosive vapors and dust should be at 10% before personnel may enter the proposed work area, ensuring the appropriate PPE is being worn.
    c. Toxic Atmosphere Testing: If it is determined that any of the following toxins (Tolune, Solvent, Isopropyl Alcohol, or any material that is capable of generating any material that has a ceiling PEL (permissible exposure limit) or LEL) were previously contained in the space, testing with color detection tubes (i.e. Drager tubes), chlorine detector, or the biosystems Detector should be conducted. If atmospheric contamination exceeds 10% of the PEL, the space should be ventilated until the level is below 10%. Safety Representative should be contacted if the contamination is immediately dangerous to life or health (IDLH). Entry is not permitted, except for emergency procedures approved by the Safety Representative, if toxic gases at an IDLH level exists. Measurements should be taken every 15 minutes by the attendant.
    d. Flammable Atmosphere Testing: If the space previously contained or currently contains flammable vapors, testing with a combustible gas indicator to determine the concentration of flammable gases and vapors must be conducted. If the

concentration of flammable gas or vapor exceeds 5% of the lower flammability limit, the space should be ventilated until the concentration is below 5%. Entry is not permitted if the concentration exceeds 5%. Measurements should be taken every 15 minutes by the attendant.

6. The following safety equipment may be needed during confined space entry:
   - Body harness with attached connections for chain or rope hoist.
   - Self Contained Breathing Apparatus (SCBA), two units minimum.
   - 20# ABC fire extinguisher when flammable materials are involved.
   - Emergency escape breathing apparatus. Requirements for use should be determined on a case-by-case basis.
   - Equipment (hoist, hand lines, etc.) for removing an incapacitated individual during an emergency.
   - Access Ladder.
   - Atmospheric monitoring instrumentation.
7. When the use of special protective equipment (respirators, gloves, clothing, eye protection, etc.) is required, their use should be specified in the entry permit and all associated training requirements should be met.

Entry Procedures

1. No person should enter a confined space until all preparations for entry have been completed, the permit has been approved, all conditions of this Entry Procedure have been met, and the entry is authorized.
2. No person should enter a confined space unless an attendant is on duty. The attendant must maintain visual and/or voice contact at all times with personnel in the confined space.
3. All personnel entering confined spaces and all attendants for entry should receive annual
   confined space entry and emergency rescue training.
4. Personnel using monitoring equipment should be trained in its use and calibration.
5. All electrical shock hazards should be protected by use of low voltage systems and/or ground fault protector.
6. Explosion-proof electrical equipment is required for entry into spaces where potential fire and/or explosion exists.
7. If conditions in the confined space change, personnel should be removed, the changes investigated, lock-outs re-verified, and the area re-monitored.
8. If confined space work continues past the initial shift, the Contractor should sign the permit, re-verify the lock-outs, re-monitor the atmosphere and record the data on the permit, verify that all other requirements of this procedure have been met, and inherit all of the responsibilities associated with the entry. This process should be repeated at the beginning of each subsequent shift.
9. When the job has been completed, the competent person should verify that all personnel and equipment have been removed from the confined space by signing the permit. This completed permit should then be retained by the Contractor for the duration of the job.
10. No one should enter confined spaces without a permit. Violations are grounds for dismissal. The Safety Representative should identify all confined spaces by sign, placard or other appropriate means. He should also identify the “permitter.” Only authorized permitter’s can issue a permit. The permitter should personally inspect,

examine and evaluate the confined spntry and should assure that all hazards have been identified before allowing entry.

(a) The permitter should discuss the following with all personnel:
    1. Emergency procedures.
    2. What the emergency - standby person must do.
    3. All permits are null and void in case of an emergency**.**
    4. How to request a re-check of the permit.
    5. What the permit does and does not authorize.
    6. The duration of the permit - one shift (or the duration of the entry, whichever is shorter).
    7. Permit postings. The permitter should post the permit as follows:
        a) The original - at the point of entry.
        b) The second copy - Contractor's office.
        c) The third copy - in the Safety Representative's office.
        d)
    8. The following work rules are unconditionally and automatically the requirements for confined space entry procedures:
        a) Ventilation should be of adequate volume to safely maintain the airflow within the confined space. (It is the responsibility of the Company to prove the calculations of the airflow volume).
        b) It is the responsibility of the Contractor to immediately report unsafe conditions.
        c) A flashlight should be carried by each person entering a confined space.
        d) Lighting used must be explosion proof, 12 volt system or flashlight.
        e) ..... Welding, cutting, brazing, and purging operations require specific requirements - consult with the permitter.
        f) Chemicals used or transported inside the confined space require specific requirements - consult with the permitter.

Rescue Equipment & Procedures

Equipment: The Safety Representative should require the following equipment to be on hand prior to confined space entry:

1. Lifelines
2. Safety belts
3. Self-contained breathing apparatus
4. Airline respirators
5. Rescue harness and ropes
6. Ropes, pulleys, and other rescue equipment
7. Horns, whistles, telephones, radios, etc. for communication
8. Fire fighting equipment
9. Explosion proof lighting and electrical equipment
10. 12" wide confined space or rope ladder

Rescue Procedures

1. Procedures outlined above are followed, (i.e. Atmospheric tests should be performed prior to and during entry and documented on the permit, etc.).
2. The attendant is equipped with an alarm horn prior to entry.
3. Any entrant into a vertical exit confined space must wear a parachute type harness.

Horizontal exit confined space requires a life line be worn in addition to the harness.

4. Life lines must be attached to a fixed object outside of the confined space.
5. All confined spaces with vertical exits should be equipped with means to attach a lifting winch (i.e. crank with handle, hoist, hauling apparatus with a rope, etc.) for victim rescue where tripod is impossible).

Training

Employees who perform tasked covered by the confined space entry policy (e.g. enter into confined spaces, measure atmospheric conditions in confined spaces, or perform rescue in a confined space) should be trained annually on site procedures and the use of permits and equipment.

Confined Space Evaluation Form

Date of Survey	**Confined Space #**	**Permit Required** o Yes o No If yes, space must be labeled.
Location of Space		
Description of Space		
Possible atmospheric hazards		
Possible content hazards		
Configuration of space		
Unusual hazards		

1. Space can be bodily entered?	o Yes o No	**4. Hazardous atmosphere?**	o Yes o No
2. Limited or restricted entry?	o Yes o No	**5. Potential for engulfment?**	o Yes o No
3. Not designed for continuous human occupancy?	o Yes o No	**6. Internal configuration hazard?**	o Yes o No
		7. Other serious safety hazards?	o Yes o No

Reasons for entering space & typical activities
Who usually enters space
Frequency of entry
Number of entry points
External connections to space
Survey completed by: (print & sign)

Confined Space Entry Permit

Confined Space # Hot Works Permit #	Permit Expires	Date/Time Began	Date/Time Finished
Location		Job Description	
Entrants		Attendants	
Supervisor		Safety Approval by:	

Atmospheric Testing & Monitoring

	Limits	Time/Results	Time/Results	Time/Results
Oxygen (19.5% - 23.5%)				
Flammables (< 10%)				
Explosive Gases (< LEL)				
Chemicals (list) (< PEL)				
Instrument:		Calibration:		

Hazards in Space

Contents: o Flammable o Irritant o Corrosive o Toxic o Dust o Asbestos o Solid o Liquid o Gas	**Configuration:** o Slippery or o sharp surfaces o vertical drop o low overhead o High or o Low temperature o Sloped	**Nature of Work:** o Welding o Cutting o Grinding o Chipping o Scraping o Spray cleaning	**Previous Content:** **Other:**

Isolation of Space

Electrical: o Lockout o Tagout	**Mechanical:** o Block linkage o Disconnect	**Piping:** o Lockout o Tagout o Blank o Block & Bleed	**Other:**
Hydraulic: o Lockout o Tagout o Disconnect Lines o Lock Pump & Bleed		**Pneumatic:** o Lockout o Tagout o Disconnect Lines o Lock Comp & Bleed	

Equipment Required

Respiratory Protection o SCBA o Sup. Air. o ABA o Pow. Air Cartridge resp: o Full o Half	**Cartridge** o Organic vapor o Acid Gas o Ammonia o Organic vapor/acid gas o HEPA o Dust/Mist

PPE o Coveralls o Hard-hat o Safety goggles o Safety shoes o Leather gloves o Ear plugs/muffs
o Welding hood o Welding jacket o Splash suit o Chemical gloves o Faceshield

Lighting o Flashlight o Handlight o Light sticks o Cord lights o Cords o Portable lights o Generator

Ventilation o Ventilator o 10' sections of duct o 20' sections of duct o Saddlevent o CFM Required

For Entry o Body Harness o Retrieval device o Tripod o Anchor point o Access ladder
o Emergency Signal o Communications o Personal alert device

For Rescue o Body Harness o Retrieval device o Tripod o Anchor point o Access ladder o Alarm horn
o Emergency signal o Communications o Personal alert device o SCBA o ABA o Rescue harness
o Escape mask o Wristlets

Other

Supervisor Signature:

Training Documentation for Confined Space

I have received training and understand all details concerning the confined space requirements.

I understand that I am required to follow the necessary precautions outlined in the confined space program.

I know the location of emergency phone numbers and communications systems, and the location of medical fire, and other emergency supplies.

Employee Name: _____

Signature: _____ Date: _____

Job Location: _____

D. Hot Works Program

Purpose:
To establish a procedure for the control of hazards associated with welding, cutting or the use of spark producing tools for the prevention of fire or subsequent injury to personnel.

Responsibility:
It is the responsibility of all employees/supervisors/managers who will either perform or oversee the operation or employee, to adhere to the requirements of the Hot Works Permit Program. The Safety Representative should designated a Hot Works Coordinator. It will be the responsibility of the Coordinator to evaluate all jobs prior to the work beginning to assess hazards and necessary controls required **before** any work will begin.

Scope:
This procedure applies to any hot work performed by any employee or contractor. This procedure does not apply to hot work performed in designated Safe Work areas.

Definitions:
Hot work

Work involving the use of open flame or spark producing tools such as, but not limited to, welding, cutting, brazing, soldering, electrical motor usage, drills, saws, and other open flames or electric arc and heat producing jobs and equipment that could ignite combustibles.

Safe Work Areas

These areas which have been designated-designed specifically for cutting, welding, grinding activities. The Hot Work Coordinator is responsible for designating all Safe Work Areas once he is assured of proper protection against combustibles.

Procedures:
1. A Hot Work Permit must be issued prior to initiating any hot work outside of a designated Hot Work Area. This site will be evaluated for potential fire and safety hazards by the Coordinator prior to starting the job. The Coordinator should carefully review activities to determine if a less hazardous mechanical method such as cutting with a hack saw can be used instead of more heat and spark producing methods.

2. Safe work permits are issued by the Safety Representative. The permit remains active for the duration of the work shift.

3. Where practical, all flammable and combustible materials shall be relocated at least 35 feet from the work area. Where relocation is impractical, combustibles and flammables shall be protected with flame proof covering or otherwise shielded with metal or flameproof curtains.

4. The person conducting the hot work will have a readily available fire extinguisher rated at a minimum of 2A:40BC.

5. Where potential for flammable or combustible vapors or gases might be present in the area,

these concentrations must be determined before work begins. The Hot Works Coordinator will determine the concentration of the vapors or gases, and this measurement recorded.

6. Hot works **shall not** be permitted if the concentration reaches 5% of the lower explosive limit (LEL). If combustibles gas meter indicates any concentration of flammable vapor, the hot works permit shall not be approved until the person approving the permit:
   a. Understands the source of the flammable-combustible vapors.
   b. Can assure that concentration will not increase to a dangerous level while work is underway.

7. When performing hot work overhead, if combustibles could inadvertently be moved into the area, or people enter the area, the area below must be roped off and posted.

8. Where possible, noncombustible barriers should be placed around and under hot works area to confine sparks.

9. A fire watch is a necessary step to implement whenever work is conducted, such as:
   a. All work in buildings and storage sheds;
   b. An appreciable amount of combustible material in building construction, contents or insulation is closer than 35 feet to the point of operation;
   c. An appreciable amount of combustible materials are more than 35 feet away from work, but can easily be reached by sparks, embers, etc.;
   d. Wall or floor openings are within 35 feet of work, including concealed spaces in walls or floors; and/or
   e. Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings or roofs and are likely to be ignited by conduction or radiation of heat.

10. Open drains which lead to underground drainage systems, which could contain flammable or combustible vapors, should:
    a. have testing for the presence of any flammable or combustible vapors done before starting work;
    b. have drains covered with fire blanket or similar protection to prevent access to sparks even if the atmosphere is safe; and/or
    c. if determined to contain flammable or combustible vapors, the system must be purged with nitrogen to below 5% lower explosive limit (LEL).

11. In areas immediately hazardous to life, hose masks, hose masks with blowers, or a self-contained breathing apparatus should be used in addition to suitable rescue equipment for confined space entry situations. All breathing equipment should be approved by US Bureau of Mines, NIOSH, or similar approval authority.

12. Employees are required to wear the proper personal protective equipment, such as coveralls, safety goggles, faceshield, welding hood, welding jacket, etc., as demanded by the type of work completed and required by the Hot Work Coordinator and/or Safety Representative.

Fire watch:

Having the appropriate extinguishing equipment ready and available and having the individual trained in its use are very important. As a minimum, an extinguisher with a rating of 2A:40BC

should be provided. For those jobs where a significant amount of combustibles are present within the 35-foot area, a hose stream up to 1" should be considered by the Safety Representative. The fire watch shall be familiar with all equipment for sounding an alarm in event to a fire, and any additional procedures necessary to summon aid.

They should watch for fires in all exposed areas, and try to extinguish them only when within the capacity of the equipment available. If the fire is of such magnitude that it is beyond the capacity of the fire watch to extinguish, the fire watch should summon aid (911) or the local emergency phone number.

The watch should be maintained until after the risk of fire has passed. This period should be at least 30 minutes after the completion of the job.

Sub-Contractors:

Sub-contractors are required to follow plant hot works procedures as outlined. The designated Safety Representative is responsible for ensuring that all procedures are followed.

Contractual language between the Company and sub-contractors can also help transfer exposures generated by having sub-contractors work on premises. A hold harmless agreement signed by the sub-contractor in our favor and being named as additional named insured within the sub-contractors insurance policy helps maintain a degree of protection should an incident occur. The sub-contractors policy limits should be at least equal to your total exposure to economic loss from a disastrous fire, at a minimum, this would include the full replacement cost of all your property plus your business interruption costs.

Hot Works Permit

Permit #	Permit Expires	Date/Time Job Began	Date/Time Job Finished
Building		Department	
Employee Completing Job		Supervisor	
Fire Watch Inspector		Hot Works Coordinator	
Location of work to be completed			
Description of work to be completed			
Equipment Required: o Fire Extinguisher o Hand hose o SCBA o ABA o Coveralls o Gas Detection Instrument o Safety Goggles o Faceshield o Welding Hood o Welding Jacket			

Safety Precautions

o Job can be completed in the maintenance shop	o Floor/Wall openings within 35 feet are tightly covered
o Job can be completed mechanically	o Surrounding floors swept clean & wet down (if needed)
o Flame/Spark-producing equipment inspected	o Personnel protective equipment worn as required
o Sprinklers operable & will not be taken out of service	o Fire watch assigned for at least ½ hour after job is completed
o Work confined to area/equipment specified in permit	o Fire extinguishers recharged after job is completed

Combustibles

o There are no combustible fibers, dusts, vapors, gases, or liquids in the area.
o A combustible gas detection instrument was used to verify the absence of gases or vapors
o Combustibles relocated 35 feet from operation and protected with noncombustible shields or flame-proofed curtains/covers
o Continuous monitoring of surrounding pipes, equipment, and tanks which may leak during

Signature of Hot Works Coordinator

Signature of Fire Watch Inspector

Training Documentation for Hot Works

I have received training and understand all details concerning the hot works requirements.

I understand that I am required to follow the necessary precautions outlined in the hot works program.

I know the location of emergency phone numbers and communications systems, and the location of medical, fire, and other emergency supplies.

Employee Name: _____

Signature: _____ Date: _____

Job Location: _____

E. Hazard Communication

Hazard Communication Program

I. Objective

The objective of this program is to set forth policies and procedures concerning Hazard Communication which will enhance the safety and well being of FireTech employees. Furthermore, execution of this program is designed to help FireTech comply with the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard.

II. Assignment of Responsibility

The designated Hazard Communication Officer is responsible for insuring that responsible persons noted herein adhere to this program and report properly. (It is encouraged that an alternate or back-up Hazard Communication Officer be assigned in case the primary is not available.)

Program

The following items are to be followed to insure compliance with the OSHA Hazard Communication Standard and the safety of our employees.

A. Hazardous Chemical List

A list of the hazardous materials and chemicals used in the course of FireTech activities will be maintained and updated. This list is to include all substances that require a Safety Data Sheet (SDS).

One copy of this list will be kept in the front of each SDS book and one copy will be kept on file with the designated Hazard Communication Officer. For each chemical used in the workplace, an SDS sheet must be available on that jobsite.

B. SDSs

FireTech will keep all SDSs will in an organized fashion and will place them in an accessible location for all employees to view at will. A duplicate set of SDS information will be maintained by the designated Hazard Communication Officer.

SDS books and the Hazardous Chemical List will be maintained and kept up to date by. As obsolete SDSs are replaced by updated copies, they will be retained for 30 years.

FireTech will verify that SDSs correctly reflect chemical reformulations, improvements, or updates.

If a hazardous chemical or substance is received without a proper SDS, the receiving person will immediately notify the designated Hazard Communication Officer. The designated Hazard Communication Officer will immediately contact the manufacturer or distributor of the product. If the manufacturer or distributor is unable to produce an SDS, the Hazard Communication Officer will return the product to the supplier.

(Note: Material Safety Data Sheets (MSDSs) cannot be used after June 1, 2015.)

C. Labeling and Pictograms

Each container of a hazardous chemical must be properly labeled with the identity of the hazardous material, the appropriate hazard warnings, pictogram(s), signal word(s), and the name and address of the manufacturer. Appropriate labels must be on all containers, regardless of size. Containers must be approved and recommended for storage and/or dispensing of the particular hazardous chemicals contained in them.

Worn and torn labels must be replaced. It is the responsibility of employees to report inappropriate labels to their supervisor. It is the responsibility of the Hazard Communication Officer to ensure that appropriate labels are in place and that replacement labels are available.

Portable containers of hazardous materials do not require labeling if the materials are transferred from labeled containers and are intended for immediate use by the employee who performs the transfer. Portable containers not immediately used will be emptied (and cleaned when necessary) during the shift.

D. Training

All full- and part-time employees, new hires, and contractors of FireTech are required to be trained on the following:

1. label elements;
2. pictograms;
3. SDS format to facilitate recognition and understanding of the product, its required personal protective equipment (PPE) , and first aid requirements;
4. the chemicals they will be exposed to;
5. locations of SDS; and
6. chemicals in supply lines within the site.

(Note: If required, Department of Transportation (DOT) pictograms and identification placards should also be included in this training.)

Each affected employee working for or associated with FireTech is required to review the training material with the designated Hazard Communication Officer and sign the acknowledgment form, which will be placed in the employee's file. This training is to be done during the new employee orientation process before the new employee assumes status as an active employee.
Employees will receive training on any new hazardous chemical/material introduced into the workplace before the chemical/material is used or when changes are made to the program.

E. Storage

All storage areas for hazardous substances will be secured, properly ventilated, and identified by signs.

F. Non-Routine Tasks

Before any non-routine task is performed, employees shall be advised and/or they must contact the supervisor for special precautions to follow and the Supervisor shall inform any other personnel who could be exposed.

If a non-routine task is necessary, the Supervisor will provide the affected employees with information about the activity as it relates to the specific chemicals expected to be encountered:

1. specific chemical name(s) and hazard(s);
2. personal protective equipment required and safety measures to be taken;
3. measures that have been taken to lessen the hazards including ventilation, respirators; and
4. emergency procedures.

The Supervisor will contact each contractor before work starts to gather and disseminate any information concerning chemical hazards the contractor is bringing into the workplace.

G. Program Compliance

Any direct or intentional violation or non-compliance with this program may result in the termination of the person or persons involved in accordance with company policy.

Acknowledgement of Receipt of Hazard Communication Training

My signature below acknowledges I have received training concerning Hazard Communications. I understand that this training fulfills the employee training requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard.

The jobsite and classroom training included the following:

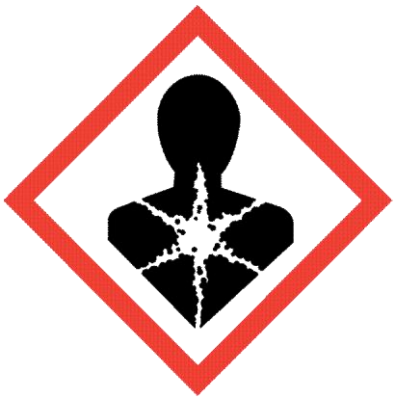
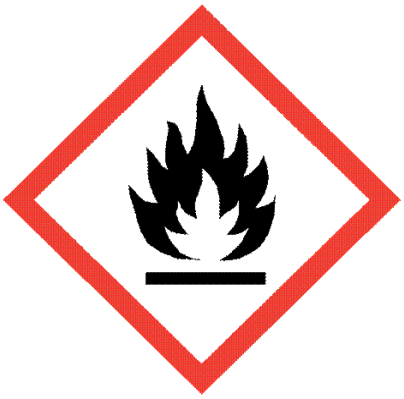
1. Understanding the purpose and scope of the OSHA Hazard Communication Standard.
2. Explanation of the existence of federal, state and local right-to-know laws.
3. Definition of the classification "hazardous chemical."
4. Explanation of situations and elements that must be present for a material to be considered a health hazard.
5. Explanation and interpretation of labels, what is required on all containers, and the Hazard Materials Identification System (HMIS).
6. Understanding and interpretation of Safety Data Sheets and pictogram(s).
7. My responsibilities as an employee of FireTech.
8. Policies and procedures to follow in case of exposure.

Employee Signature: _____ Date of Training: _____

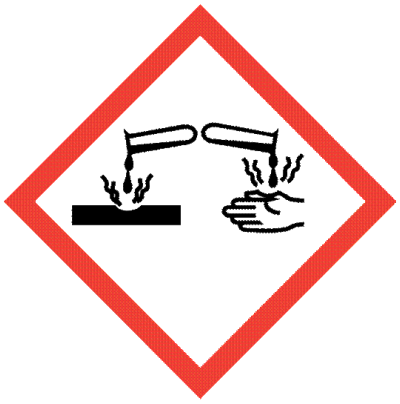
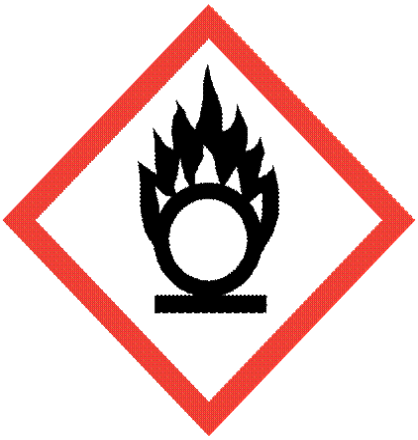
Sample Hazardous Materials and Chemicals List

INDEX NUMBER	PRODUCT	HAZARD CLASSIFICATION SYSTEM (HMIS)	DATE INTRODUCED	DATE DISCONTINUED

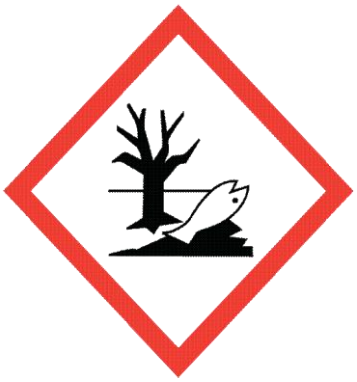
Pictograms and Hazards

HEALTH HAZARD	FLAME	GAS CYLINDER
		
Carcinogen Mutagenicity Reproductive Toxicity Respiratory Sensitizer Target Organ Toxicity Aspiration Toxicity	Flammable Pyrophorics Self-Heating Emits Flammable Gas Self-Peroxides	Gases Under Pressure

Notes:

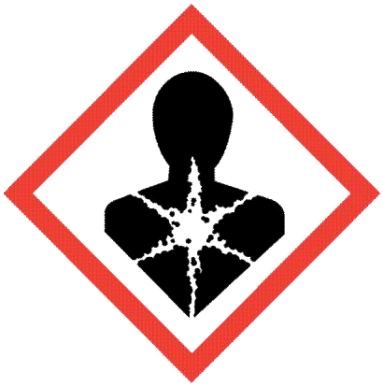
CORROSION	EXCLAMATION MARK*	FLAME OVER CIRCLE
		
Skin Corrosion/Burns Eye Damage Corrosive to Metals	Irritant (skin and eye) Skin Sensitizer Acute Toxicity Narcotic Effects Respiratory Tract Irritant Hazardous to Ozone Layer *(Non-Mandatory)	Oxidizers

Notes:

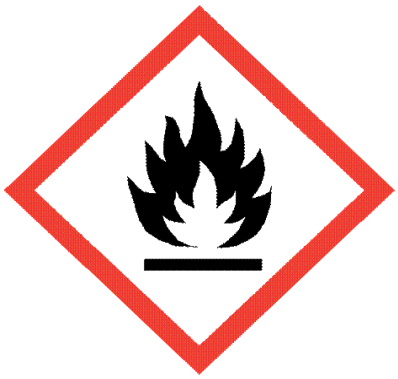
EXPLODING BOMB	SKULL AND CROSSBONES	ENVIRONMENT*
		
Explosives Self-Reactives Organic Peroxides	Acute Toxicity (fatal or toxic)	Aquatic Toxicity *(Non-Mandatory)

Notes:

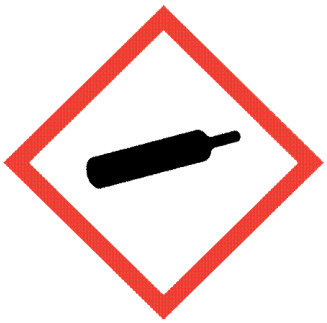
Pictogram Memory Exercise



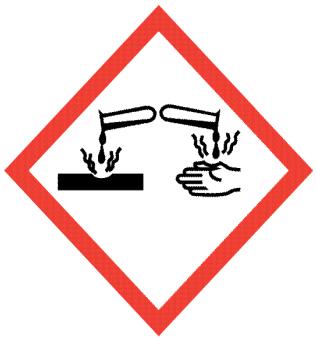
(Name this Pictogram)



(Name this Pictogram)

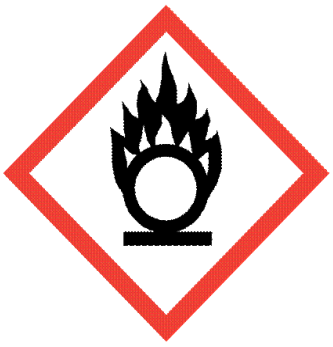


(Name this Pictogram)



(Name this Pictogram)

(Name this Pictogram)



(Name this Pictogram)

(Name this Pictogram)

SAMPLE LABEL

PRODUCT IDENTIFIER

CODE

Product Name

SUPPLIER IDENTIFICATION

FireTech

Street Address _____

City _____ State _____

Postal Code _____ Country _____

Emergency Phone Number _____

PRECAUTIONARY STATEMENTS

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

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

First Aid

If exposed call Poison Center.

If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

HAZARD PICTOGRAMS

SIGNAL WORD

Danger

HAZARD STATEMENT

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

SUPPLEMENTAL INFORMATION

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

SECTIONS ON A SAFETY DATA SHEET

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format that must include the section numbers, headings, and associated information listed below:

Section 1, Identification
Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; and restrictions on use.

Section 2, Hazard(s) identification
Includes all hazards regarding the chemical and required label elements.

Section 3, Composition/information on ingredients
Includes information on chemical ingredients and trade secret claims.

Section 4, First-aid measures
Includes important symptoms/effects, including acute or delayed and required treatment.

Section 5, Fire-fighting measures
Lists suitable extinguishing techniques and equipment and chemical hazards from fire.

Section 6, Accidental release measures
Lists emergency procedures; protective equipment; proper methods of containment; and cleanup.

Section 7, Handling and storage
Lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection Lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; and personal protective equipment.

Section 9, Physical and chemical properties
Lists the chemical's characteristics.

Section 10, Stability and reactivity
Lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information
Includes routes of exposure; related symptoms including acute and chronic effects; and numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information
Includes the date of preparation or last revision.

F. Personal Protective Equipment

Purpose

To provide guidelines concerning the proper use of Personal Protective Equipment and to comply with
OSHA standards.

Definition

PPE includes clothing and other accessories designed to create a barrier between the user and workplace hazards. It should be used in conjunction with engineering, work practice and/or administrative controls to provide maximum employee safety and health in the workplace.

Responsibility

All sub-contractors are responsible for providing and insuring the use of required personal protective equipment. All employees should use protective equipment described by local, state, federal, and Construction Management's rules and regulations to control or eliminate any hazard or other exposure to illness or injury.

Training

Proper employee training on the correct usage of PPE will likely eliminate many accidents and injuries from occurring. Before performing any work that requires the use of PPE, the Safety Representative, or his/her delegate, must train employees on the following:

- When and what types of PPE are necessary;
- How the PPE is to be used; and
- What the PPE's limitations are.

In many cases, more than one type of PPE will provide adequate protection. In such cases, employees should have their choice of which type of protection they would like to use.

The company is required to document in writing that training has been performed and that employees understand all trained materials. Written certifications should contain the names of all employees trained, the date(s) of training, and the PPE requirements.

Hazard Assessment Form

Facility:	Assessor:
Area:	Date of Assessment:
Task or Job Function:	

SECTION 1. Hazards (Check the appropriate box)			SECTION 2. Describe Specific Eye Hazards	SECTION 3. Identify type of PPE required for those eye hazards outlined in Section 2
Eye Hazard	YES	NO		
Impact				
Penetration				
Chemical				
Heat				
Light/Radiation				

SECTION 1. Hazards (Check the appropriate box)			SECTION 2. Describe Specific Head Hazards	SECTION 3. Identify type of PPE required for those hazards outlined in Section 2. Check one.
Head Hazard	YES	NO		No head protection is needed
Burn				Class A
Electric Shock				Class B
Impact				Class C
Penetration				
Chemical				

SECTION 1. Hazards (Check the appropriate box)			SECTION 2. Describe Specific Foot Hazards	SECTION 3. Identify type of PPE required for those foot hazards delineated in Section 2.
Foot Hazard	YES	NO		
Chemical				
Compression				
Impact				
Puncture				
Penetration				

SECTION 1. Hazards (Check the appropriate box)			SECTION 2. Describe Specific Hand Hazards	SECTION 3. Identify type of PPE required for those hand hazards delineated in Section 2.
Hand Hazard	YES	NO		
Burn				
Electric Shock				
Impact				
Penetration				
Chemical				

SECTION 1. Hazards (Check the appropriate box)			SECTION 2. Describe Specific Respiratory Hazards	SECTION 3. Type of Respirator Needed Circle One
Respiratory Hazard	YES	NO		Half Face
Gas				Full Face
Vapor				Quarter Face
Fumes				Powered Air
Dust				Purifying (PAPR)
Mist				Air Line
Asphyxia				Escape Pack
Particulates				None Needed

SECTION 1. Other Hazards (Fill in those that apply)	SECTION 2. Describe Other Hazards	SECTION 3. Identify type of PPE needed for other hazards.

Training Documentation for Personal Protective Equipment

I have received training on the details of my company's Personal Protective Equipment Program.

I understand that I am required to follow all necessary precautions outlined in the Personal Protective Equipment Program.

I know the location of emergency phone numbers and communications systems, and the location of medical, fire, and other emergency supplies.

Employee Name: _____

Signature: _____ Date: _____

Job Location: _____

Types of Protection

1. **Head Protection -**The wearing of approved non-conductive safety hats is mandatory in all construction areas **100% of the time**. Refer to ANSI Z89.1 Safety Requirements for Industrial Head Protection. **No exceptions!**

   Helmet Selection
   Proper helmet selection is critical in preventing head injuries from occurring. Each type and class of helmet is intended to protect against specific hazards. The Safety Representative, or his/her delegate, is responsible for making sure employees wear the proper helmet.

   The following types and classes of protective helmets are available:

   Type 1 - helmets with full brim, not less than 1¼ inches wide;
   Type 2 - brimless helmets with a peak extending forward from the crown.

   For industrial purposes, three classes are recognized;

   Class A - general service, limited voltage protection;
   Class B - utility service, high-voltage protection; and
   Class C - special service, no voltage protection.

   Helmets under Class A are intended for protection against impact hazards. They are predominately used in manufacturing, construction, shipbuilding, tunneling, lumbering and mining industries.

   Class B utility service helmets protect against impact and penetration from falling objects and from high-voltage shock and burn. They are used mostly by electrical workers.

   Class C helmets are designed specifically for lightweight comfort and impact protection. They are typically manufactured from aluminum and offer no dielectric protection. Class C helmets are often used in construction and manufacturing occupations, oil fields, refineries, and chemical plants.

   All helmets should be water-resistant and made of slow burning material when exposed to heat. The helmet type should be located inside the shell along with the manufacturer's name, ANSI designation, and class.

   Helmet Fit
   A properly fitting helmet should be snug on the head. The helmet's headband should be adjusted accordingly to receive the proper fit. When the headband is adjusted properly, it provides sufficient clearance between the shell and headband.

   Helmet Inspection and Maintenance
   Manufacturer's specifications should be followed with regard to the proper cleaning methods. Helmets should be cleaned by dipping them in hot, soapy water. They should then be scrubbed and rinsed in clear, hot water. After rinsing, the shell should be carefully inspected for signs of damage. It is the employee's responsibility to keep their helmet clean.

All components, shells, suspensions, headbands, sweatbands, and accessories should be inspected daily for dents, cracks, penetration, or any other damage that might reduce the original degree of safety. Damaged helmets should be replaced immediately.

2. **Eye and Face Protection** - Safety glasses with side shields should be provided by the Contractor and are mandatory at all times.
   a. All construction areas require 100% eye protection at all times. Minimum eye protection includes approved safety glasses with side shields or mono-goggles meeting the standards specified in ANSI Z87.1
   b. Additional eye and face protection should be used by employees when:
      1. Welding, burning, or using cutting torches
      2. Using abrasive wheels, grinders, or files
      3. Chipping concrete, stone, or metal
      4. Working with any materials subject to scaling, flaking, or chipping
      5. Drilling or working under dusty conditions
      6. Sanding or water blasting
      7. Waterproofing
      8. Using explosive actuated fastening or nailing tools
      9. Working with compressed air or other gases
      10. Working with chemicals or other hazardous materials
      11. Using chop, chain, or masonry saws
      12. Working near any of the above named operations

   To protect from injurious light radiation, all affected employees should use equipment with filter lenses. The following chart outlines appropriate shade numbers for various operations.

Filter Lenses for Protection Against Radiant Energy

Operation	Electrode Size (1/32)	Amps	Minimum Protective Shade*
Shielded metal arc welding	Less than 3/32	Less than 60	7
	3/32-5/32	60-160	8
	5/32-8/32	160-250	10
	More than 8/32	250-500	11
Gas metal and flux cored arc welding		Less than 60	7
		60-160	10
		160-250	10
		250-500	10
Gas tungsten arc welding		Less than 50	8
		50-150	8
		150-500	10
Air carbon	Light	Less than 500	10
Arc cutting	Heavy	500-1000	11
Plasma arc welding		Less than 20	6
		20-100	8
		100-400	10
		400-800	11
Plasma arc cutting	Light**	Less than 300	8
	Medium**	300-400	9
	Heavy**	400-800	10
Torch soldering			2
Torch brazing			3
Carbon arc welding			14
Gas Welding:			
Light	Under 1/8	Under 3.2	4
Medium	1/8-1/2	3.2-150	5
Heavy	Over 1/2	Over 12.7	6
Oxygen Cutting:			
Light	Under 1	Under 25	3
Medium	1-6	25-50	4
Heavy	Over 6	Over 50	5

*In selecting eye and face protection, start with a shade that is too dark to see the weld zone. Then, without going below the minimum, go to a lighter shade which gives sufficient view of the weld zone. In oxyfuel gas welding or cutting where the torch produces a bright yellow light, it is recommended that a filter lens be used to absorb the yellow or sodium line in the visible light of the (spectrum) operation.

**These values apply where the actual arc is clearly seen. Experience has shown that lighter filters might be used when the arc is hidden by the workpiece.

Selection

The are different types of eye and face protection designed for particular hazards. In selecting protection, consider type and degree of hazard. Where a choice of protection is given, worker comfort should be the deciding factor in selecting eye protection.

Employees who use corrective eye glasses should wear face shields, goggles, or spectacles of one of the following types:

- Spectacles with protective lenses providing optical correction;
- Goggles or face shields worn over corrective spectacles without disturbing the adjustment of the spectacles; or
- Goggles that incorporate corrective lenses mounted behind the protective lenses.

Fit

Skilled persons should fit all employees with goggles or safety spectacles. Prescription safety glasses should be fitted by qualified optical personnel.

Inspection and Maintenance

Eye protection lenses should be kept clean at all times. Continuous vision through dirty lenses can cause eye strain. Daily inspection and cleaning of eye protection with hot, soapy water is also recommended. Pitted lenses should also be replaced immediately as they can be a source of reduced vision. Deeply scratched or excessively pitted lenses are also more likely to break Employees are responsible for taking care of their eye protection. They are also responsible for turning in eye protection that is in poor shape to their immediate supervisor.

3. **Respiratory Protection -** Respiratory protection devices approved by the U.S. Bureau of Mines should be provided by the Contractor and worn by employees exposed to hazardous concentrations of toxic or noxious dust, fumes or mists as required by OSHA. The Hazard Communications Program should include respiratory protection programs. Refer to the Respiratory Protection Program of this manual for more information.

4. **Hearing Protection -** Exposure to high noise levels can cause hearing loss or impairment and can create physical and psychological stress. There is no cure for noise-induced hearing loss, so the prevention of excessive noise exposure is the only way to avoid hearing damage. Specifically designed protection is required, depending on the type of noise encountered and the auditory condition of each employee.

   The Safety Representative, or his/her delegate, is responsible for providing appropriate hearing protection to employees. Pre-formed or molded earplugs are the best form of hearing protection. They should be individually fitted by a professional. Waxed cotton, foam, or fiberglass wool earplugs can also be used as hearing protection. When used properly, they work as well as most molded earplugs. Disposable earplugs should be discarded after usage. For proper protection, non-disposable earplugs should be cleaned after each use. Plain cotton should not be used as it does not effectively protect against hazardous noises.

5. **Foot and Leg Protection -** Workshoes/boots are to be worn by all employees. Tennis shoes, sandals, docksiders, hush puppies, steel toed sneakers and bare feet are prohibited. In addition to safety shoes, canvas or leather leggings and spats should be worn by welders, metal lancers, or anyone working around molten metal.

6. **Glove and Hand Protection -** Gloves provided by the Company should be worn when handling objects or substances that could cut, tear, burn, or otherwise injure the hand. Gloves should not be used when operating drill presses, power saws, or similar rotating machinery.

7. **Clothing -** Wear safe and practical working apparel. Be sure that any clothing you wear is not highly flammable. Neckties and loose, torn or ragged clothing should not be worn while operating lathes, drill presses, reamers and other machines with revolving spindles or cutting tools. Jewelry of any kind should not be worn when working around machinery or exposed electrical equipment.

8. **Hair -** Employees wearing long hair, beards, or mustaches will not work with rotating machinery or equipment, or use respiratory equipment, if their hair, beard, or mustache constitute a potential hazard. Judgment will be made by the immediate supervisor and reviewed by the Safety Representative.

9. **Other Personal Protective Equipment -** Other required equipment to be used under unusual circumstances such as high temperature work, handling corrosive liquids, etc., not specifically covered in this section should be reviewed by the Safety Representative and furnished by the Company when required.

G. Respiratory Protection Program

Purpose:

To establish a procedure that ensures employee protection from respiratory hazards through the proper use of respirators and engineering control.

Responsibility:

The Company is responsible for installing and operating any necessary pollution control or ventilation systems and operating procedures required to ensure the safety of employees. When engineering controls are not feasible employees and supervisors must adhere to the procedures outlined in the Respiratory Protection Program. The Safety Representative is responsible for respiratory protection program compliance and the purchase of proper equipment to ensure respiratory safety. The Safety Representative should train employees and supervisors on the proper use and limitations of respirators.

Procedures:

1. Respirators should be selected by the Safety Representative based on hazards to which the employee is exposed. The respirators must meet all government requirements and be approved by the Safety Representative.

2. Employees should be trained in the proper use of respirators, including:
   a. Instructions on how to fit, inspect, adjust, clean and care for respirators;
   b. Directions on selecting the proper respirator based on present conditions; and
   c. Wearing of the respirator in a test atmosphere under observation by the Safety Representative

3. OSHA regulations state that respirators should not be worn when conditions prevent a good face seal. These conditions include: beards, sideburns, and a skull cap that projects under the facepiece. Mustaches and sideburns should be trimmed in such a manner as not to touch the internal or external sealing edges of the respirator. Furthermore, the absence of one or more dentures can affect the fit of a facepiece. The facepiece should be checked before use to ensure proper fit.

4. When possible, respirators should be assigned to individual workers.

5. Respirators should be kept clean and maintained by the assigned person. Respirators should be cleaned after each use and inspected by the Safety Representative.

6. The employee is responsible for maintaining his respirator. The employee should inform the Safety Representative of any missing, defective, or worn parts so that parts can be replaced.

7. Respirators for emergency use, such as a self-contained breathing apparatus (SCBA), should be thoroughly inspected after each use by the Safety Representative. Inspection of . SCBA breathing gas pressure should be performed weekly.

Training Documentation for Respiratory Protection

I have received training on the details of the Company's respiratory protection program.

I understand that I am required to follow the necessary precautions outlined in the respiratory protection program.

I know the location of emergency phone numbers and communications systems, and the location of medical, fire, and other emergency supplies.

Employee Name: _____

Signature: _____ Date: _____

Job Location: _____

H. Bloodborne Pathogen Exposure Control

Purpose
To establish guidelines to protect employees who, in response to medical emergencies, may be potentially exposed to blood and/or body fluids.

Scope
This policy covers employees qualification, compliance methods, vaccinations, training, and recordkeeping.

Policy:
Employee Qualification
1. All employees should follow the precautions provided in this policy. Some employees may have more potential for exposure. These employees must take additional precautions, such as wearing personal protective equipment. The following job classifications fall in this category:

Physicians/Nurses/Medical Examiners	Dentists/Dental Workers
Pathologists	Laboratory Personnel
Medical Technologists	Emergency Medical Technicians
Applicable Maintenance Personnel	Emergency Response Personnel
Applicable Housekeepers	First Aid/CPR Volunteers
Laundry Workers	Funeral Service Personnel
Firefighters	Police Personnel

Compliance Methods
Three compliance methods will be observed in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material (i.e. body fluids) will be considered infectious regardless of the perceived status of the source individual.

These compliance methods include: 1) engineering & work practice controls, 2) housekeeping, and 3) personal protective equipment.

A. Engineering & Work Practice Controls:
   1. Controls should be in place to minimize or eliminate exposure (i.e. sharps disposable containers, self sheathing needles, etc.). Contaminated sharps should be placed immediately, or as soon as possible after use, into appropriate containers. The containers are closable, puncture resistant, leakproof, and labeled with a biohazard .....label. Contaminated needles should not be bent, recapped, removed, sheared, or intentionally broken.
   2. All employees will wash hands using soap, running water, and friction if potential exposure exists. Handwashing facilities are readily accessible to employees and are located throughout the facility. Handwashing should be done (at a minimum):
      a. At the beginning and the end of a work shift
      b. Prior to physical contact with an employee, patient, etc.
      c. Immediately after or as soon as feasible following contact with blood or potentially infectious materials.
      d. Immediately after or as soon as feasible after removal of gloves or other personal protective equipment.

3. Procedures involving blood or other potentially infectious materials should be performed as to minimize splashing, spraying, spattering, aerosolization, and generation of droplets.
4. In work areas where there is a reasonable likelihood or potential exposure to blood or other infectious materials, employees are not to eat, drink, smoke, apply cosmetics or lip balm, handle contact lenses, or use hand lotions. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter or bench tops where blood or other infectious materials are present.
5. Specimens of blood or other infectious materials will be placed in a container which prevents leakage during the collection, handling, processing, storage, and transport of the specimens. The containers will be labeled and color coded in accordance with OSHA standards. The ... container must be closed prior to storage, transport, and shipping. If outside contamination of ...the primary container occurs, the primary container shall be placed within a secondary ..... container which prevents leakage during the handling, processing, storage, transport, and/or shipping of the specimen. The secondary container may be a zip-lock or other sealable plastic bag.
6. Equipment which has become contaminated with blood or other infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

B. Housekeeping:
1. Contaminated work surfaces will be decontaminated with an appropriate disinfectant immediately or as soon as feasible. An appropriate disinfectant is registered with the EPA as HIV- and HBV-effective (i.e. a solution of 5.25% sodium hypochlorite (household bleach) diluted between 1:10 and 1:100 = 1 cup bleach per 2 gallons of water).
2. A blood and body fluid spill kit will be retained at each nurses station for use in the case of a spill of blood or other potentially infectious material. The kit should contain: 1) a pair of vinyl or latex gloves, 2) two pieces of absorbent material, such as a cloth or paper towel, 3) a small bucket or spray bottle, 4) two plastic bags, 5) disinfectant.
3. If the floor or other surfaces have been contaminated with blood or other potentially infectious materials, the employee should do the following:
   a. Put on gloves
   b. Lay out a bag in an open fashion
   c. Dampen first piece of absorbent material and mop up spill.
   d. Deposit material in bag. Avoid touching outside of bag.
   e. If outside of bag is contaminated, put contaminated bag into second bag.
   f. Dampen second piece of absorbent material and clean floor or surface. Deposit into bag.
   g. Tie bag snugly.
   h. Dispose of bag in common waste container.
   i. Return buck or spray bottle to storage area. Restock used items in spill kit.
   j. Wash hands after removing gloves.
4. Regulated waste shall be placed in approved properly labeled containers and disposed according to established regulatory procedures.
5. Laundry, which includes linens and reusable personal protective equipment, should be handled as little as possible and with minimum agitation, bagged, and containerized.
6. Contaminated laundry will not be sorted or rinsed in the location of use. Whenever laundry is wet, the laundry shall be placed and transported in bags or containers designed

to prevent soak through and/or leakage. Employees handling soiled laundry shall wear disposable or utility gloves and gowns. The facility shall wash contaminated ...laundry according to recommendations outlined by the Center for Disease Control (i.e. wash with detergent and water at 160°F for 25 minutes).

C. Personal Protective Equipment:
   1. Personal protective equipment will be provided to employees, based on anticipated exposures. The protective equipment will be considered appropriate only if does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth under normal conditions of use and for the duration of time which the protective equipment will be used. The following protective equipment is available and should be used, cleaned, laundered and/or disposed of as appropriate.

      a. Disposable gloves, gown/apron, shoe covers, surgical mask/cap, and breathsaver resuscitator.
      b. Eye/Face protection device
      c. Lab coats, clinic jacket

   2. Gloves, gowns (or aprons, lab coats, or clinic jackets), shoe covers, and masks/caps must be worn when it is reasonably anticipated that the employee may have direct contact with blood or other potentially infectious materials. Disposable breathsaver ....resuscitators provide emergency breathing capability to the victim without direct mouth- ... to-mouth contact. Eye/face protection devices, such as surgical masks and caps, goggles, glasses with solid side shields, or chin-length face shields, must be worn ... whenever splashes, spray, spatter, droplets of blood, or other potentially infectious materials may be generated.

Vaccinations & Evaluations

A. All employees who have been identified as having exposure to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment, involving the potential for occupational exposure to blood or other potentially infectious materials. Employees who previously had the vaccine may submit to anti-body testing which shows the employee to have sufficient immunity.

B. Post-exposure evaluations and follow-ups are provided for an employee who has been exposed to an incident involving the release of blood or potentially infectious materials.

C. The Maintenance Record Form (at the end of this Plan) includes a record of vaccinations, evaluations, and follow-ups, or an employee's signed statement declining these services. The completed form shall be retained by the personnel department.

Training

All applicable employees shall be trained in conjunction with applicable requirements for certification (e.g. EMT, CPR, First Aid). Where independent training is not available, company-sponsored training will be offered. Annual retraining will also be made available in accordance with OSHA standards. A record of training shall be included on the Maintenance Record Form.

Additional training will include:

1. OSHA standards for bloodborne pathogens
2. Exposure Control Plan review
3. Procedures at this facility which may cause exposure to blood or other potentially infectious materials
4. Control methods which will be used at the facility
5. Personal Protective Equipment available
6. Hepatitis B Vaccination program
7. Post exposure evaluation & follow-up
8. Signs & labels used at the facility

Recordkeeping

The Maintenance Record Form maintains the following information in accordance with OSHA requirements. The completed form shall be maintained by the Personnel Department. The Safety Representative shall maintain a summary log of employees' training, vaccinations, and issued Personal Protective Equipment. A sample is provided following the Maintenance Record Form.

Employee Name & Social Security Number (SS #)	Record of Post-Exposure Evaluations & Follow-ups
FireTech, Department, & Location	Personal Protective Equipment Provided
Hepatitis B Vaccination Record	Training Record
Employee Signature	

Bloodborne Pathogen Exposure Control Maintenance Record

Distribution: o Copy to Personnel o Copy to Employee o Copy Supervisor o Copy _____
Employee Name: _____ SS #: _____
FireTech: _____
Dept: _____ Location: _____

Hepatitis B Vaccination Record*
Date: _____ Physician: _____
Date: _____ Physician: _____
Date: _____ Physician: _____

Post-Exposure Evaluation/Follow-up
Date: _____ Incident: _____
Date: _____ Incident: _____
Date: _____ Incident: _____

*I have been offered the opportunity to receive a Hepatitis B vaccination and hereby decline this opportunity. Signature: _____

Personal Protective Equipment Record
I have received the following equipment and maintain it in good condition:

	Date of Issue and Reissue		
Disposable Gloves			
Surgical Mask & Cap			
Eye/Face Protection			
Gown, Apron, Shoe Cover			
Breathsaver Respirator			
Other:			

Training Record

Type(s) of Certification: _____
Initial Training:
Subject: _____ Date: _____
Annual Retraining:
Subject: _____ Date: _____

Confirmation of Policy Receipt and Review
I have received a copy of the Bloodborne Pathogen Exposure Control Plan. I have reviewed the Plan, understand it, and agree to abide by it.

Employee's Signature: _____ Date: _____
Supervisor's Signature: _____ Date: _____

I. Violence Prevention Program

Purpose
To establish guidelines to protect employees against workplace violence.

Policy
Nothing is more important to the Company than the safety and well being of its employees. Threats, threatening behavior, or acts of violence against employees, visitors, guests, or other individuals by anyone on Company property will not be tolerated. Violations of this policy will lead to disciplinary action, which may include dismissal, arrest, and prosecution.

Any person who makes substantial threats, exhibits threatening behavior, engages in violent acts, or brings a weapon onto Company property shall be removed from the premises as quickly as safety permits and shall remain off premises pending the outcome of an investigation. The Company will initiate an appropriate response, including but not limited to suspension, reassignment of duties, termination of employment and/or business relationship, and/or criminal prosecution of the person(s) involved.

No existing policy, practice, or procedure should be interpreted to prohibit decisions designed to prevent a threat from being carried out, a violent act from occurring, or a life-threatening situation from developing.

All Company personnel are responsible for notifying their supervisor or the management representative(s) designated below of any threats that they have witnessed, received, or have been told that another person has witnessed or received. Even without an actual threat, personnel should also report any behavior they have witnessed which they regard as threatening or violent, when that behavior is job related or might be carried out on at a Company site. Employees are responsible for making this report regardless of the relationship between the individual initiating the threat or threatening behavior and the person(s) receiving the threat, including domestic problems which they fear may result in violent acts against them or a coworker.

All individuals who apply for or obtain a protective or restraining order which lists the Company locations as protected areas must provide a copy of the petition used to obtain the order, as well as a copy of the protective or restraining order which was granted, to their immediate supervisor or the designated representative(s) listed below.

The Company understands the sensitivity of the information requested and has developed confidentiality procedures that recognize and respect the privacy of the reporting employee(s).

The designated management representative(s):
Name: _____
Title: _____ Dept: _____
Location: _____ Telephone: _____

J. Fall Protection

Purpose
To establish guidelines to prevent employees from sustaining serious injury if they fall on the job.

Policy
OSHA has revised its construction industry safety standards for fall protection requirements and has developed systems and procedures designed to prevent employees from falling off, onto, or through working levels and to protect them from being struck by falling objects. These policies cover all construction workers except those inspecting, investigating, or assessing workplace conditions prior to the actual start of work or after all work has been completed.

These policies identify areas where fall protection is needed. These areas include ramps, runways, walkways, excavations, hoist areas, holes, formwork and reinforcing steel, leading edge work, unprotected sides and edges, overhand bricklaying, roofing, pre-cast concrete erection, wall openings, and residential construction. These policies set a uniform threshold height of 6 feet, thereby providing consistent protection. This means that the company must protect employees from fall hazards and falling objects whenever an employee is 6 feet or more above a lower level.

Under these new standards, management will have the flexibility to select fall protection measures compatible with the type of work being performed. Fall protection generally can be provided through the use of guardrails, safety nets, personal fall arrest systems, positioning device systems, and warning line systems.

Duty to Have Fall Protection
The Company is required to assess all new job-sites prior to any work being performed to determine if the walking/working surfaces have the strength to safely support workers. Employees are not permitted to work on any new surfaces until those surfaces are determined to be safe. Once the Safety Representative determines that the surface is safe, the Safety Representative must select one of the options previously listed for the work operation if a fall hazard is present (guardrails, safety nets, etc.).

Controlled Access Zones
A controlled access zone is a work area designated and clearly marked in which certain types of work may take place without the use of conventional fall protection systems to protect the employees working in the zone. These are used to keep out workers other than those authorized to enter work areas from which guardrails have been removed. Where there are no guardrails, masons are the only workers allowed in controlled access zones.

Controlled access zones, when created to limit entrance to areas where leading edge work and other operations are taking place, must be defined by a control line or by any other means that restricts access. Control lines should consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions. Each must be:

- Flagged or clearly marked at not more than 6 foot intervals with high-visibility material;
- Supported so that the lowest point is not less than 39 inches from the walking/working surface and the highest point is not more than 45 inches from the walking/working surface;
- Strong enough to sustain stress of at least 200 pounds. Control lines should extend along

the entire length of the unprotected or leading edge and should be parallel to this edge; and
- Control lines also must be connected on each side to a guardrail system or wall.

When control lines are used, they should be erected not less than 6 feet nor more than 25 feet from the unprotected or leading edge, except when precast concrete members are being erected. With pre-cast concrete member erection, the control line should be at least 6 feet but less than 60 feet from the leading edge.

Controlled access zones, when used to determine access to areas where overhead bricklaying and related work are taking place, are to be defined by a control line erected at least 10 feet but not more than 15 feet from the working edge. Additional control lines must be erected at each end to enclose the controlled access zone. Only employees engaged in overhand bricklaying or related work are permitted in the controlled access zones.

On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, controlled access zones will be enlarged as necessary to enclose all points of access, material handling areas, and storage areas. On floors and roofs where guardrail systems are in place, but need to be removed to allow overhand bricklaying work or leading edge work to take place, only that portion of the guardrail necessary to accomplish that day's work should be removed.

Excavations

Each employee at the edge of excavation 6 feet or more deep should be protected from falling by a guardrail system, fence, barricade, or cover. Where walkways are provided to permit employees to cross over excavations, guardrails are required on the walkway if it is 6 feet or more above the excavation.

Hoist Areas

Each employee in a hoist area should be protected from falling 6 feet or more by guardrail systems or personal fall arrest systems. If guardrail systems must be removed to facilitate hoisting operations, as during the landing of materials, and a worker must lean through the access opening or out over the edge of the access opening to receive or guide equipment and materials, that employee must be protected by a personal fall arrest system.

Leading Edges

Employees constructing a leading edge 6 feet or more above lower levels should be protected by guardrail systems, safety net systems, or personal fall arrest systems.

If the competent person can demonstrate that it is infeasible or creates a greater hazard to implement these systems, he or she must develop and implement a fall protection plan that meets the requirements of 29 CFR 1926.502(k).

Fall Protection Systems Criteria and Practices

Guardrail Systems must meet the following criteria:
Top-rails and mid-rails must be at least one-quarter inch thick to prevent cuts and lacerations.
- If wire rope is used for top-rails, it must be flagged at not more than 6 foot intervals with high visibility materials.

- Steel or plastic binding cannot be used as top-rails or mid-rails.
- The top edge height of top-rails or guardrails must be 42 inches plus or minus 3 inches above the walking/working level.
- When workers are using stilts, the top edge height of the top-rail, or equivalent member, must be increased by an amount equal to the height of the stilts.
- Screens, mid-rails, mesh, intermediate vertical members, or equivalent intermediate structural members must be installed between the top edge of the guardrail system and the walking/working surface when there are no walls at least 21 inches high.
- When mid-rails are used, they must be installed at a height midway between the top edge of the guardrail system and the walking/working level.
- When screens and mesh are used, they must extend from the top rail to the walking/working level and along the entire opening between top rail supports.
- Intermediate members, such as balusters, when used between posts, should not be more than 19 inches apart.
- Other structural members should be installed so that there are no openings in the guardrail system more than 19 inches.
- The guardrail system must be capable of withstanding a force of at least 200 pounds applied in any outward or downward direction.
- Mid-rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members should be capable of withstanding a force at least 150 pounds applied in any downward or outward direction at any point along the mid-rail or other member.
- Guardrail systems should be surfaced to protect workers from punctures or lacerations and to prevent clothing from snagging.
- The ends of top-rails and mid-rails must not overhang terminal posts, except where such overhang does not constitute a projection hazard.
- When guardrail systems are used at hoisting areas, a chain or gate must be placed across the access opening between guardrail sections when hoisting operations are not taking place.

<u>Personal Fall Arrest Systems</u>

These consist of an anchorage, connectors, and a body belt or harness and may include a decelerator device, lifeline or suitable combinations. If a personal fall arrest system is used for fall protection, it must do the following:

a) Limit maximum arresting force on an employee to 900 pounds when used with a body belt, or 1,800 pounds when used with a body harness;
b) Be rigged so that an employee can not free fall more than 6 feet or contact any lower level;
c) Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet;
d) Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance 6 feet or the free fall distance permitted by the system, whichever is less.

Effective January 1, 1998, the use of a body belt for fall arrest is prohibited and the following precautions must be taken:

- Personal fall arrest systems must be inspected prior to each use for wear damage and other deterioration. Defective components must be removed from service. Dee-rings and snaphooks must have a minimum tensile strength of 5,000 pounds. Dee-rings and snaphooks should be proof-tested to a minimum tensile load of 3,600 pounds without cracking,

breaking, or suffering permanent deformation.

- Snaphooks should be sized to be compatible with its connecting member or should be of a locking configuration. Unless the snaphook is a locking type and designed for the following connections, they shall not be engaged (a) directly to webbing, rope or wire rope; (b) to each other; c) to a dee-ring to which another snaphook or other connector is attached; (d) to a horizontal lifeline; or (e) to any object incompatible in shape or dimension relative to the snaphook, thereby causing the connected object to depress the snaphook keeper and release unintentionally.
- On suspended scaffolds or similar work platforms with horizontal lifelines that may become vertical lifelines, the devices used to connect to a horizontal lifeline should be capable of locking in both directions on the lifeline. Horizontal lifelines should be designed, installed, and used under the supervision of a qualified person, as part of a complete personal fall arrest system that maintains a safety factor of at least two. Lifelines should be protected against being cut or abraded.
- Self-retracting lifelines and lanyards that automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position. Self-retracting lifelines and lanyards that don't limit free fall distance to 2 feet or less, ripstitch lanyards, and tearing and deforming lanyards should be capable of sustaining a minimum tensile load of 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position. Ropes and straps used in lanyards, lifelines, and strength components of body belts and body harnesses should be made of synthetic fibers.
- Anchorages should be designed, installed, and used under the supervision of a qualified person, as part of a complete personal fall arrest system that maintains a safety factor of at least two. Anchorages used to attach personal fall arrest systems should be independent of any anchorage being used to support or suspend platforms and must be capable of supporting at least 5,000 pounds per person attached. Lanyards and vertical lifelines must have a minimum breaking strength of 5,000 pounds.

<u>Positioning Device Systems</u>

These body belt or body harness systems should be set up so that a worker can free fall no farther than 2 feet. They should be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds, whichever is greater. Requirements for snaphooks, dee-rings, and other connectors used with a positioning device must meet the same criteria as those for personal fall arrest systems.

<u>Safety Net Systems</u>

The following precautions must be taken when using a safety net system:

- Safety nets must be installed as close as possible under the walking/working surface on which employees are working and never more than 30 feet below such levels.
- Safety nets should be inspected at least once a week for wear, damage, and other deterioration.
- The maximum size of each safety net mesh opening should not exceed 36 square inches or be longer than 6 inches on any side.
- The openings, measured center-to-center, should not exceed 6 inches.
- All mesh crossings should be secured to prevent enlargement of the mesh opening. Each safety net or section should have a border rope for webbing with a minimum breaking strength of 5,000 pounds.

- Connections between safety net panels should be as strong as integral net components and be spaced no more than 6 inches apart.
- Safety nets should be installed with sufficient clearance underneath to prevent contact with the surface or structure below.
- When nets are used on bridges, the potential fall area from the walking/working surface to the net should be unobstructed.
- Items that have fallen into safety nets must be removed as soon as possible or before the next work shift.
- Safety nets should extend outward from the outermost projection of the work surface as follows:

Vertical distance from working level to horizontal plane of net.	**Minimum required horizontal distance of outer edge of net from the edge of the working surface.**
Up to 5 feet	8 feet
More than 5 feet up to 10 feet	10 feet
More than 10 feet	13 feet

Warning Line Systems

Warning line systems consist of ropes, wires, or chains, and should be set up as follows:

- Flagged at no more than 6-foot intervals with high-visibility material;
- Rigged and supported so that the lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point and is no more than 39 inches from ..the walking/working surface;
- The rope, wire, or chain should have a minimum tensile strength of 500 pounds and after being attached to the stanchions must support the load applied to the stanchions (upright post or support);
- Should be attached to each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in the adjacent section before the stanchion tips over.

Warning lines should be erected around all sides of roof work areas. When mechanical equipment is being used, the warning line should be erected no less than 6 feet from the roof edge parallel to the direction of mechanical equipment operation, and no less than 10 feet from the edge perpendicular to the direction of mechanical equipment operation. When mechanical equipment is not being used, the warning line must be erected no less than 6 feet from the roof edge.

Toeboards

The following precautions and procedures must be followed when using toeboards:

- When toeboards are used as protection from falling objects, they must be erected along the edges of the overhead walking/working surface for a distance sufficient to protect persons working below.
- Toeboards should be capable of withstanding a force of at least 50 pounds applied in any downward or
  outward direction at any point along the toeboard.
- Toeboards should be a minimum of 3.5 inches tall from their top edge to the level of the

walking/working surface, have no more than .25 inches clearance above the walking/working surface, and be solid or have openings no large than one inch in size.

- When tools, equipment, or materials are piled higher than the top edge of a toeboard, paneling or screening must be erected from the walking/working surface or toeboard to the top of a guardrail system's top-rail or mid-rail for a distance sufficient to protect employees below.

Section 9: New Employee Safety

The Safety Representative should provide safety training to all newly hired employees. Each new employee will be given a copy of the safety manual.

General safety orientation containing information common to all employees should be reviewed, ***before beginning their regular job duties.*** Recommendations include (at a minimum):

- Review the Safety Manual, with extra time spent on: Accident & hazard reporting procedures, emergency procedures, first aid, personal protective equipment, and special emphasis programs (Drug-Free Workplace Policy, Return-to-Work Policy, Incentive Programs, etc.)
- Encourage & motivate employee involvement in safety. Make each accountable for their safety and the safety of their coworkers.
- Explain the workers' compensation system and fraud prevention
- Review any known workplace hazards.
- Conduct training on any topics that are not schedule to be addressed within a reasonable timeframe and are relevant to the employee's job.

Job-specific training ***provided before performing the task*** should include:

- Review completed Pre-Project Plans
- Specific safety rules, procedures, hazards, and special emphasis programs (Lockout/Tagout, etc.) to complete their job
- Identify employee's or employer's responsibilities

Continual training should be provided to new hires. Each new hire should be assigned to work with an experienced worker for at least 6 months. The senior employee should act as a mentor and ensure that the employee is working safely and exhibits a positive safe attitude.

The Safety Representative should complete the attached new employee safety checklist for each new employee during their safety training.

New Employee Safety Checklist

Employee Name: _____ ID: _____
Date Employed: _____ Date Checklist Completed: _____
Checklist completed by: _____
Department Assigned: _____ Type of Work: _____
Summary of Work Experience: _____
Supervisor: _____

Ask Employee: *Do you have any physical conditions or handicaps which might limit your ability to perform this job? If so, what reasonable accommodation can be made by us?*_____
Did the employee have a pre-employment drug test? o Yes o No physical? o Yes o No
Any work restrictions indicated from the physical? _____

The Safety Representative and new employee should review the following safety concerns. Check & discuss all that apply. o **Provide the employee with a copy of the Safety Manual.**

o Company safety policies & programs _____
o Safety rules (general & specific to job) _____
o Safety rule enforcement _____
o Use of tools & equipment _____
o Proper guarding of equipment _____
o Proper clothing & personal protective equipment _____
o Materials handling _____
o Accident & Hazard Reporting Procedures _____
o Housekeeping _____
o Special hazards of the job _____
o Emergency Procedures _____
o Employee Responsibilities/Accountability _____
_____
o Overview of workers' compensation _____
o Hazardous materials _____
o Location of First Aid Kits_____
o Vehicle Safety _____
o Where to go for medical treatment _____
o Other: Drug-Free Workplace, Return-to-Work, Incentives, Lock-Out/Tag-Out, etc._____

Employee shall receive additional training from: _____
Probationary period is from _____ to _____
Performance (including safety) will be reviewed formally on _____

Employee agrees to cooperate fully with the safety efforts of the employer, follow all safety rules, and use good judgment concerning safe work behavior. o Yes o No (Have employee sign for manual)

Comments: _____
_____

Signed: _____ Signed: _____
Trainer Employee

Section 10: Safety Violation

Should any employee commit an unsafe act, intentional or not, this action should be addressed by the immediate supervisor and reviewed by the Safety Representative. The Company reserves the right to use disciplinary actions, depending upon the seriousness of the violation and the impact of the violation upon the conduct of Company business. It is not required to complete all steps of the disciplinary procedure in every case. Discipline may begin at any step appropriate to the situation. Discipline includes, but is not limited to:

Verbal Reprimand

Written Reprimand

Suspension

Termination of Employment

The attached **"*Safety Violation Notice"*** should be completed for all written reprimands. A copy should be maintained in the employee's personnel file and submitted to the Safety Representative, if corrective action(s) is required.

Safety Violation Notice

Employee Name: _____

Department: _____ Violation Date: _____

A safety and health survey of your operation has revealed non-compliance of certain safety rules, procedures, programs, and/or local, state, or federal regulations. As a condition of the Company's safety policy, you are required to maintain a safe work environment and to prevent unsafe actions of yourself, co-workers, and/or your employees.

This warning is for your protection and safety. The violation(s) noted and corrective action(s) are indicated below.

Rule Violated	Violation Description	Corrective Action Required*
1)		
2)		
3)		

Corrective Action Required*

1 = Cease operation until corrective action is complete
2 = Warn personnel and instruct them on proper safety procedures
3 = Provide proper equipment necessary
4 = Change procedure/work method
5 = Initiate and complete corrective action (include date)
6 = Other (specify above)

Comments: _____

Disciplinary Action Imposed

Verbal Reprimand along with this notice
Written Reprimand with a last chance warning
Suspension (from _____ to _____)
Termination of Employment

Date: _____ Supervisor: _____

Section 11. Contractual Controls

Contractual language between the Company and other contractors can help transfer exposures generated by having subcontractors perform work for us. These include:

Hold Harmless Agreement- This is an agreement that is part of the overall contract. It is signed by the subcontractor to hold the Company harmless for certain acts of omission and degrees of negligence caused by subcontractor employees. It helps maintain a degree of protection for the contractor should an incident occur.

Certificate of Insurance- A copy of each subcontractors current Workers' Compensation and General Liability insurance policies are required to be shown before any work is to be performed on each job site. Liability limits of General Liability coverage should not be less than $1,000,000.

Additional Named Insured- If possible, the Company should be named as an Additional Named Insured on each subcontractor's insurance policy. This gives the Company additional protection by making available the subcontractor's insurance policy as primary with additional limits before our company's policy becomes involved for accidents involving subcontractor employees.

Anytime you observe a sub-contractor performing work in an unsafe manner, please report that person or persons directly to the Safety Representative.

Section 12: Safety Guidelines & Rules Acknowledgment Form

The rules, programs, and procedures stated above in the Company's safety manual are not intended to cover all the possible situations you will be faced with on the job. The Company encourages you to act in a safe and responsible manner at all times, both on and off the job.

I have read the Company's Safety Manual, understand it, and agree to abide by it. I understand that violation of these rules may lead to dismissal.

Print Name: _____

Signature: _____

Date: _____